IMPERIAL OIL RESOURCES N.W.T. LTD.

2025 Aquatic Effects Monitoring Program Summary

Norman Wells Operations

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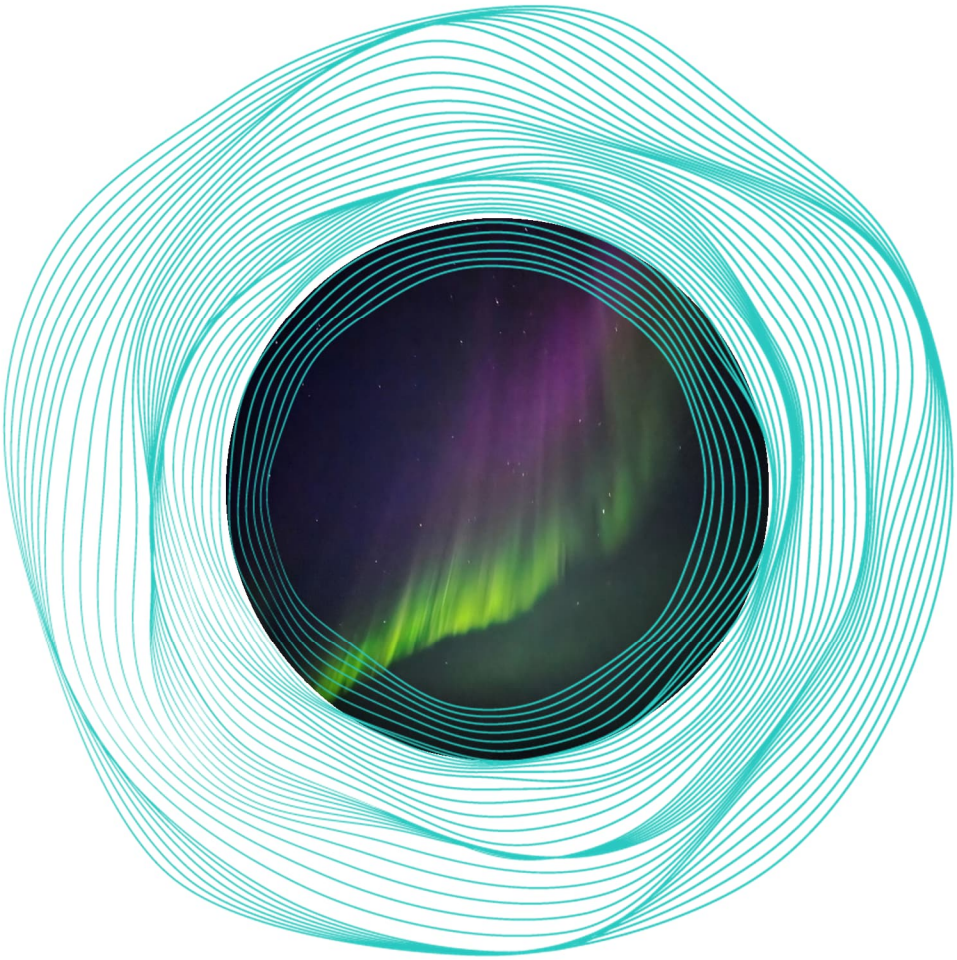

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PROJECT 417085-59897-25200-EN-REP-00001 : 2025 Aquatic Effects Monitoring Program Summary - Norman Wells Operations

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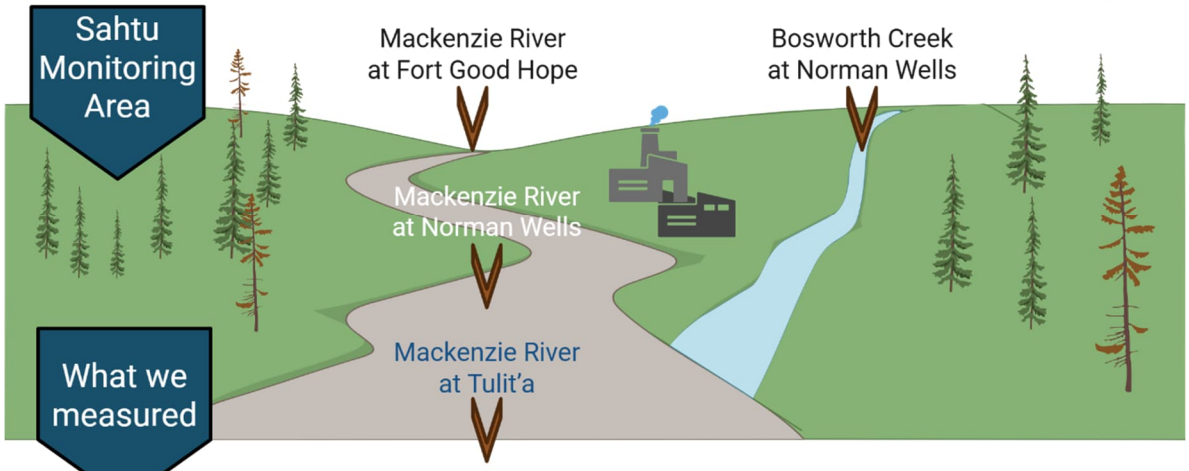
2025 Norman Wells Aquatic Effects Monitoring Program



What we measured

Water Quality

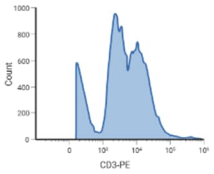
- Ions
- Metals
- Petroleum hydrocarbons
- Polycyclic aromatic hydrocarbons

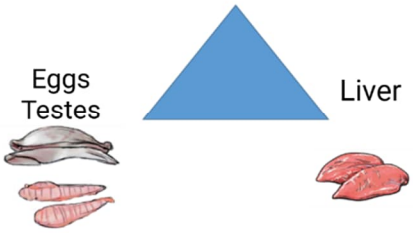
Fish Health

- Length
- Weight
- Condition
- Liver changes
- Reproductive changes
- Tissue chemical changes

Water Quantity

Seasonal flow changes





What we found

MACKENZIE RIVER

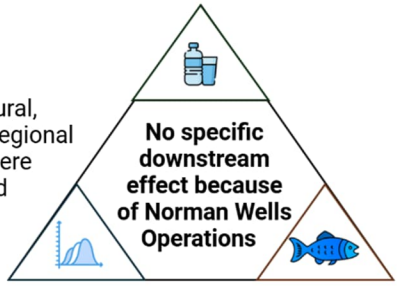
- Some metals exceed guideline both upstream and downstream of operations
- Localized sediment, total metal, and hydrocarbon increases at shore sites in Norman Wells

BOSWORTH CREEK

- One metal guideline exceeded in 2025
- Fish health changes downstream are minor and suggest more energy available

Overall meaning

Larger natural, seasonal and regional changes were observed



Ongoing monitoring will improve understanding of river changes

Community-based fish programs will add more local understanding

Plain Language Summary

Why this work was done

Imperial runs the Norman Wells Operations. The company must check nearby water and fish under its Water License. This work is called the Aquatic Effects Monitoring Program, or AEMP.

The AEMP asks a simple question: are the water and fish near the site being affected? To answer that the program compares places upstream, near the site, and downstream. This helps show whether any changes are linked to the site or are part of normal river and creek conditions.

The program also looks at the bigger picture. Water and fish can change for many reasons. River flow, sediment, seasonal changes, weather, natural oil seeps and other human activities can all affect results. Because of that, the report looks at the full condition of the aquatic environment, not just one possible cause.

What work was done in 2025

In 2025 the program had three main parts.

The first part was water monitoring in the Mackenzie River and Bosworth Creek. Water samples were collected in March, July, August and September. Passive samplers were also used in summer. These samplers help detect very small amounts of petroleum-related chemicals.

The second part was a small fish study in Bosworth Creek. The fish species was slimy sculpin. Fish were collected from two upstream areas and one downstream area. The fish were measured and examined. Their tissues were also tested.

The third part was a pilot large fish study near Fort Good Hope. This part focused on coney (inconnu) and lake whitefish. Local fisherfolk caught the fish. Elders, students, TRSA staff, and Imperial representatives took part in the work. This pilot helped test methods for a future community-based program.

How the results were checked

Water results were checked in a few ways. They were compared with government guidelines. They were also compared between upstream and downstream sites. The report also looked at whether some results were outside the normal upstream range. Last, it looked for trends over time.

Fish results were checked by looking at the body size, body condition, liver size, gonad size and chemicals in fish tissue. These measures help show whether fish are healthy and whether they may be under stress.

The report looked at all these results together. This is important because one result on its own may not tell the full story.

What was found in the water

Mackenzie River

Most guideline exceedances in 2025 were linked to more turbid water, and total metals during the open-water season. These exceedances happened at both upstream and downstream sites. That means they were not limited to places near the operation.

This pattern suggests that many of the higher results are linked to natural sediment and seasonal river conditions, especially in summer. Dissolved metals were less of a concern than total metals. This also points to suspended sediment as an important reason for the higher total metal values.

Petroleum hydrocarbons and Polycyclic Aromatic Hydrocarbons, or PAHs in the Mackenzie River were generally low. Some passive sampling results were higher near the Marine Dock and Refinery, but the results were still low overall and did not show a clear pattern farther downstream.

The report also found that some upstream sites changed over time. This means that the background condition is not fixed. Because of that, differences downstream must be evaluated with care.

Bosworth Creek

In Bosworth Creek, the aluminum concentration in August was the only measurement above a guideline in 2025.

Hydrocarbon results were also low. One petroleum hydrocarbon result was detected at the downstream site in August but it did not exceed a guideline. PAHs from passive samplers were higher at the downstream site in 2025 compared to upstream references, but concentrations were below government guidelines.

Some major ions in Bosworth Creek increased over time at the downstream site. These included chloride, sulphate, and total dissolved solids. But calcium also increased at an upstream site, and some metals decreased downstream. Lower flow in Bosworth Creek in the last few years played a role in the chloride and sulphate increases. This means the creek is changing both upstream and downstream of the operation.

Overall, Bosworth Creek did not have a clear downstream contamination trend in 2025.

What was found in the fish

Small fish in Bosworth Creek

Slimy sculpin were collected from three sites on Bosworth Creek (2 upstream and 1 downstream). There were enough mature fish to compare the sites.

Fish at the downstream site were generally similar to fish at the upstream sites. In some cases, fish condition was slightly better downstream. This suggests the fish there had similar, or even better, energy status.

Liver and gonad size showed that there was no clear harmful pattern at the downstream site in 2025. Some differences among sites were found, but they were small.

Metal levels in fish tissue did not show a clear downstream increase. In fact, several metals were highest at one upstream reference site, not at the downstream site. Average selenium levels in fish are below government guidelines but some individual fish have higher levels above guidelines, this will be an important metal to assess yearly as more data is collected.

PAHs in slimy sculpin tissue were higher in 2025 than in earlier years, and the downstream site had the highest total PAH level. Even so, the PAH levels in slimy sculpin were typically below those observed at reference locations on a river with known natural seeps in the Alberta Oil Sands region and the overall cancer-related risk from these PAHs is low.

Overall, the small fish study did not show clear evidence of harm to slimy sculpin downstream of the operation.

Pilot large fish study

The pilot large fish study worked well. It showed that fish sampling can be done in a community setting and can also support learning and sharing knowledge.

The fish looked to be in good condition overall. Few problems were seen. Tissue results were generally low. Mercury was higher in the coney than in slimy sculpin or whitefish, but this is expected because larger fish often build up more mercury over time. Mercury in all species tested were well below the maximum level allowed in foods in Canada. Mercury is not known to be associated with Norman Wells.

An important result of the pilot was that it helped show how a future community-based fish program could work.

Overall conclusion

The 2025 AEMP found evidence of local changes at the lower Bosworth Creek site, Marine Dock, and the Refinery, but no clear site-related effect on water or fish downstream from Norman Wells.

Small fish in Bosworth Creek did not show clear signs of harm. In some cases, fish at the downstream site looked as healthy as, or healthier than, fish upstream.

The pilot large fish study was successful and showed that community-based fish monitoring is possible and useful. In the Mackenzie River, many guideline exceedances were linked to natural sediment and seasonal flow. These were seen both upstream and downstream.

In Bosworth Creek, some water chemistry changes were seen over time, but they happened both upstream and downstream. This means they cannot be clearly tied to the operation.

Hydrocarbon results in water were generally low, and levels downstream were like those observed upstream.

What happens next

The report recommends continuing the current monitoring program.

This is important because the upstream background data are still growing. Some water chemistry patterns are changing over time. Bosworth Creek ions should continue to be watched. Fish monitoring also gives an important check on what the water results mean.

In summary, the 2025 results do not show clear evidence that the Norman Wells operations are harming water quality or fish health downstream. But continued monitoring is still important so changes can be tracked over time.

Glossary

Term	Description
Accumulated Environmental State (AES)	The existing state of the system as it has integrated all existing stressors, both natural and anthropogenic (human influence). In relation to the AEMP, the AES is focused on the aquatic environment including water quality and fish health
Adaptive Monitoring	An approach that responds to a potential effect by triggering confirmation steps, which may include changing the frequency of monitoring and the extent and magnitude of monitoring. The process and steps that serve as a response framework in this document.
AEMP	Aquatic Effects Monitoring Program
ANOVA / ANCOVA	Analysis of Variance (ANOVA) and Analysis of Covariance (ANCOVA) are parametric (meaning data structure must meet specific assumptions to ensure reliable comparisons) statistical tests for comparing means among two or more treatments (e.g. sites) to determine if results are likely to represent distinctly different populations. In the case of ANCOVA the effect of an additional variable (i.e. covariate) that influences the response variable is considered in the treatment comparison using a multiple linear regression approach.
Background Chemistry	The chemical characterization of substances or locations that are not influenced by releases from a site (USEPA 2002). This may represent the natural state of the environment or a state that has been influenced by other factors but not by the site in question.
BLM	Biotic Ligand Model
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CBM	Community-Based Monitoring
CCME FWAL	Canadian Council of Ministers of the Environment guidelines for the protection of freshwater aquatic life
CDWQG	Canadian Drinking Water Quality Guidelines – Maximum Acceptable Concentrations only
CES	Critical Effect Size is the difference between background and experimental site conditions before an action level is triggered to initiate the adaptive monitoring response framework. The critical effect size is variable dependent and based on existing knowledge of site conditions, as well as existing literature where published critical effect sizes are available.
CPF	Central Processing Facility – the main facility that processes oil at Norman Wells prior to shipment.
CPUE	Catch per Unit Effort is calculated by dividing the number of fish caught per the fishing unit for the respective fishing method used. For electrofishing the fishing effort is based on how many fish are caught per 100 seconds of fishing effort.
EEM	Environmental Effects Monitoring
Enzyme-linked immunosorbent assay (ELISA)	Enzyme-linked immunosorbent assay refers to an analytical method used to measure concentrations of target proteins in biological tissues that use Horseradish Peroxidase (HRP) labelled antibodies bound to the target protein to measure concentration.
FEQG	Federal Environmental Quality Guidelines
GSI	Gonadosomatic Index is the ratio between gonad weight and body weight in fish and is often used as a measure of the energy/resources being put into reproductive development.

Term	Description
HSI	Hepatosomatic Index is the ratio between liver weight and body weight in fish and is often used as a measure of the energy/resources an animal is putting towards contaminant detoxification and the availability of energy stores (e.g. glycogen, lipids).
Imperial	Imperial Oil Resources N.W.T. Limited
KIPs	Key Indicator Parameters. Chemical and water quality parameters that have been identified as most applicable to the Site.
Large-bodied fish study (LFS)	A monitoring program focused on large-bodied fish species that are of value to local communities as a food source.
Low Action Level Threshold	Conditions that if exceeded would trigger the adaptive monitoring approach. The low action level is set at the critical effect size for a specific measurement endpoint to ensure that changes are detected and addressed in a proactive manner.
LOEC	Lowest observable effect concentration
Mixed-Function Oxygenase (MFO)	A group of enzymatic proteins that are involved in the breakdown and removal of organic compounds.
mg/L	Milligrams per litre (parts per million)
mbgs	Metres below ground surface
masl	Metres above sea level
m^3/s	Cubic metres per second
Norman Wells Operations (NWO)	The department within Imperial that is responsible for the operation and decision making associated with all well sites, flowlines, the central processing facility and maintenance activities.
NOEC	No observable effect concentration
PAHs/aPAHs	Polycyclic Aromatic Hydrocarbons/alkylated Polycyclic Aromatic Hydrocarbons
Passive Diffusion Bag (PDB)	A passive sampling device (PSD) used to capture organic compounds that are lighter (i.e. lower density) than air.
PI	Pyrogenic Index
Potency Equivalency Quotient (PEQ)	Overall carcinogenic potential of a mixture of PAHs found in environmental media measured in relation to Benzo(a)pyrene (BaP).
Potency Equivalency Factor (PEF)	Carcinogenic potency of individual PAHs with sufficient toxicological information relative to benzo(a)pyrene (BaP).
PHC	Petroleum hydrocarbons
Performance Reference Compounds (PRCs)	Labelled PAH compounds spiked into triolein films before SPMD deployment to account for hydrocarbon degradation rate during deployment period.
Passive Sampling Device (PSD)	A sampling technology that sequesters and concentrates bioavailable organic compounds from the environment.
QA/QC	Quality Assurance and Quality Control
rROS/MLE	Robust Regression on Order Statistics and Maximum Likelihood Estimation are statistical tools used to estimate data below detection limits based on the distribution of data above detection and frequency of non-detections.
Semipermeable Membrane Device (SPMD)	A type of PSD used to capture organic compounds in a way that mimics bioaccumulation through the skin of aquatic biota. Their primary use is in surface water sampling for PAHs and PCBs over a period of time.

Term	Description
SETAC	Society of Environmental Toxicology and Chemistry is a world-wide professional organization of scientists, regulators, and academia dedicated to advancing environmental science and environmental management.
SLWB	Sahtu Land and Water Board
Small-bodied fish study (SFS)	A monitoring program focused on small fish that can act as a sensitive sentinel species and be indicative of the health of the wider ecosystem.
SSD	Species sensitivity distribution
TMF	Toxicity modifying factor – water chemistry variable that influences the bioavailability and/or toxicity of potential contaminants.
TRSA	Tłegǫ̀hłı̨ Reclamation Services Advisian
UCL / LCL	Upper control limit and lower control limit defined by the 95% upper and lower confidence limit for the 90th-percentile (UCL) and 10th-percentile (LCL) which is used to identify the critical effect size.
WSC	Water Survey Canada

1. Introduction

Imperial Oil Resources N.W.T. Limited (Imperial) has retained Tłegǫ̀hłı̨ Reclamation Services Advisian (TRSA) to conduct an Aquatic Effects Monitoring Program (AEMP) to meet the requirements of their Water Licence (S13L1-007) issued by the Sahtu Land and Water Board (SLWB) for their Norman Wells Operation (NWO).

The NWO is owned by Imperial Oil and the Government of Canada and is operated by Imperial. NWO is an upstream oil and gas facility located approximately 700 km northwest of Yellowknife, Northwest Territories (NT) as shown on Figure 1. Operations include a central processing facility (CPF), which receives production fluids (oil, natural gas, water) from the mainland, along the north-eastern shore of the Mackenzie River, natural islands (Goose Island, Bear Island, and Frenchy's Island), and six artificial islands.

The AEMP is informed by the Mackenzie Valley Land and Water Board's and Government of the Northwest Territories *Guidelines for Aquatic Effects Monitoring Programs* (MWVLWB and GNWT, 2019) which is an update to the *Guidelines for Designing and Implementing Aquatic Effects Monitoring Program for Development Projects in the Northwest Territories* (MacDonald and Zajdlik, 2009). The current format of the AEMP has been under development since 2017, and as of 2025, includes assessment of water quality upstream, near facility and downstream from the NWO in the Mackenzie River. In addition, water quality and small-bodied fish health upstream and downstream from the NWO in Bosworth Creek is incorporated into the AEMP. The current scope of the monitoring activities has been revised to:

- Determine if aquatic ecosystems and their uses are being adequately protected near the NWO;
- Determine potential short-term and long-term changes on aquatic ecosystems that occur in conjunction with the construction and/or operation of the NWO;
- Assess the efficacy of engineered controls that are used to minimize the effects of the project on aquatic ecosystems; and,
- Identify if there is a need for additional impact mitigation measures to reduce the influence of operations on aquatic ecosystems.

Limitations of liability, scope of report and third-party reliance are provided in Appendix A.

1.1 Background

Surface water quality monitoring on the Mackenzie River and Bosworth Creek upstream and downstream of the NWO has been conducted throughout the open water season since 2017 and has been tied to the AEMP plans submitted to the SLWB. To date, no SLWB-approved version of the AEMP exists and the program has evolved as changes to the plan have been suggested. The work completed in 2025, and reported herein, reflects a plan currently in development. This plan incorporates direction received from the SLWB by Imperial.

Prior to 2023, the AEMP was limited to surface water grab sampling and analysis within the Mackenzie River and Bosworth Creek during spring, summer and autumn. Since 2023, the AEMP has incorporated:

- revised and additional sampling locations driven by input from local communities to monitor areas of concern, as well as a larger area of the Mackenzie River upstream and downstream from the NWO;
- under ice water quality sampling in the Mackenzie River to identify potential influences during seasonal low flow conditions;
- passive sampling devices (PSDs) that improve the sensitivity of analyses or sample exposure to conditions used to measure petroleum hydrocarbons and polycyclic aromatic hydrocarbons (PAHs); and
- a small-bodied fish health study (SFS) in Bosworth Creek.

Previous iterations of the AEMP focused on using water chemistry in areas of potential concern within the NWO to identify contributions to the environment (known as stressor-based monitoring). Based on consultations with regulators, third-party reviewers, and local community groups, the focus of the AEMP has shifted to an assessment of the accumulated environmental state (AES) of the aquatic environments (Mackenzie River and Bosworth Creek) near the NWO. The AES refers to the existing state of an ecosystem that integrates all stressors (natural and human-driven) into the monitoring approach. For the AEMP, the inclusion of fish health monitoring provides an improved understanding of the AES by investigating whether fish near the NWO have been affected by operations (known as effects-based monitoring).

Small-bodied fish health monitoring in the Mackenzie River is limited by low catch rates for potential target (sentinel) species that would not meet required sample sizes and unsafe sampling conditions. In addition, communities have expressed that small-bodied fish are not used by the community, whereas concerns have been raised regarding the health of large-bodied fish that are important for subsistence fishing. Version 5 of the AEMP is currently under review for approval and incorporates a large-bodied fish health study (LFS) that is intended to improve characterization of the AES in the Mackenzie River. The 2025 AEMP included a pilot version of the LFS in Fort Good Hope that provided input for a community-based monitoring (CBM) approach for the LFS.

2. Norman Wells Oilfield Site Description

2.1 Site Location and Description of Operations

Imperial produces oil from wells drilled in the vicinity of the Town of Norman Wells. The oil-bearing reservoir lies largely under the Mackenzie River at depths ranging from 320 metres below ground surface (mbgs) to 625 mbgs. Within the operation, there are active production and injection wells connected through a flowline network to the CPF.

Producing wells are on the Mainland, the Natural Islands (Goose, Bear, and Frenchy's), and the Artificial Islands (1-Rayuka, 2-Rampart, 3-Dehcho, 4-Ekwe, 5-Iteh K'ee and 6-Little Bear; Figure 1). Crude oil production is received at the CPF, where it is processed for shipment via the Enbridge pipeline to Alberta. No refining is conducted on-site (Imperial 2019).

2.2 Topography

The NWO is predominantly on the north shore of the Mackenzie River. Elevations range from approximately 50 to 70 metres above sea level (masl). The river flows in a west-northwesterly direction past the Town of Norman Wells. The valley within which this major river flows is bounded on the south by the Mackenzie Mountains and on the north by the Franklin Mountains (Imperial 2019).

2.3 Permafrost

The presence of discontinuous permafrost in the area influences local groundwater flow patterns. Ice lenses and the low conductivity associated with frozen soil in the subsurface act as barriers to groundwater movement. Two groundwater bearing intervals have been identified in the NWO area: a shallow discontinuous interval and a deeper unconfined interval.

Norman Wells lies in a zone of discontinuous permafrost, where typical maximum permafrost thickness ranges from 50 to 65 m. Permafrost in the Norman Wells area is not uncommon and is regularly encountered at the Imperial site beneath roads and other locations (Imperial 2019).

2.4 Natural Seepage

The presence of natural hydrocarbon seeps in the Sahtu Settlement Area, especially around the Town of Norman Wells, is known to predate Imperial's operation. Many natural oil and gas seeps have been documented in the lower Mackenzie River Valley.

Natural oil and gas seepage continues to occur along the shore and below the riverbed in several locations. The surficial seeps are most visible at these specific locations:

- Along the Mackenzie shore upstream and downstream of the former Refinery area;
- Within the Bosworth Creek delta area;

- Along the Mackenzie shoreline below the F-28X well;
- At Seepage Lake (between the Former Refinery area and Bosworth Creek); and
- In Bosworth Creek upstream and downstream from where the winter road crosses the creek.

The presence of seeps has led to a natural source of hydrocarbons in the groundwater and surface water at the Imperial site (Imperial 2019).

2.5 Mackenzie River

The Mackenzie River drainage basin is the largest river basin in Canada and the tenth largest river basin in the world. The Mackenzie River system flows roughly 4,200 km from the headwaters of the Athabasca River in the Columbia icefield in Jasper National Park, Alberta, the snowfields of the upper Peace River headlands in northeastern British Columbia, and the Liard River system to its final destination at the Beaufort Sea of the NT (MRBB 2004). The river empties a volume of approximately 10,000 cubic metres per second (m^3/s) into the Beaufort Sea of the Arctic Ocean along the Mackenzie River delta, accounting for 60% of the freshwater that flows into the Arctic Ocean from Canada and about 9% of the freshwater discharged to all the oceans by all Canadian watersheds (MRBB 2004).

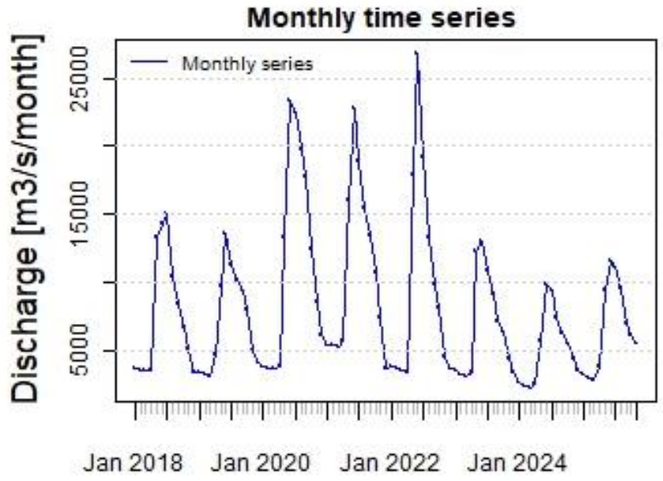
The water levels in the Mackenzie River at Norman Wells are variable throughout the year. Typical levels are approximately 41 masl during the winter, with short-term peaks of up to 51 masl (Komex 1980). Breakup of the Mackenzie River ice at Norman Wells usually occurs over a two-week period in May, and freeze-up typically occurs during a three-week period in October – November. The ice thickness of the Mackenzie River usually ranges from 1 to 1.5 m. The variability of flows that can be encountered during a month can be extreme, especially during the spring melt. For instance, flows recorded during the month of July (1962 – 2024) have ranged from 8,450 m^3/s to 33,300 m^3/s. The lowest recorded daily flow between 1962 and 2020 was 1,680 m^3/s on November 21-22, 1990. The largest recorded daily flow for the same time-period was 33,300 m^3/s on July 4, 1988 (WSC 2026a). Seasonal discharge historically measured at the Water Survey of Canada (WSC) station at Norman Wells (Station No. 10KA001) from 2018 to 2025 is illustrated in Figure 2-1. Flows in the Mackenzie River were relatively high between 2020 and 2022, however, flows since 2023 have been low compared with historical conditions in the Mackenzie River.

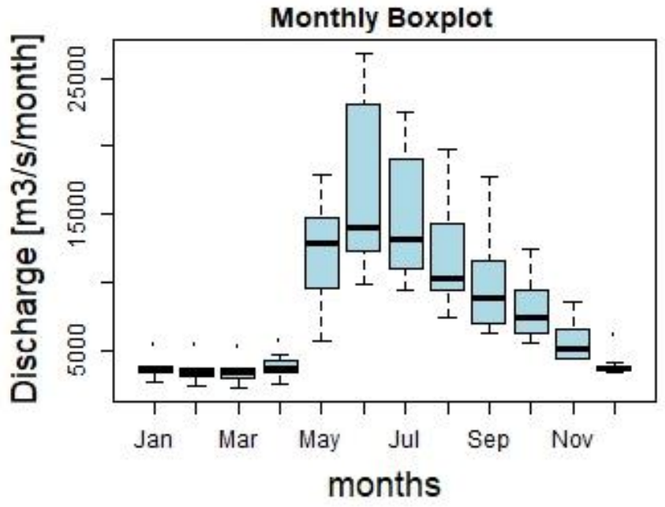
Low water levels have been noticed by the community and they have reported that this has affected fish in the Mackenzie River. Flow data corroborates the observed low water levels in 2023 and 2024 and although fall flow rate was relatively low in 2025, it was higher than in 2024. Several community members from Fort Good Hope to Tulit'a have reported that blackened loche (*Lota lota*; a.k.a. burbot) livers have been observed and elders have also reported that herring (*Coregonus sp.*) used to be abundant up to Tulit'a but are no longer found in the Mackenzie River at or upstream from Fort Good Hope. Given that loche liver is a valued traditional food, this has had a direct effect on this food source for the community. The cause of these changes is unclear, however, it is clear that long-term changes have occurred within the Mackenzie River compared to conditions that previously existed based on traditional knowledge.

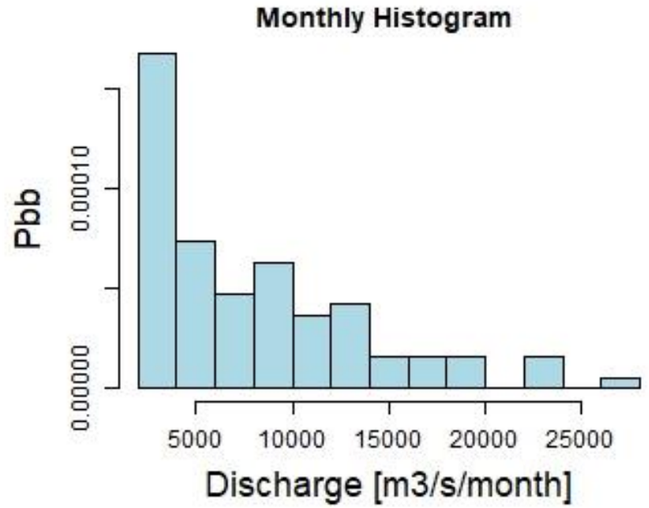
2.6 Bosworth Creek

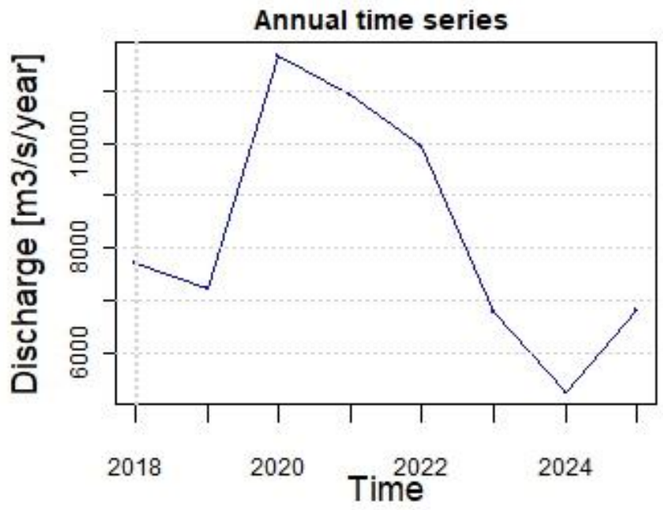
Bosworth Creek is an important local landscape feature used by residents and tourists for recreation. Bosworth Creek drains a small watershed of approximately 125 km^2 north and east of the Town of Norman Wells. The headwaters of Bosworth Creek is Hodgson (Jackfish) Lake located 9 km east at an elevation of approximately 250 masl (190 m above the NWO). Bosworth Creek flows northwest from Hodgson Lake for approximately 8 km, then southwest approximately 7 km through the NWO before draining into the Mackenzie River (Collins et al. 2011).

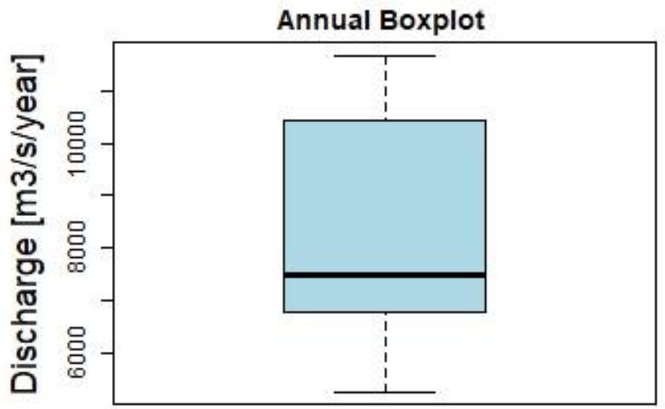
Seasonal habitat surveys were completed for Bosworth Creek as part of the Mackenzie Gas Project in 2002. Wetted channel widths along the stream ranged from 3.5 m to 16 m and habitat was primarily riffle, with most of the remainder composed of shallow and moderate depth run habitat. Coarse gravel and cobble predominated in most habitat types. Unstable or slumping banks were common, with banks showing signs of erosion at high flow (Imperial 2019). Seasonal flow in Bosworth Creek historically measured at the WSC station near Norman Wells (Station No. 10KA007) from 2018 to 2025 is summarized in Figure 2-2 (WSC 2026b). Non-target fish species captured in Bosworth Creek during the SFS to date includes the juvenile life-stages of several large-bodied fish species such as loche, crookedback (*Coregonus clupeaformis*; a.k.a. lake whitefish), jackfish (*Esox lucius*; a.k.a. northern pike), bluefish (*Thymallus arcticus*; a.k.a. arctic grayling), and doré (*Sander vitreus*; a.k.a. walleye, pickerel).

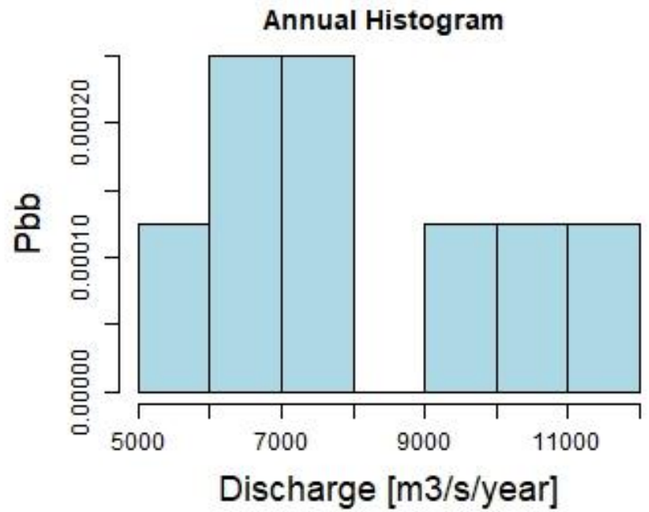












Notes:
Top row of figures summarize average daily flow characteristics between 2018 and 2025 and the bottom row summarizes monthly flow characteristics.
Box plots in the middle column provide the median discharge (thick horizontal line), upper and lower quantiles (limits of each box), and minimum/maximum discharges (error bars outside of each box) for each corresponding category.
Pbb = probability of measuring a given range of discharges at the site between 2018 and 2025.

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

MACKENZIE RIVER AT NORMAN WELLS (STATION 10KA001)
DISCHARGE SUMMARY (2018 TO 2025)

Date : 23-MAR-2026	Drawn by: GY	Edited by: NT	App'd by: CM

Worley Project No. 417085-59897-25200

FIGURE: 2-1 REV A

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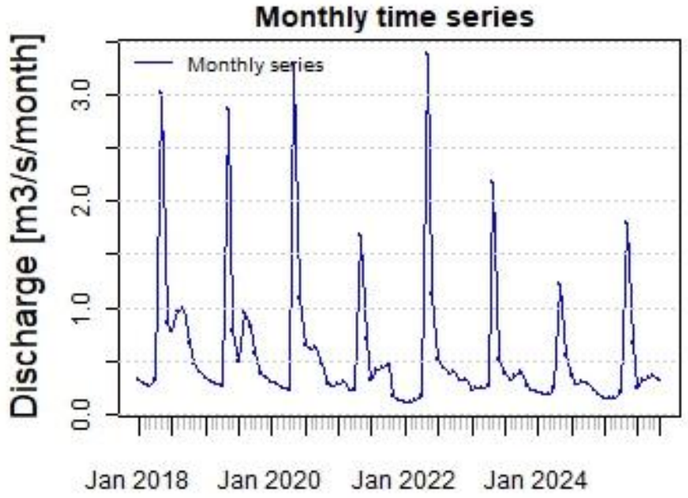

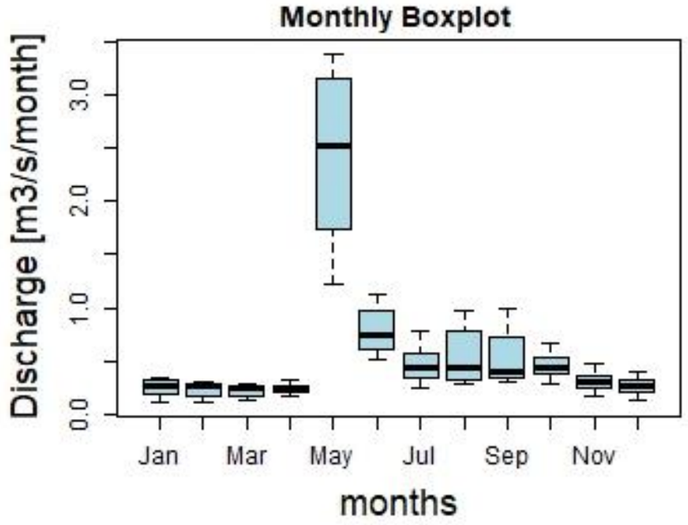

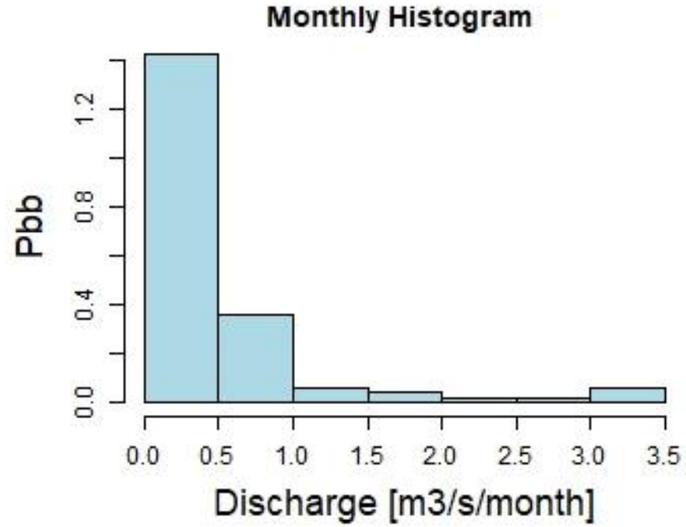

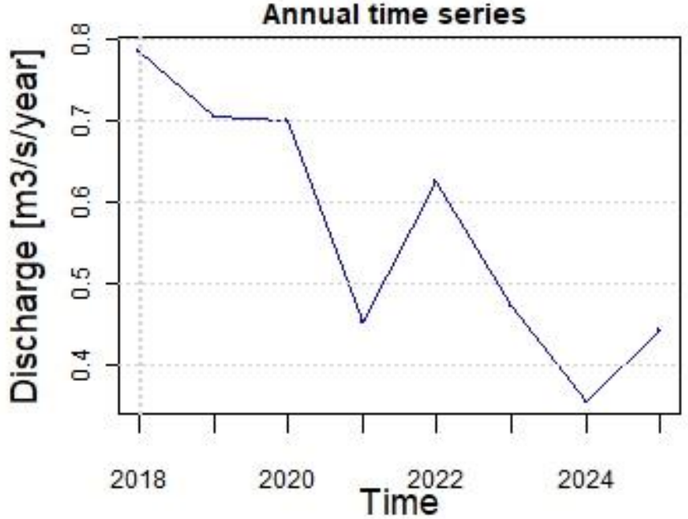

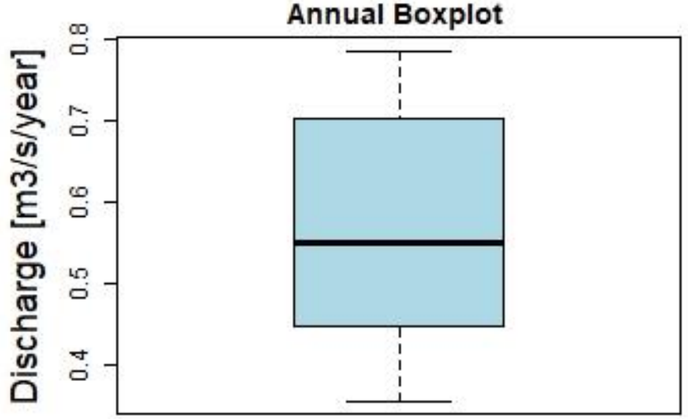

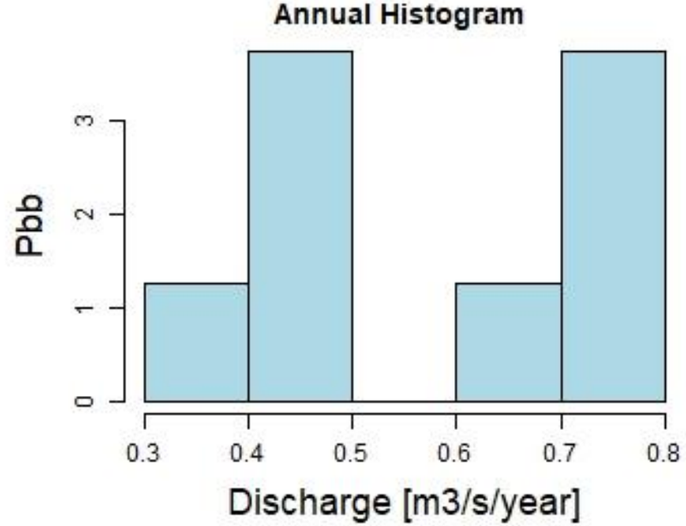

Notes:
Top row of figures summarize average daily flow characteristics between 2018 and 2025 and the bottom row summarizes monthly and annual flow characteristics.
Box plots in the middle column provide the median discharge (thick horizontal line), upper and lower quantiles (limits of each box), and minimum/maximum discharges (error bars outside of each box) for each corresponding category.
Pbb = probability of measuring a given range of discharges at the site between 2018 and 2025.

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

BOSWORTH CREEK NEAR NORMAN WELLS (STATION 10KA007)
DISCHARGE SUMMARY (2018 TO 2025)

Date : 23-MAR-2026	Drawn by: GY	Edited by: NT	App'd by: CM

Worley Project No. 417085-59897-25200

FIGURE: 2-2 REV A

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3. Scope of Work

The AEMP scope of work in 2025 included the following:

- Four seasons (including winter) of surface water sampling from the Mackenzie River and three seasons (spring, summer, autumn) of sampling Bosworth Creek (since trials have found Bosworth Creek freezes to bottom during winter);
- Passive sampling using semi-permeable membrane devices (SPMDs) and passive diffusion bags (PDBs) to better characterize concentrations of PAHs, alkylated PAHs (aPAHs), and petroleum hydrocarbons in surface water;
- A SFS in Bosworth Creek to characterize fish health;
- A pilot program of the LFS in Fort Good Hope to discuss program design and incorporation of a LFS into the NW AEMP; and
- Preparing a summary report of the methods and findings.

The three main elements of the AEMP (i.e. surface water quality, SFS, and LFS) and how they contribute to an understanding of the AES is provided in Figure 3-1.

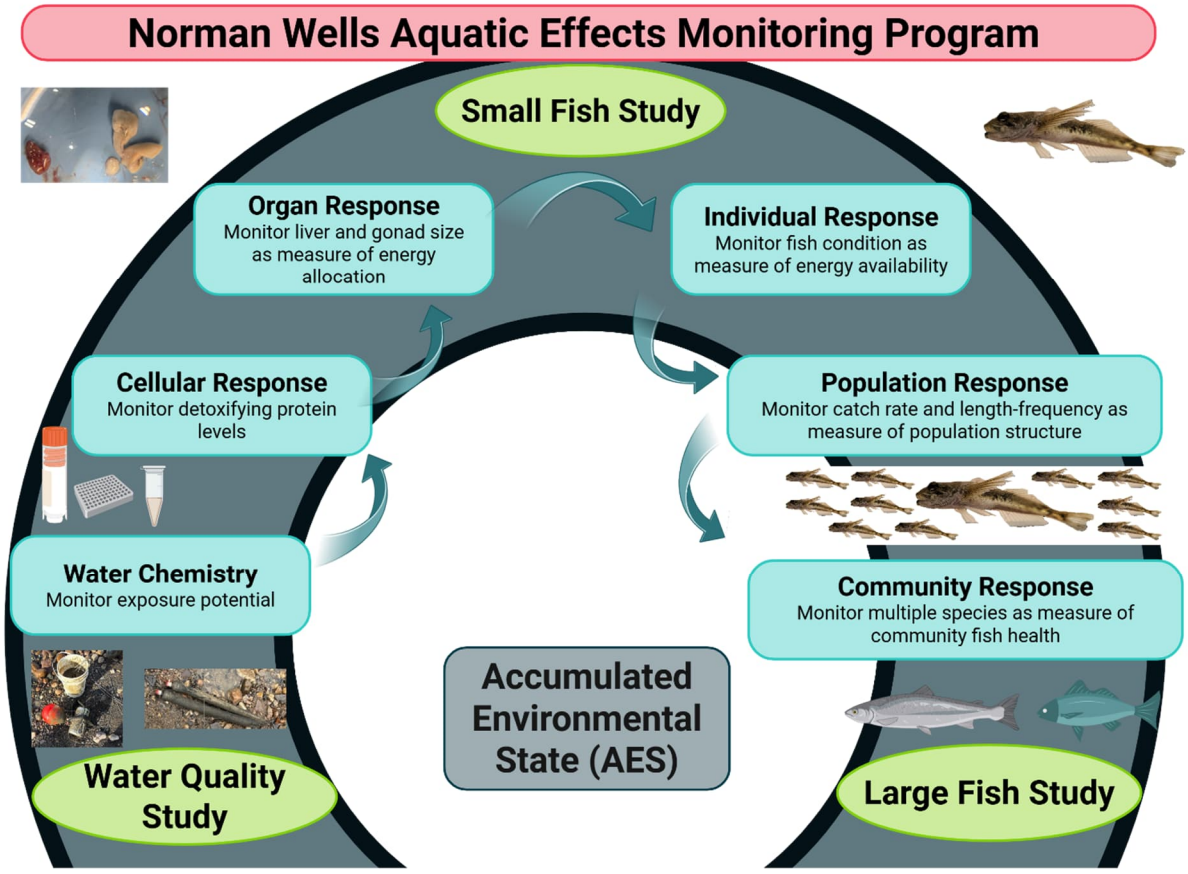

Figure 3-1: Norman Wells AEMP Study relationship with the Accumulated Environmental State (AES)

3.1 Surface Water Sampling

The surface water sampling component of the AEMP included grab samples and passive sampling in the Mackenzie River and Bosworth Creek. Grab samples were collected in March, July, August and September 2025 and PSDs were deployed to measure PAHs/aPAHs and petroleum hydrocarbons during the open-water period (June to September 2025). The surface water program was designed to characterize conditions upstream, within the vicinity of NWO, and downstream of the operating area so that water chemistry measured near the facility could be interpreted relative to both upstream background conditions and downstream regional variability.

3.1.1 Surface Water Sampling Locations

Surface water sampling locations in 2025 are summarized in Table 3-1 and presented in Figure 2 (Mackenzie River), Figure 3 (Norman Wells sampling locations), and Figure 4 (Bosworth Creek). Sampling locations were grouped as upstream, near, and downstream of the NWO to support a control-impact style comparison, with upstream locations used to characterize the range of background chemistry in each waterbody.

On the Mackenzie River, sampling was completed at three upstream stations, three near-field downstream stations, and five farther-field downstream stations. This design provides both local and regional context for interpretation of water quality measured near the operating area.

In Bosworth Creek, sampling focused on upstream reference conditions and downstream conditions within the operating area during the open-water period. Winter sampling was not completed in Bosworth Creek because previous field programs have shown the creek commonly freezes to the bottom, limiting access to flowing water and reducing the value of winter chemistry sampling. Grab samples in Bosworth Creek were collected during the open-water sampling events completed in July, August and September 2025, while passive samplers were deployed from June to September 2025.

Table 3-1: 2025 Surface Water Sampling Locations

Name	Target Environment	Monitoring Block	Potential Facility-Related Stressors	Number of Samples per year	Latitude (Northing)	Longitude (Easting)	Comments
Upstream Sample Locations							
AEMP-US-01 (Tulit'a / Midway Island)	Mackenzie; near shore river flow	Upstream background	None	4	64.97904	-126.09987	After mixing from Bear River; approx. 30 km upstream of NWO.
AEMP-US-02 (10 Mile Island)	Mackenzie; near shore river flow	Upstream background	None	4	65.23335	-126.73602	Approx. 16 km upstream of NWO.
AEMP-US-03 (6 Mile Island)	Mackenzie; near shore river flow	Upstream background	None	4	65.27085	-126.77791	Approx. 10 km upstream of NWO.
AEMP-US-04 (Bosworth Creek)	Bosworth; main creek flow in a deep cutbank	Bosworth Creek	None	3	65.29494	-126.88292	Upstream of facility and Enbridge line 21.
AEMP-US-05 (Bosworth Creek)	Bosworth: upstream from winter road	Bosworth Creek	None	3	65.29791	-126.88653	Upstream of facility, Enbridge line 21 and winter road.
Downstream Sample Locations							
AEMP-DS-01 (Bosworth Creek)	Main creek flow in a deep cutbank	Bosworth Creek	Imperial site	3	65.28184	-126.86905	Near the Lower Bosworth Bridge within NWO.
AEMP-DS-02 (Marine Dock)	Near shore flow, near facility	Imperial site	Boat Activity and Water Release	4	65.27932	-126.87707	Within the facility footprint. Near areas of natural oil seeps.
AEMP-DS-03 (Island 3)	Mid-channel flow	Imperial site	Flowline; Island Maintenance	4	65.27790	-126.91692	Off an artificial island at the downstream end of the facility footprint.
AEMP-DS-04 (Refinery)	Mid-channel flow	Imperial site	Imperial site	4	65.27954	-126.84972	Within the facility footprint. Near areas of natural oil seeps and a potential contamination source.
AEMP-DS-05 (Radar North)	Mid-channel flow as it splits around an island	Near-field downstream	Imperial site	4	65.30947	-127.09514	Approximately 10 km downstream of the facility of the north side of a natural island.
AEMP-DS-06 (Fort Good Hope-Blue Fish)	Deep pool area near natural islands – identified by locals as a high value fishing area	Far-field downstream	Imperial site	4	66.18755	-128.97973	Upstream of the Ramparts on the west side of the River Approximately 17 km upstream of Fort Good Hope and 190 km downstream of Norman Wells.
AEMP-DS-07 (Fort Good Hope – Ramparts)	Mid-channel flow	Far-field downstream	Imperial site	4	66.17896	-128.92648	Directly upstream of the Ramparts on the east side of the River Approximately 17 km upstream of Fort Good Hope and 190 km downstream of Norman Wells.
AEMP-DS-08 (Radar South)	Mid-channel flow as it splits around an island	Near-field downstream	Imperial site	4	65.29882	-127.10331	10 km downstream of the facility of the south side of a natural island.
AEMP-DS-09 (Goose Island)	Downstream of the facility	Near-field downstream	Imperial site	4	65.28158	-126.96288	At the end of the facility footprint downstream of Goose Island.

3.1.2 Surface Water Analytical Suite

Surface water samples were analyzed for the parameters presented in Table 3-2. Analytes identified as Key Indicator Parameters (KIPs) for the Norman Wells field are indicated by bold text. Imperial has identified several KIPs of concern based on potential site inputs and findings from the Special Effects Study (Imperial 2022). All parameters have been analyzed but data evaluation focuses on KIPs and data from passive samplers. Mercury is not considered a KIP for the NW AEMP because previous work has not identified a potential mercury source within the NWO. Despite this, additional mercury analysis and discussion has been incorporated into the AEMP in 2025, given the regional concerns that communities have regarding mercury accumulation in the Canadian north.

Table 3-2: Surface water Analytical Suite and Sample Method.

Category	Parameters
General	Electrical conductivity (measured and calculated)[1], Dissolved Oxygen (DO)[1], pH[1], Temperature[1], Turbidity[1], Total hardness as $CaCO_3$, Total alkalinity as $CaCO_3$
Indicators	Chloride, Sulphate, Iron, Manganese, Total dissolved solids (TDS), Total suspended solids (TSS)
Cations, Anions	Calcium, Magnesium, Potassium, Sodium, Bicarbonate, Carbonate, Hydroxide
Organics	Total organic carbon, Dissolved organic carbon,
Nutrients	Nitrite as N, Nitrate as N, Nitrate plus nitrite as N, Total Kjeldahl nitrogen (TKN), Ammonia as N, Sulphide, Sulphur (total and dissolved), Orthophosphate
BTEX compounds[2]	Benzene, Toluene, Ethylbenzene, Total xylenes
Select Hydrocarbons[2]	Oil and grease, PHC F1 (C6-C10), PHC F1 (C6-C10) – BTEX, PHC F2 (>C10-C16), F3 (>C16-C34) and F4 (>C34-C50)
Polycyclic Aromatic Hydrocarbons (PAHs)[2]	Acenaphthene [AN], Acenaphthylene [AC], Acridine, Anthracene [A], Benzo(a)Anthracene [BA], Benzo(a)Pyrene [BaP], Benzo(b,j)Fluoranthene [BbjFl], Benzo(c)Phenanthrene, Benzo(e)Pyrene [BeP], Benzo(g,h,i)Perylene [BG], Benzo(k)Fluoranthene [BkFl], Chrysene [C], Dibenzo(a,h)Anthracene [DA], Fluoranthene [FL], Fluorene [F], Indeno(1,2,3-c,d)Pyrene [IP], Naphthalene [N], Perylene [PR], Phenanthrene [P], Pyrene [PY], Quinoline
Alkylated PAHs (aPAHs)[2]	C1-Naphthalene [N1], C2-Naphthalene [N2], C3-Naphthalene [N3], C4-Naphthalene [N4], Biphenyl [B], C1-Biphenyl [B1], C2-Biphenyl [B2], C1-Fluorene [F1], C2-Fluorene [F2], C3-Fluorene [F3], Dibenzothiophene [D], C1-Dibenzothiophene [D1], C2-Dibenzothiophene [D2], C3-Dibenzothiophene [D3], C4-Dibenzothiophene [D4], C1-Phenanthrene/Anthracene [PA1], C2-Phenanthrene/Anthracene [PA2], C3-Phenanthrene/Anthracene [PA3], C4-Phenanthrene/Anthracene [PA4], C1-Fluoranthene/Pyrene [FlPy1], C2-Fluoranthene/Pyrene [FlPy2], C3-Fluoranthene/Pyrene [FlPy3], C4-Fluoranthene/Pyrene [FlPy4], C1-Benzo(a)anthracene/Chrysene [BaAC1], C2-Benzo(a)anthracene/Chrysene [BaAC2], C3-Benzo(a)anthracene/Chrysene [BaAC3], C4-Benzo(a)anthracene/Chrysene [BaAC4], C1-Benzo(b,j,k)Fluoranthene [BFl1], C2-Benzo(b,j,k)Fluoranthene [BFl2], C1-Acenaphthene [AC1], 1-Methlynaphthalene
Metals and Trace Elements (total/dissolved)	Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, lithium, Mercury, Molybdenum, Nickel, Phosphorus, Selenium, Silicon, Silver, Strontium, Thallium, Tin, Titanium, Uranium, Vanadium, Zinc

Notes:

Superscript 1 – denotes parameters that are measured in the field in addition to grab sampling

Superscript 2 - denotes parameters that are measured using passive sampling techniques in addition to grab sampling

3.2 Fish Health Monitoring

Fish health monitoring completed in 2025 included a SFS in Bosworth Creek and a pilot LFS component intended to support development of the LFS for inclusion in the AEMP. Together, these fish health components are intended to provide an effects-based line of evidence to support interpretation of the AES in the aquatic environment near NWO.

The SFS provides a localized assessment of fish health within Bosworth Creek using a sentinel small-bodied species that can be sampled directly upstream and downstream of the operating area. The pilot LFS is intended to support development of a community-informed approach for evaluating the health of large-bodied fish species of greater subsistence and cultural importance in the Mackenzie River

3.2.1 Fish Tissue Analytical Suite

Fish tissue samples collected during the 2025 AEMP were analyzed for physical condition metrics, organ size metrics, metal and trace elements, and selected protein endpoints. Tissue residue analyses for small-bodied fish included indicator metals and trace elements, while biological measurements included total length, body weight, liver weight, gonad weight. These measurements enabled calculation of condition, hepatosomatic index (HSI), and gonadosomatic index (GSI). Liver tissue was also submitted for CYP1A1 protein and total protein analysis.

Fish tissue samples were analyzed for the parameters presented in Table 3-3. Analytes identified as a KIP for the Norman Wells field are indicated by bold text. Fish health was assessed based on condition, HSI and GSI as described in Section 5.2.

Table 3-3: Small-bodied fish tissue analytical suite in 2025

Category	Parameters
Polycyclic Aromatic Hydrocarbons (PAHs)	Acenaphthene [AN], Acenaphthylene [AC], Anthracene [A], Benzo(a)Anthracene [BA], Benzo(a)Pyrene [BaP], Benzo(b)Fluoranthene [BbFl], Benzo(e)Pyrene [BeP], Benzo(g,h,i)Perylene [BG], Benzo(j,k)Fluoranthene [BjkFl], Chrysene [C], Dibenzo(a,h)Anthracene [DA], Dibenzothiophene [D], Fluoranthene [FL], Fluorene [F], Indeno(1,2,3-c,d)Pyrene [IP], Naphthalene [N], Perylene [PR], Phenanthrene [P], Pyrene [PY]
Alkylated PAHs (aPAHs)	C1-Naphthalene [N1], C2-Naphthalene [N2], C3-Naphthalene [N3], C4-Naphthalene [N4], C1-Fluorene [F1], C2-Fluorene [F2], C3-Fluorene [F3], Dibenzothiophene [D], C1-Dibenzothiophene [D1], C2-Dibenzothiophene [D2], C3-Dibenzothiophene [D3], C4-Dibenzothiophene [D4], C1-Phenanthrene/Anthracene [PA1], C2-Phenanthrene/Anthracene [PA2], C3-Phenanthrene/Anthracene [PA3], C4-Phenanthrene/Anthracene [PA4], C1-Fluoranthene/Pyrene [FlPy1], C2-Fluoranthene/Pyrene [FlPy2], C3-Fluoranthene/Pyrene [FlPy3], C4-Fluoranthene/Pyrene [FlPy4], C1-Benzo(a)anthracene/Chrysene [BaAC1], C2-Benzo(a)anthracene/Chrysene [BaAC2], C3-Benzo(a)anthracene/Chrysene [BaAC3], C4-Benzo(a)anthracene/Chrysene [BaAC4], C1-Benzofluoranthenes/Benzopyrenes [BFlBPy1], C2-BenzoFluoranthenes/Benzopyrenes [BFlBPy2], C1-Acenaphthene [AN1], 1-Methlynaphthalene

Category	Parameters
Metals and Trace Elements	Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, lithium, Mercury, Molybdenum, Nickel, Phosphorus, Selenium, Silicon, Silver, Strontium, Thallium, Tin, Titanium, Uranium, Vanadium, Zinc
Mixed-function Oxygenase Protein	Total protein, CYP1A1 protein

3.3 Small-bodied Fish Health Study (SFS)

The SFS component of the 2025 AEMP consisted of collecting slimy sculpin (*Cottus cognatus*) from three reaches in Bosworth Creek representing one reach downstream of the operating area and two upstream reference reaches. Slimy sculpin were selected because they are abundant in Bosworth Creek, have a restricted home range and are suitable as a localized sentinel species for evaluating fish health and tissue residue conditions in the receiving environment.

The three reaches were sampled in September 2025 using backpack electrofishing and were dissected for fish health assessment and tissue residue analysis (Table 3-4). Sample location AEMP-FS-02 is the site that addresses the hypothesis of the SFS component and encompasses the reach from 550 m upstream from the confluence with the Mackenzie River to immediately adjacent to the CPF (approximately 850 m of Bosworth Creek; Figure 5). The AEMP-FS-01 sample reach was the reference site established in 2023 that consists of approximately 450 m of Bosworth Creek upstream from the pipeline right of way (Figure 5). Sample reach AEMP-FS-03 was added in 2024 (to act as a second reference for comparison with conditions at AEMP-FS-02) and is upstream from the AEMP-FS-01 sample reach on Bosworth Creek. Location AEMP-FS-03 covers approximately 360 m of Bosworth Creek upstream from the winter road crossing (Figure 5). Approximately 580 m separates the two reference reaches (AEMP-FS-01 and AEMP-FS-03), and approximately 1 km separates the lower reference reach (AEMP-FS-01) and reach representing potential concern (AEMP-FS-02). This ensures there is no slimy sculpin population overlap between reaches given that the documented home range of slimy sculpin is approximately 10 m (Keeler, 2006; Keeler and Cunjak, 2007). Fishing activities for the 2025 AEMP were performed under the S-25/26-3015-YK-A1 licence to fish for scientific purposes issued by Fisheries and Oceans Canada.

Table 3-4: Locations for slimy sculpin tissue sampling during the 2025 AEMP

Site Name	Type	Location	Latitude	Longitude
AEMP-FS-01	Reference	Mid-reach of Bosworth Creek – upstream of NWO	65.292460° to 65.296002°	-126.881189° to -126.885252°
AEMP-FS-02	Experimental	Lower Reach of Bosworth Creek – downstream of NWO	65.283467° to 65.285386°	-126.864967° to -126.876320°
AEMP-FS-03	Reference	Upper reach of Bosworth – upstream of winter road	65.299447° to 65.302082°	-126.888258° to -126.888668°

3.4 Large-bodied Fish Health Study (LFS)

The 2025 AEMP included a pilot large-bodied fish study intended to support implementation of the LFS in a manner that is consistent with the continued development of the AEMP (i.e. Version 5 design) and input from communities and regulators. The pilot program is intended to support refinement of sampling design, confirm practical field and laboratory methods, and help establish how a community-based monitoring approach can be incorporated into long-term fish health monitoring for the Mackenzie River.

4. Sampling Methods

4.1 Water Quality Monitoring

Water quality monitoring in 2025 used grab sampling and passive sampling approaches. Grab samples were used to characterize water chemistry at the time of collection and provide data for comparison with environmental quality criteria and upstream control limits. Passive sampling was used during open-water season to improve sensitivity for PAHs/aPAHs, recognizing that these compounds can occur at very low concentrations and may not always be detected in discrete grab samples. Passive diffusion bags were selected to increase the chance of measuring PHCs in water beyond grab samples as SPMDs were determined to not be viable however, this does not improve sensitivity and the use of PDBs for surface water sampling is not a standard practice.

Petroleum hydrocarbon data (PHC; BTEX, PHC F1-F4, Oil and Grease) data in the 2025 AEMP were obtained using PDB passive sampling devices, except for winter sampling periods where passive devices were not deployed and only direct grab samples were available. Polycyclic aromatic hydrocarbon and aPAH data in 2025 similarly were obtained using SPMDs containing Triolein strips during open-water season, which provide a time-integrated measure of dissolved or bioavailable compounds during the deployment period. Where PSDs are lost or damaged during sample collection a grab sample is collected as a substitute for the affected parameters.

Hydrometric data collected by WSC stations on the Mackenzie River and Bosworth Creek were used to provide hydrological context for the interpretation of the chemistry data. This is particularly important because concentrations of suspended solids, total metals and some dissolved parameters may vary with seasonal flow conditions. Hydrographs showing the discharge of the Mackenzie River and Bosworth Creek during the sampling period in 2025 are provided in Figure 4-1 and Figure 4-2, respectively.

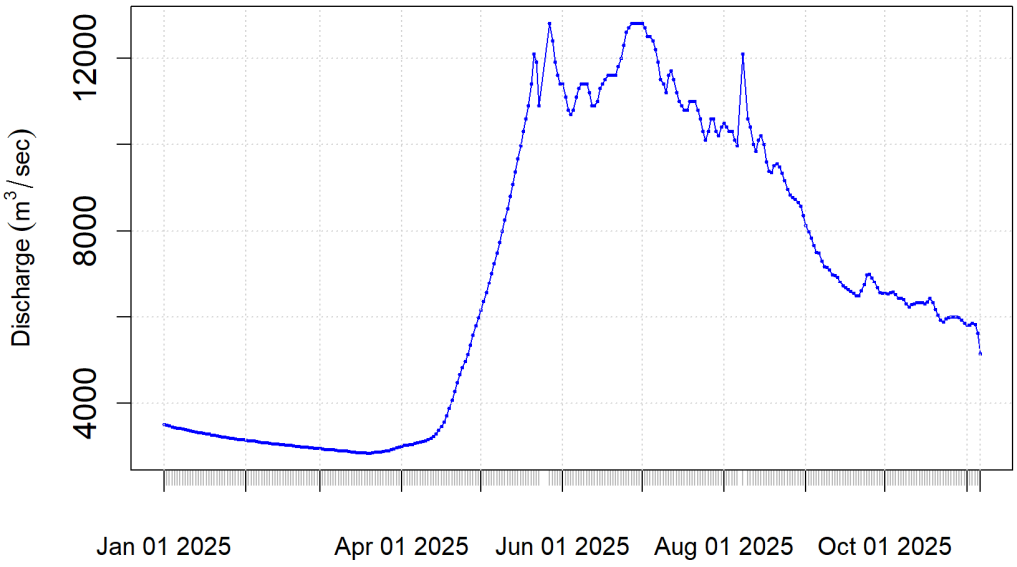

Figure 4-1: Mackenzie River 2025 Hydrograph (January 1 to November 4)

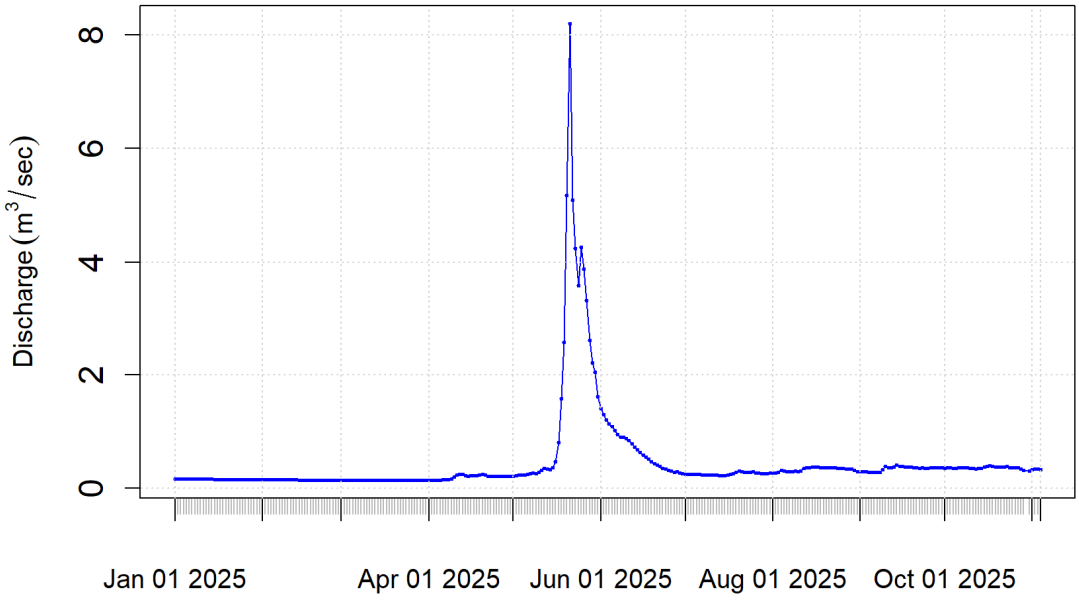

Figure 4-2: Bosworth Creek 2025 Hydrograph (January 1 to November 4)

4.1.1 Grab Sampling

Open-water grab samples were collected by wading and/or by using an extendable sampling device to obtain water from the main flow while minimizing disturbance. In winter, samples were collected through augured ice holes at locations considered safe to access. Samples were collected upstream of where the sampler was standing by lowering the sample cup to a depth of approximately 30 cm (or mid-column if the depth was less than 30 cm). Samples were transferred to laboratory-supplied containers appropriate to each analytical method, stored on ice, and shipped under standard chain-of-custody procedures to Bureau Veritas Laboratory (BV Labs).

For hydrocarbons, grab-sample results are only expected for winter sampling or in cases where passive sampling could not be completed, requiring a direct sample as a substitute.

4.1.2 Passive Time-Integrated Sampling

Passive samplers were deployed during the open-water season to provide time-integrated measurement of petroleum hydrocarbons and PAHs/aPAHs. These passive methods complement grab sampling by integrating exposure over multiple weeks and improving the ability to detect compounds that may occur intermittently or at low concentrations.

For locations in Bosworth Creek, samplers were secured using a purpose-built deployment arm with a float (Photo 4-1A). The arms consisted of two steel poles bolted together such that one could pivot on the other to account for water surface elevation fluctuations while maintaining the PSDs at a consistent depth below water. One pole was placed into the sediment using a post pounder leaving the other to act as an articulating arm within the water column. A buoy was attached to the end of the arm so the PSDs would remain suspended in the water column despite water level changes. Two PDBs were filled with deionized water then secured to the arm using zip ties. Water from PDBs was transferred to laboratory supplied sample containers upon retrieval and shipped to BV Labs on ice along with grab samples. For locations in the Mackenzie River, purpose-built anchors were constructed of concrete filled buckets (Photo 4-1B).

Triolein film SPMDs were set in each sampling location for a target duration of 30 days following the procedures outlined in the Standard Operating Procedures for Deployment Arrays (Environment and Climate Change Canada [ECCC] 2018). Three film strips at each location were woven around brackets (Photo 4-1C) and placed into a SPMD cannister (Photo 4-1D) that was then attached to the end of the articulating arm (Photo 4-1E) or attached to an anchor. Following deployment, films were transferred to a glass jar (Photo 4-1F); the film was kept frozen and away from light before and after deployment. Each film was pre-spiked by the supplier with 10 µg of Anthracene-d10, 10 µg of Fluoranthene-d10 and 1 µg Dibenzo[a,h]Anthracene-d14 as performance reference compounds (PRCs). All SPMD samples were shipped on ice to the SGS AXYS laboratory for analysis.

Actual deployment durations varied at each site due to travel and support availability. Furthermore, some samples were lost due to greater than anticipated drops in water elevation, damage from debris or vandalism. If PSDs were damaged or otherwise unusable then a grab sample was collected at that location instead. Deployment times and retrieval status of PSDs deployed in 2025 are summarized in Table 4-1.

Photo 4-1: A) Example of PSDs deployed in Bosworth Creek at AEMP-US-05. B) Cement filled bucket used for anchoring passive samplers in the mainstem Mackenzie River. C) Example of brackets for holding triolein film in SPMDs. D) Triolein film woven into bracket. E) Deployment arm with SPMD cannister and PDBs deployed into the Mackenzie River. F) Sample jars with triolein strips from SPMDs after retrieval and containers for quality control samples.

Table 4-1: Passive Sampler Deployment Summary for 2025

Location	Spring Deployment June – July 2025	Summer Deployment July – August 2025	Autumn Deployment August – September 2025
AEMP-US-01 (Midway Island)	Duration: 20 Jun – 18 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,800 m^3/s Status: Good	Duration: 18 Jul – 16 Aug (29 days) Discharge Deploy: 10,800 m^3/s Discharge Retrieve: 10,000 m^3/s Status: Good	Duration: 16 Aug – 16 Sep (31 days) Discharge Deploy: 10,000 m^3/s Discharge Retrieve: 6,670 m^3/s Status: Sampler out of water
AEMP-US-02 (10 Mile Island)	Duration: 20 Jun – 18 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,800 m^3/s Status: Passive samplers not recoverable	Duration: 23 Jul – 16 Aug (24 days) Discharge Deploy: 10,600 m^3/s Discharge Retrieve: 10,000 m^3/s Status: Good (only 1 PDB filled at recovery)	Duration: 16 Aug – 16 Sep (31 days) Discharge Deploy: 10,000 m^3/s Discharge Retrieve: 6,670 m^3/s Status: Sampler out of water
AEMP-US-03 (6 Mile Island)	Duration: 20 Jun – 18 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,800 m^3/s Status: Good (Field Blank at this location)	Duration: 18 Jul – 16 Aug (29 days) Discharge Deploy: 10,800 m^3/s Discharge Retrieve: 10,000 m^3/s Status: Good	Duration: 16 Aug – 16 Sep (31 days) Discharge Deploy: 10,000 m^3/s Discharge Retrieve: 6,670 m^3/s Status: Good
AEMP-US-04 (Upper Bosworth)	Duration: 19 Jun – 17 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,800 m^3/s Status: Good	Duration: 17 Jul – 14 Aug (28 days) Discharge Deploy: 10,80 m^3/s Discharge Retrieve: 10,100 m^3/s Status: Good	Duration: 14 Aug – 13 Sep (30 days) Discharge Deploy: 10,100 m^3/s Discharge Retrieve: 6,930 m^3/s Status: Good
AEMP-US-05 (Upper Bosworth)	Duration: 19 Jun – 17 Jul (28 days) Discharge Deploy: 11600 m^3/s Discharge Retrieve: 10,800 m^3/s Status: Good	Duration: 17 Jul – 14 Aug (28 days) Discharge Deploy: 10,800 m^3/s Discharge Retrieve: 10,100 m^3/s Status: Good	Duration: 14 Aug – 13 Sep (30 days) Discharge Deploy: 10,100 m^3/s Discharge Retrieve: 6,930 m^3/s Status: Good

Location	Spring Deployment June – July 2025	Summer Deployment July – August 2025	Autumn Deployment August – September 2025
AEMP-DS-01 (Lower Bosworth)	Duration: 19 Jun – 19 Jul (30 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 11,000 m^3/s Status: Good (Field Blank and Duplicate at this location)	Duration: 19 Jul – 14 Aug (26 days) Discharge Deploy: 11,000 m^3/s Discharge Retrieve: 10,100 m^3/s Status: Good (Duplicate at this location)	Duration: 14 Aug – 13 Sep (30 days) Discharge Deploy: 10,100 m^3/s Discharge Retrieve: 6,930 m^3/s Status: Animal wrecked 3 PBDs (Duplicate at this location)
AEMP-DS-02 (Marine Dock)	Duration: 19 Jun – 19 Jul (30 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 11,000 m^3/s Status: Good	Duration: 19 Jul – 15 Aug (27 days) Discharge Deploy: 11,000 m^3/s Discharge Retrieve: 10,200 m^3/s Status: Good	Duration: 15 Aug – 13 Sep (29 days) Discharge Deploy: 10,200 m^3/s Discharge Retrieve: 6,930 m^3/s Status: Sampler out of water
AEMP-DS-03 (Island 3)	Duration: 20 Jun – 18 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 18,800 m^3/s Status: Good	Duration: 18 Jul – 16 Aug (29 days) Discharge Deploy: 10,800 m^3/s Discharge Retrieve: 10,000 m^3/s Status: Good	Duration: 16 Aug – 16 Sep (31 days) Discharge Deploy: 10,000 m^3/s Discharge Retrieve: 6,670 m^3/s Status: Sampler out of water
AEMP-DS-04 (Refinery)	Duration: 21 Jun – 19 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 11,000 m^3/s Status: Good	Duration: 19 Jul – 12 Aug (24 days) Discharge Deploy:11,000 m^3/s Discharge Retrieve: 10,000 m^3/s Status: Good	Duration: 12 Aug – 13 Sep (32 days) Discharge Deploy: 10,000 m^3/s Discharge Retrieve: 6,930 m^3/s Status: No PDBs retrieved, SPMDs good (Field Blank at this location)
AEMP-DS-05 (Radar North)	Duration: 20 Jun – 18 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,800 m^3/s Status: Good	Duration: 18 Jul – 16 Aug (29 days) Discharge Deploy: 10,800 m^3/s Discharge Retrieve: 10,000 m^3/s Status: Good	Duration: 16 Aug – 16 Sep (31 days) Discharge Deploy: 10,000 m^3/s Discharge Retrieve: 6,670 m^3/s Status: No PDBs recovered, SPMDs good

Location	Spring Deployment June – July 2025	Summer Deployment July – August 2025	Autumn Deployment August – September 2025
AEMP-DS-06 (FGH Blue Fish)	Duration: 18 Jun – 16 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,900 m^3/s Status: Good	Duration: 16 Jul – 13 Aug (28 days) Discharge Deploy: 10,900 m^3/s Discharge Retrieve: 9,840 m^3/s Status: Good	Duration: 13 Aug – 10 Sep (28 days) Discharge Deploy: 9,840 m^3/s Discharge Retrieve: 7,100 m^3/s Status: Fully submerged in sediment
AEMP-DS-07 (FGH Ramparts)	Duration: 18 Jun – 16 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,900 m^3/s Status: Good	Duration: 16 Jul – 13 Aug (28 days) Discharge Deploy: 10,900 m^3/s Discharge Retrieve: 9840 m^3/s Status: Good	Duration: 13 Aug – 10 Sep (28 days) Discharge Deploy: 9,840 m^3/s Discharge Retrieve: 7,100 m^3/s Status: Samplers not recovered
AEMP-DS-08 (Radar South)	Duration: 20 Jun – 18 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,800 m^3/s Status: Good	Duration: 18 Jul – 16 Aug (29 days) Discharge Deploy: 10,800 m^3/s Discharge Retrieve: 10,000 m^3/s Status: Good	Duration: 16 Aug – 16 Sep (31 days) Discharge Deploy: 10,000 m^3/s Discharge Retrieve: 6,670 m^3/s Status: Good, 1 PDB recovered
AEMP-DS-09 (End of facility)	Duration: 20 Jun – 18 Jul (28 days) Discharge Deploy: 11,600 m^3/s Discharge Retrieve: 10,800 m^3/s Status: Good	Duration: 18 Jul – 16 Aug (29 days) Discharge Deploy: 10,800 m^3/s Discharge Retrieve: 10,000 m^3/s Status: Good	Duration: 16 Aug – 16 Sep (31 days) Discharge Deploy: 10,000 m^3/s Discharge Retrieve: 6,670 m^3/s Status: Sampler out of water

4.1.3 Water Quality Assurance and Quality Control

Quality assurance and quality control procedures for the 2025 water sampling program included field duplicates, field blanks, trip blanks and laboratory quality control measures such as method blanks, duplicates, matrix spikes and laboratory control samples. For passive samplers, quality control also included trip blanks and performance checks associated with sampler deployment and retrieval. Overall, the water quality dataset is considered suitable for interpretation at the program level, subject to the normal limitations associated with censored results and seasonal variability in river and creek conditions.

Specific details of the water sampling field quality assurance and quality control (QA/QC) strategy include the following:

- Grab samples
  - Field duplicate samples collected at a rate of 10%;
  - Field blank samples;
  - Trip blank samples.
- SPMD samples
  - Field duplicate sample, one per season;
  - Trip blank sample, one per season; and
  - Film degradation (Day Zero) sample, one per sample period.

The Day Zero blank SPMDs were sent directly from the supplier to the laboratory to quantify potential degradation of the PRCs. Results of the QA/QC analyses for the 2025 AEMP are presented in data tables summarizing analytical data, laboratory certificates of analysis, and deficiencies and potential impact on data quality and interpretation are discussed in Appendix B.

Overall, the QA/QC analysis indicated that the data presented is fit-for-purpose. No QA/QC issues were identified that would alter the overall conclusions presented herein.

4.2 Bosworth Creek Slimy Sculpin Sampling (SFS Monitoring)

The 2025 AEMP fish health assessment focused on sampling fish from Bosworth Creek at two upstream reference locations (AEMP-FS-01 and AEMP-FS-03) and one downstream experimental location (AEMP-FS-02).

4.2.1 Bosworth Creek Slimy Sculpin Sampling

Slimy sculpin were captured from each sample reach (Figure 5) using a Smith-Root LR-24 backpack electrofisher targeting shallow riffle and run habitat in Bosworth Creek. One person controlled the backpack electrofisher, while one to three people netted the immobilized fish. Sculpin prefer to rest under rocks and other debris, and their spiny gill plates and fins tend to flare during electrofishing. For this reason, rocks and other debris was moved or disturbed to dislodge any fish that may have become stuck under the substrate. All captured fishes were immediately identified and non-target fish were released downstream from fishing activities. Slimy sculpin with a total length of at least 50 mm (sexually mature, non-juvenile fish) were retained and held in an aerated 20-L bucket filled with water collected from the creek as well as some debris to help fish remain calm as shown in Photo 4-2. Captured fish were transported to a temporary dissection laboratory in the NWO workshop (Photo 4-2).

Photo 4-2: Captured slimy sculpin in aerated bucket (Top Left). Debris in bucket helps fish to remain calm during transport. Dissection area set up in equipment warehouse near Bosworth Creek (Top Right), and two slimy sculpin immobilized in anesthetic (Bottom)

At the dissection laboratory, each sculpin was removed from the holding bucket individually and anesthetized in 200 mg/L tricaine methanesulfonate (MS-222) until the fish became unresponsive (Photo 4-2). The spinal cord was severed behind the head to ensure the fish was deceased before dissection. Total length (to nearest millimeter [mm]) and body weight (to nearest milligram [mg]) were measured, and the fish was inspected for any external abnormalities and parasites. During dissection, the liver and gonads (if developed) were removed and measured to the nearest mg and inspected for deformities. The gonads were assessed to determine the sex and maturity of each individual, with underdevelopment or lack of gonads indicating immaturity. All weights were measured using an Ohaus SPX223 Scout analytical balance. Total length, body weight, liver weight, gonad weight, maturity, sex, and gross pathology were recorded onto an Excel workbook. Flash-freezing materials such as dry ice and liquid nitrogen could not be sourced at the sampling location given the remoteness of the NWO. Therefore, livers were immediately placed in pre-frozen cryovials resting in frozen cooling blocks within a freezer (nominal temperature of -20°C) for rapid freezing to prevent protein degradation. Using this technique, liver samples froze in less than one minute after being removed from each fish. Samples for metal testing were packaged individually in Whirl-Pak bags, and composite PAH samples were packaged together in hexane and acetone washed aluminum foil and placed in a freezer immediately following dissection. All dissection tools and dissection workstations were sterilized after each dissection using 80% ethanol.

Samples for metal analysis were shipped to Trich Analytics Laboratory (Trich) in Saanichton, British Columbia, while PAH samples were submitted to SGS AXYS in Sidney, British Columbia for analysis. Liver samples were submitted to the InnoTech Alberta (InnoTech) laboratory in Vegreville, Alberta to measure CYP1A1 protein and total protein concentrations.

Mixed-Function oxygenase (MFO) enzymes are localized in the liver and play a key role in the detoxification of many contaminants such as PAHs in fish (Hodson et al. 1991). The CYP1A1 enzyme is a MFO protein that is considered the most important MFO enzyme responsible for detoxification of xenobiotics (Hodson et al. 1991; Brooks et al. 2015). The CYP1A1 protein content was measured using a commercially available enzyme-linked immunosorbent assay (ELISA) kit targeting CYP1A1. TRSA worked with InnoTech to develop a protocol for liver tissue preparation and CYP1A1 concentrations were normalized to total protein in tissue lysates. Total protein was measured using a commercially available Pierce Bicinchoninic acid protein assay kit. The liver protein measurement protocol developed is outlined alongside validation steps included in the laboratory report provided by InnoTech (Appendix C).

4.2.1.1 Quality Control and Quality Assurance

An effective QA/QC program is vital to ensure accurate data collection/interpretation and to quantify any uncertainty introduced during the field execution or laboratory analysis. The tissue sampling QA/QC program during the 2025 AEMP included analysis of the following:

- Certified reference materials such as DORM-5, NIST-1566b, and NIST-2976;
- Field sample duplicates; and

- Triplicate analysis of protein content analyses.

The QA/QC results of the fish tissue component of the 2025 AEMP are reviewed in detail in Appendix D, and any potential uncertainties are described alongside results presented in Section 6.2. Overall, the QA/QC program demonstrated that the 2025 results are considered fit for purpose.

4.3 Large-bodied Fish Health Monitoring Pilot

A pilot large-bodied fish health monitoring program was completed in 2025 to support implementation of the LFS within the Norman Wells AEMP. The pilot focused on two fish species of importance to the community: inconnu (*Stenodus leucicthys*) and lake whitefish (*Coregonus clupeaformis*). The pilot was completed over three days with a planning meeting on the first day, fish collection and dissection on the second day, and a debrief meeting on the third day to discuss ways to design a community-based LFS that meets the needs of the AEMP and the community.

Fish were collected by local fisherfolk using gill nets set in areas near Fort Good Hope that are regularly used by the community for fish harvesting. This approach was selected to align the pilot with community harvesting practices and to help ensure that the pilot reflected the settings, species and handling context most relevant to a future community-based monitoring program. The pilot therefore served not only as a field trial of fish health methods but also as a practical demonstration of how LFS implementation could be carried out through community participation and locally relevant sampling throughout the Sahtu Region.

Following collection, fish were brought to the local school in Fort Good Hope, where students from Grade 1 through Grade 12 participated in fish dissections. Community Elders participated in the activity along with representatives of Imperial and four staff from TRSA, who demonstrated dissection procedures, supported the students during tissue collection and measurement activities, and explained the purpose of each observation and sample. The activity was structured to provide both hands-on participation and an understanding of how fish health metrics are used within the AEMP.

During the dissections students were introduced to major external and internal anatomical features of the fish and to the meaning of key fish health endpoints used in the program. Explanations were provided regarding fish condition as an indicator of overall energy availability, HSI as an indicator of energy storage and metabolic allocation and GSI as an indicator of reproductive investment. Particular emphasis was placed on the liver as a central staging ground for energy allocation within the fish, where stored energy can be directed toward basic metabolism, growth, reproduction and responses to environmental stressors. This framing helped connect the organ measurements collected during the pilot to the broader purpose of fish health monitoring in the AEMP.

5. Data Evaluation and Interpretation Methods

The intent of the data evaluation methods used for the AEMP in 2025 are designed to determine potential changes in the environment as the Mackenzie River and Bosworth Creek flow through the NWO. To accomplish this, the AEMP uses statistical methods to compare conditions upstream with those within and downstream from the NWO over time. The three main studies (Water Quality program, SFS, and LFS) provide an understanding of the AES over time to identify potential changes to the aquatic environment (Figure 5-1). The statistical methods used for the 2025 AEMP follow those presented in the Version 5 AEMP design, including incorporating methods that avoid substituting measurements below detection (e.g. robust Regression on Order Statistics [rROS], Maximum Likelihood Estimation [MLE]), as well as improving spatial comparisons using multivariate and univariate techniques. Multivariate techniques applied during the 2025 AEMP are limited to reviewing ionic composition using piper plots to identify water types. Additional multivariate techniques (e.g. principal component analysis [PCA], non-metric dimensional scaling [NMDS]) are incorporated into data evaluation methods described in the Version 5 AEMP design but have not been included in the 2025 summary report. Although some multivariate analysis of ionic and metal composition in surface water was completed in 2025, it is not presented to allow more time for optimizing this analysis to include a more holistic analysis of water chemistry and fish metrics together.

Community knowledge of environmental conditions during each year is integrated into the interpretation of analytical results in addition to the following data evaluation methods. This can include but is not limited to observed flow, water temperature, fish quality, fish abundance, and how conditions compare to those historically observed.

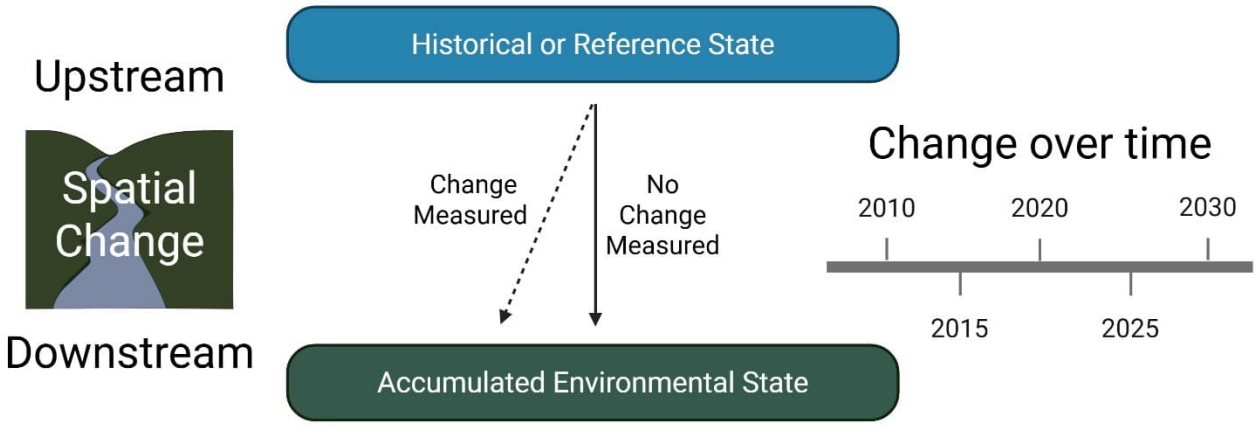

Figure 5-1: Representation of Overarching goal of Data Evaluation for the AEMP

5.1 Water Quality Assessment Methods

Water quality data were evaluated using multiple lines of evidence. These included comparisons with published environmental quality criteria, comparison with upstream control limits, review of seasonal and spatial patterns, and comparison of chemistry results with broader hydrological and regional context. This multi-line approach is important because some parameters in the Mackenzie River and Bosworth Creek naturally occur near or above generic guidelines values (GNWT 2025), and because single observations are best interpreted relative to both background conditions and the overall pattern across sites.

The goals of the water quality data analysis will be to answer the following questions:

- Are temporal changes occurring year-over-year at one sampling location over time?
  - Present all parameters with historical data graphically or in table format.
  - Statistically test for significant increasing or decreasing trends.
  - Compare seasonal changes to ionic composition at each site using Piper plots.
- Do chemical concentrations change spatially between potentially impacted versus non-impacted locations?
  - Compare upstream to downstream water quality using statistical hypothesis testing.
  - Develop tolerance limits for KIPs with an appropriate dataset established.
  - Compare upstream to downstream ionic composition with Piper plots.
- Do chemical concentrations in the Mackenzie River and/or Bosworth Creek pose a risk to aquatic biota?
  - Compare concentrations with published guidelines accounting for conditions of the receiving environment.
- Are observed changes related to NWO activities or natural regional changes along the river?
  - Investigate longitudinal effects as river naturally changes downstream.
  - Comparison with other available data sources and studies.

5.1.1 Published Environmental Guideline Comparison

Water quality variables were compared with applicable guideline sets as a screening-level tool to identify parameters warranting further review. Because several guideline values are influenced by site-specific water chemistry, comparisons were interpreted in conjunction with upstream background conditions and the broader upstream-downstream pattern rather than as standalone evidence of site-related effects. Water quality variables are compared to the following specific guideline sets with guideline exceedances highlighted:

- Canadian Council of Ministers of the Environment guidelines for the protection of freshwater aquatic life (CCME FWAL; CCME 2012, as amended);
- Federal Environmental Quality Guidelines (FEQG; ECCC 2024); and

- Health Canada Guidelines for Canadian Drinking Water Quality (CDWQG; Maximum Acceptable Concentrations only; Health Canada 2025).

Water quality criteria for some variables vary depending on environmental conditions in the receiving water body and this allows these criteria to consider the resilience of the receiving environment in the guideline derivation. Where environmental quality guidelines are equation-derived based on site-specific toxicity modifying factors (TMF) like pH and hardness, the upstream data water quality set is used to represent the natural conditions of the receiving environment. As upstream water chemistry will be presented as ranges, the more conservative (e.g. 25th percentile or similar) is used. Site factors used during the AEMP to determine values for equation-derived guidelines in 2025 are provided in Table 5-1. Temperature for calculated guidelines was 20°C, which is approximately equivalent to the 90th percentile of temperatures measured in the Mackenzie River by the CBM program site upstream from Norman Wells (Mackenzie Datastream 2026). It is notable that temperatures in the Mackenzie River and Bosworth Creek are typically lower but, this provides a precautionary approach that will be protective of aquatic biota throughout the year. Where guideline values are influenced by TMFs, the precautionary principle will be used to calculate guideline values that are more protective of the aquatic environment. Guideline concentrations calculated based on the TMF values in 2025 are summarized in Table 5-1.

Table 5-1: Toxicity Modifying Factor (TMF) Values Used to Calculate Guidelines for Bosworth Creek and the Mackenzie River in 2025

Toxicity Modifying Factor	Units	Mackenzie River	Bosworth Creek
Temperature	°C	20	20
pH	pH units	8.35	8.42
Dissolved organic carbon	mg C/L	2.8	2.4
Calcium	mg/L	29.3	77.5
Magnesium	mg/L	9.2	31
Sodium	mg/L	7.7	24
Potassium	mg/L	0.83	1.1
Sulphate	mg/L	34	160
Chloride	mg/L	8.05	28
Alkalinity	mg/L $CaCO_3$	85.2	190
Hardness	mg/L $CaCO_3$	110	330

Notes: Values used for determining site-specific values for TMFs for the Mackenzie River and Bosworth Creek are based on sampling results from 2018 to 2025 at upstream locations.

The FEQG for dissolved copper will be calculated using the biotic ligand model (BLM) calculator developed by ECCC which accounts for the effects of TMFs on copper bioavailability. This tool produces a site-specific species sensitivity distribution (SSD) to calculate a guideline protective of 95% of plants/algae, invertebrates, and fish. The SSD for copper using values provided in Table 5-1 on the Mackenzie River is provided in Figure 5-2. The log-normal concentration estimated to effect 5% of species in the SSD was used to derive the guideline for comparison with downstream water quality.

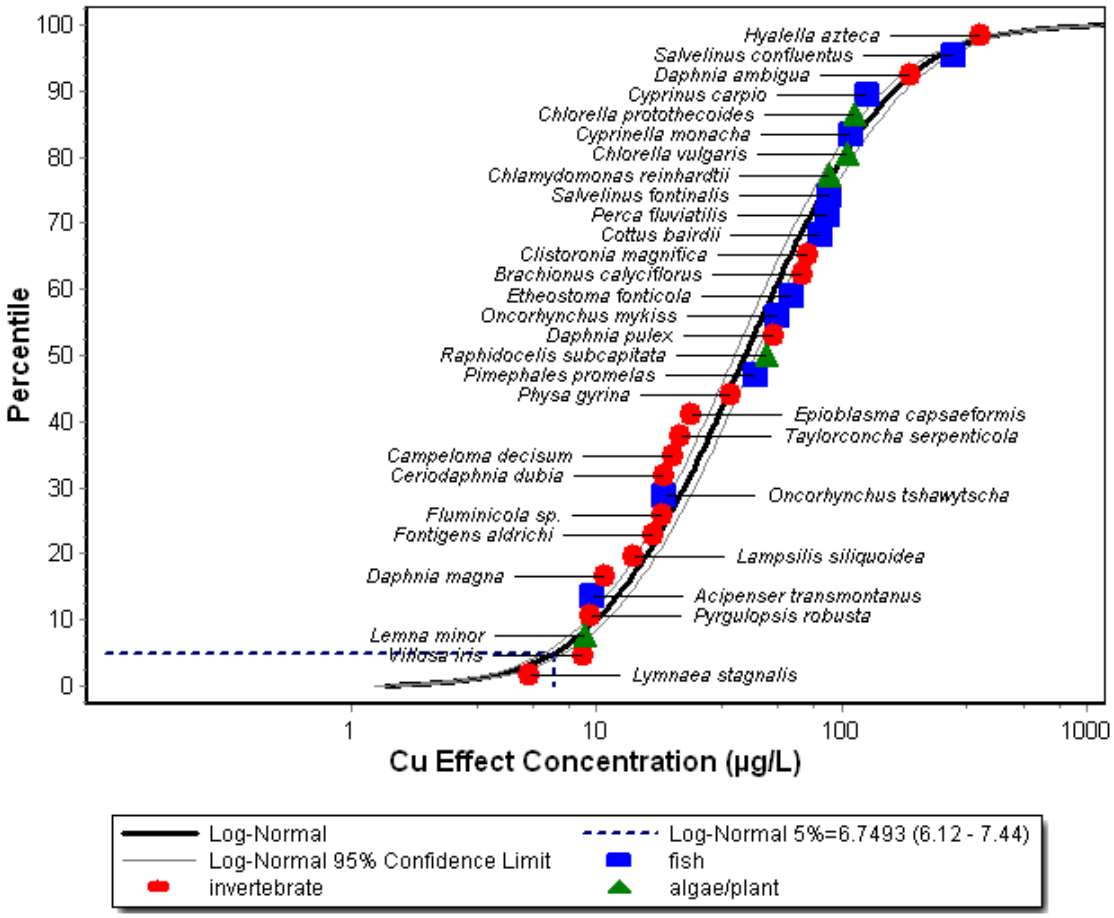

Figure 5-2: Species Sensitivity Distribution (SSD) for Dissolved Copper Based on Conditions in the Mackenzie River Upstream from Norman Wells from 2018 to 2025

Table 5-2: Guideline Concentrations for Variables with Site-Specific Toxicity Modifying Factors (TMFs)

Variable	Mackenzie River		Bosworth Creek	
	CCME Guideline Value	FEQG Guideline Value	CCME Guideline Value	FEQG Guideline Value
Aluminum (Total)	0.1	0.97	0.1	0.79
Cadmium (Total)	0.00017*	---	0.00037*	---
Cobalt (Total)	---	0.00106	---	0.00167
Copper (Total)	0.00257	---	0.004	---
Copper (Dissolved)	---	0.0067	---	0.0077
Iron (Total)	0.3	0.33	0.3	0.29
Lead (Total)	0.00359	---	0.00700	---
Lead (Dissolved)	---	0.00717	---	0.00838
Manganese (Dissolved)	0.25	---	0.29	---
Nickel (Total)	0.103	---	0.150	---
Zinc (Dissolved)	0.015*	---	0.037*	---
Ammonia (Total as N)	0.14		0.14	

Notes: All concentrations are provided in mg/L

*Indicates that value provided represents the long-term chronic guideline for the protection of aquatic life

Most guidelines are established for the total metal fraction (e.g. FEQG for total iron and all CCME guidelines unless otherwise noted [CCME 2003]) while others are established for the dissolved fraction (e.g. FEQG for dissolved copper and lead). Notably, several parameters (e.g. aluminum, cadmium, copper, iron, and lead) are known to naturally exist within the Mackenzie River near or above published guidelines upstream from the NWO (GNWT 2025). As such, water quality guideline comparison will be considered in conjunction with assessments of changes between upstream and downstream location but are generally not a reliable indicator of potential site influence in isolation.

The CDWQG are intended to represent acceptable end-user water quality metrics and are not necessarily appropriate to represent a pre-treatment water source. However, in recognition of limited water treatment technologies employed in some communities, they have been presented for comparison purposes.

5.1.2 Upstream vs Downstream Comparison

Upstream-downstream comparison was completed using control limits derived from upstream data where available. Upper and lower control limits were used to define the expected range in upstream chemistry and to identify downstream observations outside that range. This approach provides a more site-relevant basis for interpretation than generic guideline comparison alone, particularly in a large northern river system where natural sediment loading, water source mixing and seasonal discharge can strongly influence observed concentrations.

As data is collected at upstream locations (including data collected during previous versions of the AEMP from 2017 to 2022), a dataset of upstream water quality for each water body is being developed. More information regarding the upstream dataset development is presented in Appendix E. The upstream water quality dataset is used for direct comparison of an individual event's data and to investigate any exceedances to determine if they are naturally occurring. Due to the potential for changing conditions associated with climate change (for example, increased sediment loading, increased groundwater infiltration related to degrading permafrost or unusual variations in river discharge), the upstream data is presented as a range (upper and lower control limits; UCL and LCL) rather than discrete "background" numbers. The UCL and LCL are presented on trend charts and in data summary tables in Appendix F.

Surface water chemistry varies seasonally with discharge. For example, total metal fractions often increase during higher discharge as increased suspended sediment loads mobilize these potential contaminants, while dissolved fractions have an inverse relationship with discharge because they become more diluted during high flow (Arciszewski et al. 2018). To address this, flow-corrected control charting can be used where relationships between contaminant concentration and discharge exist (e.g. linear regressions or smoothing methods). These models can be assessed and UCLs/LCLs can then be defined using the residuals from these relationships (COSIA 2018). The relationship between KIPs and discharge in the Mackenzie River were investigated during the 2025 AEMP, however, data is limited at several monitoring locations both upstream and downstream resulting in a significant relationship only for some locations. In the absence of this statistical relationship between water chemistry and discharge, control charting using reported concentrations provides a suitable comparison between upstream and downstream conditions.

In addition to control charting, an Analysis of Variation (ANOVA) hypothesis test is used to compare group means among sites for each KIP. Where a portion of the data is censored (below detection) a censored regression ANOVA approach is used such that rROS (sample size less than 50) or MLE (sample size greater than 50) can be used to impute censored values. There are three upstream water quality sampling locations with historical data. Meanwhile, there are ten downstream monitoring locations resulting in an unbalanced study design. To address this limitation, water quality monitoring locations on the Mackenzie River are grouped together using a blocking approach to reduce the imbalance between upstream and downstream data. Monitoring locations are grouped into upstream sites, sites within the NWO (Norman Wells sites), and downstream sites as far downstream as Fort Good Hope (downstream sites). These analyses have been completed for all KIPs. Where a temporal trend is identified, the effect on the analysis is discussed given that potential trends over time could influence the results of site comparisons using data pooled across years.

5.1.3 Piper Plots of Major Ions

Major ion data are interpreted using Piper plots to compare hydrochemical type among upstream, near-field, and downstream sampling locations in the Mackenzie River and Bosworth Creek. These plots are useful for determining whether downstream waters show consistent shift in ionic character relative to upstream background conditions and whether any observed differences are localized or regionally distributed.

Major ions measured during 2025 were plotted on Piper plots to determine water types upstream and downstream from NWO on the Mackenzie River and Bosworth Creek. Results have been plotted individually for each season and for the full year results together to assess for seasonal variation. Results below detection were replaced with half the detection limit and water types were determined for each site. Piper plots are presented in Appendix G and results are discussed in Section 5.1.3.

5.1.4 Changes Over Time (Temporal Trend Analysis)

Trend analysis was performed using the non-parametric Kendall test for temporal trends (Kendall 1975). The Kendall statistical process involves first placing the data in chronological order (Kendall 1975). The sign of the differences between all forward combinations of data pairs are then used to compute the Kendall statistic (S). Next, the Kendall S and the number of data points (n) are used for the normal approximation test. The results yield a probability value (p-value) from 0 to 1.

The Akritas-Theil-Sen (ATS) slope is a version of Sen's slope that is used to provide an approximate magnitude on trends developed for determining a median slope when censored data is present and is used to account for censored data during the AEMP (Helsel 2012). The ATS slope is calculated by evaluating the slope between all forward combinations of data pairs. The slopes are then ranked, and the median slope value is selected. An ATS slope that is positive indicates an increasing trend while a decreasing trend is indicated by a negative slope. Slopes are presented both in absolute terms (mg/L per year) and normalized relative to the median concentration (% change per year). Kendall's tau is used as a measure of the strength of the correlation between chemical concentration and time.

Trend analysis included all available data for locations with a historical dataset (i.e. 2017 to 2025) and that meets that dataset criterion for detection limits. Results of a Kendall test with ATS slope were considered significant, for any of the trend analysis components of this program, when:

- the two-tailed probability value (the probability of the data set having zero trend; p-value) was less than 0.05 and the absolute value for the normalized slope of concentration change was greater than 5%/year; or
- the two-tailed probability value was less than 0.05 for a trend analysis on residuals from a systematic relationship between variable concentration and discharge.

5.1.5 Semi-permeable Membrane Device (SPMD) Analyses

The PAH and aPAH concentrations have been calculated from the quantification results provided through SPMD analysis. Laboratory results for PAHs and aPAHs are provided as a total mass per strip, calculations developed by the United States Geological Survey (USGS 2010, 2016) were used to estimate concentration in water for measured PAHs and aPAHs, where developed chemical-specific properties are available to allow for estimation. SPMD Calculator Version 5.2 (USGS 2016) was used to determine concentrations using PRCs and where certain physical properties of parameters are known or have been estimated. SPMD Calculator Version 4.1 (USGS 2010) was used for parameters not available for calculation in Version 5.2. Calculator Version 4.1 requires a water temperature selection of either 10°C, 18°C or 26°C.

While 10°C or 18°C more closely resemble conditions in the Mackenzie River and Bosworth Creek during the sampling season, selection of these temperatures eliminates estimation of several compounds as uptake sampling rates have not been determined; as such, the temperature within the calculation was set to 26°C. This provides an estimate of water concentration as opposed to reporting as not available.

The PAH concentrations calculated from SPMDs were used to determine total PAH concentrations for each sample. In addition, the profile of PAHs and aPAHs are presented in bar charts to visually compare their abundances among sites. The relative contribution of petrogenic and pyrogenic PAHs are summarized by calculating a Pyrogenic Index (PI) for each sample using Equation (1) as described in Lévesque et al. (2023) (PAH abbreviation definitions listed in Table 3-2).

Equation 1

$$Pyrogenic\ Index\ (PI) = \frac{\Sigma(AN,AC,BA,BaP,BbjFl,BeP,BG,BkFl,DA,FL,IP,PR)}{\Sigma(N0{-}4,PA0{-}4,F0{-}3,D0{-}3,BaAC0{-}3)}$$

5.1.6 Comparisons with other Monitoring Programs

Where applicable, interpretation of the 2025 water quality results should be considered alongside other relevant monitoring information, including hydrometric context, groundwater monitoring results and other regional programs led by the GNWT. These comparisons are useful for determining whether observed water quality patterns reflect local conditions near the NWO or broader regional processes affecting the Mackenzie River and Bosworth Creek.

5.2 Fish Health Assessment Methods

Fish Health data are presented as follows:

- Energy allocation and availability comparisons between reference and experimental sites using fish length, body weight, liver weight, gonad weight and gross pathology;
    - Fish characteristics in 2025 are compared among sites for both sexes using environmental effects monitoring (EEM) approaches.
    - Health metrics are visually compared among sites and statistically compared using an ANCOVA approach.

- Percent differences among sites were calculated and compared with critical effect sizes (CES) to determine if site differences represent a potential effect on the fish population.

- Tissue residue site comparisons for both sexes;
  - Summary statistics are provided for KIP metal concentrations measured in 2025 in slimy sculpin tissue.
  - Mean tissue residue concentrations of KIPs are compared using hypothesis testing among experimental and reference sites to identify differences among sites.
  - Calculation and presentation of UCL and LCL values for KIPs based on the CES around the median at reference sites.
- Data tables for comparison with published tissue residue quality criteria;
  - Tissue residue concentrations measured at each site are compared with toxicological thresholds to determine potential for adverse effects and quality guidelines for KIPs, where available.

5.2.1 Energy Allocation and Availability

The fish health data analysis is modelled off the guidance developed for EEM in Canada (Environment Canada 2012) and are based primarily on the overall fish condition and allocation of resources to contaminant detoxification in the liver and reproduction (Figure 5-3). Fish identified as immature due to limited gonad development (generally less than 55 mm in length) or those with reduced gonad development because of parasitism were removed from the health assessment. Fish morphometrics and tissue residue concentrations were compared between the upstream reference sites (AEMP-FS-01 and AEMP-FS-03) and the downstream experimental site adjacent to the NWO (AEMP-FS-02). This included anecdotal comparisons of gross pathology and field observations, as well as quantitative statistical comparisons using a one-way ANOVA. The assumptions of a normal distribution of residuals and similar variance between treatments/sites (homoscedasticity) was visually assessed using quantile-quantile plots and residuals versus fitted plots, respectively. Sharpiro-Wilk and Bartlett statistical tests were also used to quantitatively test the assumptions of normality and homoscedasticity, respectively. For analyses where ANOVA assumptions were not met, data transformations were applied to meet test assumptions, or a Fisher permutation test was used to compare between sites (if assumptions were not met following data transformation).

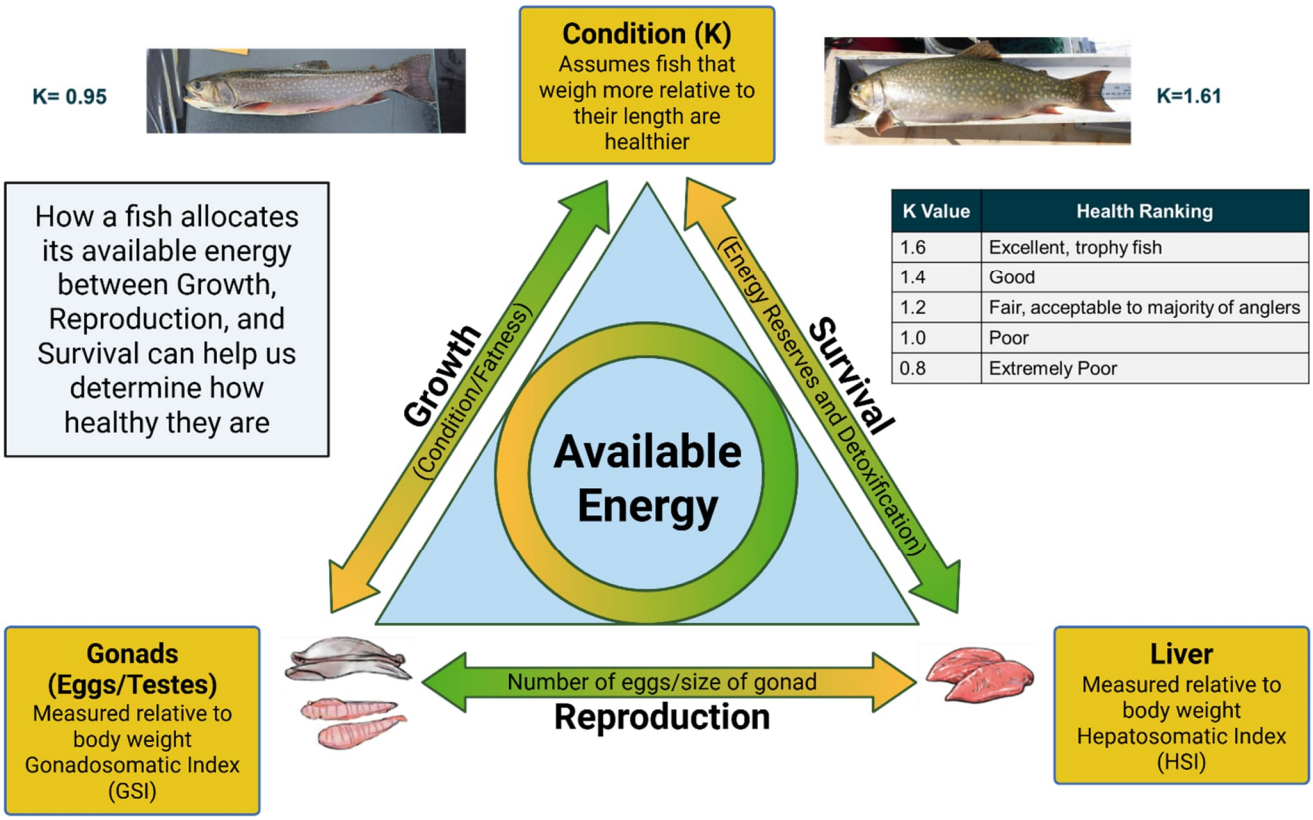

Figure 5-3: Energy availability and allocation balance in fish used to inform fish health assessment

Summary statistics for fish health metrics including HSI and GSI were calculated and compared among sites. Statistically significant differences among sites are noted and the relevance to potential effects is discussed. In addition, the percent difference among sites was calculated for each metric for comparison with CES established to determine if site differences represent a potential effect on the fish population (Table 5-3).

Table 5-3: Critical Effect Sizes (CES) for fish tissue endpoints measured during the 2025 AEMP

Health Metric	Critical Effect Size
Condition	10%
Hepatosomatic Index (HSI)	25%
Gonadosomatic Index (GSI)	25%
Tissue Residues	95% Tolerance Interval*
MFO Induction (i.e. CYP1A1 content)	95% Tolerance Interval*

Notes: *Tolerance interval is based on the upper 95% confidence limit around the 90th percentile (UCL) and the lower 95% confidence limit around the 10th percentile (LCL) based on upstream data.

Comparing liver and gonad size indices (i.e. GSI and HSI) are often influenced by poor statistical properties (e.g. assumptions about data distributions are often violated) that limit confidence in parametric statistical tools (Environment Canada 2012). Consequently, fish metrics that are dependent on each other were analyzed using an ANCOVA approach. The ANCOVA analysis is a stepwise procedure that determines if sites are comparable over space and/or time. This is assessed via the comparison of linear regression slopes. Slopes which are not parallel provide the basis for evaluating statistically significant changes between sites. In relation to fish health, the analysis is used to assess body weight as it relates to fish length, and assess the relationship between liver and gonad weight with body weight. Differences among sites for each sex were assessed by comparing the linear model (ordinary least squares regression) for each site using the ANCOVA. Linear models were first analyzed with an interaction term included to investigate whether the relationship between covariates was altered by a site effect (i.e. are the slopes significantly different among sites). These models take the form provided in Equation (2), where:

- the first term (β_0) describes the model intercept;
- the second term (β_1) describes the strength/slope of the regression between covariates;
- the third term (β_2) describes the distance between the regression models for each site; and
- the last term (β_3) describes the interaction between the covariate regressions and the site.

Equation 2

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 (x_1 * x_2)$$

It is notable that a significant interaction between the covariates and the site are typically either a change in the direction or the magnitude of the relationship between the covariates among sites. If there was no interaction between the covariate relationship and the site, then it was assumed that sites are comparable. In these cases, the percent difference between the reference and downstream site was calculated according to Equation (3).

Equation 3

$$\%\, difference = \left(10^{\beta_2} - 1\right) * 100$$

If a significant interaction was observed, the methods outlined in the EEM technical guidance (Environment Canada 2012) was followed. Alternatively, percent differences based on independent means (observed or adjusted) are calculated by dividing the difference between the experimental site and reference site (experimental - reference) by the reference mean as described for EEM programs (Environment Canada 2012). All statistical analyses were performed in the R programming language (Rstudio Version 2024.04.1). Notably, fish health metrics are not typically influenced by censoring given that all metrics are measured in the field during dissection.

Power analyses were performed for statistical site comparisons using G Power (Version 3.1.3) software, where effect size was determined based on the partial Eta for the site effect (Faul et al. 2007). Partial Eta represents the proportion of the variation in a dataset that can be attributed to a dependent variable such as sampling site or study area. Where the effect size is low the partial Eta is low and this indicates that the dependent variable has limited effect on the response variable. Alternatively, dependent variables that explain a large proportion of the variation have a large partial Eta. In relation to the ANCOVA analysis, the covariate will typically have a high partial Eta (e.g. partial Eta of body weight covariate in the 2025 gonad size analysis for males is 0.90) while the site effect will explain less of the variation (e.g. partial Eta of site effect in 2025 gonad size analysis for males is 0.02), with this effect increasing as differences between sites increase. Notably, this results in improved power for ANCOVA tests given that a higher proportion of the variation in the dataset can be explained. The partial Eta for the site effect is provided for each statistical comparison with effect sizes near 0.01 indicating a low effect, 0.06 indicating a moderate effect, and 0.13 indicating a large effect size.

5.2.2 Tissue Residue Analysis

Summary statistics for metal tissue residue concentrations in male and female sculpin for each KIP and concentrations were compared among sites using an ANOVA (censored ANOVA if measurements below detection were documented). If data structure did not meet assumptions and could not be met using a data transformation, a permutation test was used to compare among sites. Site comparisons for metal concentrations were completed independently for females and males. In addition, upper and lower control limits were calculated for each KIP based on the tissue concentrations measured in female and male slimy sculpin at the upstream reference sites. Tissue concentrations measured at the experimental site (AEMP-FS-02) were subsequently compared with these limits to identify observations outside the CES (Table 5-2).
Site comparisons and comparisons with CES limits for CYP1A1 content (normalized according to total protein content) in slimy sculpin livers followed the same methods as those described for metal tissue residue concentrations.

5.2.3 Guidelines and Effects Thresholds

The CCME does not have tissue residue guidelines established for any of the indicator metal compounds. However, a FEQG has been developed for selenium, and Health Canada has established a maximum level for mercury in fish (Health Canada, 2020; Table 5-4).

Given the limited tissue residue guidelines, the concentrations of indicator metals found in slimy sculpin in Bosworth Creek were compared with toxicological thresholds established in the Society of Environmental Toxicology and Chemistry (SETAC) Linkage of effects to Tissue Residues Database (SETAC 1999). These thresholds are based on toxicologically determined benchmarks to determine the potential for adverse effects in fish. Toxicity data available in the SETAC (1999) database includes the lowest observable effect concentration (LOEC) and the no observable effect concentration (NOEC). The LOEC means the lowest treatment (i.e. tissue concentration) of a test substance that has a statistically significant adverse effect on a specific population of test organisms compared with that observed in controls. The NOEC corresponds to the highest treatment (i.e. tissue concentration) of a test substance that shows no statistically significant adverse effect on a specific population of test organisms compared to that observed in controls. The thresholds used for comparison with tissue residue concentrations found in slimy sculpin are based on NOEC endpoints for salmonid fish species from the SETAC (1999) database (Table 5-4).

Table 5-4: Guidelines and SETAC effects thresholds for indicator metals for the NW AEMP SFS

Indicator Metal	SETAC (1999) Threshold	Health Canada Maximum Level	Federal Environmental Quality Guidelines
Aluminum	1.2 mg/kg	---	---
Arsenic	2.6 mg/kg	---	---
Barium	---	---	---
Cadmium	0.02 mg/kg	---	---
Chromium	0.58 mg/kg	---	---
Copper	3.4 mg/kg	---	---
Mercury	0.7 mg/kg	0.50 mg/kg	---
Molybdenum	---	---	---
Nickel	0.82 mg/kg	---	---
Selenium	0.25 mg/kg	---	6.7 mg/kg dw
Uranium	---	---	---
Zinc	4.5 mg/kg	---	---

Note: SETAC (1999) thresholds and Health Canada maximum level are based on wet weight (ww) tissue residue concentrations

5.2.4 Polycyclic Aromatic Hydrocarbons (PAHs) in Fish Tissue

The concentrations of PAHs and aPAHs measured in tissue residues are based on composite samples of multiple fish to meet tissue quantity requirements for laboratory analysis. Therefore, only one sample was analyzed for each site and no statistical comparisons between sites are possible. Total PAH was calculated for each site by summing the concentrations for all PAHs and aPAHs measured. Concentrations are reported as a range for each sample with the lower limit calculated by replacing measurements below the detection limit with zero and the upper limit calculated by replacing measurements below the detection limit with the detection limit value for each respective PAH/aPAH.

Potential cancer risk at each site was calculated using the carcinogenic potency of individual PAHs relative to Benzo(a)pyrene as described in ATSDR (2022). Overall cancer risk is summarized for each site as a potency equivalency quotient (PEQ) using the potency equivalency factors (PEF) for PAHs (Table 5-5). It is important to note that the PEQ accounts for potential effects from PAHs shown to be carcinogenic based on previous toxicological studies and does not account for potential toxicity of non-carcinogenic PAHs (ATSDR 2022). The abundances of PAHs/aPAHs are presented in bar charts. It is notable that differences in the rates of biotransformation and metabolism among PAHs/aPAHs influences the profile of PAHs/aPAHs present in tissue. Therefore, the PI was not calculated for tissue residue results and the discussion of PAH profiles between sites is limited.

Table 5-5: Potency Equivalency Factors (PEF) of PAHs Measured in Slimy Sculpin from Bosworth Creek

Polycyclic Aromatic Hydrocarbon	Potency Equivalency Factor
Benzo[a]anthracene	0.10
Benzo[b]fluoranthene	0.10
Benzo[j,k]fluoranthenes	0.10
Benzo[a]pyrene	1.00
Chrysene	0.01
Dibenz[a,h]anthracene	2.40
Indeno[1,2,3-cd]pyrene	0.10
5/6-Methylchrysene	1.00

Note: Potency Equivalency Factors (PEFs) adopted from ASTDR (2022)

5.2.5 Pilot Large-bodied Fish Health Study (LFS) Data Summary

The purpose of the LFS pilot in 2025 was to provide proof of concept for the proposed community-based monitoring program during which only a small number of samples were collected. This provided an opportunity for knowledge sharing between youth, Elders, and biologists but limits data analysis options. As a result, the health metrics, metal tissue concentrations, and PAH tissue concentrations measured in the inconnu and whitefish assessed are reported for each sample. These results will be compared with data from other monitoring programs as well as tissue residue thresholds and guidelines where applicable.

Learnings from the 2025 pilot are summarized and have been incorporated into the design of Version 5 of the AEMP.

5.2.6 Comparisons with Other Monitoring Programs

Going forward, results from the Norman Wells AEMP LFS will be compared, where appropriate and where information is made available, with relevant fish and water monitoring information generated through the Northwest Territories Cumulative Impact Monitoring Program (NWT CIMP). NWT CIMP is a territorial cumulative effects program that supports monitoring and research to improve understanding of changes in valued components such as water and fish across the Northwest Territories, and its results are intended to support resource management decision making. In particular, comparison with NWT CIMP-supported work in the Slave River and Fort Smith area is expected to provide broader northern context for interpreting results for community-valued species such as inconnu and lake whitefish, as well as for understanding how fish-related observations near Norman Wells compare with patterns observed elsewhere in the Mackenzie River basin under cumulative pressures including hydrological variability, upstream development and climate change. The value of this comparison for the NWO AEMP is that it extends interpretation beyond a site-specific upstream-downstream framework and provides an additional regional biological context for determining whether observed fish health patterns are more likely to reflect localized conditions near the NWO or broader environmental changes occurring across the NWT. This added context is expected to strengthen interpretation of fish health results in the Sahtu Region by situating species of community interest within a larger territorial evidence base that is already being used to inform cumulative effects understanding and transboundary water management.

6. Results and Discussion

6.1 Surface Water Quality

Surface water quality results and interpretation are presented below. Each evaluation method represents a line of evidence of water quality; however, all are considered together in discussing overall water quality. Surface water quality for the Mackenzie River results are presented in Tables 1 through 7, while the water quality results for Bosworth Creek are summarized in Tables 8 through 13. Variables that are colored green in these tables represent KIP for the AEMP. Laboratory provided certificate of analyses are provided in Appendix H.

6.1.1 Comparison with Environmental Quality Criteria

6.1.1.1 Mackenzie River

Comparison of the 2025 Mackenzie River results with published environmental quality criteria indicates that the mean exceedances were associated with turbidity and with several metals measured in the total fraction during the open-water season. Turbidity exceeded the Canadian Drinking Water Quality Guideline at upstream and downstream stations during most sampling events. These exceedances occurred broadly across the monitoring network, including upstream sites, reflecting the naturally high suspended sediment conditions typical of the Mackenzie River.

For total metals in the Mackenzie River, parameters exceeding freshwater aquatic life in 2025 were aluminum, iron, copper, and cadmium, with more limited exceedances for arsenic, chromium and lead at selected downstream stations. These exceedances occurred primarily during July and August when suspended sediments were elevated, and in most cases were present at both upstream and downstream stations.

Federal Environmental Quality Guideline exceedances were similar for aluminum, iron, and cobalt again at both upstream and downstream stations. Drinking water guideline exceedances for total metals were more limited and occurred mainly at selected downstream stations for aluminum, manganese and lead.

For dissolved metals in the Mackenzie River, there were no exceedances of guidelines based on the dissolved fraction at any upstream and downstream locations.

Petroleum hydrocarbon results for the Mackenzie River were largely low/below detection limits, with no evidence of hydrocarbon signals or exceedances being attributable to NWO. PAH and aPAH results for the Mackenzie River likewise indicate concentrations are low/below guidelines.

6.1.1.2 Bosworth Creek

Guideline exceedances in 2025 across Bosworth Creek remained limited. In the total metal fraction, aluminum exceeded the CCME freshwater aquatic life guideline once at the downstream Bosworth Creek station in August. No other guideline exceedances were identified in Bosworth Creek for total or dissolved metals in 2025.

Bosworth Creek petroleum hydrocarbon results were below detection in 2025 Bosworth Creek samples with the exception of a single PHC F3 detection of 0.26 mg/L at AEMP-DS-01 in August. This isolated detection did not correspond to a reported guideline exceedance. PAH results from Bosworth Creek are discussed in further detail in Section 6.1.5. Accordingly, the 2025 Bosworth Creek passive sampling results do not indicate a hydrocarbon guideline exceedance or clear hydrocarbon signal downstream of the NWO.

6.1.1.3 KIP Guideline Exceedances Summary

The KIPs with concentrations above one or more of the applied environmental criteria at one or more locations in one or more sampling events in 2025 are provided in Table 6-1.

Table 6-1: KIP Guideline Exceedances at monitoring locations in 2025

KIP	Sample Location(s)	Guideline Set Exceedances	Historical Context
Aluminum (total)	AEMP-US-01 (Tulit'a/Midway) AEMP-US-02 (10 Mile) AEMP-US-03 (6 Mile Island) AEMP-DS-01 (Bosworth Creek) AEMP-DS-02 (Marine Dock) AEMP-DS-03 (Island 3) AEMP-DS-04 (Refinery) AEMP-DS-05 (Radar North) AEMP-DS-06 (FGH Blue Fish) AEMP-DS-07 (FGH Ramparts) AEMP-DS-08 (Radar South) AEMP-DS-09 (Goose Island)	CCME FAL CDWQG FEQG	Aluminum concentrations have consistently exceeded the FAL guideline at both upstream and downstream locations of the Mackenzie River. In 2025, total aluminum also exceeded the CCME guideline once at the downstream Bosworth Creek site. Drinking water guideline exceedances were limited to Mackenzie River downstream locations
Arsenic (total)	AEMP-DS-05 (Radar North) AEMP-DS-06 (FGH Blue Fish)	CCME FAL	Arsenic exceedances have historically been limited and inconsistent. In 2025 exceedances were observed at only downstream Mackenzie River locations and were not identified at upstream stations

KIP	Sample Location(s)	Guideline Set Exceedances	Historical Context
Cadmium (total)	AEMP-US-03 (6 Mile Island) AEMP-DS-02 (Marine Dock) AEMP-DS-03 (Island 3) AEMP-DS-04 (Refinery) AEMP-DS-05 (Radar North) AEMP-DS-06 (FGH Blue Fish) AEMP-DS-08 (Radar South) AEMP-DS-09 (Goose Island)	CCME FAL	Cadmium concentrations in the Mackenzie River have exceeded the freshwater aquatic life guideline in both upstream and downstream locations during higher-flow periods in previous years. Apart from one upstream concentration at the guideline concentration, cadmium exceedances were restricted to downstream Mackenzie River locations and occurred during summer sampling in 2025.
Chromium (total)	AEMP-DS-03 (Island 3) AEMP-DS-04 (Refinery) AEMP-DS-05 (Radar North) AEMP-DS-06 (FGH Blue Fish) AEMP-DS-07 (FGH Ramparts) AEMP-DS-08 (Radar South) AEMP-DS-09 (Goose Island)	CCME FAL FEQG	Total chromium concentrations have historically exceeded guidelines intermittently in the Mackenzie River, particularly during open-water sampling periods when suspended material is elevated. In 2025, CCME guideline exceedances were limited to two downstream locations, and seven downstream locations exceeded the more stringent FEQG during the summer.
Copper (total)	AEMP-US-01 (Midway) AEMP-US-02 (10 Mile) AEMP-US-03 (6 Mile Island) AEMP-DS-02 (Marine Dock) AEMP-DS-03 (Island 3) AEMP-DS-04 (Refinery) AEMP-DS-05 (Radar North) AEMP-DS-06 (FGH Blue Fish) AEMP-DS-07 (Radar South) AEMP-DS-08 (Radar South) AEMP-DS-09 (End of Facility)	CCME FAL	Total copper concentrations have frequently exceeded the FAL guideline in both upstream and downstream locations of the Mackenzie River, particularly from spring to fall (June to September). The 2025 results are consistent with this broader historical pattern
Iron (total)	AEMP-US-01 (Midway) AEMP-US-02 (10 Mile) AEMP-US-03 (6 Mile Island) AEMP-DS-02 (Marine Dock) AEMP-DS-03 (Island 3) AEMP-DS-04 (Refinery) AEMP-DS-05 (Radar North) AEMP-DS-06 (FGH Blue Fish) AEMP-DS-07 (FGH Ramparts) AEMP-DS-08 (Radar South) AEMP-DS-09 (End of Facility)	CCME FAL FEQG	Total iron concentrations have consistently exceeded the FAL guideline in both upstream and downstream locations of the Mackenzie River since 2017. The 2025 results remain consistent with that pattern.

KIP	Sample Location(s)	Guideline Set Exceedances	Historical Context
Lead (total)	AEMP-DS-03 (Island 3) AEMP-DS-04 (Refinery) AEMP-DS-05 (Radar North) AEMP-DS-06 (FGH Blue Fish) AEMP-DS-07 (FGH Ramparts) AEMP-DS-08 (Radar South) AEMP-DS-09 (End of Facility)	CCME FAL CDWQG	Total lead concentrations have periodically exceeded guidelines at both upstream and downstream locations in the spring and summary. The 2025 results have exceedances at downstream locations but not upstream locations, while dissolved lead FEQGs were not exceeded in 2025.

Though toluene exceeded the CCME FAL guideline at the new Norman Wells site on the Mackenzie River (AEMP-US-03) upstream from the NWO in the winter sampling of 2024, this observation was not verified or confirmed in 2025 and no other BTEX values were over detection limits.

All anion and cation KIPs were below guidelines where water quality criteria are established.

6.1.2 Upstream – Downstream Comparisons

Comparison of water chemistry as the Mackenzie River flows past Norman Wells is assessed in 2025 by statistically comparing water quality results from sites upstream from Norman Wells, with sites near Norman Wells, and downstream from Norman Wells. Water quality monitoring sites were blocked into these study areas as follows:

Upstream

- AEMP-US-01 (Tulit'a/Midway)
- AEMP-US-02 (10 Mile Island)
- AEMP-US-03 (6 Mile Island)

Norman Wells

- AEMP-DS-02 (Marine Dock)
- AEMP-DS-03 (Island 3)
- AEMP-DS-04 (Refinery)

Downstream

- AEMP-DS-05 (Radar North)
- AEMP-DS-06 (Fort Good Hope-Bluefish)
- AEMP-DS-07 (Fort Good Hope-Ramparts)
- AEMP-DS-08 (Radar South)
- AEMP-DS-09 (Goose Island)

Water quality results from 2017 to 2025 within these study areas are summarized for each KIP using boxplots in Figure 6a and Figure 6b. The total PAH concentrations in each study area are provided in the example boxplot in Figure 6-1. The statistical comparison results comparing KIP concentrations among the study areas in 2025 are provided in Table 6-2. The spatial comparison of water chemistry results among the study areas pools results collected during the AEMP and therefore does not account for potential seasonal or annual changes over time. This analysis does however allow for sites with limited sample sizes to be incorporated into the analysis. As additional data is collected for the AEMP, statistical techniques that account for the effects of changing flow, and changes over time will be incorporated into the spatial comparisons among study areas (e.g. generalized linear modelling, multivariate analyses, and within-season hypothesis testing). In 2025, control-charting is used to compare upstream and downstream water chemistry over time, and trend analyses is used to investigate if specific KIPs are influenced by increasing or decreasing temporal trends.

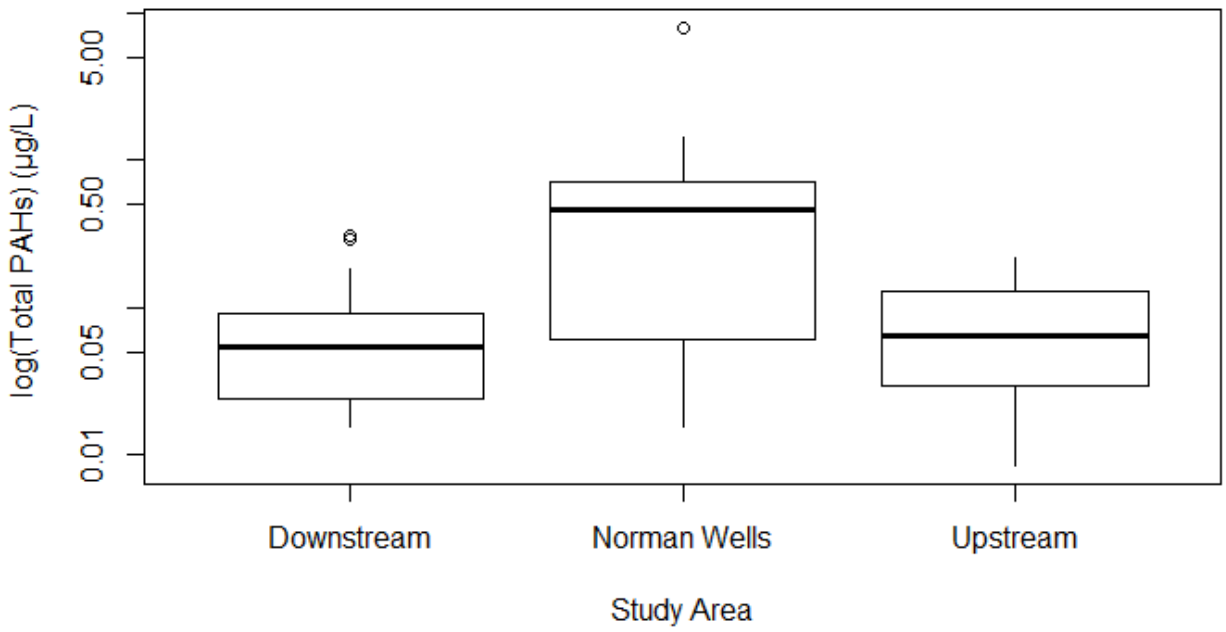

*Figure 6-1 : Boxplot summary of total PAH concentrations (µg/L) at sites downstream, near, and upstream from Norman Wells from 2023 to 2025 (median [thick horizontal line], 25th and 75th percentiles [lower and upper bounds of boxes], range [vertical lines] as 1.5 * interquartile range below the 25th percentile and above the 75th percentile, and outliers shown as open circles)*

Table 6-2: Statistical Results for comparisons of surface water chemistry from Upstream, Norman Wells, and Downstream study areas in 2025

KIP	Upstream (mean ± se)	Norman Wells (mean ± se)	Downstream (mean ± se)	Test Statistic	Significance (p-value)	Partial Eta (Site Effect)	Power (1-β)	Pairwise comparisons
Aluminum (total)	1.32 ± 0.21	1.71 ± 0.19	1.89 ± 0.27	1.63	0.20	0.02	0.05	No significant differences
Arsenic (total)	0.0013 ± 0.0002	0.0017 ± 0.0002	0.0017 ± 0.0002	2.09	0.13	0.02	0.05	No significant differences
Barium (total)*	0.072 ± 0.006	0.090 ± 0.006	0.096 ± 0.007	5.38	0.06	0.04	0.07	Upstream < Downstream
Cadmium (total)	$8.36*10^{-5} \pm 1.2*10^{-5}$	$1.23*10^{-4} \pm 1.3*10^{-5}$	$1.26*10^{-4} \pm 1.5*10^{-5}$	7.89	<0.05	Not calculated[1]		Upstream < Downstream
Chromium (total)	0.0024 ± 0.0003	0.0034 ± 0.0005	0.0032 ± 0.0004	1.91	0.39	Not calculated[1]		No significant differences
Copper (total)	0.0033 ± 0.0005	0.0046 ± 0.0004	0.0049 ± 0.0006	8.74	<0.05	Not calculated[1]		Upstream < Norman Wells and Downstream
Copper (dissolved)	0.0016 ± 0.0002	0.0014 ± 0.0001	0.0015 ± 0.0001	1.78	0.411	Not calculated[1]		No significant differences
Mercury (total)	$3.53*10^{-6} \pm 6.5*10^{-7}$	6.04*10-6 ± $7.6*10^{-7}$	5.56*10-6 ± $7.6*10^{-7}$	1.59	0.45	Not calculated[1]		No significant differences
Molybdenum (total)	$0.0010 \pm 5.02*10^{-5}$	$0.0013 \pm 7.40*10^{-5}$	$0.0013 \pm 5.55*10^{-5}$	5.71	<0.01	0.06	0.08	Upstream < Norman Wells and Downstream
Nickel (total)	0.0046 ± 0.00065	0.0066 ± 0.00064	0.0072 ± 0.00090	4.061	<0.05	0.04	0.07	Upstream < Downstream
Selenium (total)	$3.69*10^{-4} \pm 2.5*10^{-5}$	$4.23*10^{-4} \pm 1.7*10^{-5}$	$4.92*10^{-4} \pm 2.0*10^{-5}$	17.95	<0.001	Not calculated[1]		Upstream < Norman Wells < Downstream
Zinc (total)	0.022 ± 0.006	0.023 ± 0.004	0.033 ± 0.005	7.56	<0.05	Not calculated[1]		Upstream < Downstream
Chloride*	9.93 ± 0.59	9.16 ± 0.30	9.26 ± 0.40	1.87	0.40	0.01	0.05	No significant differences
Calcium	31.7 ± 5.80	33.5 ± 0.54	37.6 ± 0.86	13.97	<0.0001	0.13	0.25	Upstream and Norman Wells < Downstream
Magnesium	10.0 ± 0.28	10.2 ± 0.15	11.5 ± 0.38	7.98	<0.0001	0.08	0.12	Upstream and Norman Wells < Downstream
Sulphate	40.3 ± 1.52	42.9 ± 0.96	53.2 ± 2.64	14.79	<0.0001	0.14	0.27	Upstream and Norman Wells < Downstream
Total Dissolved Solids (TDS)	164.8 ± 4.42	170.9 ± 3.25	185.2 ± 4.99	4.46	<0.05	0.04	0.07	Upstream and Norman Wells < Downstream
Total Suspended Solids (TSS)	89.1 ± 18.0	127.2 ± 18.4	134.2 ± 22.9	3.92	0.14	Not calculated[1]		No significant differences
Total PAH	0.086 ± 0.016	0.838 ± 0.388	0.076 ± 0.015	13.9	<0.0001	Not calculated		Norman Wells > Upstream and Downstream

Notes: *Data distribution does not meet assumptions of the statistical test and transformation is ineffective, results provided are based on permutation analysis

Bold text indicates statistically significant differences between sites.

Superscript 1 – Censored ANOVA used based on maximum likelihood estimation (MLE) for values below detection, unable to calculate partial Eta for study area effect given statistical approach.

The comparison of KIP values in each study area in 2025 identified several KIPs with higher concentrations within the downstream study area including barium, cadmium, nickel, and zinc. In addition, copper, molybdenum, and selenium were significantly higher within both Norman Wells and Downstream study areas compared with the upstream study area. Notably, the ionic composition of the Mackenzie River was significantly different downstream compared with sites upstream and within Norman Wells (Table 6-2 and Section 6.1.3). It is notable that decreasing trends at the AEMP-US-02 (10 Mile Island) upstream sampling location for several metals including barium, cadmium, copper, nickel, selenium, and zinc could influence the comparison among study areas in 2025. The elevated KIP concentrations within the Norman Wells and Downstream study areas were observed alongside UCL exceedances at specific sampling locations in 2025 for barium, cadmium, copper, nickel, and zinc. For KIPs like cadmium and arsenic, the elevated concentrations were occasionally above guideline at sites within Norman Wells and downstream. Alternatively, other KIPs such as aluminum were mainly above guidelines within all sampling areas including the upstream reference area. These results suggest that several metals have elevated concentrations within or downstream from Norman Wells however the source of these increased metal concentrations in the Mackenzie River is not clear.

The PAH concentrations measured within the Norman Wells study area have been higher than those documented at upstream and downstream sampling locations between 2023 and 2025. This is primarily driven by elevated concentrations measured at the refinery and marine dock sampling locations. Therefore, PAH results from passive sampling indicate that PAH concentrations downstream from Norman Wells are similar to those documented upstream suggesting this influence is limited to the immediate area of the NWO.

6.1.2.1 Mackenzie River Control Limits

Comparison of the 2025 Mackenzie River results with upstream control limits indicates that several observations fell above the UCL, but the pattern was not uniformly near-field and was not restricted to downstream stations. In the indicator chemistry table, values above the UCL were noted for chloride, sulphate, total dissolved solids (TDS) and total suspended solids (TSS). Of these, sulphate and TDS were most recurrent at the far-field downstream station AEMP-DS-06, while TSS also exceeded the UCL at several downstream stations during the open-water season. Importantly, some observations above the UCL were also present at upstream stations in 2025, including chloride at AEMP-US-01 and sulphate and TDS at AEMP-US-02. This indicates that 2025 chemistry dataset detects increasing regional and seasonal variability within the upstream reference dataset itself.

For total metals in the Mackenzie River, UCL exceedances were concentrated mainly at the near-field downstream stations, particularly Island 3, Refinery, Radar North, and other downstream sites during July and August. Parameters above the UCL included aluminum, arsenic, barium, cadmium, chromium, copper, iron, molybdenum, selenium, uranium, calcium, magnesium, nickel and related co-varying constituents depending on season and station. However, these exceedances occurred during the same period when total metal concentrations were also broadly elevated at upstream stations and when guideline exceedances were most strongly associated with suspended material. The overall pattern therefore supports interpretation of seasonal high-flow and particulate influences rather than a simple, consistent downstream increase attributable to the NWO.

For hydrocarbons, no coherent downstream hydrocarbon pattern is apparent as data is generally below detection.

The 2025 Mackenzie River upstream-downstream comparison does not show a consistent downstream enrichment pattern across indicator chemistry and metals. The results indicate a combination of seasonal variability, suspended sediment influence, and some regional downstream differences that require interpretation in the context of the full monitoring network rather than only near-field stations. Partial Eta values for the study area effect from each ANOVA are low, indicating a limited study area effect in general, and this results in low power for the upstream-downstream comparison in 2025. Sources of variation such as river flow, seasonal changes, and annual changes are masked by pooling data across monitoring seasons/years, and this contributes to the low effect size of study area. As more data becomes available, particularly at downstream sampling locations, controlling these sources of variation using more advanced statistical approaches (e.g. generalized linear modelling), will be applied to improve statistical power for comparisons among study areas.

6.1.2.2 Bosworth Creek Control Limits

No UCL exceedances were identified in Bosworth Creek. Based on the data received, Bosworth Creek metals in 2025 were generally similar between upstream and downstream locations.

The Bosworth Creek indicator chemistry show that major-ion chemistry at AEMP-DS-01 remained similar in magnitude to the upstream Bosworth Creek stations in 2025. Chloride, sulphate, calcium, magnesium and TDS at AEMP-DS-01 were generally within the same range as measurements at AEMP-US-04 and AEMP-US-05 during the 2025 sampling events, although concentrations at the downstream station remained slightly higher for some parameters during July. This pattern, together with the trend analysis, supports the interpretation that recent changes in Bosworth Creek ion chemistry are occurring both upstream and downstream of NWO rather than only within the downstream reach.

For hydrocarbon parameters, there is only one isolated PHC F3 detection at the downstream station in August. These results do not indicate a clear downstream hydrocarbon pattern in Bosworth Creek in 2025. The results for PAH concentrations in Bosworth Creek are discussed in detail in Section 0

Parameter concentrations found to be outside of the calculated upstream UCL and LCLs are presented in Table 6-3.

Table 6-3: Parameters outside of Upstream Control Limits

KIP	Sample Location(s)	Above (>); Below (<)	Sample Month
Chloride	AEMP-DS-03 (Island 3)	>	Mar
	AEMP-DS-09 (Goose Island)	>	Mar
	AEMP-DS-07 (FGH Ramparts)	<	Aug
	AEMP-DS-09 (End of Facility)	<	Aug
Calcium	AEMP-DS-02 (Marine Dock)	>	Aug
	AEMP-DS-03 (Island 3)	>	Aug
	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Mar, Aug, Sep
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Aug
Magnesium	AEMP-DS-02 (Marine Dock)	>	Aug
	AEMP-DS-03 (Island 3)	>	Aug
	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Mar, Aug, Sep
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Aug
Sulphate	AEMP-DS-03 (Island 3)	>	Sep
	AEMP-DS-06 (FGH Blue Fish)	>	Mar, Aug, Sep
	AEMP-DS-09 (End of Facility)	>	Sep
Total Dissolved Solids (TDS)	AEMP-DS-06 (FGH Blue Fish)	>	Mar, Sep
Total Suspended Solids (TSS)	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug

KIP	Sample Location(s)	Above (>); Below (<)	Sample Month
Aluminum (total)	AEMP-DS-03 (Island 3)	>	Aug
	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Aug
Arsenic (total)	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
Barium (total)	AEMP-DS-03 (Island 3)	>	Jul
	AEMP-DS-04 (Refinery)	>	Jul, Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Jul, Aug
Cadmium (total)	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
Chromium (total)	AEMP-DS-03 (Island 3)	>	Aug
	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Aug
Copper (total)	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
Iron (total)	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Aug

KIP	Sample Location(s)	Above (>); Below (<)	Sample Month
Molybdenum (total)	AEMP-DS-03 (Island 3)	>	Jul, Aug
	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Jul, Aug
Nickel (total)	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Aug
Selenium (total)	AEMP-DS-03 (Island 3)	>	Jul, Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Aug
Uranium (total)	AEMP-DS-03 (Island 3)	>	Jul, Aug
	AEMP-DS-04 (Refinery)	>	Aug
	AEMP-DS-05 (Radar North)	>	Jul, Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug
	AEMP-DS-07 (FGH Ramparts)	>	Aug
	AEMP-DS-08 (Radar South)	>	Aug
	AEMP-DS-09 (End of Facility)	>	Jul, Aug
Zinc (total)	AEMP-DS-05 (Radar North)	>	Aug
	AEMP-DS-06 (FGH Blue Fish)	>	Aug

6.1.3 Hydrochemical Type – Major Ions

Hydrochemical type is visually represented in Piper plots in Appendix G. Piper plots provide a visual tool to describe ionic composition of water to compare among water types and identify mixing between different sources. Like previous years the Mackenzie River is predominantly a calcium-magnesium-bicarbonate type throughout the year. This water type has high proportions of calcium and bicarbonate, which is similar to previous monitoring years. Water type at most sites is consistent during the open water period except for AEMP-DS-06 (Fort Good Hope), which shifts to a calcium-magnesium-sulphate type later in the fall. This Fort Good Hope sampling site is downstream from the confluence of the Mackenzie River and the Ramparts River, which could cause the difference in water type in the fall compared with the other sites. The other Fort Good Hope sampling location (AEMP-DS-07) is on the other side of the mainstem of the Mackenzie River and ionic composition at this location is similar to other upstream locations. This supports that the observed changes at AEMP-DS-06 are related to inflow from the Ramparts River. The upstream midway site near Tulit'a (AEMP-US-01) also shifts towards a mixed water type which indicates no single anion or cation dominates the system and can be visually represented by a point in the centre of the Piper plots. With the exception of AEMP-DS-06, there is no notable variation in hydrochemical type between upstream and downstream locations on the Mackenzie River.

Water quality in Bosworth Creek is predominantly a mixed type with some calcium predominance and no notable variation between locations upstream and downstream or among sampling seasons. Overall, results are consistent with findings from previous sampling events.

6.1.4 Changes Over Time

Statistical summaries for the analysis of trends over time are presented in Appendix F and statistically significant trends are summarized in Table 6-4. If a statistically significant trend is due to changes in flow based on the flow-corrected trend analysis, it was removed from Table 6-4 and is discussed in text only.

Table 6-4: Surface Water Statistically Significant Trends

KIP	Sample Location(s)	Trend Directions
Chloride	AEMP-DS-06 (FGH – Blue Fish)	Decreasing[1]
	AEMP-DS-04 (Refinery)	Decreasing[1]
Sulphate	AEMP-DS-03 (Island 3)	Increasing[1]
	AEMP-DS-04 (Refinery)	Increasing
Total Dissolved Solids	AEMP-DS-03 (Island 3)	Increasing
Magnesium	AEMP-US-01 (Tulit'a/Midway Island)	Increasing
Calcium	AEMP-US-01 (Tulit'a/Midway Island)	Increasing
Aluminum	AEMP-DS-02 (Marine Dock)	Increasing[1]
	AEMP-DS-03 (Island 3)	Increasing[1]
Zinc	AEMP-DS-02 (Marine Dock)	Increasing[1]
Copper	AEMP-DS-01 (Lower Bosworth Creek)	Decreasing[2]

KIP	Sample Location(s)	Trend Directions
Barium	AEMP-DS-02 (Marine Dock)	Increasing[1]
	AEMP-DS-03 (Island 3)	Increasing[1]
Iron	AEMP-DS-01 (Lower Bosworth Creek)	Decreasing
Molybdenum	AEMP-DS-02 (Marine Dock)	Increasing[1]
	AEMP-DS-04 (Refinery)	Increasing[1]
Nickel	AEMP-DS-01 (Lower Bosworth Creek)	Decreasing
Selenium	AEMP-DS-04 (Refinery)	Increasing[1]
Uranium	AEMP-DS-02 (Marine Dock)	Increasing[1]
	AEMP-DS-03 (Island 3)	Increasing[1]
	AEMP-DS-04 (Refinery)	Increasing[1]

Notes: Superscript 1 – Statistically significant trend is based on flow-corrected analysis because concentration and river flow have a systematic relationship.

Superscript 2 – Associated trend is a result of changing detection limits during the AEMP resulting in a statistically significant trend that may not reflect environmental conditions at the associated monitoring location.

There are no temporal trends for molybdenum in the Mackenzie River or Bosworth Creek, however, when river flow is considered as a covariate, there are statistically significant increasing trends at sites near the marine dock and refinery on the Mackenzie River (AEMP-DS-02 and AEMP-DS-04). The relationship between flow and molybdenum concentration is variable and highly influenced by one sample from each site suggesting that there is a weak relationship between flow and molybdenum concentration. Similarly, aluminum, barium, selenium, uranium, and zinc did not have statistically significant increasing trends unless river flow was included as a covariate. Concentrations of these metals were highly variable and this limited the strength of the relationship between flow and metal concentration. These trends have been identified to apply a precautionary approach, however, the limited relationship between concentration and flow should be considered.

Calcium and magnesium had significant increasing trends at the upstream Mackenzie River reference site AEMP-US-01 near Tulit'a. Because this is an upstream location, these trends are not attributable to NWO operations and instead indicate that the upstream reference dataset is changing over time. At the same time, several major ions and related conventional chemistry parameters, including calcium, magnesium, sulphate, and TDS, showed increasing trends at selected downstream Mackenzie River locations, including Island 3 and the Refinery site. Together, these results indicate that temporal changes are occurring in Mackenzie River chemistry both upstream and downstream of the NWO.

At the Fort Good Hope – Blue Fish station, chloride showed a decreasing trend, suggesting a gradual shift in ionic composition over time at this farther-field downstream location. Because this site reflects broader downstream and regional mixing processes, these trends should be interpreted cautiously and not as a direct signal of NWO influence.

Overall, the Mackenzie River trend results suggest that long-term chemical changes are occurring at both reference and downstream stations, with many of the observed patterns reflecting broader regional or temporal variability rather than a clear operation-related effect. Treating flow as a covariate in the temporal trend analysis indicates increasing trends for several metals that are localized to sites near the NWO, including the Marine dock, Refinery, and Island 3 (Table 6-4).In Bosworth Creek, the TSS concentration is significantly decreasing at the downstream site (AEMP-DS-01), however, this decrease may be related to lower flows in recent years (Appendix F, Table F-4). The TSS typically increases as river flow increases, but TSS concentrations were highly variable, which limited the reliability of this relationship with flow. In addition, chloride, sulphate, and TDS had increasing trends at AEMP-DS-01 when changes in flow were not included. Chloride, sulphate, and TDS at AEMP-DS-01 have a significant relationship with flow with concentrations decreasing as flow increases (Figure 6-2). When flow is treated as a covariate in the trend analysis, there are no significant increasing trends for these variables in Bosworth Creek. These results indicate that major-ion chemistry in Bosworth Creek is changing primarily downstream of the NWO, but these changes are most likely related to lower flows in Bosworth Creek in recent years (Figure 2.2). Copper, iron, and nickel are also decreasing at the experimental location and there is limited evidence of a relationship between flow and these metal concentrations (See Section 6.1.4.1). Taken together, the Bosworth Creek trends support the interpretation that observed changes are not uniquely attributable to the NWO and are better considered within the broader AES of the watershed.

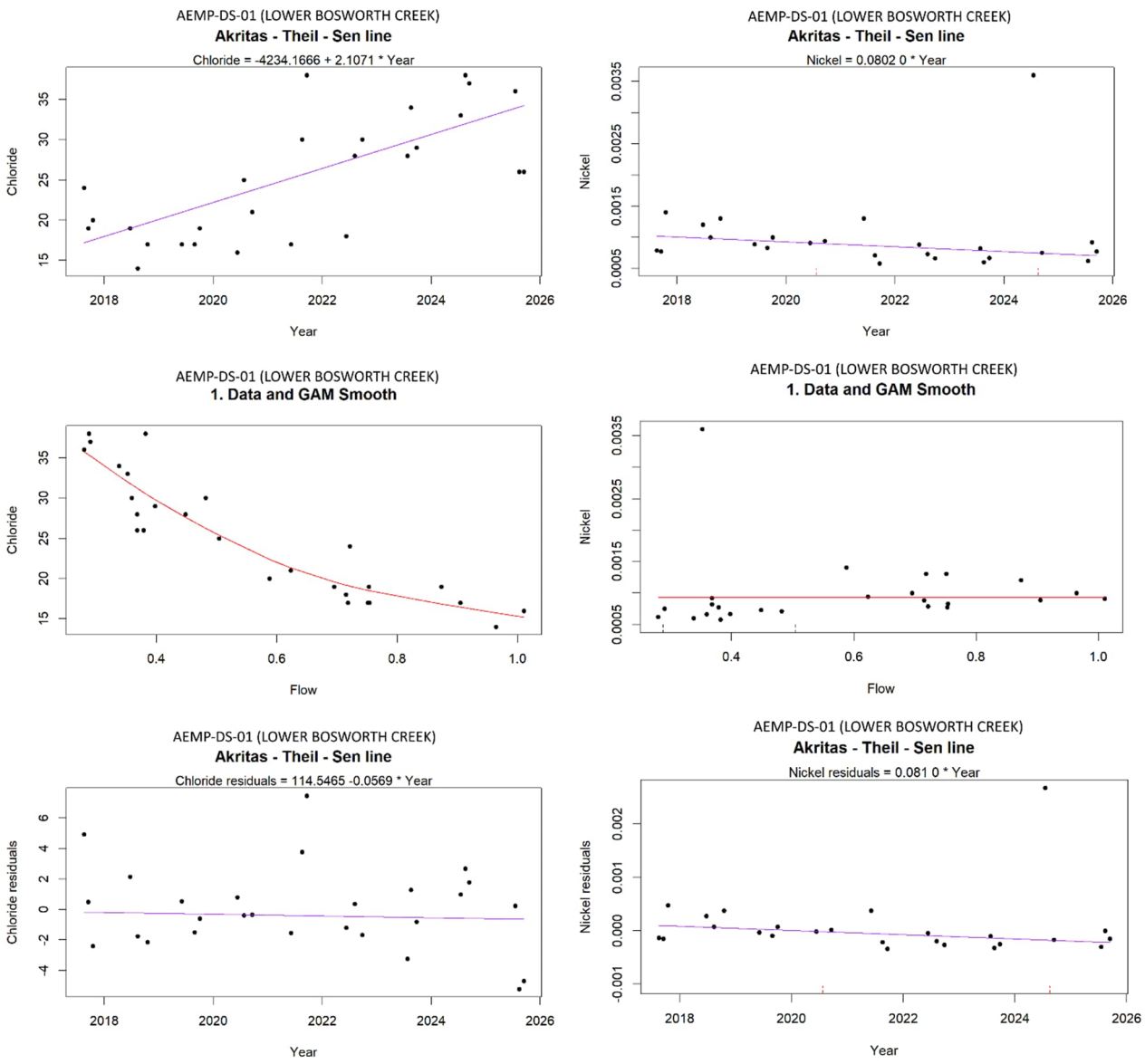

Figure 6-2: Censored scatterplots of chloride (left column) and nickel (right column) concentrations from the experimental site on Bosworth Creek (AEMP-DS-01) provided as an example of the process used during the flow-corrected trend analysis. Figures on the top row show the ATS trend slope for water concentrations over time, center plots show water concentrations as a function of flow with the smoothing model shown as a red line, and plots on the bottom show the ATS slope for residuals from the smoothing model over time. Red dashed lines denote concentrations below the detection limit.

6.1.4.1 Effect of River Flow on Contaminant Concentrations

Typically, there is limited effect of flow on contaminant concentrations where trend analysis results with flow as a covariate are similar to results without a covariate. The decreasing nickel trend in Bosworth Creek at the downstream site (AEMP-DS-01) is an example of this (Appendix F, Table F-14). Alternatively, some trend analysis results differ dramatically depending on whether river flow is treated as a covariate, these results typically indicate a strong relationship between the associated contaminant and river flow. Chloride has the most consistent relationship with flow across all sampling locations, with concentrations decreasing as river flow increases. Treating flow as a covariate in the trend analysis for chlorides accounted for the increasing trend observed at AEMP-DS-01 on Bosworth Creek and identified a decreasing chloride trend at the Refinery site (AEMP-DS-04; Appendix F, Table F-1).

While the relationship between flow and chloride concentration was consistent across sampling locations, the relationship between flow and sulphate concentrations depended on the sampling location. For example, at the AEMP-DS-01 site, sulphate decreased consistently as flow increased, but at AEMP-DS-04 this relationship with flow was inconsistent and flow correction was not appropriate.

Several metals including arsenic, cadmium, copper, and zinc were significantly decreasing at one of the upstream reference sites (AEMP-US-02), however, these observed trends are not present at downstream sampling locations. Although there is variability across sampling periods there is a relationship between flow and concentrations of these total metals. Treating flow as a covariate results in no significant trends over time at this site suggesting that the decreasing trends are most likely related to lower flows in the Mackenzie River recently (Figure 2-1). Apart from zinc, flow-corrected trend analyses for these metals were not significant at sites near the NWO. Semi-permeable Membrane Device (SPMD) Results

All PAH and aPAH concentrations are below the applied guidelines, when available, which is consistent with findings for previous PAH analyses. Total PAH concentrations measured in SPMDs, including PAHs and aPAHs, are summarized for the Mackenzie River and Bosworth Creek in Table 6-5. The concentrations of individual PAHs and aPAHs are provided in Table 6 and Table 7, for the Mackenzie River, respectively. Concentrations of PAHs and aPAHs in Bosworth Creek are summarized in Table 12 and 13, respectively. Profiles of the average PAH and aPAH concentrations at each site sampled from 2023 to 2025 are also presented for sites on the Mackenzie River upstream from the NWO (Figure 6-3), downstream from the NWO (Figure 6-4), and on Bosworth Creek (Figure 6-5).

Like previous monitoring years, the total PAH concentrations in the Mackenzie River were highest near the marine dock (AEMP-DS-02) and refinery (AEMP-DS-04) in 2025. Total PAH concentrations at other downstream near-field sites such as Island 3 (AEMP-DS-03) were low and similar to concentrations measured near Fort Good Hope (AEMP-DS-06 and AEMP-DS-07) and upstream from the NWO. Results in 2025 are mostly consistent with those observed previously, however, concentrations at the marine dock were substantially lower compared to those documented in 2024. Passive samplers were deployed over three seasons at three upstream locations and total PAH concentrations at these sites were similar to those observed at other downstream near-field sites including those near Radar Island (AEMP-DS-05 and AEMP-DS-08) and Goose Island (AEMP-DS-09). Results from three years of passive sampling for PAHs suggests that total PAH concentrations are elevated at the marine dock and refinery locations however these higher concentrations are below water quality guidelines. The source of elevated PAHs at the marine dock and refinery is not currently known, however, natural seeps have been documented near both sampling locations in the Mackenzie River and the former Refinery area is a known area of hydrocarbon in groundwater contamination.

The total PAH concentrations in Bosworth Creek were slightly higher than those measured at midstream locations in the Mackenzie River. In contrast to results from 2024, the highest concentrations occurred at the downstream location (AEMP-DS-01) and the lowest concentrations were measured at the middle Bosworth Creek site (AEMP-US-04). Concentrations at the lower Bosworth Creek site (AEMP-DS-01) were the highest measured since passive sampling began in 2023. The cause of this increase is unclear but it is important to note that concentrations of PAHs with guidelines remain below water quality criteria and are similar to results observed in the fish tissue sample from 2025 (See Section 6.2.2.1).

Table 6-5: Polycyclic Aromatic Hydrocarbon (PAH) Summary in the Mackenzie River and Bosworth Creek in 2025

Watercourse	Sample Location	Deployment Period	Total PAHs (µg/L)	Pyrogenic Index
Mackenzie River	AEMP-DS-02 (Marine Dock)	Spring	0.509	0.003
		Summer	1.380	0.002
	AEMP-DS-03 (Island 3)	Spring	0.016	0.043
		Summer	0.020	0.052
	AEMP-DS-04 (Refinery)	Spring	0.253	0.005
		Summer	0.332	0.005
		Fall	0.254	0.012
	AEMP-DS-05 (Radar North)	Spring	0.022	0.036
		Summer	0.027	0.042
		Fall	0.087	0.038
	AEMP-DS-06 (FGH – Blue Fish)	Spring	0.016	0.039
		Summer	0.021	0.061
		Fall	0.033	0.040

Watercourse	Sample Location	Deployment Period	Total PAHs (µg/L)	Pyrogenic Index
	AEMP-DS-07 (FGH - Ramparts)	Spring	0.023	0.035
		Summer	0.022	0.044
	AEMP-DS-08 (Radar South)	Spring	0.025	0.034
		Summer	0.030	0.025
		Fall	0.093	0.039
	AEMP-DS-09 (End of Facility)	Spring	0.017	0.044
		Summer	0.016	0.055
	AEMP-US-01 (Midway Island)	Spring	0.026	0.042
		Summer	0.029	0.073
	AEMP-US-02 (10 Mile Island)	Summer	0.008	0.056
	AEMP-US-03 (Norman Wells Upstream)	Spring	0.022	0.040
		Summer	0.030	0.059
		Fall	0.064	0.044
Bosworth Creek	AEMP-DS-01 (Lower Bosworth Creek)	Spring	0.465	0.005
		Summer	0.515	0.007
		Fall	1.107	0.009
	AEMP-US-04 (Bosworth Creek)	Spring	0.037	0.013
		Summer	0.046	0.015
		Fall	0.056	0.023
	AEMP-US-05 (Upper Bosworth Creek)	Spring	0.090	0.009
		Summer	0.097	0.015
		Fall	0.091	0.015

Alkylated PAHs contributed most to the total concentrations measured in 2025 in the Mackenzie River and Bosworth Creek (Figure 6-3 to Figure 6-5). Alkylated dibenzothiophenes, naphthalenes, and phenanthrenes/anthracenes were the most abundant PAHs in sites near and downstream from the NWO in the Mackenzie River and Bosworth Creek in 2025. The proportion of fluoranthenes/pyrenes was notably lower than that observed in 2024. In fall 1995, Parrott et al. (1999) documented higher contributions of naphthalenes and fluoranthene in SPMDs deployed in the Mackenzie River upstream and downstream from the NWO compared to those deployed in effluent from the NWO.

High proportions of aPAHs (namely naphthalenes, dibenzothiophenes, phenanthrenes/anthracenes) continue to contribute to low PI values in the Mackenzie River and Bosworth Creek in 2025. The low PI indicates that PAHs in both watercourses are from a petrogenic origin typical of crude heavy oils and fuels rather than atmospheric deposition from combustion (Lévesque et al 2023). This is consistent with findings from SPMDs deployed in 1995 (Parrott et al. 1999).

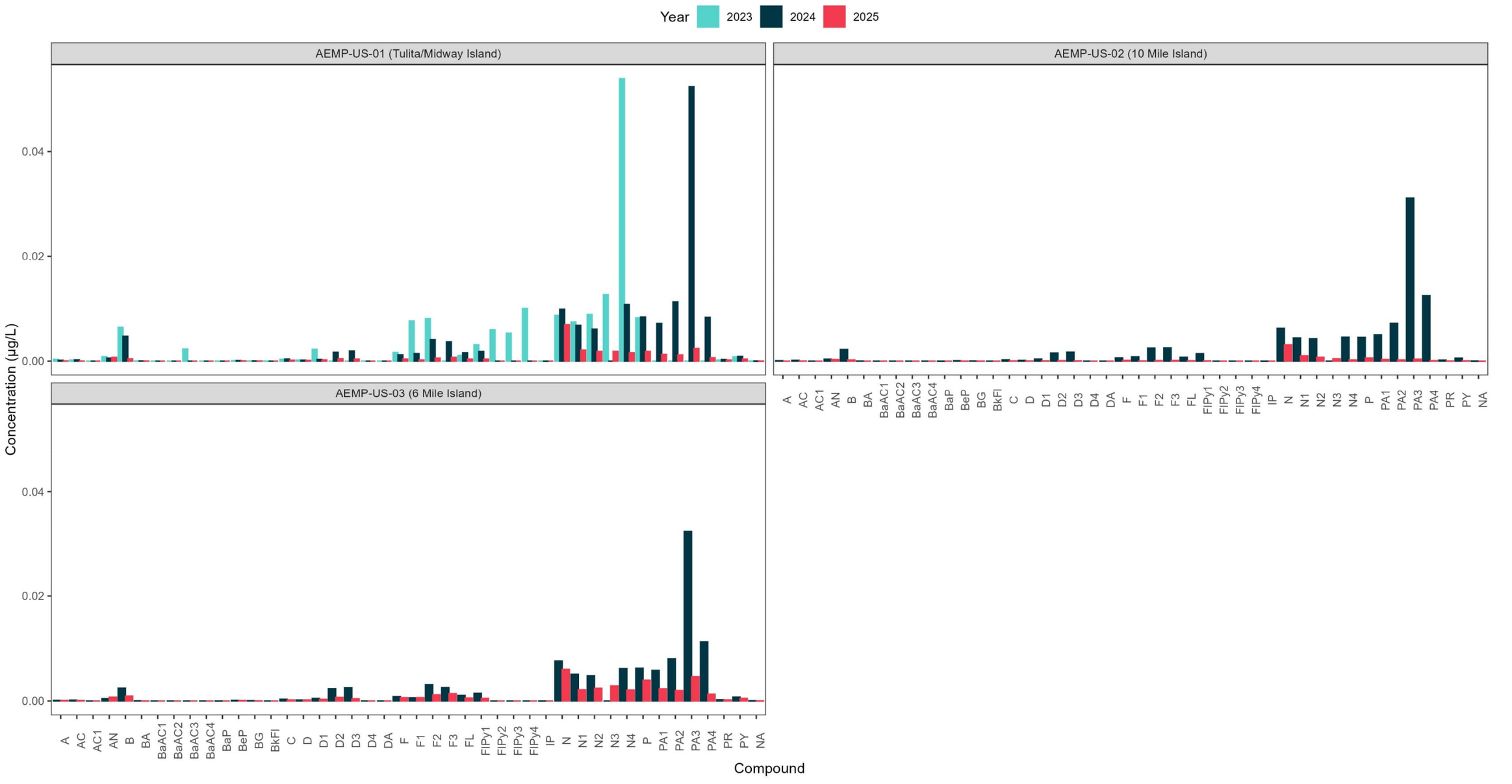

Figure 6-3: Profile of PAHs in surface water on the Mackenzie River upstream from the NWO

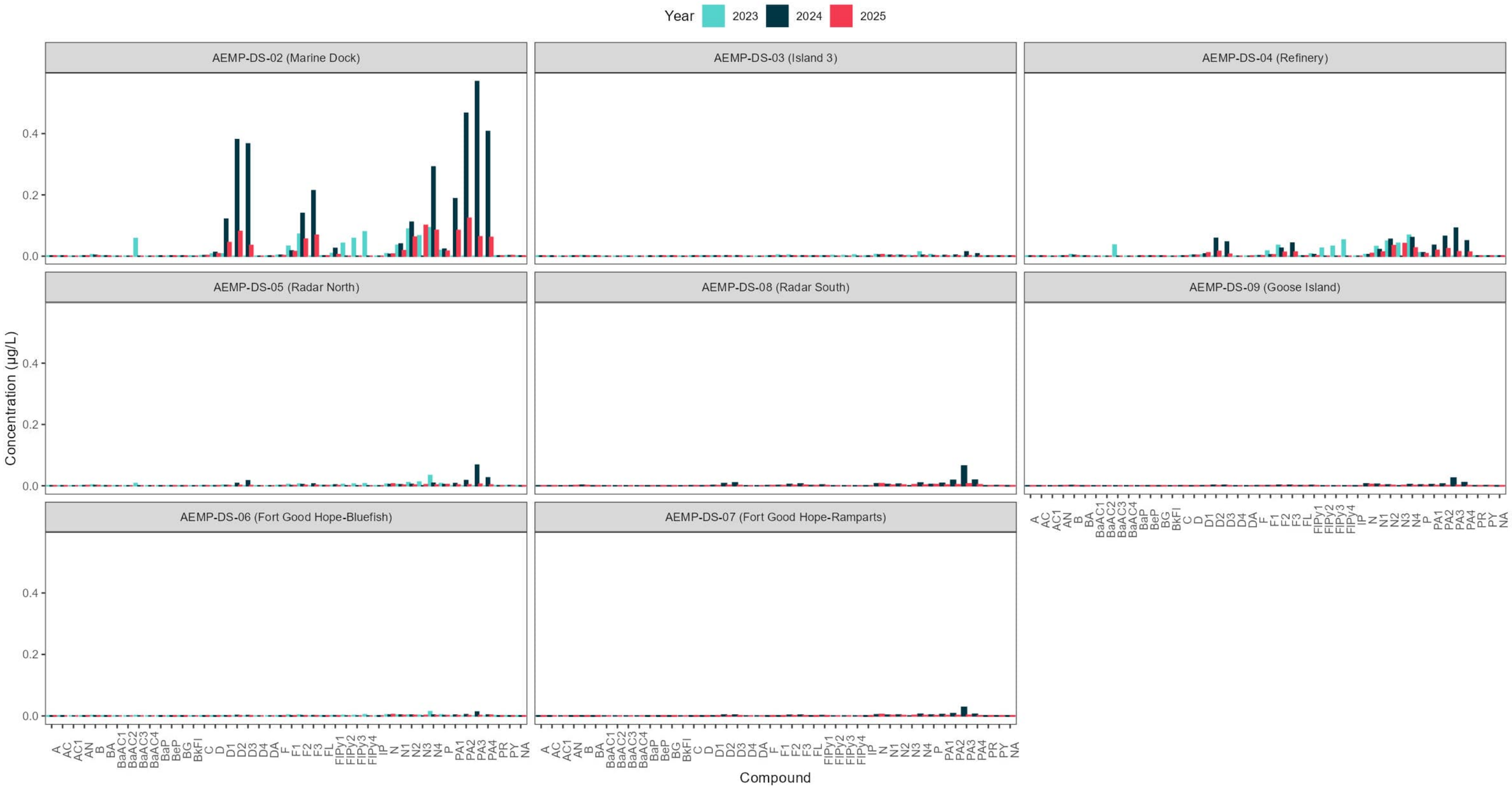

Figure 6-4: Profile of PAHs in surface water from the Mackenzie River within and downstream from the NWO (2023 to 2025)

Figure 6-5: Profile of PAHs in surface water from Bosworth Creek upstream and downstream from the NWO (2023 to 2025)

6.2 Small-bodied Fish Health Study (SFS) Results

Slimy sculpin were collected from the three sampling reaches in Bosworth Creek from September 12 to 17, 2025 using a backpack electrofisher set to 12% duty cycle, 60 Hz pulse frequency, and 350 volts. A total of 175 slimy sculpin were retained from Bosworth Creek for the fish health assessment in 2025 (Table 14). Electrofishing effort and the number of slimy sculpin captured from each fishing reach in 2025 are summarized in Table 6-6. The lowest catch rate was at the AEMP-FS-01 sampling location, while slimy sculpin collected at the AEMP-FS-02 site appeared larger, resulting in a sufficient number of mature individuals with the lowest sampling effort. Both observations are consistent with results from 2024. Non-target fish species observed in Bosworth Creek in 2025 included juvenile bluefish (a.k.a. Arctic grayling), loche, jackfish (a.k.a. northern pike), and suckers (*Catostomus spp.*). In addition, all life-stages of lake chub (*Couesius plumbeus*), trout-perch (*Percopsis omiscomaycus*), and brook stickleback (*Culaea inconstans*) were captured alongside one juvenile lamprey (*Lethenteron sp.*) in 2025.

Table 6-6: Slimy sculpin fishing effort and catch rates in Bosworth Creek during 2025 AEMP

Parameter	AEMP-FS-02 (Exp. Site)	AEMP-FS-01 (Ref. Site 1)	AEMP-FS-03 (Ref. Site 2)
Total Effort (seconds)	7,697	11,889	10,486
Number of Slimy Sculpin (>50 mm total length)	60	59	56
Number of Mature Females Retained	34	32	31
Number of Mature Males Retained	20	20	19
Total Number of Slimy Sculpin Caught[1]	105	150	137
Total slimy sculpin CPUE	1.36	1.26	1.31

Note: Catch-per-unit-effort (CPUE) denotes the number of slimy sculpin captured per 100 seconds of electrofishing effort

Superscript 1 – Includes all fish retained for dissection and count of immature slimy sculpin returned to sampling reach

The length-frequency distribution of slimy sculpin retained for analysis in 2025 is compared with the distribution observed in 2023 and 2024 in Figure 6-6. In 2025, preference was given to individuals over 55 mm long and slimy sculpin less than 50 mm were returned to the watercourse based on a preliminary field measurement given that this was identified as the length-at-maturity for lower Bosworth Creek in 2023 (TRSA 2024). Consequently, only five immature slimy sculpin were retained from AEMP-FS-01, while nine were retained from AEMP-FS-02, and six were retained from AEMP-FS-03. These individuals, as well as those with parasites present in the body cavity, were removed from the fish health assessment given that the physiological processes influencing gonad and liver size will be altered in these individuals. Fish removed from the health analysis and associated rationale for removal is provided alongside slimy sculpin dissection results in Table 14. The total number of mature males and females available for the fish health analyses for each site in 2025 are provided in Table 6-6.

More females were captured at each site in 2025, which is consistent with historical results. Immature individuals and those with parasites present in 2025 were included in the composite samples submitted for PAH analysis.

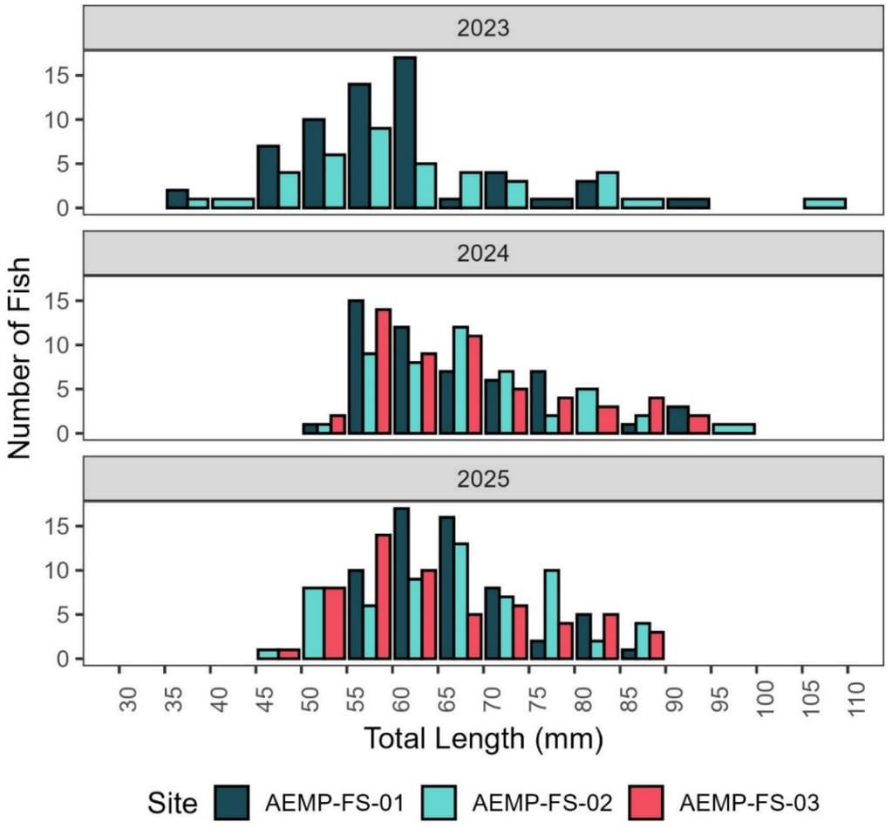

Figure 6-6: Length-Frequency distribution of slimy sculpin captured from Bosworth Creek during the AEMP SFS from 2023 to 2025

6.2.1 Bosworth Creek Slimy Sculpin Health Analysis

Summary statistics for metrics used to assess fish health and energy allocation for slimy sculpin are provided in Table 15. The sample mean and the distribution of observations for fish length, body weight, condition factor, HSI, and GSI for females and males collected from Bosworth Creek in 2025 are presented in Figure 6-7. Fish health metric results from 2025 are provided alongside historical ranges from 2023 to 2024 in Figure 6-8. Apart from the male GSI at AEMP-FS-01, which was higher in 2025 than historically observed, the fish length, weight, condition, HSI, and GSI were within the historical range in 2025. Population estimates for these metrics in 2025 were compared among the reference (AEMP-FS-01 and AEMP-FS-03) and experimental (AEMP-FS-02) sampling reaches and statistical results of these comparisons are provided in Table 6-7 and Table 16. Notably, these comparisons are based only on mature fish and individuals with pathological observations (e.g. parasites present in body cavity) were removed resulting in an unbalanced comparison among sites.

Site comparisons of fish morphology metrics in 2025 between experimental and reference sites identified some statistical differences, however, all percent differences remained below the applicable CES. In 2024, the HSI for male sculpin from the experimental site (AEMP-FS-02) was higher than that observed at the reference sites whereas the HSI for males in 2025 were similar among sampling reaches (Table 6-7 and Table 16). In contrast to the results from 2023 and 2024, the percent differences between the experimental and reference sites in 2025 were well below the CES. Therefore, the results from 2024 and 2023 were not confirmed during the 2025 AEMP.

Female sculpin condition was significantly higher at the experimental site compared with the farthest upstream reference site (AEMP-FS-03), although the percent differences remained below the CES of 10%. Although male sculpin had higher condition compared with both reference locations, this difference between sites was not statistically significant. Condition results in 2024 were similar but indicated a significant difference for male sculpin rather than females, which was the case in 2023 (TRSA 2024).

Fish condition provides a metric relating to overall energy availability where fish having higher condition indicates that more energy is available to carry out life processes such as growth. Consequently, the higher condition at the experimental site suggests higher energy availability within this sampling reach compared with the upstream references. There are now three years of monitoring data that suggests that sculpin from the experimental location (AEMP-FS-02) have higher condition than sculpin from upstream reference reaches. Each sampling year identified significant differences between sites for at least one sex, however, all percent differences between sites are within the applicable CES. Higher HSI also provides an indication of increased energy availability given that much of the fish's energy stores are retained in the liver (e.g. lipid and glycogen storage). Although site differences for HSI were not observed in 2025, there are indications from the 2023 and 2024 monitoring results that the HSI is also elevated at the experimental sampling location. Taken together, these results suggest that sculpin at the experimental location have more energy available to them compared with the upstream sites. These site differences are typically within the CES suggesting that the statistical differences identified between sites do not represent potential effects on slimy sculpin in Bosworth Creek.

Notably, females continue to have consistently higher HSI than males within each sampling reach. Vitellogenin is a protein essential for egg development that is produced and retained in the liver of fish, therefore higher HSI observed for female slimy sculpin may be related to the production of vitellogenin for egg production.

The GSI of female slimy sculpin in 2025 did not significantly differ among sites for both males and females, however, the percent differences for females exceeded the CES of 25% (Table 6-7). These results are similar to those observed in 2023, while in 2024 the GSI was higher in male sculpin from the experimental location, but the percent differences were below the CES. After three years of monitoring, there is evidence that GSI is higher at the experimental location, however, site comparisons using an ANCOVA approach provide a more robust comparison between sites. Similar to HSI, elevated GSI at the experimental location suggests that more resources may be available for sculpin in this reach compared with the upstream references.

Table 6-7: Mean morphometric and fish health measurements for slimy sculpin collected from Bosworth Creek in 2025

Parameter	Sex	AEMP-FS-02 (Exp. Site)		AEMP-FS-01 (Ref. Site)		AEMP-FS-03 (Ref. Site)		Percent Differences for AEMP-FS-02	Sign. Difference	Partial Eta (Site Effect)	Power (1-**β**)
		n[1]	Mean ± SE	n[1]	Mean ± SE	n[1]	Mean ± SE				
Length (mm)	Female	30	67.4 ± 1.51	31	64.74 ± 1.32	31	66.4 ± 1.80	FS-01: 4.2% FS-03: 1.5%	No; p = 0.47	0.02	0.05
	Male	18	69.7 ± 2.7	18	70.7 ± 1.84	17	65.4 ± 2.61	FS-01: -1.4% FS-03: 6.7%	No; p =0.265	0.05	0.06
Weight (g)	Female	30	2.758 ± 0.167	31	2.383 ± 0.173	31	2.551 ± 0.223	FS-01: 15.7% FS-03: 8.1%	No; p =0.308	0.03	0.05
	Male	18	3.256 ± 0.360	18	3.178 ± 0.297	17	2.585 ± 0.350	FS-01: 2.4% FS-03: 26.0%	No; p = 0.199	0.06	0.06
Condition Factor	Female	30	0.87 ± 0.01	31	0.84 ± 0.01	31	0.81 ± 0.01	FS-01: 3.2% FS-03: 6.7%	Yes; p <0.005 FS-02 > FS-03	0.12	0.15
	Male	18	0.89 ± 0.01	18	0.85 ± 0.02	17	0.84 ± 0.02	FS-01: 4.8% FS-03: 6.3%	No; p = 0.068	0.10	0.09
Hepatosomatic Index (HSI)	Female	30	2.17 ± 0.10	31	2.18 ± 0.15	31	1.84 ± 0.11	FS-01: -0.6% FS-03: 17.8%	No; p = 0.086	0.05	0.07
	Male	18	1.45 ± 0.11	18	1.44 ± 0.13	17	1.40 ± 0.15	FS-01: 0.8% FS-03: 3.9%	No; p = 0.896	0.004	0.05
Gonadosomatic Index (GSI)	Female	30	2.37 ± 0.56	31	1.57 ± 0.08	31	1.55 ± 0.06	FS-01: 51.1% FS-03: 53.3%	No; p = 0.077	0.06	0.07
	Male	18[4]	2.21 ± 0.11	18	2.40 ± 0.15	16[4]	1.98 ± 0.18	FS-01: -7.8% FS-03: 12.0%	No; p = 0.140	0.08	0.07

Notes:

Bold text indicates statistically significant differences between sites.

Superscript 1 – 'n' denotes sample size of the respective experimental group

Superscript 2 – denotes that the associated p-value is based on a Fisher-Pitman permutation test because assumptions for the ANOVA test were not met.

Superscript 3 – denotes that a square transformation was applied to the dataset to meet assumptions of normality and/or homoscedasticity for the ANOVA test.

Superscript 4 – Outlier female AEMP-FS-02-31 was removed from AEMP-FS-02 site for GSI statistical comparison due to a high GSI (18.2). Mean presented excludes outlier.

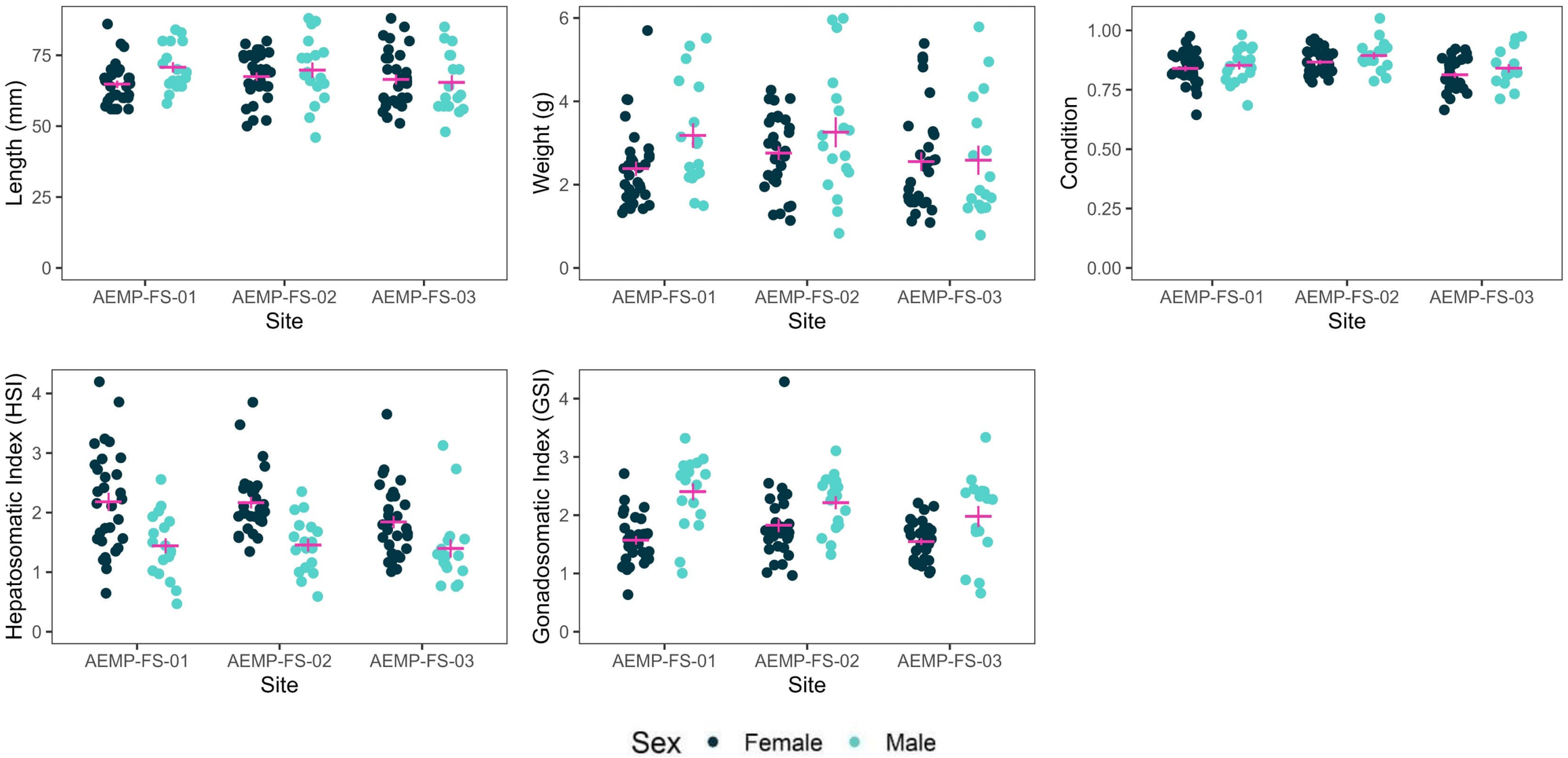

Figure 6-7: Total length (mm), body weight (g), fish condition, hepatosomatic index (HSI), gonadosomatic index (GSI) of Bosworth Creek slimy sculpin collected during the 2025 AEMP. Pink horizontal line indicates mean for each site and sex, while pink vertical line indicates standard error. One female GSI outlier with value of 18.2 was removed from GSI plot to avoid skewing data presented.

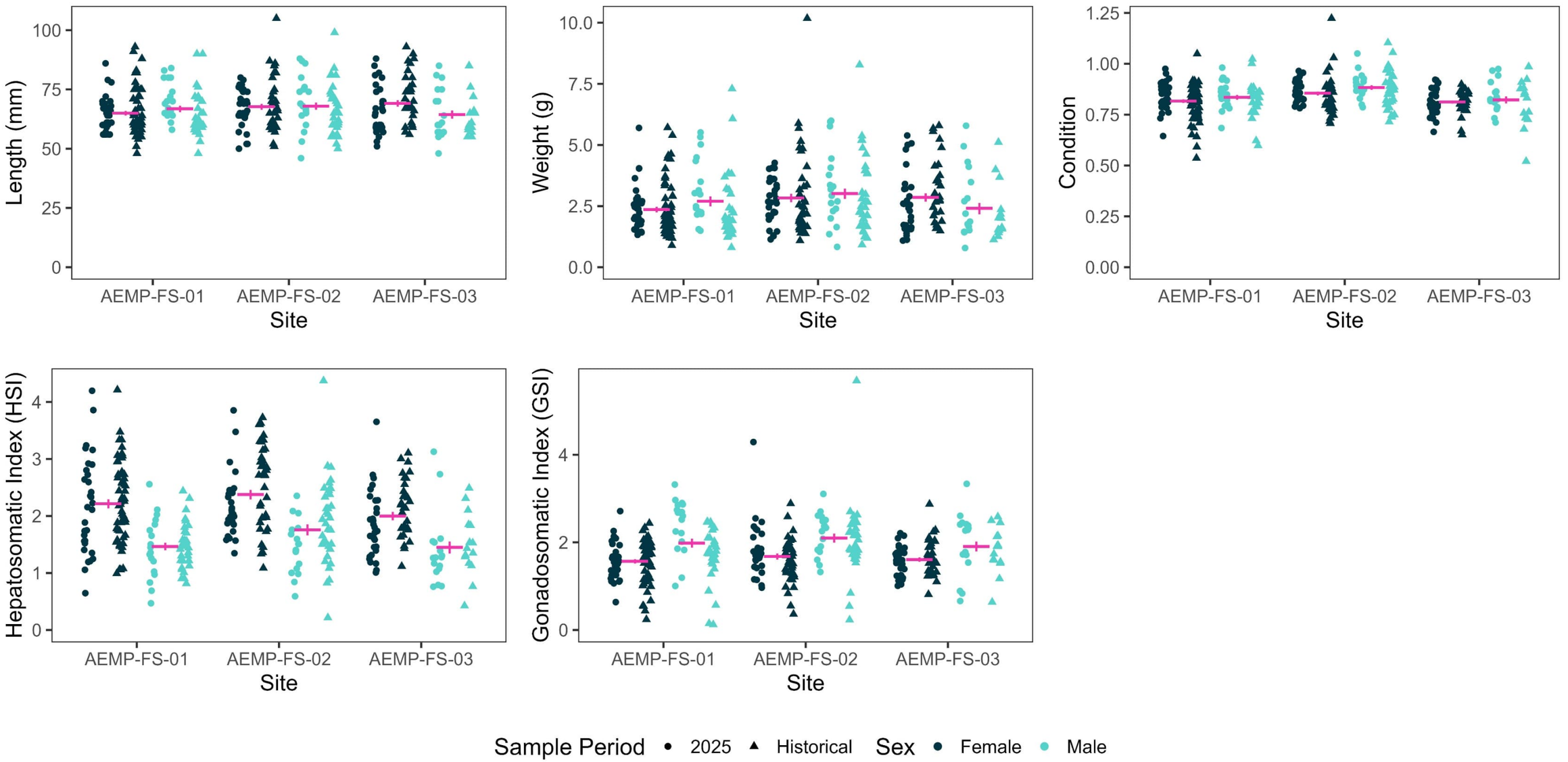

Figure 6-8: Total length (mm), body weight (g), fish condition, hepatosomatic index (HSI), gonadosomatic index (GSI) of Bosworth Creek slimy sculpin collected during the AEMP historically (2023-2024) and in 2025. Pink horizontal line indicates global mean across years for each site and sex, while pink vertical line indicates standard error.

Results of statistical analyses investigating energy availability and allocation through the ANCOVA approach are summarized in Table 6-8 and Table 16. There is one significant interaction between sampling reaches and the relationship with fish length or body weight in 2025. This significant interaction has been noted, however, the relationship between sites assuming parallel slopes also provides a robust site comparison. Consequently, it was assumed that each site had parallel slopes and the distance between regression lines was used to determine site differences. Linear regression relationships between body weight and length, liver weight and body weight, and gonad weight and body weight in 2025 are presented for each sampling reach in Figure 6-9.

The relationship between body weight and fish length verified results based on fish condition suggesting that overall condition of female sculpin is higher at the downstream sampling location (Table 6-8). The ANCOVA analysis indicated that overall condition of females from AEMP-FS-02 was only significantly higher than fish from the AEMP-FS-03 reference site. The percent differences among the reference sites and the experimental site was below the CES in 2025 (Table 6-8). These results are similar to those observed in 2023 when female slimy sculpin had statistically higher condition at the experimental site (TRSA 2024). Percent differences in 2023 were also similar to those observed in 2025 and indicated higher condition at the experimental site, as well as percent differences below the action level CES. These results provide further support that the energy availability at the experimental site (AEMP-FS-02) is higher than the upstream references but site differences do not exceed the CES. These results are not indicative of adverse effects on the slimy sculpin at the experimental site given that condition is a commonly used metric for determining fish health, with higher condition indicating better fish health in general.

Liver weight relative to body weight was highest at the experimental site (AEMP-FS-02) for both males and females in 2025, however, no statistical differences were observed among sites (Table 6-8). In addition, percent differences were below the CES for both reference sites compared with the experimental site. These results suggest that the higher liver weights observed in previous monitoring years could be caused by variability in the sampling results. Overall, there is evidence of higher liver weight in slimy sculpin from the experimental sampling reach, but the magnitude of this effect is unlikely to have an effect on the fish community given that the differences between sites is within the applicable CES. Liver weight relative to body weight helps quantify the energy allocated to survival (e.g. stress response) and contaminant detoxification, therefore these results suggest that slimy sculpin at the experimental site may allocate more resources to these processes.

Gonad weight relative to body weight was similar among sites with no statistically significant differences observed in 2025 which is consistent with results in 2023 and 2024 (Table 6-8). Although the percent differences were high between the reference and experimental sites for GSI, when means were adjusted for body size these site differences were not observed.

Table 6-8: Statistical results of analysis of covariance (ANCOVA) tests for slimy sculpin assessed from Bosworth Creek during the 2025 AEMP

Parameter	Sex	AEMP-FS-02 (Exp. Site)		AEMP-FS-01 (Ref. Site 1)		AEMP-FS-03 (Ref. Site 2)		Percent Differences for AEMP-FS-02	Sign. Diff.	Sign. Interaction	Patial Eta (Site Effect)	Power (1-**β**)
		n[1]	Adj. Mean	n[1]	Adj. Mean	n[1]	Adj. Mean					
Body Weight (Length Covariate)	Female	30	2.451	31	2.376	31	2.289	FS-02:FS-01 = 3.2 FS-02:FS-03 = 7.1	Yes; p < 0.005 FS-02 > FS-03	No; p = 0.206	0.11	0.87
	Male	18	2.789	18	2.606	17	2.658	FS-02:FS-01 = 7.1 FS-02:FS-03 = 4.9	No; p = 0.077	Yes; p < 0.01 FS-02 > FS-01	0.10	0.57
Liver Weight (Body Weight Covariate)	Female	30	0.048	31	0.049	31	0.042	FS-02:FS-01 = -1.6 FS-02:FS-03 = 15.0	No; p = 0.076	No, p = 0.345	0.06	0.53
	Male	17	0.039	18	0.037	16	0.037	FS-02:FS-01 = 5.9 FS-02:FS-03 = 5.3	No; p = 0.935	No; p = 0.178	0.003	0.06
Gonad Weight (Body Weight Covariate)	Female	29[2]	0.040	31	0.036	31	0.036	FS-02:FS-01 = 9.9 FS-02:FS-03 = 11.6	No; p = 0.171	No; p = 0.556	0.04	0.38
	Male	17	0.064	18	0.067	13	0.067	FS-02:FS-01 = -4.8 FS-02:FS-03 = -4.1	No; p = 0.701	No; p = 0.641	0.02	0.11

Notes:

All weights are provided in grams (g).

Bold text indicates statistically significant differences between sites and percent differences above critical effect sizes (CES).

Superscript 1 – 'n' denotes sample size of the respective experimental group

Superscript 2 - Outlier female AEMP-FS-02-31 was removed from AEMP-FS-02 site for high gonad weight statistical comparison.

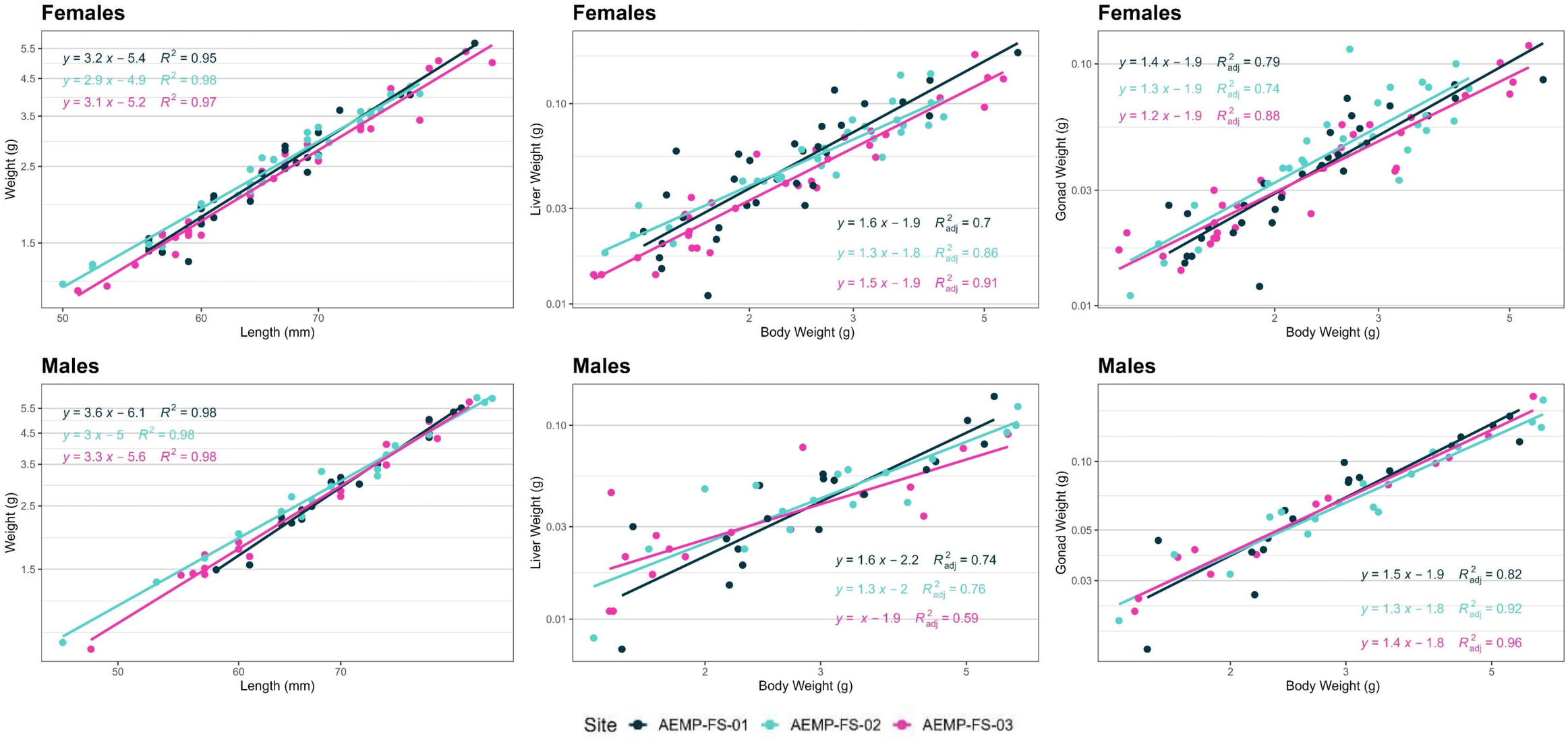

Figure 6-9: Relationships of body weight versus total length (Left), liver weight versus body weight (Centre), and gonad weight versus body weight (Right) for slimy sculpin captured from Bosworth Creek during the 2025 AEMP

The power of statistical analysis is dependent on the variability of the data being analyzed, the size of the difference between groups being compared (measured as the effect size), and the number samples that were tested. For the AEMP the statistical power is estimated for each test based on the number of samples (or individuals) tested in each group and the effect size, which is measured using the partial Eta for the site location variable. For water quality analyses, the sites are grouped into study areas using a blocking approach to provide a more balanced comparison between sites upstream, downstream, and at Norman Wells. Power analyses applied during the AEMP are further described in Section 5.2.1 and the design plan for Version 5 of the AEMP.

Power calculated for many comparisons in 2025 are less than 0.10 which is far below the target of 0.90, however, the cause of low power in these tests is often related to the small effect size between sites or study areas for the variable being tested. In some cases higher variability can reduce the difference that is apparent between sites and this variability can be reduced by accounting for the effect of other variables, such as the effect of flow on chemical concentrations or body size on the size of indicator organs. Where possible, covariates have been incorporated into the site comparison to improve power (e.g. fish health analysis). Applying the ANCOVA in the fish health analysis accounts for a large source of variation and this improves the power of the statistical site comparisons. With the inclusion of the ANCOVA, the sample size for female fish in 2025 met the target power of 0.90 where the effect size is large (partial Eta is ≥0.125).

6.2.1.1 Mixed-Function Oxygenase (MFO) Protein Analysis

The CYP1A1 protein content and total hepatic protein was compared among sites for each sex independently using an ANOVA approach (Table 16). Based on these analyses, the CYP1A1 protein content is higher in male slimy sculpin livers obtained from the experimental site and the original reference location downstream from the winter road (AEMP-FS-01; Table 6-9). Total protein was lower in the livers of slimy sculpin from the AEMP-FS-01 reference site compared with the AEMP-FS-03 reference site, while the experimental site did not differ significantly from either reference (Table 6-9). Historically, the CYP1A protein content has been elevated at the downstream experimental location, however, the highest CYP1A protein concentrations were measured at the AEMP-FS-01 reference location in 2025.

Table 6-9: Liver protein statistical results for site comparisons during the 2025 AEMP

Parameter	Sex	AEMP-FS-02 (Exp. Site)		AEMP-FS-01 (Ref. Site 1)		AEMP-FS-03 (Ref. Site 2)		Percent Differences for AEMP-FS-02	Statistical Difference	Partial Eta (Site Effect)	Power (1-**β**)	CES Range
		n[1]	Mean ± SE	n[1]	Mean ± SE	n[1]	Mean ± SE					
CYP1A (pg/mg protein)	Female	10	18.2 ± 1.18	10	19.1 ± 1.42	10	14.7 ± 0.67	FS-01: -4.6% FS-03: 24.3%	Yes; p < 0.05 FS-01 > FS-03	0.24	0.18	10.73 to 21.94
	Male	10	19.5 ± 1.79	10	21.0 ± 0.99	10	13.6 ± 1.16	FS-01: -7.1% FS-03: 44.0%	Yes; p <0.001 FS-01 and FS-02 > FS-03	0.43	0.49	7.46 to 22.17
Total Protein (µg/mL)	Female	10	6147 ± 223	10	6160 ± 182	10	6699 ± 360	FS-01: -0.2% FS-03: -8.2%	No; p = 0.262	0.09	0.07	4931 to 8153
	Male	10	6092 ± 493	10	5387 ± 132	10	7211 ± 408	FS-01: 13.1% FS-03: -15.5%	Yes; p < 0.01 FS-01 > FS-03	0.32	0.30	4753 to 10065

Notes:

All comparisons included ten individuals from each site and sex unless otherwise noted.

Bold text denotes statistically significant differences between sites and percent differences that exceed critical effect size (CES)

Superscript 1 – 'n' denotes sample size of the respective experimental group

Superscript 2 – denotes that the associated p-value is based on a Fisher-Pitman permutation test because assumptions for the ANOVA test were not met.

The CES ranges presented in Table 6-9 are based on the pooled data from both reference sites including results from 2023 to 2025 for each sex. One female (AEMP-FS-02-41) and three male (AEMP-FS-02-027, AEMP-FS-02-37, and AEMP-FS-02-43) slimy sculpin had CYP1A1 concentrations above the CES, but average CYP1A1 concentrations for both sexes were within the CES range (Table 6-9). Total protein measured in two male (AEMP-FS-02-27 and AEMP-FS-02-37) slimy sculpin from the experimental site had protein concentrations below the CES range, while mean protein concentrations for both sexes remained within the CES range.

6.2.2 Tissue Residue Concentrations

Metal concentrations in slimy sculpin (on a dry weight basis) collected from Bosworth Creek from 2023 to 2025 are provided in Table 17 and summary statistics for each site are provided in Table 18.

The 2025 tissue residue concentrations in sculpin are compared among both reference sites and the experimental site for each KIP in Table 6-10. Sample means and distribution of observations for each KIP are compared with UCLs and other applicable guidelines in Figure 7. The tissue concentrations in slimy sculpin measured for metal KIPs were higher at the original reference location (AEMP-FS-01), while the concentrations at the experimental location and AEMP-FS-03 did not typically differ significantly from each other in 2025 (Table 6-10). Aluminum, barium, chromium, copper, molybdenum and nickel were all significantly higher in both sexes at the AEMP-FS-01 reference location compared with the other two sampling reaches. Selenium was also significantly higher in female slimy sculpin from the AEMP-FS-01 reference compared with the newer upstream reference site (AEMP-FS-03) and experimental site (AEMP-FS-02). Notably, molybdenum was the only metal that had significantly higher tissue concentrations at the experimental site when compared with the newer reference site. In addition, no metal KIP concentrations from the experimental site were significantly higher than the original reference location (AEMP-FS-01).

Tissue concentrations were also compared with control limits based on the tolerance interval calculated from upstream sampling data that represents the CES (Table 6-11). Average concentrations measured in slimy sculpin from the experimental site for each KIP were within control limits and fewer independent measurements were outside the control limit range in 2025. Elevated metal concentrations at the AEMP-FS-01 reference may have contributed to this given that control limits are based on conditions at the two reference locations. Chromium, molybdenum, and selenium each had one observation from the experimental site that were above the UCL in 2025. The cause of increased metal concentrations at the AEMP-FS-01 reference site is unknown, however, these higher concentrations were not observed at the other sampling locations and results met QA/QC requirements suggesting these higher concentrations at the reference are accurate and unrelated to NWO given that these concentrations were observed upstream from the NWO.

Wet weight tissue residue concentrations in slimy sculpin collected from 2023 to 2025 are compared with the toxicological thresholds in Figure 8. Selenium concentrations on a dry weight and wet weight basis in 2025 are compared with UCLs, the FEQG, and SETAC toxicological threshold in Figure 6-10. One female from the experimental site in 2025 had a selenium concentration above the UCL and exceeded the FEQG for selenium. In addition, one male from the experimental site had a selenium concentration above the FEQG in 2025 but was below the UCL. Each of the reference reaches had three sculpin with selenium concentrations above the FEQG. The number of selenium concentrations above the FEQG in 2025 was similar to that observed in 2024, which represented a decrease from the number of exceedances observed in 2023 (Table 17). In 2025, nine sculpin collected from the AEMP-FS-01 reference had selenium concentrations above the SETAC threshold, whereas only two measurements from each of the other sampling reaches exceeded the SETAC threshold. Although selenium concentrations at all Bosworth Creek sampling locations occur above the SETAC threshold from 2023 to 2025, the mean concentration from each site remains below the threshold. Given that these selenium concentrations were recorded at sites upstream and downstream from the NWO, results suggest that elevated selenium in Bosworth Creek slimy sculpin are not related to NWO activities.

Zinc and aluminum were the only KIPs apart from selenium with concentrations above the SETAC threshold in 2025 (Figure 8). Zinc concentrations above the SETAC threshold occur occasionally in Bosworth Creek at reference and experimental sampling locations, however, aluminum concentrations have typically been below the SETAC threshold historically. High aluminum was observed at the original reference site (AEMP-FS-01) in 2025, but concentrations remained below the SETAC threshold at the other two sampling sites (Figure 8).

Threshold levels developed by SETAC to infer the potential for adverse health effects in fish, are based on wet weight tissue concentrations and use existing toxicological data to determine if a potential for adverse effects exists based on the tissue residue concentration measured. Mercury is not a KIP in the AEMP, however, mercury is known to bioaccumulate in biological tissue and is often a concern for stakeholders and local consumers. Consequently, wet weight mercury concentrations are compared with the Health Canada ML which sets a limit for mercury in foods within Canada as well as SETAC threshold (Figure 6-11). Mercury concentrations measured in slimy sculpin from Bosworth Creek are well below both these quality criteria.

Table 6-10: Statistical comparison results for key indicator parameters measured in slimy sculpin tissue during the 2025 AEMP

Parameter	Sex	AEMP-FS-02 (Exp. Site) Mean ± SE	AEMP-FS-01 (Ref. Site) Mean ± SE	AEMP-FS-03 (Ref. Site) Mean ± SE	% Detect	Trans[1]	Test Stat[2]	Sign. Diff.	Partial Eta (Site Effect)	Power (1-**β**)
Aluminum	Female	11.2 ± 2.52	50.9 ± 12.0	5.42 ± 0.74	100	Log10	25.43	Yes; p <0.001 FS-01 > FS-02 and FS-03	0.64	0.85
	Male	12.13 ± 2.53	42.3 ± 9.0	9.57 ± 2.44	100	Log10	16.93	Yes; p <0.001 FS-01 > FS-02 and FS-03	0.56	0.73
Arsenic	Female	---	---	---	9	---	---	---	---	---
	Male	---	---	---	7	---	---	---	---	---
Barium	Female	0.41 ± 0.04	0.96 ± 0.14	0.29 ± 0.02	100	Log10	29.55	Yes; p <0.001 FS-01 > FS-02 and FS-03	0.67	0.88
	Male	0.44 ± 0.05	0.80 ± 0.11	0.35 ± 0.03	100	Log10	17.7	Yes; p <0.001 FS-01 > FS-02 and FS-03	0.57	0.75
Cadmium	Female	---	---	---	6	---	---	---	---	---
	Male	---	---	---	7	---	---	---	---	---
Chromium	Female[3]	1.31 ± 0.14	3.01 ± 0.44	0.92 ± 0.02	100	None	17.42	Yes; p < 0.0001 FS-01 > FS-02 and FS-03	0.65	0.86
	Male	1.21 ± 0.09	2.87 ± 0.34	0.97 ± 0.06	100	Log10	41.32	Yes; p < 0.0001 FS-01 > FS-02 and FS-03	0.75	0.95
Copper	Female	1.73 ± 0.11	2.4 ± 0.16	1.93 ± 0.09	100	None	7.706	Yes; p < 0.005 FS-01 > FS-02 and FS-03	0.35	0.35
	Male	1.95 ± 0.09	2.35 ± 0.12	1.91 ± 0.09	100	None	5.836	Yes; p < 0.01 FS-01 > FS-02 and FS-03	0.30	0.27
Molybdenum	Female[3]	0.035 ± 0.003	0.093 ± 0.022	0.048 ± 0.00	59	lognormal	23.73	Yes; p < 0.001 FS-01 > FS-02 and FS-03	0.46	0.57
	Male	0.054 ± 0.005	0.072 ± 0.009	0.036 ± 0.0	73	lognormal	24.08	Yes; p < 0.001 FS-01 and FS-02 > FS-03	0.51	0.66
Nickel	Female	3.639 ± 0.712	13.04 ± 2.25	1.467 ± 0.112	100	Log10	33.03	Yes; p < 0.001 FS-01 > FS-03 > FS-02	0.69	0.91
	Male	3.33 ± 0.577	12.54 ± 1.92	1.657 ± 0.271	100	Log10	42.69	Yes; p < 0.001 FS-01 > FS-03 > FS-02	0.76	0.95
Selenium	Female	4.73 ± 0.46	5.98 ± 0.37	4.46 ± 0.24	100	Log10	5.075	Yes; p <0.05 FS-01 > FS-02 and FS-03	0.26	0.21
	Male	4.88 ± 0.30	5.37 ± 0.59	5.19 ± 0.51	100	Log10	0.126	No; p = 0.882	0.01	0.05
Uranium	Female	---	---	---	9	---	---	---	---	---
	Male	---	---	---	3	---	---	---	---	---
Zinc	Female[3]	46.3 ± 3.58	55.6 ± 6.78	45.4 ± 5.94	100	None	2.089	No; p = 0.384	0.09	0.07
	Male	55.2 ± 3.23	65.5 ± 5.73	51.2 ± 2.99	100	None	3.329	No; p = 0.051	0.20	0.14

Notes:

All concentrations presented as mg/kg dry weight.

Bold text indicates statistically significant differences between sites.

All comparisons included ten individuals from each site and sex unless otherwise noted.

Superscript 1 – ‘Trans’ denotes the data transformation applied to meet assumptions of the ANOVA statistical test.

Superscript 2 – Test statistic provided is dependent on the test applied. For ANOVA analyses the F-statistic is provided, while when a permutation test is applied the test statistic provided is the Z score.

Superscript 3 - denotes that the associated p-value is based on a permutation statistical analysis because data did not meet assumptions of the ANOVA and data transformation could not meet assumptions.

Table 6-11: Critical Effect Size (CES) Ranges for metal KIPs measured in slimy sculpin tissue during the 2025 AEMP

Parameter	Sex	Lower Limit	Upper Limit	AEMP-FS-02 (Mean)	AEMP-FS-02 (Range)	2025 Summary	2024 Summary
Aluminum	Female	1.63	30.37	11.2	3.0 to 28.0	Average within CES; no observations outside CES limits	Average within CES; no observations above CES
	Male	1.46	53.14	12.1	3.8 to 27	Average within CES; no observations outside CES limits	Average within CES; 1 observation over CES
Arsenic	Female	Insufficient data above detection to compare experimental site conditions to reference sites					
	Male	Insufficient data above detection to compare experimental site conditions to reference sites					
Barium	Female	0.18	1.21	0.41	0.25 to 0.77	Average within CES; no observations outside CES limits	Average within CES; no observations outside CES limits
	Male	0.19	1.51	0.44	0.25 to 0.77	Average within CES; no observations outside CES limits	Average within CES; no observations outside CES limits
Cadmium	Female	Insufficient data above detection to compare experimental site conditions to reference sites					
	Male	Insufficient data above detection to compare experimental site conditions to reference sites					
Chromium	Female	0.48	2.06	1.31	0.73 to 2.2	Average within CES; 1 observation over CES	Average within CES; no observations outside CES limits
	Male	0.44	2.62	1.21	0.88 to 1.70	Average within CES; no observations outside CES limits	Average within CES; no observations outside CES limits
Copper	Female	1.22	2.51	1.73	1.11 to 2.3	Average within CES; no observations outside CES limits	Average within CES; 2 observations over CES
	Male	1.25	2.77	1.95	1.7 to 2.6	Average within CES; no observations outside CES limits	Average within CES; no observations outside CES limits
Molybdenum	Female	0.012	0.08	0.035	0.023 to 0.048	Average within CES; no observations outside CES limits	Average within CES; 1 observation over CES
	Male	0.013	0.096	0.054	0.043 to 0.096	Average within CES; 1 observation over CES	Average within CES; no observations outside CES limits
Nickel	Female	0.30	7.47	3.64	1.1 to 8.9	Average within CES; no observations outside CES limits	Average within CES; no observations outside CES limits
	Male	0.31	11.37	3.33	1.45 to 6.5	Average within CES; no observations outside CES limits	Average within CES; no observations outside CES limits
Selenium	Female	3.11	7.32	4.73	3.16 to 9.3	Average within CES; 1 observation over CES	Average within CES; 2 observations over CES
	Male	3.10	8.07	4.88	4.04 to 7.2	Average within CES; no observations outside CES limits	Average within CES; no observations outside CES limits
Uranium	Female	Insufficient data above detection to compare experimental site conditions to reference sites					
	Male	Insufficient data above detection to compare experimental site conditions to reference sites					
Zinc	Female	34.61	81.38	46.3	33 to 77	Average within CES; no observations outside CES limits	Average within CES; 1 observation over CES
	Male	37.36	91.50	55.2	44 to 71	Average within CES; no observations outside CES limits	Average within CES; no observations outside CES limits

Notes:

All concentrations presented as mg/kg dry weight.

Critical effect size (CES) limits are calculated from pooled upstream results from both reference sites in 2025.

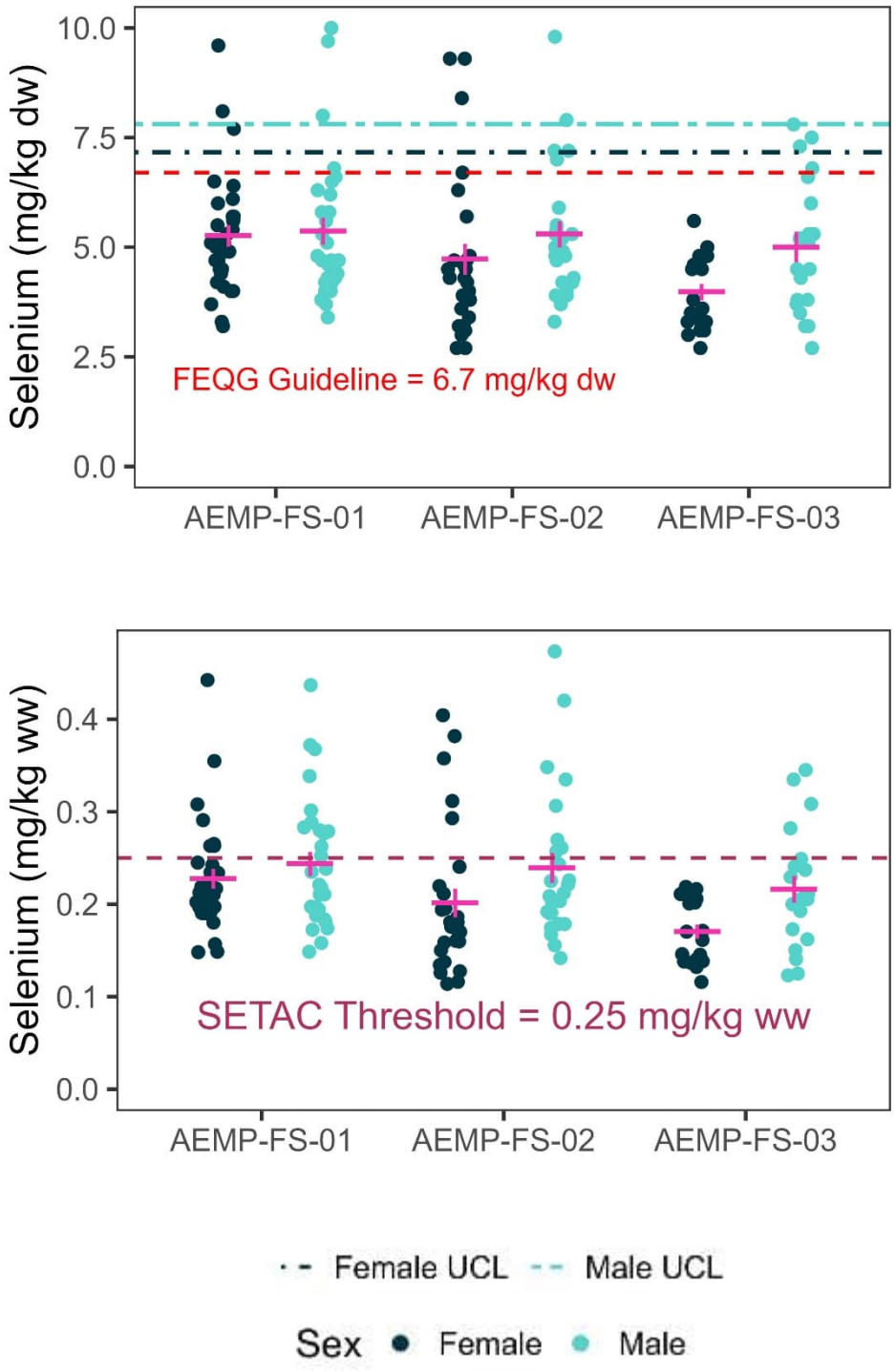

Figure 6-10: Selenium tissue residue concentrations on a dry weight (Top) and wet weight (Bottom) basis for slimy sculpin collected from Bosworth Creek from 2023 to 2025

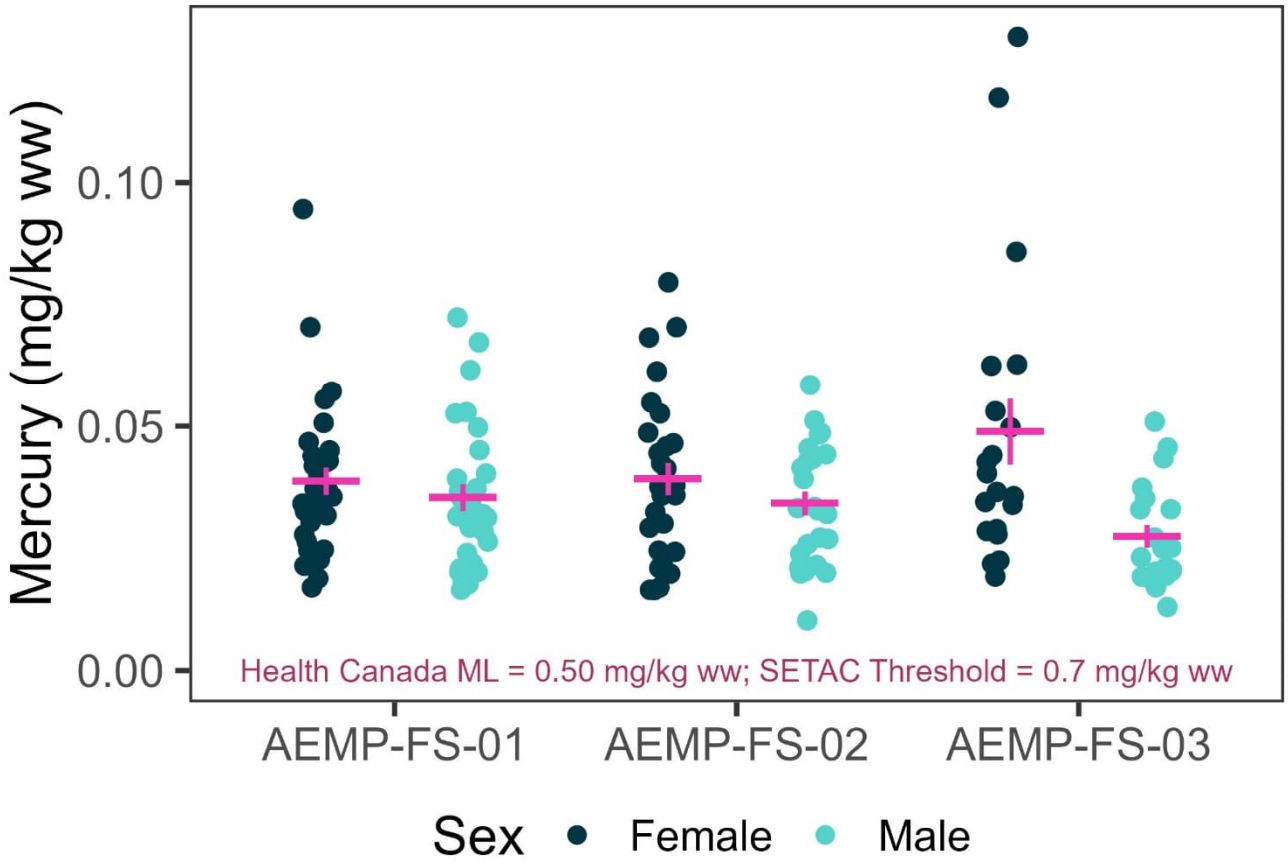

Figure 6-11: Wet weight mercury concentrations (mg/kg) in slimy sculpin captured from Bosworth Creek from 2023 to 2025. Horizontal pink line represents the mean concentration and vertical pink line represents the standard error.

6.2.2.1 Polycyclic Aromatic Hydrocarbons (PAHs) Tissue Residue

Parent PAH and aPAH tissue residue concentrations in slimy sculpin from Bosworth Creek from 2023 to 2025 are summarized in Table 19 and Table 20, respectively. The total PAH concentrations from 2023 to 2025 are summarized in Table 6-12. Parent PAHs constituted a low proportion of the overall PAH concentration in slimy sculpin tissue given that alkylated PAHs represented 78% to 94% of the total PAHs measured. Total PAH concentrations in 2025 were the highest recorded at each of the sites sampled since 2023. In addition, the total PAH concentration at the experimental sampling reach was nearly double (AEMP-FS-01) or triple (AEMP-FS-03) that measured from the upstream reference sites. This is the first year that PAH concentrations at the experimental location have been notably higher than the upstream references, however, the concentration measured is similar to that observed at reference locations in the Oil Sands region of Alberta (Section 6.4). In addition, carcinogenic potential (measured as PEQ) at each of the sampling locations remain low at each of the sampling reaches in 2025.

Table 6-12: Total Parent and Alkylated PAH Concentrations in Bosworth Creek (2023 to 2025)

Site	Sampling Year	Parent PAHs (ng/g)	Alkylated PAHs (ng/g)	Percent Alkylated PAH	Total PAHs (ng/g)	PEQ (ng-BaP/g)
AEMP-FS-01	2023	2.8 (8%) – 3.3 (9%)	31.8 -32.0	90%	34.6 – 35.4	0.0012 – 0.2369
	2024	3.8 – 4.4	24.4 – 25.4	85%	28.2 – 29.8	0.0 – 0.3578
	2025	5.2 – 5.7	44.5 – 44.7	89%	49.7 – 50.4	0.0009 – 0.2925
AEMP-FS-02	2023	4.2 – 4.5	40.7 – 40.8	90%	44.9 – 45.3	0.0649 – 0.2152
	2024	3.9 – 4.4	25.6 – 26.2	86%	29.4 – 30.6	0.0012 – 0.2191
	2025	5.4 – 5.9	90.1 – 90.5	94%	95.5 – 96.3	0.1423 – 0.3594
AEMP-FS-03	2023	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
	2024	3.2 - 3.5	12.0 – 12.5	78%	15.2 – 16.0	0.0009 – 0.1597
	2025	5.8 – 6.3	27.3 – 27.8	82%	33.0 – 34.1	0.0010 – 0.3562

Notes: Values are presented as a range from the lowest possible concentration calculated by replacing results below detection with zero and the highest possible concentration calculated by replacing results below detection with the detection limit.

Apart from one measured concentration of 5/6-Methylchrysene documented at the experimental location, chrysene was the only carcinogenic PAH measured above the reportable detection limit in 2025. This is similar to results from 2024 where chrysene was the only carcinogenic PAH measured in slimy sculpin tissue. Consequently, the carcinogenicity of PAHs in Bosworth Creek slimy sculpin (measured as PEQ) remains low in tissue (Table 6-12). There are currently no tissue residue guidelines for carcinogenic PAHs in wild fish, however, maximum levels for protection of human consumers established by Health Canada (3 ng-BaP/g; Health Canada 2020) and the European Commission (1 ng-BaP/g for protection of infants; Evans et al. 2019) are higher than PEQs measured in Bosworth Creek slimy sculpin.

The profile of PAHs/aPAHs measured in slimy sculpin from Bosworth Creek, as well as inconnu and whitefish from the Mackenzie River in 2025 are provided in Figure 6-12. The PAHs that contribute most to the overall PAH concentration are similar between the watercourses, however the overall concentrations are lower in inconnu and whitefish from the mainstem of the river (note the different axis range between Bosworth Creek and the Mackenzie River in Figure 6-12). For comparison, the profile of PAH concentrations in 2023 and 2024 in slimy sculpin from Bosworth Creek are provided in Figure 6-10. Overall, the profile of PAHs present in fish tissue was similar between years and the different species analyzed in 2025. Notably, large-bodied fish from the pilot LFS appear to have a higher proportion of parent and alkylated PAHs and lower proportion of C4-Phenanthrene/Anthracene compared with slimy sculpin from Bosworth Creek. Despite this, parent and alkylated naphthalenes and phenanthrenes/anthracenes have been the most abundant PAHs in Bosworth Creek slimy sculpin each year since 2023.

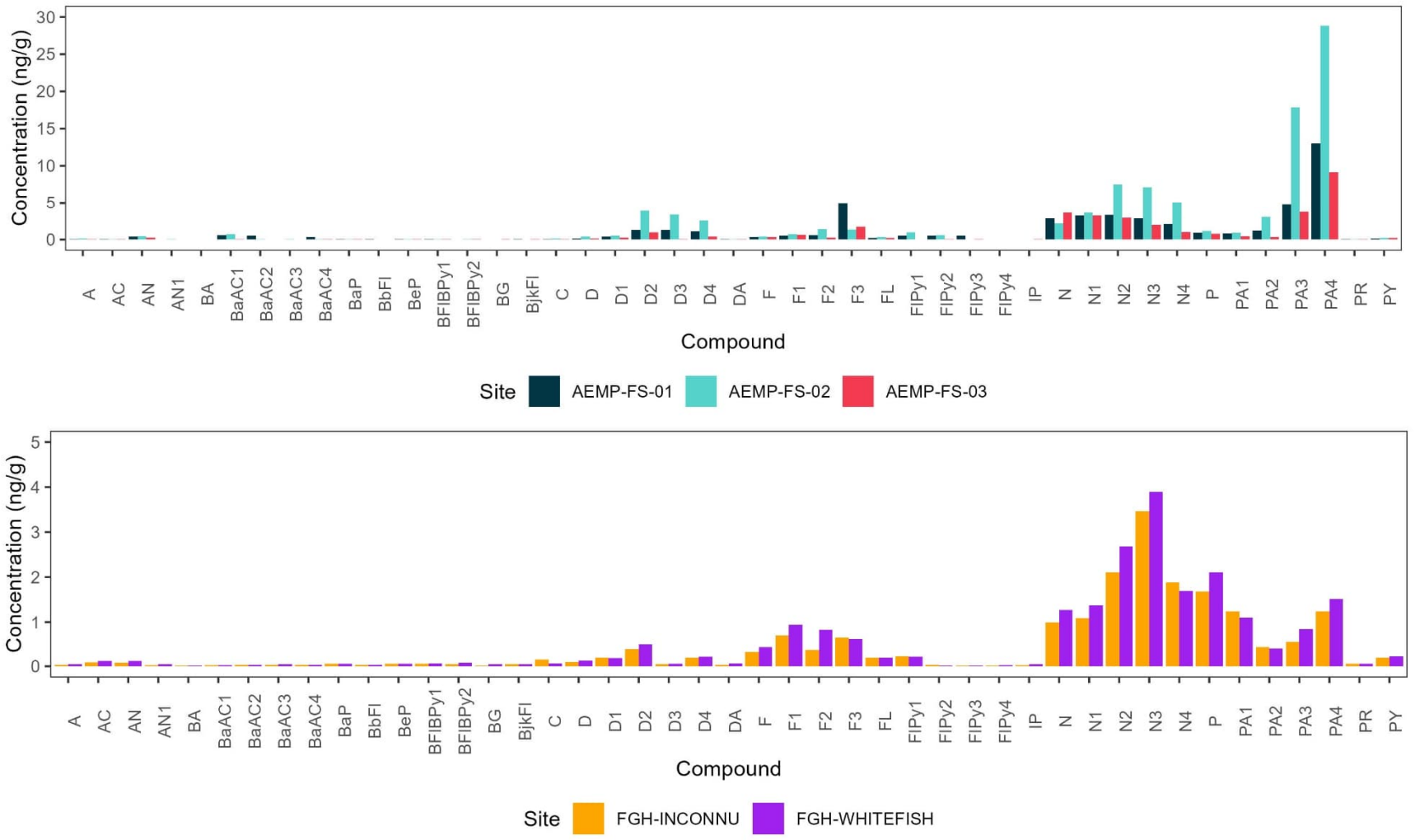

Figure 6-12: Polycyclic Aromatic Hydrocarbon (PAH) profiles of Slimy Sculpin from Bosworth Creek (Top) and in inconnu and whitefish from the Mackenzie River (Bottom) in 2025

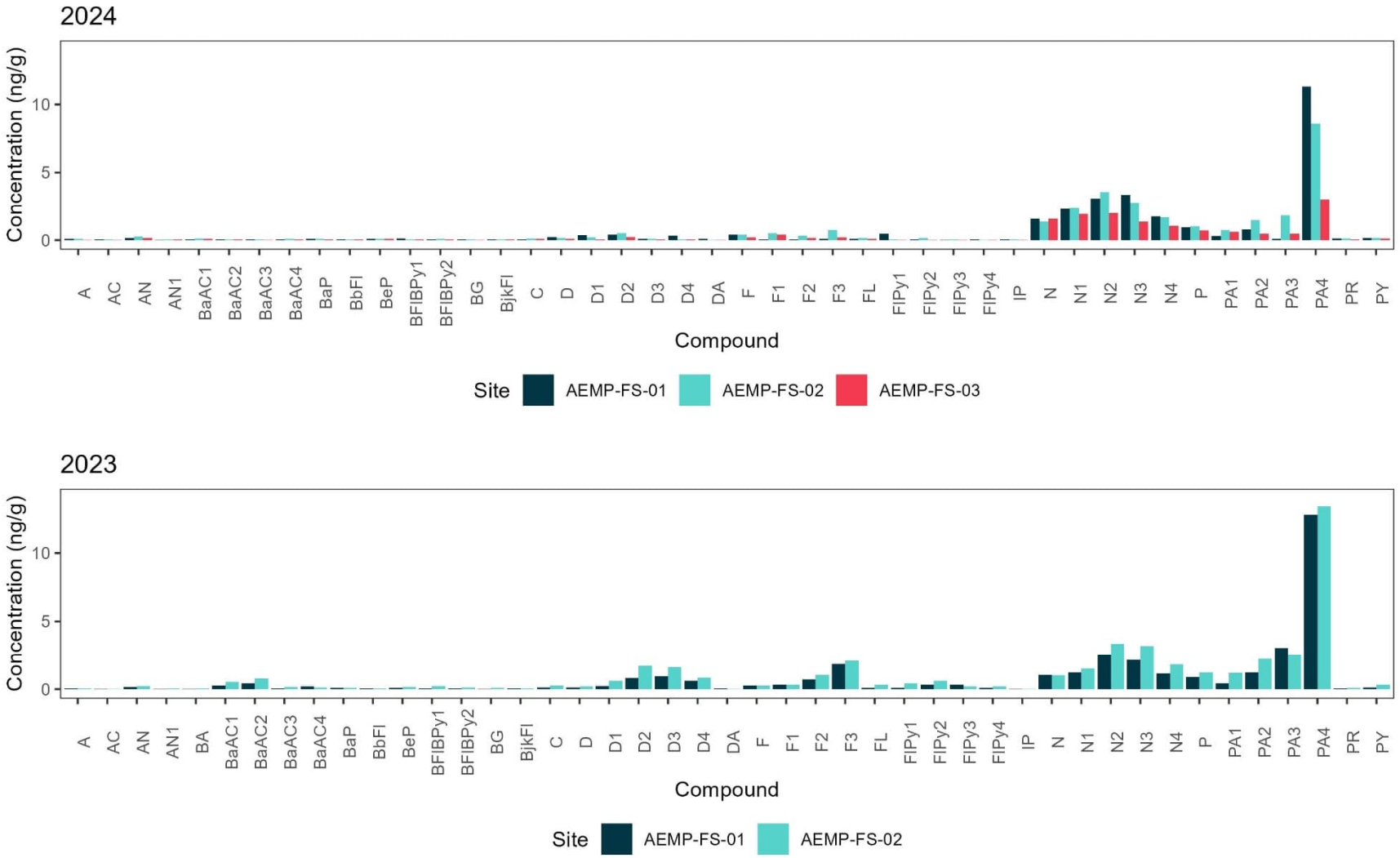

Figure 6-13: Polycyclic Aromatic Hydrocarbon (PAH) profiles of Slimy Sculpin from Bosworth Creek in 2023 (Bottom) and 2024 (Top)

6.3 Pilot Large-bodied Fish Health Study (LFS) Results

The pilot for the LFS occurred in Fort Good Hope from September 9 to 11, 2025. The pilot demonstrated strong community engagement with Elders remaining present throughout the day. As a result, the pilot supported intergenerational transfer of knowledge by creating an opportunity for Elders and youth to engage together on an issue of shared concern to the community while contributing to the development of the LFS component of the AEMP. This pilot provided effective proof of concept for future implementation of the LFS as a CBM activity. It demonstrated that the required sampling methods can be applied successfully in a community setting while also supporting broader objectives related to participation, knowledge sharing and local relevance in long-term aquatic effects monitoring.

Overall, the approach of the LFS was well-received by the community and fostered knowledge sharing between youth and Elders, as well as western science approaches and traditional knowledge. The pilot program identified that providing areas adjacent to the fish processing station to relax and communicate around a fire and enjoy tea would be beneficial particularly for Elders. Such socialization areas would promote further knowledge sharing and would separate fish processing areas that are typically highly controlled, highly congested, and provide little comfort. Translation services would be beneficial during the LFS to promote communication for community members that are not fluent with English, as well. There was an emphasis from community members on their desire to have program results communicated back in an accessible format through community meetings and understandable summary documents and posters.

6.3.1 Fish Health Metrics

Three inconnu (a.k.a. coney) and three whitefish were captured and dissected during the pilot LFS in 2025. Each fish was dissected with Elders from the community and the working group, as well as different grades from the Fort Good Hope school. Elders stated that the meat appeared to be high quality, although some of the fish had been deceased too long for them to process the meat according to their usual ways. This identified that it is beneficial to process fish quickly after they die from both a traditional and western science perspective. Internal and external examinations indicated few abnormalities and good condition overall. All of the male inconnu and whitefish appeared to be spent suggesting they had already spawned while females were ripe meaning that their eggs were well-developed and prepared for spawning but they had not yet spawned. The GSI values for the fish dissected during the LFS pilot reflect these different life-history stages at the time of capture (Table 6-13). Females had notably higher HSI values indicating larger livers which is somewhat expected given that the liver is a key organ in the production of eggs by producing the key nutritional protein, vitellogenin. Fish condition suggested good health overall, particularly for female whitefish.

Table 6-13: Fish Health Metrics for fish assessed during the Pilot LFS in 2025

Fish Species	Sample ID	Sex	Fork Length (mm)	Body Weight (g)	Condition	Liver Size Index (HSI)	Gonadosomatic Index (GSI)
FGH-Inconnu	FGH-1	Male	670	3620	1.2	0.8	1.4
	FGH-4	Female	780	5130	1.08	1.0	15.2
	FGH-6	Male	680	3350	1.07	0.7	1.4
FGH-Whitefish	FGH-2	Female	530	2960	1.99	2.0	20.4
	FGH-3	Male	545	1930	1.19	0.5	1.4
	FGH-5	Female	528	2200	1.49	1.5	17.0

6.3.2 Tissue Residue Concentrations

Metal concentrations for inconnu and whitefish collected during the 2025 pilot are provided in Table 17 alongside results for slimy sculpin. Metal concentrations were typically lower than or similar to those observed in slimy sculpin from Bosworth Creek. Mercury was the only exception with higher concentrations being measured in inconnu and whitefish, most likely due to the higher trophic status of these species compared with slimy sculpin. Similarly, PAH concentrations were also lower in inconnu and whitefish from the Mackenzie River compared with concentrations found in slimy sculpin from Bosworth Creek (Table 6-14).

Table 6-14: Tissue Concentrations of PAHs in large fish assessed during the Pilot LFS in 2025

Sample ID	Fish Species	Parent PAHs (ng/g)	Alkylated PAHs (ng/g)	Total PAHs (ng/g)	PEQ (ng-BaP/g)
FGH-Inconnu	Inconnu	3.8 – 4.2	14.7 – 15	18.5 – 19.1	0.0015 – 0.1748
FGH-Whitefish	Whitefish	4.7 – 5.1	17.0 – 17.4	21.7 – 22.5	0.0007 – 0.2502

6.4 Connections to other Studies and Relationships with the Accumulated Environmental State (AES)

The NW AEMP is one of many environmental monitoring programs within Canada. Including local communities in the execution of these programs is becoming more common and this provides numerous benefits for the program and the community as well (Mercer et al. 2023). In the Alberta Oil Sands region, Golzadeh et al. (2021) used a community-sampling approach to determine the concentration of metals (e.g. selenium and mercury) and PAHs in a variety of traditional foods. This study included an analysis of PAHs in whitefish muscle and liver tissue and measured concentrations of approximately 5 ng/g ww and approximately 12 ng/g ww in these tissues, respectively. Notably, the PAH concentrations found in the muscle sample from whitefish from the Mackenzie River during the 2025 pilot LFS is higher than that observed by Golzadeh et al. (2021).

Despite being elevated, the concentrations observed in Mackenzie River whitefish and inconnu in 2025 were below other traditional foods measured such as moose, duck, and bear (Golzadeh et al. 2021).

Slimy sculpin tissue concentrations in Bosworth Creek were compared with concentrations obtained from the sentinel fish program done as part of the Regional Aquatics Monitoring Program in the Alberta Oil Sands Region that is synthesized by Evans et al. (2019). This work included sampling slimy sculpin from reference and experimental locations throughout the Alberta Oil Sands Region in 2012 and 2013. The PAH concentrations measured in slimy sculpin from the experimental location in Bosworth Creek were similar to concentrations found at reference locations in the Oil Sands Region, while sculpin from the reference locations on Bosworth Creek were below those measured throughout the Oil Sands Region (Evans et al. 2019). Sculpin from these studies also had a high proportion of aPAHs that typically ranged from 70% to 90%, while other sentinel species such as lake chub and trout-perch had higher proportions of parent PAHs.

Concentrations of metals including mercury, cadmium, arsenic, and lead were characterized in traditional foods across Canada as part of the First Nations Food, Nutrition, and Environment Study (FNFNES). Although this program did not include the Territories, it characterized metal concentrations across all the provinces from 2008 to 2018 (Chan et al. 2016; Chan et al. 2021). In Alberta, the tissue concentrations from 2013 were summarized for traditional foods measured as part of the FNFNES study. Metal concentrations measured in whitefish from the Mackenzie River were compared with the arsenic, cadmium, lead, and mercury concentrations. For the whitefish collected in Fort Good Hope, the arsenic concentration was below detection in two samples and the measured concentration in the third sample (0.018 mg/kg ww) was below the average concentration found in whitefish measured during the FNFNES (0.062 mg/kg ww). Cadmium concentrations were all below detection in the Mackenzie River whitefish, while lead concentrations were similar to those found in whitefish from Alberta. The average mercury concentration in Mackenzie River whitefish was 0.014 mg/kg ww, while the FNFNES documented an average concentration of 0.243 mg/kg in whitefish. Results for these metals in inconnu were similar to those documented for whitefish.

In 2025 Fort Good Hope samples, wet-weight mercury concentrations were higher in inconnu (0.064 to 0.099 mg/kg ww) than in whitefish (0.005 to 0.024 mg/kg ww), while selenium concentrations ranged from 0.07 to 0.09 mg/kg ww in inconnu and 0.02 to 0.14 mg/kg ww in whitefish. By comparison, Golzadeh et al. (2020) reported wet-weight total mercury concentrations in animal tissues up to 0.11 ± 0.03 mg/kg ww and wet-weight selenium concentrations in fish liver of about 1.11 to 1.12 mg/kg ww, with aquatic fish tissues among the higher mercury samples in that study. The Fort Good Hope results reported from the pilot suggest lower mercury and selenium tissue concentrations than those observed in Alberta (Golzadeh et al. 2020), however larger sample sizes are needed to confirm concentrations in large-bodied fish from the Mackenzie River.

The GNWT community-based monitoring program has been sampling lakes and rivers throughout the NWT since 2012 and sampling is ongoing at several sites with the study area of the NW AEMP. Data from this program is available for the mainstem of the Mackenzie River at Tulit'a, Norman Wells (upstream and downstream), and at Fort Good Hope on the Mackenzie Datastream websites (Mackenzie Datastream 2026). In addition, this community-based program also has sites along Bosworth Creek at the lower and upper bridge crossings in Norman Wells. A 10-year summary report for the program was released in 2025 and identified concentrations above guideline at the Tulit'a sampling location, primarily for total aluminum, cadmium, copper, iron, and lead. These exceedances were attributed to the high turbidity of the Mackenzie River downstream from its confluence with the Liard River (GNWT 2025). No water chemistry differences were observed between sites in Norman Wells compared with conditions upstream to Tulit'a and downstream to Inuvik over the 10-year monitoring period (GNWT 2025). Total metal concentrations that exceed CCME guidelines were similar to those that exceeded guidelines in the Tulit'a area. The design of the AEMP in Version 5 includes submission of all monitoring data collected during the AEMP to be submitted to the Mackenzie Datastream. This will facilitate comparison of results from the AEMP with results from the GNWT CBM program.

An increasing chloride trend was identified in 2024 at the experimental site in Bosworth Creek, this was again noted in 2025, however, when changing flow conditions in Bosworth Creek were accounted for, no trend was observed. The maximum chloride concentration recorded during the AEMP at any site is 40 mg/L. This concentration remains below the applicable guideline (CCME guideline = 120 mg/L) as well as similar to the average chloride concentrations previously measured in Bosworth Creek between the 1950's and early 2000's (35 mg/L; Collins et al. 2011). Notably, two chloride concentrations measured in the early 1970's were 45.4 mg/L and 69 mg/L in November and June, respectively (Senes Consultants Ltd and Guthrie 2009). These results suggest that potential increasing trends for chloride are not indicative of a change from historical conditions or a potential risk to aquatic life.

7. Action Level Threshold Summary

The AEMP requires response criteria to provide context to annual results and to identify whether changes to the monitoring design, statistical evaluation, or data presentation are warranted. As with previous years, the AEMP is primarily capable of supporting adaptive monitoring rather than identifying or prescribing specific operational changes at NWO. In addition, some responses based on temporal trend analysis remain constrained by the length and maturity of the available dataset. Scenarios requiring action within the surface water quality program and associated responses are presented in Table 7-1. Based on the 2025 results, no major changes to the core 2026 surface water sampling program are required; however, several data interpretation refinements and continued dataset development are warranted

7.1 2025 Surface Water Quality Monitoring

Table 7-1: Action Level Threshold Summary - Surface Water

Item	Scenario	Contingency Planning	Triggers in 2025 Program	Required Changes for 2026
1.	Detection of KIPs at concentrations above background, but below applied regulatory guidelines.	• Continue seasonal sampling as planned. • Evaluate whether the situation is stable, using control charting and trend analysis. • If/where patterns persist, review related non-KIP parameters • If/where patterns exist, review supporting hydrological context	Several parameters were above upstream control limits in 2025, particularly major ions and total metals at selected Mackenzie River downstream locations. In Bosworth Creek, some major ions remained elevated compared to earlier years, but patterns occurred both upstream and downstream	No change to the core seasonal surface water program. Continue developing upstream datasets and retain the current spatial design. Continue reporting hydrological context with chemistry results and refine interpretation of background variability as datasets mature.
2.	Detection of primary KIPs at concentrations exceeding both background and applied regulatory guidelines.	• Continue seasonal sampling as planned. • Evaluate whether exceedances are spatially consistent, repeated over time, and are associated with increasing trends • If warranted, consider additional site characterization or targeted delineation in future years.	In 2025, several total metals exceeded aquatic life guidelines in the Mackenzie River, but most exceedances occurred at both upstream and downstream locations and were consistent with seasonal suspended sediment influence. Bosworth Creek exceedances were limited and isolated	No additional delineation sampling is required for 2026 at this time. Continue current monitoring and reassess as the upstream and downstream datasets expand. Re-evaluate whether any parameters show repeated exceedances at the same downstream locations independent of upstream conditions

Item	Scenario	Contingency Planning	Triggers in 2025 Program	Required Changes for 2026
3.	Statistically significant increasing or decreasing temporal trends in KIPs	• Continue annual trend assessment using the full historical dataset • If/where trends are identified, evaluate whether they are occurring upstream, downstream, or in both areas • If/where trends are identified, determine whether they are site-specific or watershed-scale in nature	In 2025, increasing trends were identified for several metals and ionic parameters on the Mackenzie River at the marine dock, Island 3, and refinery sites. Specific variables with increasing trends include sulphate, TDS, aluminum, barium, molybdenum, selenium, uranium, and zinc. In Bosworth Creek, chloride, sulphate and TDS trends were attributed to flow, and metal trends (copper, iron, and nickel) were decreasing at the downstream site.	No change to 2026 field sampling frequency is required. Continue Kendall trend analysis accounting for flow where a relationship exists and maintain both upstream and downstream sampling locations. Confirm trend interpretation in 2026 with the updated dataset and continue distinguishing watershed-scale trends from potential local effects.
4.	Evidence that current control limits or background comparisons may be influenced by evolving upstream conditions	• Continue using upstream control limits while recognizing that upstream dataset is evolving • Update control limits as additional upstream data become available and evaluate whether site groupings or alternative control-chart approaches improve interpretation	In 2025 some Mackenzie River upstream stations also showed observations outside control limits, and long-term trends were identified in upstream data. This indicates that the upstream reference data itself is changing over time.	Continue evaluating whether flow-corrected approaches or revised upstream grouping improve comparison of upstream and downstream conditions. Revise site area groupings and investigate when more robust statistical analyses can be reliably used as the upstream and downstream datasets grow.

7.2 2025 Fish Health Monitoring

Fewer action level threshold triggers were documented in 2025 compared with those observed in 2024. For example, higher liver sizes (relative to body weight) were previously documented in 2023 and 2024 but were not observed in 2025, especially when comparing the original reference location (AEMP-FS-01) with slimy sculpin from the experimental site. Although differences in body size (relative to length) have been documented each year of the SFS, the differences are not consistently observed in either females or males and these differences remain within the CES suggesting the statistical differences are unlikely to represent an environmental effect.

Table 7-2: Action Level Threshold Summary – Fish Health

Item	Scenario	Contingency Planning	Triggers in 2025 Program	Required Changes for 2026
1.	Statistical difference between upstream reference and downstream experimental sampling location, but difference is below CES	• Continue tissue sampling as planned. • Evaluate whether the situation is stable, by checking if similar pattern is present in subsequent monitoring year	Male condition is similar among sites but female condition is increased at the downstream experimental location based on ANCOVA/ANOVA analyses.	Begin reviewing trends in fish condition over time as the dataset matures to determine if site differences are static over time.
2.	Statistical difference between upstream reference and downstream experimental sampling location. Results partially exceed CES given that average is within CES and few observations occur outside the CES range.	• Continue tissue sampling as planned. • Evaluate whether the situation is stable, by checking if a similar pattern is present in subsequent monitoring year	CYP1A1 protein content is significantly lower at the farthest upstream reference compared with the other reference and experimental location while total protein is significantly higher in livers from the original reference location	Review temporal changes in CYP1A protein content over time at each monitoring location as the dataset matures, incorporate MFO induction assays to improve comparability with other monitoring programs.

8. Conclusions

8.1 Surface Water

Surface water quality results have been analyzed using different methods to detect change in water quality downstream from the NWO in the Mackenzie River and Bosworth Creek. Analysis using multiple methods is intended to improve change detection capability and results from each method are used to interpret results of the others. As such, an aggregate understanding of water quality is obtained. Findings per method are as follows:

- Comparison to published guidelines

  The 2025 surface water results indicate that most guideline exceedances remained associated with the Mackenzie River and were primarily driven by suspended sediment and total metals during the open-water season. These exceedances occurred at both upstream and downstream locations and were therefore not uniquely associated with the NWO. Arsenic, chromium, and lead are the only metals that exceed guidelines only at downstream locations on the Mackenzie River. This pattern is consistent with the interpretation that seasonal suspended sediment loading and broader river conditions continue to be the main drivers of exceedances in the Mackenzie River, rather than a distinct operation-related downstream signal. In Bosworth Creek, exceedances were limited and isolated, with no broad pattern of downstream enrichment identified in the 2025 dataset.

- Upstream versus downstream

  Statistical comparisons between upstream, Norman Wells, and downstream study areas identified several total metals with increased concentrations at downstream sites compared with upstream and in many cases no difference was observed between concentrations at Norman Wells and those upstream or downstream. Notably, TSS was similarly higher at downstream locations which may account for the elevated total metals as they can be sorbed to the sediment. The cause of increased suspended solids has not been determined but may be associated with erosion from artificial and natural islands in the area.

- Control charting

  Control charting similarly indicates that while several parameters were outside UCL in 2025, the pattern was mixed and not restricted to near-field downstream sites. In the Mackenzie River, major ions and total metals exceeded UCLs at selected downstream locations, particularly during July and August, but some upstream observations also fell outside control limits. This indicates that the upstream reference dataset itself is variable and evolving over time. In Bosworth Creek, the chemistry results show that recent changes in major ions are occurring both upstream and downstream of the NWO, while several metals at the downstream site showed decreasing trends over time. Taken together, the control chart results support the conclusion that the 2025 water chemistry patterns are best interpreted in the context of natural seasonal variability, changing background conditions, and regional processes rather than a clear downstream effect attributable to current operations. However, chloride at AEMP-DS-01 should continue to be evaluated in context of a known potential source at the former Battery 3 flare pit located on the east bank of Bosworth Creek near the monitoring location.

- Piper plots – evaluation of hydrochemical type

  Water in both watercourses show consistent major ion chemistry between upstream and downstream locations with exception of AEMP-DS-06 (FGH Bluefish) which is influenced by tributary water from the Ramparts River. Near facility downstream locations and the other Fort Good Hope water quality monitoring location (AEMP-DS-07) are consistent with upstream locations which supports the hypothesis that ionic composition at AEMP-DS-06 is affected by non-facility related influences.

  - There is no indication of water quality concerns based on comparison of upstream and downstream major ion composition.

- Trend analysis

  Several total metals showed significant decreasing trends at the upstream Mackenzie River reference site AEMP-US-02, but these trends were attributable to lower flow in recent years. At the same time, selected major ions and total metals showed increasing trends at downstream Mackenzie River locations, particularly near-field sites including the Refinery, Marine dock, and Island 3. Chloride, sulphate, and TDS were increasing over time at the downstream site on Bosworth Creek, while calcium is also increasing at an upstream site. These trends are most likely related to reduced flow in Bosworth Creek over several monitoring years. Notably, chloride concentrations remain lower than previously documented in Bosworth Creek. These results indicate that temporal changes are occurring in both waterbodies, but they are location-specific and do not resolve into a simple upstream-downstream gradient attributable to the NWO. Overall, the 2025 surface water results indicate limited evidence of a clear operation-related signal and instead support continued interpretation within the broader AES of the Mackenzie River and Bosworth Creek systems.

- SPMD PAH data

  Total PAH concentrations at locations AEMP-DS-02 (Refinery Bank) and AEMP-DS-04 (Marine Dock) are higher than at other locations in the Mackenzie River. Individual concentrations remain below guidelines where available. These locations are areas with known natural seeps and hydrocarbon sheen is frequently observed on the water. Spatial comparisons between study areas indicates that these elevated concentrations at the refinery and marine dock have a limited extent and conditions downstream from the NWO are similar to those observed upstream.

Overall, there is no indication of water quality concerns downstream from the NWO in either the Mackenzie River or Bosworth Creek; however;

- Increasing chloride and sulphate trends in Bosworth Creek downstream of the facility are below the current UCLs and the increasing trends are attributable to lower flow in Bosworth Creek in recent years. Concentrations are below guidelines and consistent with those at newly established upstream locations but will require further evaluation as data is collected.
- Quantification of natural seep PAH chemistry, in areas upstream of the facility, may be warranted to further evaluate concentrations detected at the Refinery and Marine docks if concentrations reach freshwater aquatic life guideline thresholds or show significant increase over time. An upstream sample location near the Norman Wells town dock has been established for 2026 and may provide further natural seep PAH context.

- Indicator parameters TDS, TSS and turbidity have been observed to increase within and downstream of NWO. Several total metals mimic this trend. The cause of increase in these indicator parameters has not been determined but increased erosion from natural and artificial islands at NWO is possible. These increases currently do not suggest a concern to human or environmental health but will continue to be assessed.

The water quality monitoring programs in the Mackenzie River and Bosworth Creek have shown the ability to detect change in water chemistry spatially and temporally. Individual assessment methods provide limited insight into the AES but, together, these suggest some measurable changes but do not suggest a risk to human or environmental health.

8.2 Fish Health

The SFS during the 2025 AEMP continued to characterize fish health metrics providing information on energy allocation and availability, as well as overall fish condition. In addition, hepatic CYP1A1 protein content and PAH/metal tissue residues were measured. The following provides a summary of the key findings of the SFS during the 2025 AEMP in the context of results obtained in 2023 and 2024:

- In 2025, condition of female slimy sculpin was higher at the downstream sampling location (AEMP-FS-02) compared with condition at the farthest upstream reference location only. Percent differences between sites were within the CES suggesting that statistical differences are unlikely to represent an effect on the slimy sculpin population.
    - During previous sampling years statistical differences for either female or male slimy sculpin have been observed between the reference and experimental sampling locations. Percent differences have consistently been below the CES of 10% for body weight relative to length indicating that the statistical differences do not likely represent an effect on the slimy sculpin population. Taken together, there is sufficient evidence to suggest that slimy sculpin from the experimental location tends to have higher condition than upstream references but the magnitude of this effect consistently remains below the action level threshold.
- In 2025, the gonad weight (relative to body weight) was similar among sampling locations despite high percent differences for female GSI between the experimental and reference sites. No statistically significant differences were documented in 2025 and when gonad weight was adjusted to account for the size of the fish, the percent difference between sites was within the CES.
    - Reduced gonad weight in younger (smaller) slimy sculpin and higher gonad weight from older (larger) slimy sculpin from AEMP-FS-02 in 2023. Since then, the gonad weight (relative to body weight) has been similar among experimental and reference sites suggesting there is currently no effect on gonad size observable at the experimental sampling location.

- In 2025, liver weight (relative to body weight) was similar among sites, particularly between the original reference location (AEMP-FS-01) and the AEMP-FS-02 experimental location. Male liver size was similar among all sites, while female liver weight was higher at the original reference and experimental sites, although liver weights were not statistically different.
    - Previous sampling in 2023 and 2024 indicated that liver size of slimy sculpin was increased at the experimental site compared with reference and the CES was occasionally exceeded for males. Similar liver size in both males and females in 2025 suggest that there is potential for larger liver size at the experimental site but no consistent trend over the CES is present for slimy sculpin from the experimental site.
- In 2025, tissue residue concentrations for many metal KIPs including aluminum, barium, chromium, copper, molybdenum, nickel, and selenium were higher at the original reference location (AEMP-FS-01) than the other two sampling locations. These increased metal concentrations appear to be localized to this reference location given that similar results are not observed downstream at the experimental sampling location or the farthest upstream reference.
    - Previous sampling in 2023 and 2024 suggested that males have higher metal concentration in tissues, but this relationship was not apparent in 2025. Results suggest that metal concentrations are lowest at the farthest upstream reference sampling location, followed by the experimental location, and were highest at the original reference sampling location.
- In 2025, hepatic CYP1A1 protein concentration is significantly higher in male sculpin from the experimental location compared with the farthest upstream reference location but were similar to results observed at the other reference sampling location.
    - Although CYP1A content was higher at the experimental site in 2024, this site difference was observed for the original sampling location previously rather than the farthest upstream reference site (which was the case in 2025). This highlights that the variability in the data may limit statistical analysis for protein comparisons and that elevated CYP1A protein content periodically occurs at the experimental location.
- In 2025, the total PAH concentration was highest at the experimental site compared with the two reference locations. In addition, the concentration observed in 2025 was the highest observed to date at the experimental site. Previously, the PAH concentrations have been relatively similar between sites, therefore the high concentration observed in 2025 suggests that elevated PAH concentrations are possible at the experimental site. Continued monitoring is recommended to investigate how often and to what extent elevated PAH concentrations can occur in slimy sculpin from the experimental site.

Overall, the SFS suggests there are no immediate risks to the health of small-bodied fish in Bosworth Creek given that fish condition is higher at the experimental site and catch rates remain high at all sites. Previous results suggesting more energy being allocated to the liver for contaminant detoxification at the experimental location were not observed in 2025. Energy allocation to reproduction is similar among sites particularly in 2025. Differing statistical results from 2023 to 2025 is due to variability between monitoring years, which suggest that fish health metrics at the experimental location can periodically exceed action level thresholds. These exceedances are not consistent year over year and are typically indicative of greater resource availability (higher fish condition alongside larger liver relative to body size).

9. Closure

We trust that this report satisfies your current requirements and provides suitable documentation for your records. If you have any questions or require further details, please contact the undersigned at any time.

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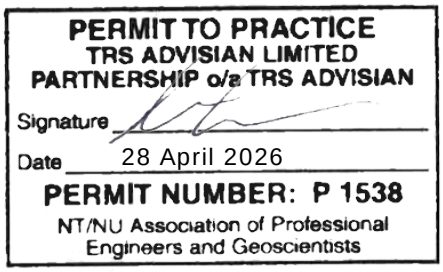

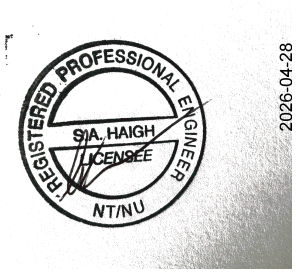

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Tables

Table 1

Surface Water Analytical Results: Field-Measured Parameters

PROJECT No.: 417085-59897

Sampling Location	Date (dd-mmm-yyyy)	Dissolved Oxygen (mg/L)	Electrical Conductivity (uS/cm)	pH (pH Units)	Temperature (°C)	Turbidity (NTU)
CCME CEQG Freshwater Aquatic Life [#1]		**>6.5**	**---**	**(6.5 - 9)**	**---**	**---**
NW AEMP V5						
MACKENZIE RIVER						
AEMP-DS-02 (Marine Dock)	10-Jun-2020	12.95	162	8.31	8.7	126
	24-Jul-2020	---	227	**6.0 [#1]**	15.5	---
	18-Sep-2020	12.61	168	8.17	9.0	23.9
	06-Jun-2021	7.82	315.3	7.03	12.0	94.8
	17-Sep-2021	---	259	7.96	10.0	24.5
	12-Jun-2022	12.25	225.8	8.2	8.4	148.8
	06-Aug-2022	9.38	220.2	7.38	16	243.1
	25-Sep-2022	10.9	186	8.13	8.7	---
	26-Jul-23	8.86	318.62	8.27	19.58	27.34
	18-Aug-23	---	---	---	---	---
	24-Sep-23	12.55	158.2	8.06	4.87	201.7
	18-Mar-24	---	---	---	---	---
	20-Jul-24	---	413.7	8.01	19.7	134.5
	16-Aug-24	12.12	437	8.27	17.38	103.2
	13-Sep-24	10.79	317.5	8.34	12.4	6.7
	12-Mar-25					
	19-Jul-25	9.83	235.3	8.14	15.5	106.13
	15-Aug-25	10.02	301	8.27	17.1	157.2
	13-Sep-25	9.44	274.9	8.37	13.4	7.68
AEMP-DS-03 (Island 3)	12-Jun-2020	12.84	179	8.37	9.7	259
	28-Jul-2020	10.83	273.1	8.11	16.3	212
	22-Sep-2020	10.88	219.7	8.22	9.6	81.0
	07-Jun-2021	9.20	204.9	8.10	11.0	67.5
	18-Sep-2021	---	304	8.30	10.6	56.4
	14-Jun-2022	10.96	228	8.07	9.7	231
	06-Aug-2022	8.62	232.5	7.41	18	50.05
	25-Sep-2022	9.8	227	8.2	10.9	---
	25-Jul-23	8.42	336.47	8.02	21.05	29.05
	19-Aug-23	---	---	---	---	---
	25-Sep-23	---	---	---	---	---
	18-Mar-24	---	---	---	---	---
	19-Jul-24	---	397.3	8.04	20.5	338.8
	15-Aug-24	9.94	321	8.27	19.12	25.35
	17-Sep-24	10.22	263.7	8.41	12.7	21.36
	18-Jul-25	8.46	290.5	8.13	17.1	251.6
	16-Aug-25	9.64	330	8.35	17.3	285.96
	16-Sep-25	8.8	320	8.36	14.3	10.22
AEMP-DS-04 (Refinery)	10-Jun-2020	12.27	157	8.36	8.2	166
	24-Jul-2020	---	227	**6.0 [#1]**	15.0	---
	18-Sep-2020	13.27	166	8.15	9.0	367
	06-Jun-2021	8.06	335.1	6.90	10.7	99.9
	17-Sep-2021	---	249	8.00	9.1	26.9
	12-Jun-2022	11.87	192	8.18	8.6	220.7
	06-Aug-2022	9.12	206.6	7.45	16.5	461
	24-Sep-2022	10.8	180	8.11	8.2	---
	26-Jul-23	8.66	305.19	8.23	19.6	23.5
	18-Aug-23	---	---	---	---	---
	24-Sep-23	12.03	141.65	7.76	5.14	452
	18-Mar-24	---	---	---	---	---
	20-Jul-24	8.66	284.6	7.99	19.59	135.3
	16-Aug-24	11.87	300	8.25	17.39	135.3
	13-Sep-24	10.07	220	8.32	12.7	6.45
	12-Mar-25					
	19-Jul-25	9.68	264.8	7.93	15.6	169.8
	12-Aug-25	6.25	318	8.08	15.7	259.8
	13-Sep-25	9.64	251.6	8.33	13.5	26.19
AEMP-DS-05 (Radar)	12-Jun-2020	12.70	169	8.41	9.11	308
	28-Jul-2020	11.05	258.4	8.10	16.2	83.3
	22-Sep-2020	11.06	203	7.94	9.4	63.7
	07-Jun-2021	9.47	228.3	8.12	10.8	146
	18-Sep-2021	---	286	8.24	10.3	42.9
	10-Aug-2022	9.3	204.1	7.33	16.1	---
	25-Jul-23	8.62	311.5	8.02	20.4	21.22
	19-Aug-23	---	---	---	---	---
	26-Sep-23	---	---	---	---	---
	18-Mar-24	---	---	---	---	---
	19-Jul-24	10.25	406.2	8.29	18.8	366.1
	15-Aug-24	11.8	326	8.17	19.77	41.68
	17-Sep-24	10.05	302	8.26	11.9	15.54
	14-Mar-25					
	18-Jul-25	9.33	259.1	8.14	16.2	310.3
	16-Aug-25	10.7	303	8.39	15.8	438
	16-Sep-25	9.21	300	8.3	13	47.43
AEMP-DS-06 (Fort Good Hope)	10-Mar-2023	---	---	---	---	---
	24-Jul-2023	8.62	318.85	8.17	18.19	23.2
	21-Aug-2023	---	---	---	---	---
	03-Oct-2023	11.7	240.68	8.17	6.94	n/m
	15-Mar-24	15.5	330.6	6.08	0.4	48.18
	17-Jul-24	---	411.8	8.28	20.4	180.7
	14-Aug-24		395	7.58	17.76	40.5
	18-Sep-24	10.22	417.8	7.87	10.5	38.4
	13-Mar-25					
	16-Jul-25	9.67	352.9	7.93	16.6	130.6
	13-Aug-25	9.4	347	8.11	16.7	633.3
	10-Sep-25	8.45	370.7	8.26	13.8	18.64
AEMP-DS-07 (Fort G H-Rampart)	17-Jul-24	---	336.7	8.36	20	169.1
	14-Aug-24	11.39	326	7.69	18.56	135.2
	18-Sep-24	10.57	226.2	7.94	12.1	13.35
	16-Jul-25	10.55	270.8	7.8	16.3	185.5
	13-Aug-25	8.9	339	8.14	16.8	461.7
	10-Sep-25	9.1	281.3	8.3	14.6	38.03
AEMP-DS-08 (Radar South)	19-Jul-24	---	430.7	8.17	19.4	269.8
	15-Aug-24	12.12	310	8.27	19.21	34.7
	17-Sep-24	10.59	294.9	8.3	11.6	14.66
	18-Jul-25	9.43	258.5	8.09	16.1	201.9
	16-Aug-25	10.66	300	8.39	16.7	270.5
	16-Sep-25	10.02	300	8.44	12.8	26.57

Table 1

Surface Water Analytical Results: Field-Measured Parameters

PROJECT No.: 417085-59897

Sampling Location	Date (dd-mmm-yyyy)	Dissolved Oxygen (mg/L)	Electrical Conductivity (uS/cm)	pH (pH Units)	Temperature (°C)	Turbidity (NTU)
CCME CEQG Freshwater Aquatic Life [#1]		**>6.5**	**---**	**(6.5 - 9)**	**---**	**---**
AEMP-DS-09 (Goose)	19-Jul-24	10.43	4.3	8.02	20.1	220.9
	15-Aug-24	11.4	367	8.05	19.36	32.11
	17-Sep-24	10.25	263	8.44	12.3	13.14
	14-Mar-25					
	18-Jul-25	9.15	261.6	8.14	16.9	262.5
	16-Aug-25	10.98	283	8.42	16.3	304
	16-Sep-25	9.14	338.6	8.34	13.9	11.51
AEMP-US-01 (Midway)	12-Mar-2023	---	---	---	---	---
	25-Jul-23	8.83	291.64	8.09	18.49	20.96
	19-Aug-23	---	---	---	---	---
	26-Sep-23	---	---	---	---	---
	16-Mar-24	18.03	167.9	7.87	0.4	4.05
	19-Jul-24	---	361.8	7.87	21.3	410.6
	15-Aug-24	11.92	293	8.34	20.21	21.09
	17-Sep-24	12.19	203.5	8.57	11.5	14.99
	08-Mar-25					
	18-Jul-25	10.25	240	8.1	15.1	119.8
	16-Aug-25	10.31	270	8.37	15.9	95.3
	16-Sep-25	9.17	550	7.99	10.9	14.17
AEMP-US-02 (10 mile)	12-Jun-2020	12.68	169.8	8.3	9.2	277
	28-Jul-2020	10.78	262.2	8.14	16.4	99.5
	22-Sep-2020	10.99	213.0	8.29	9.6	62.8
	07-Jun-2021	9.53	231.7	8.11	11.0	82.8
	18-Sep-2021	---	294	8.16	10.9	51.0
	10-Aug-22	9.28	207.9	7.49	16.4	---
	25-Jul-23	9.09	333.93	8.17	19.89	14.99
	19-Aug-23	---	---	---	---	---
	26-Sep-23	---	---	---	---	---
	17-Mar-24	---	---	---	---	---
	19-Jul-24	---	376.9	8.02	20.9	290.1
	15-Aug-24	11.19	312	8.35	20.61	31.42
	17-Sep-24	11.57	209.8	8.56	12	7.32
	08-Mar-25					
	18-Jul-25	9.96	254.6	8.07	15.8	163.9
	16-Aug-25	10.37	291	8.35	16.4	175.1
	16-Sep-25	9.81	369	8.2	10.5	22.4
AEMP-US-03 (Norman Wells U/S)	17-Mar-24	---	---	---	---	---
	19-Jul-24	10.53	366.4	7.95	20.1	282.7
	16-Aug-24	12.33	306	8.25	16.5	138
	12-Sep-24	11.36	207.9	8.61	12.5	7.53
	08-Mar-25					
	18-Jul-25	9.48	307.1	8.01	15.7	203
	16-Aug-25	9.74	280	8.37	16.6	195
	16-Sep-25	8.92	2927	8.35	12.1	18.59
BOSWORTH CREEK						
AEMP-DS-01 (Lwr Bosworth Crk)	10-Jun-2020	10.87	446.1	**9.57 [#1]**	11.7	2.89
	24-Jul-2020	---	557	7.0	16.0	---
	18-Sep-2020	12.18	444	8.35	7.1	0
	06-Jun-2021	7.45	648.8	7.47	8.8	2.68
	19-Sep-2021	---	705	8.27	6.3	1.66
	11-Jun-2022	---	347.5	7.98	11.3	2.44
	06-Aug-2022	9.02	536	8.23	16.3	95.8
	26-Sep-2022	10	435	8.25	3.8	---
	26-Jul-23	8.92	877.16	8.29	17.97	3.24
	18-Aug-23	---	---	---	---	---
	25-Sep-23	13.56	337.14	8.08	1.43	3.94
	18-Jul-24	---	724	8.52	17.1	2.69
	15-Aug-24	12.22	835	8.27	16.05	1.47
	13-Sep-24	11.36	552	8.41	9.2	1.62
	19-Jul-25	9.42	568	8.33	15.7	1.98
	14-Aug-25	10.27	710	8.35	18.01	2.39
	13-Sep-25	9.82	578	8.37	11.5	1.06
AEMP-US-04 (Upr Bosworth Crk)	26-Jul-23	8.86	785.89	8.27	17.26	2.29
	24-Sep-23	13.37	398.93	8.35	1.59	14.46
	18-Jul-24	---	762	8.45	19.1	1.56
	16-Aug-24	11.62	725	8.28	17.86	0.84
	13-Sep-24	11.43	563	8.48	10.1	1.34
	17-Jul-25	10.4	780	8.25	18.5	5.62
	14-Aug-25	11.8	714	8.31	12.6	2.16
	13-Sep-25	10.1	565	8.32	10.09	2.7
AEMP-US-05 (Bosworth Creek)	18-Jul-24	9.8	858	8.32	17.9	1.94
	16-Aug-24	12.26	814	8.35	16.86	0.59
	12-Sep-24	11.56	571	8.53	10.9	1.82
	17-Jul-25	9.93	759	8.2	17.6	45.6
	14-Aug-25	11.84	713	8.28	11.5	1.62
	13-Sep-25	10.9	559	8.44	10.4	1.1

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding

(CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life. http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)

Dissolved Oxygen:

Warm Water Biota:
Early life stages = 6 mg/L
Other life stages = 5.5 mg/L
Cold Water Biota:
Early life stages = 9.5 mg/L
Other life stages = 6.5 mg/L

Table 2

Surfacewater Analytical Results: Indicator Analysis Parameters

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Anions					Cations							General								Inorganic Nitrogen Compounds							Inorganic Sulphur Compounds	Ion Balance	Miscellaneous			
		Bicarbonate	Carbonate	Chloride	Sulphate	Hydroxide	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Fluoride	Alkalinity (Total; as $CaCO_3$)	Alkalinity (PP; as $CaCO_3$)	Colour	Electrical Conductivity	Hardness (Total; as $CaCO_3$)	pH	Total Dissolved Solids	Total Suspended Solids	Turbidity	Ammonia (Total; as N)	Nitrate	Nitrate (as N)	Nitrite	Nitrite (as N)	Nitrite-plus-Nitrate (as N)	Total Kjeldahl Nitrogen	Sulphide (asH2S)	Ion Balance % Difference	Biochemical Oxygen Demand	Chemical Oxygen Demand	Dissolved Organic Carbon	Total Organic Carbon
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(color unit)	(µS/cm)	(mg/L)	(pH Units)	(mg/L)	(mg/L)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]		---	---	---	---	---	None required	---	---	0.12	---	---	1.5	---	---	---	---	---	---	---	---	1	None required	45	10	3	1	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	120	---	---	---	0.3	---	0.25	---	---	0.12	---	---	---	---	---	(6.5 - 9)	---	---	---	0.14	---	2.9	---	0.06	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL [#3]		---	---	5.8	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL [#4]		---	---	15.4	59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	215	353.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-MACKENZIE-US																																		
AEMP-US-01 (Midway)	12-Mar-2023	87	< 1.0	9.8	22 [#3]	< 1.0	23	< 0.060	8.9	< 0.0040	0.81	8.1	---	72	< 1.0	---	210	93	---	120	---	---	< 0.015	1.5	0.35	< 0.033	< 0.010	0.35	0.29	0.0039	0.96	---	---	2.5	1.8
	25-Jul-2023	120	< 1.0	11	37	< 1.0	30	< 0.060	9.2	< 0.0040	0.87	8.5	---	95	< 1.0	5.4	270	110	---	96 [#3]	14	15 [#1]	< 0.015	0.23	0.052	< 0.033	< 0.010	0.052	0.12	< 0.0020	6.5	---	12	3.5	2.9
	19-Aug-2023	130	< 1.0	11	35	< 1.0	9.6	< 0.060	2.7	< 0.0040	< 0.30	2.3	---	100	< 1.0	6.3	250	35	---	150	21	23 [#1]	< 0.015	0.37	0.083	< 0.033	< 0.010	0.083	0.12	0.0061	59	---	22	2.6	2.5
	26-Sep-2023	100	< 1.0	10	28	< 1.0	24	< 0.060	8.9	< 0.0040	0.77	7.7	---	86	< 1.0	3.8	230	97	---	96 [#3]	2.2	4.5 [#1]	0.023	0.42	0.094	< 0.033	< 0.010	0.094	0.14	< 0.0020	5.8	---	16	2.5	2.5
	16-Mar-2024	99	< 1.0	11	29	< 1.0	25	< 0.060	9.5	< 0.0040	0.98	8.6	---	81	< 1.0	< 2.0	240	100	---	150	8.0	7.3 [#1]	< 0.015	0.84	0.19	< 0.033	< 0.010	0.19	0.12	0.0043	2.4	---	25	2.3 [#5]	2.3
	19-Jul-2024	100	< 1.0	11	43	< 1.0	32	< 0.060	9.8	< 0.0040	0.94	9.4	---	83	< 1.0	9.5	280	120	7.76	180	440 [#4,6]	270 [#1]	< 0.015	0.47	0.11	< 0.033	< 0.010	0.11	< 0.20	0.030	1.2	---	11	3.8	3.2
	15-Aug-2024	110	< 1.0	11	39	< 1.0	30	< 0.060	9.6	< 0.0040	0.85	9.3	---	89	< 1.0	5.0	270	110	7.83	160	8.0	8.8 [#1]	< 0.015	0.29	0.065	< 0.033	< 0.010	0.065	0.14	< 0.0020	2.9	---	11	2.9	2.7
	17-Sep-2024	100	< 1.0	19 [#4]	34	< 1.0	28	< 0.060	10	< 0.0040	0.91	13	---	84	< 1.0	4.1	280	110	6.88	160	13	7.7 [#1]	< 0.015	0.28	0.063	< 0.033	< 0.010	0.063	0.14	< 0.0020	1.2	---	15	2.6	2.0
	08-Mar-2025	90	< 1.0	11	22 [#3]	< 1.0	25	< 0.060	10	< 0.0040	0.93	9.1	---	74	< 1.0	5.4	230	100	6.75	130	1.1	4.1 [#1]	< 0.015	1.8	0.40	< 0.033	< 0.010	0.40	0.037	< 0.0020	4.4	---	< 10 [#7]	2.2	2.0
	18-Jul-2025	110	< 1.0	10	41	< 1.0	29	< 0.060	9.0	< 0.0040	0.78	8.2	---	92	< 1.0	10	260	110	7.48	150	110	110 [#1,8]	< 0.015	0.31	0.069	< 0.13	< 0.040	0.069	< 0.20	0.015	8.0	---	15	3.7	2.9
	16-Aug-2025	110	< 1.0	9.3	38	< 1.0	32	< 0.060	11	< 0.0040	0.89	8.5	---	90	< 1.0	5.9	270	120	7.41	150	56	71 [#1]	< 0.015	0.34	0.077	< 0.13	< 0.040	0.077	< 0.20	0.012	0.28	---	17	3.4	2.7
	16-Sep-2025	120	< 1.0	32 [#4]	40	< 1.0	34	< 0.060	12	< 0.0040	0.91	21	---	99	< 1.0	5.3	350	130	7.28	210	4.0	4.5 [#1]	< 0.015	0.33	0.074	< 0.13	< 0.040	0.074	0.21	< 0.0020	1.5	---	19	3.4	4.2
AEMP-US-02 (10 mile)	23-Jun-2018	99	< 1.0	7.3	38	< 1.0	31	< 0.060	8.7	< 0.0040	0.79	6.1	---	81	< 1.0	---	250	110	---	140	39	40 [#1]	0.025	0.099	0.022	< 0.033	< 0.010	0.022	0.27	0.0040	1.3	---	33	5.8	5.1
	14-Aug-2018	120	< 1.0	8.6	49	< 1.0	36	< 0.060	11	< 0.0040	0.83	7.7	---	97	< 1.0	---	310	130	---	180	59	51 [#1]	0.016	0.093	0.021	< 0.033	< 0.010	0.021	0.30	0.0040	3.0	< 2.0	25	4.5	4.8
	18-Oct-2018	100	< 1.0	11	33	< 1.0	28	< 0.060	9.5	0.0099	0.91	9.7	---	85	< 1.0	---	260	110	---	150	39	12 [#1]	0.020	0.41	0.093	< 0.033	< 0.010	0.093	0.19	0.0030	1.3	< 2.0	9.2	2.9	3.0
	10-Jun-2019	96	< 1.0	6.2	35	< 1.0	30	< 0.060	7.6	< 0.0040	0.78	5.7	---	79	< 1.0	20	240	110	8.06	170	150	120 [#1]	< 0.015	0.23	0.052	< 0.033	< 0.010	0.052	0.45	0.010	1.9	2.0 [#9]	44	7.3	6.0
	26-Aug-2019	120	< 1.0	11	50	< 1.0	35	< 0.060	11	< 0.0040	0.86	8.1	---	98	< 1.0	11	310	130	8.12	180	46	43 [#1]	0.018	0.17	0.039	< 0.033	< 0.010	0.039	0.26	0.0050	3.7	< 2.0	26	5.7	4.6
	01-Oct-2019	120	< 1.0	9.9	60 [#4]	< 1.0	39	< 0.060	11	< 0.0040	0.90	8.9	---	100	< 1.0	21	320	140	8.04	230 [#4]	32	75 [#1]	0.029	0.16	0.036	< 0.033	< 0.010	0.036	0.32	0.014	4.0	2.1	39	6.5	5.9
	12-Jun-2020	110	< 1.0	5.1 [#3]	35	< 1.0	30	< 0.060	7.9	< 0.0040	0.78	5.4	---	87	< 1.0	31	240	110	6.84	180	280 [#6]	92 [#1]	< 0.015	0.22	0.049	< 0.033	< 0.010	0.049	0.67 [#10]	< 0.0020	4.3	< 2.0	38	6.9	1.4
	28-Jul-2020	110	< 1.0	6.2	52	< 1.0	32	< 0.060	8.8	< 0.0040	0.72	6.1	---	90	< 1.0	21	280	120	7.75	170	110	51 [#1]	< 0.015	0.087	0.020	< 0.033	< 0.010	0.020	1.1 [#10]	0.094	8.2	< 2.0	63	7.1	5.6
	22-Sep-2020	110	< 1.0	7.1	40	< 1.0	35	0.17	9.7	0.0077	0.90	6.8	---	93	< 1.0	20	290	130	8.14	200 [#11]	48	21 [#1]	< 0.015	0.19	0.044	< 0.033	< 0.010	0.044	0.36	0.010	0.72	< 2.0	17	6.4	6.1
	07-Jun-2021	140	< 1.0	6.3	34	< 1.0	30	< 0.060	7.6	< 0.0040	1.0	6.1	0.092	110	< 1.0	31	250	110	7.19	130 [#11]	110	79 [#1]	< 0.015	0.29	0.065	< 0.033	< 0.010	0.065	0.53	0.024	13	< 2.0 [#12]	34	8.7	7.9 [#13]
	19-Aug-2021	110	< 1.0	7.1	40	< 1.0	37	< 0.060	11	< 0.0040	1.0	7.6	0.091	91	< 1.0	27	280	140	---	190	170 [#6]	160 [#1]	< 0.015	0.15	0.034	< 0.033	< 0.010	0.034	0.37	0.024	4.0	< 2.0 [#14]	51	5.8	6.3
	18-Sep-2021	140	< 1.0	7.5	42	< 1.0	33	< 0.060	9.0	< 0.0040	0.91	7.5	0.10	120	< 1.0	19	290	120	---	200	53	40 [#1]	< 0.015	0.18	0.040	< 0.033	< 0.010	0.040	0.25	0.0039	11	< 2.0 [#15]	28	7.5	6.0
	10-Aug-2022	110	< 1.0	7.9	38	< 1.0	34	< 0.060	9.9	< 0.0040	0.97	7.7	0.089	90	< 1.0	9.3	270	120	7.68	160	52	40 [#1]	< 0.015	0.21	0.048	< 0.033	< 0.010	0.048	< 0.20	< 0.0020	0.50	< 2.0	15	4.6	3.9
	12-Mar-2023	95	< 1.0	10	27	< 1.0	25	< 0.060	9.0	< 0.0040	0.82	8.5	---	78	< 1.0	---	220	100	---	150	---	---	< 0.015	0.87	0.20	< 0.033	< 0.010	0.20	0.11	< 0.0020	0.44	---	---	2.2	2.2
	25-Jul-2023	140	< 1.0	11	47	< 1.0	34	< 0.060	10	< 0.0040	0.90	8.6	---	110	< 1.0	5.1	310	130	---	150	5.7	6.8 [#1]	< 0.015	0.12	0.027	< 0.033	< 0.010	0.027	0.11	< 0.0020	9.9	---	10	3.3	3.8
	19-Aug-2023	120	< 1.0	9.5	50	< 1.0	34	< 0.060	10	0.0075	0.84	7.8	---	95	< 1.0	8.6	290	130	---	180	51	42 [#1]	< 0.015	0.31	0.071	< 0.033	< 0.010	0.071	0.18	0.0061	5.0	---	< 10 [#16]	5.0	2.5
	24-Sep-2023	120	< 1.0	11	49	< 1.0	44	0.091	15	0.018	1.2	13	---	100	< 1.0	4.0	310	170	---	220 [#4]	170	46 [#1]	0.026	0.34	0.076	< 0.033	< 0.010	0.076	---	0.0037	9.4	---	15	3.1	3.0
	17-Mar-2024	110	< 1.0	11	34	< 1.0	35	< 0.060	12	< 0.0040	1.2	12	---	91	< 1.0	2.5	270	140	---	170	< 0.99	2.1 [#1]	< 0.015	0.87	0.20	< 0.033	< 0.010	0.20	0.14	< 0.0020	6.9	---	< 10 [#16]	3.1	3.2
	19-Jul-2024	110	< 1.0	8.3	47	< 1.0	38	< 0.060	11	< 0.0040	0.91	8.5	---	91	< 1.0	9.0	290	140	7.78	180	220	160 [#1]	< 0.015	0.40	0.090	< 0.033	< 0.010	0.090	0.22	0.030	2.7	---	12	3.8	3.0
	15-Aug-2024	120	< 1.0	8.7	46	< 1.0	33	< 0.060	10	< 0.0040	0.79	7.9	---	100	< 1.0	5.5	290	130	7.81	180	19	11 [#1]	< 0.015	0.24	0.054	< 0.033	< 0.010	0.054	< 0.20	0.0030	6.1	---	17	2.7	2.5
	17-Sep-2024	110	< 1.0	8.8	44	< 1.0	31	< 0.060	10	< 0.0040	0.90	7.8	---	90	< 1.0	4.4	280	120	6.89	170	1.8	3.2 [#1]	< 0.015	0.20	0.046	< 0.033	< 0.010	0.046 [#17]	< 0.20	< 0.0020	3.2	---	< 10 [#7]	2.5	2.1
	08-Mar-2025	99	< 1.0	12	28	< 1.0	28	< 0.060	10	< 0.0040	1.0	9.5	---	81	< 1.0	4.2	260	110	6.75	140	1.2	5.1 [#1]	< 0.015	1.4	0.31	< 0.033	< 0.010	0.31	0.11	< 0.0020	1.9	---	< 10 [#7]	2.8	2.5
	18-Jul-2025	120	< 1.0	8.2	46	< 1.0	31	< 0.060	9.5	< 0.0040	0.83	7.3	---	97	< 1.0	11	270	120	7.50	160	130	130 [#1,8]	< 0.015	0.25	0.055	< 0.13	< 0.040	0.055	0.22	0.016	7.5	---	33	3.5	2.8
	16-Aug-2025	120	< 1.0	7.5	47	< 1.0	36	< 0.060	12	< 0.0040	0.93	8.1	---	99	< 1.0	6.2	290	140	7.37	160	160	120 [#1]	< 0.015	0.23	0.052	< 0.13	< 0.040	0.052	< 0.20	0.012	0.84	---	29	2.8	2.5
	16-Sep-2025	150	< 1.0	9.5	81 [#4]	< 1.0	47	< 0.060	15	0.018	1.1	10	---	120	< 1.0	5.9	400	180	7.40	250 [#4]	5.7	6.6 [#1]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	< 0.20	< 0.0020	3.6	---	< 10 [#7]	2.9	2.6
AEMP-US-03 (Norman Wells U/S)	09-Mar-2023	90	< 1.0	9.8	28	< 1.0	27	< 0.060	9.6	< 0.0040	0.86	9.0	---	74	< 1.0	---	220	110	---	130	---	---	< 0.015	0.90	0.20	< 0.033	< 0.010	0.20	0.093	< 0.0020	3.7	---	---	2.0	2.0
	17-Mar-2024	110	< 1.0	11	33	< 1.0	34	< 0.060	12	< 0.0040	1.2	11	---	91	< 1.0	2.2	270	130	---	160	< 1.0	2.1 [#1]	< 0.015	0.87	0.20	< 0.033	< 0.010	0.20	0.13	0.0030	5.7	---	10	2.8	3.3
	19-Jul-2024	110	< 1.0	8.2	45	< 1.0	33	< 0.060	9.6	< 0.0040	1.0	7.8	---	88	< 1.0	9.4	280	120	7.78	160	370 [#4,6]	270 [#1]	< 0.015	0.42	0.094	< 0.033	< 0.010	0.094	< 0.20	0.033	2.3	---	13	3.8	2.9
	16-Aug-2024	120	< 1.0	8.7	44	< 1.0	33	< 0.060	10	0.021	0.76	7.9	---	96	< 1.0	6.4	290	120	7.60	170	480 [#4,6]	190 [#1]	0.017	0.28	0.063	< 0.033	< 0.010	0.063	0.45	0.052	4.3	---	55	2.8	2.8
	12-Sep-2024	120	< 1.0	8.7	43	< 1.0	36	< 0.060	12	< 0.0040	0.97	8.6	---	100	< 1.0	< 2.0	290	140	7.29	160 [#11]	1.1	5.2 [#1]	< 0.015	0.21	0.047	< 0.033	< 0.010	0.047	0.97	< 0.0020	0.013	---	65	2.7	3.1
	08-Mar-2025	100	< 1.0	12	28	< 1.0	27	< 0.060	9.8	< 0.0040	0.91	9.2	---	82	< 1.0	2.9	260	110	6.74	150	< 1.0	2.2 [#1]	< 0.015	1.2	0.27	< 0.033	< 0.010	0.27	0.077	< 0.0020	0.13	---	< 10 [#7]	2.8	2.4
	18-Jul-2025	110	< 1.0	8.0	45	< 1.0	31	< 0.060	9.2	< 0.0040	0.87	7.3	---	91	< 1.0	12	260	120	7.04 [#18]	160	140	170 [#1,8]	< 0.015	0.29	0.066	< 0.13	< 0.040	0.066	< 0.20	0.019	6.3	---	41	3.9	3.4
	16-Aug-2025	120	< 1.0	7.4	44	< 1.0	35	< 0.060	11	< 0.0040	0.88	7.7	---	97	< 1.0	8.3	280	130	7.28	160	190	170 [#1]	< 0.015	0.21	0.048	< 0.13	< 0.040	0.048	< 0.20	0.011	0.87	---	28	3.2	2.6
	16-Sep-2025	130	< 1.0	10	45	< 1.0	34	< 0.060	10	< 0.0040	1.1	9.1	---	100	< 1.0	3.9	290	130	7.12	190	20	16 [#1]	< 0.015	0.23	0.052	< 0.13	< 0.040	0.052	< 0.20	< 0.0020	5.9	---	11	2.8	4.1

Table 2

Surfacewater Analytical Results: Indicator Analysis Parameters

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Anions					Cations							General									Inorganic Nitrogen Compounds							Inorganic Sulphur Compounds	Ion Balance	Miscellaneous			
		Bicarbonate	Carbonate	Chloride	Sulphate	Hydroxide	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Fluoride	Alkalinity (Total; as $CaCO_3$)	Alkalinity (PP; as $CaCO_3$)	Colour	Electrical Conductivity	Hardness (Total; as $CaCO_3$)	pH	Total Dissolved Solids	Total Suspended Solids	Turbidity	Ammonia (Total; as N)	Nitrate	Nitrate (as N)	Nitrite	Nitrite (as N)	Nitrite-plus-Nitrate (as N)	Total Kjeldahl Nitrogen	Sulphide (asH2S)	Ion Balance % Difference	Biochemical Oxygen Demand	Chemical Oxygen Demand	Dissolved Organic Carbon	Total Organic Carbon
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(color unit)	(µS/cm)	(mg/L)	(pH Units)	(mg/L)	(mg/L)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]		---	---	---	---	---	None required	---	---	0.12	---	---	1.5	---	---	---	---	---	---	---	---	1	None required	45	10	3	1	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	120	---	---	---	0.3	---	0.25	---	---	0.12	---	---	---	---	---	(6.5 - 9)	---	---	---	0.14	---	2.9	---	0.06	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL [#3]		---	---	5.8	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL [#4]		---	---	15.4	59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	215	353.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-MACKENZIE-DS																																		
AEMP-DS-02 (Marine Dock)	17-Aug-2017	120	< 0.50	7.1	54	< 0.50	40	< 0.060	12	< 0.0040	0.93	7.8	---	96	< 0.50	---	310	150	---	180	33	---	---	0.18	0.040	< 0.033	< 0.010	0.040	---	< 0.0020	0.87	< 2.0	---	4.8	4.1
	21-Aug-2017	110	< 0.50	9.4	42	< 0.50	31	< 0.060	9.9	< 0.0040	0.83	8.4	---	88	< 0.50	---	280	120	---	160	31	---	---	0.25	0.057	< 0.033	< 0.010	0.057	---	---	2.8	< 2.0	---	3.7	3.6
	16-Sep-2017	110	< 0.50	10	38	< 0.50	33	< 0.060	10	0.0041	0.83	8.8	---	86	< 0.50	---	270	130	---	150	110	---	---	0.30	0.068	< 0.033	< 0.010	0.068	---	0.0080	2.2	< 2.0 [#12]	---	4.7	4.0
	16-Oct-2017	100	< 0.50	9.9	44	< 0.50	30	< 0.060	10	0.0049	0.89	8.8	---	82	< 0.50	---	270	120	---	130	29	---	---	0.38	0.086	< 0.033	< 0.010	0.086	---	< 0.0020	1.7	< 2.0	---	3.0	3.6
	23-Jun-2018	97	< 1.0	8.9	36	< 1.0	26	0.20	8.1	0.011	0.72	6.3	---	79	< 1.0	---	250	99	---	140	51	33 [#1]	0.037	0.23	0.052	< 0.033	< 0.010	0.052	0.27	< 0.0020	6.6	---	33	5.5	4.9
	13-Aug-2018	110	< 1.0	11	45	< 1.0	33	< 0.060	11	< 0.0040	0.83	10	---	90	< 1.0	---	290	130	---	200	29	---	0.018	0.17	0.037	< 0.033	< 0.010	0.037	0.28	0.0030	0.80	---	25	4.8	4.8
	15-Aug-2018	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.17	0.038	< 0.033	< 0.010	0.038	---	---	---	< 2.0	---	---	---
	17-Oct-2018	100	< 1.0	11	40	< 1.0	31	< 0.060	11	< 0.0040	0.92	9.4	---	85	< 1.0	---	270	120	---	160	5.3	2.2 [#1]	< 0.015	0.41	0.093	< 0.033	< 0.010	0.093	0.12	< 0.0020	0.39	---	7.2	3.0	2.8
	18-Oct-2018	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.4 [#19]	---	---	---
	03-Jun-2019	110	< 1.0	8.7	39	< 1.0	31	< 0.060	10	0.0048	0.82	7.4	---	87	< 1.0	17	280	120	8.07	190	130	97 [#1]	< 0.015	0.54	0.12	< 0.033	< 0.010	0.12	0.38	0.0070	1.9	< 2.0	52	6.7	5.1
	28-Aug-2019	110	< 1.0	9.4	47	< 1.0	34	< 0.060	11	< 0.0040	0.84	8.5	---	94	< 1.0	14	300	130	8.17	180	22	17 [#1]	0.026	0.31	0.069	< 0.033	< 0.010	0.069	0.23	0.0020	1.7	< 2.0	< 10	4.7	3.6
	02-Oct-2019	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 2.0	---	---	---
	03-Oct-2019	110	< 1.0	10	43	< 1.0	32	< 0.060	11	< 0.0040	0.81	8.5	---	89	< 1.0	8.9	290	120	---	150	18	20 [#1]	0.015	0.34	0.077	< 0.033	< 0.010	0.077	0.19	0.0030	1.8	---	26	3.6	3.5
	10-Jun-2020	69	< 1.0	5.9	24 [#3]	< 1.0	26	< 0.060	7.4	< 0.0040	0.73	5.9	---	57	< 1.0	15	180	96	6.76	130	220 [#6]	100 [#1]	< 0.015	0.25	0.057	< 0.033	< 0.010	0.057	0.62	< 0.0020	9.5	< 2.0	52	6.1	6.2 [#13]
	24-Jul-2020	95	< 1.0	7.3	36	< 1.0	29	< 0.060	8.9	< 0.0040	0.77	6.9	---	78	< 1.0	19	260	110	8.03	150	74	39 [#1]	< 0.015	0.22	0.051	< 0.033	< 0.010	0.051	0.40	< 0.010	0.25	< 2.0	14	5.1	4.4
	18-Sep-2020	100	< 1.0	7.7	36	< 1.0	32	< 0.060	8.8	< 0.0040	0.54	6.9	---	82	< 1.0	15	260	120	7.91	160	25	17 [#1]	< 0.015	0.24	0.055	< 0.033	< 0.010	0.055	0.26	0.013	0.44	< 2.0	12	4.9	4.8
	06-Jun-2021	120	< 1.0	6.1	30	< 1.0	29	0.066	8.4	< 0.0040	1.0	6.7	0.094	100	< 1.0	29	240	110	---	210	110	83 [#1]	< 0.015	0.36	0.082	< 0.033	< 0.010	0.082	0.52	0.026	6.3	< 2.0 [#12]	19	7.5	7.3
	18-Aug-2021	110	< 1.0	7.9	41	< 1.0	33	< 0.060	10	< 0.0040	0.93	7.8	0.11	90	< 1.0	18	270	120	---	210	230 [#6]	200 [#1]	0.018	0.23	0.051	< 0.033	< 0.010	0.051	0.29	0.027	0.61	< 2.0	57	6.3	5.2
	17-Sep-2021	110	< 1.0	8.7	41	< 1.0	35	< 0.060	11	< 0.0040	0.95	8.2	0.090	92	< 1.0	14	270	130	8.07	180	19	18 [#1]	< 0.015	0.32	0.073	< 0.033	< 0.010	0.073	0.20	< 0.0020	1.0	< 2.0 [#20]	16	5.4	5.4
	31-Mar-2022	---	---	---	---	---	25	< 0.060	9.1	< 0.0040	0.93	8.3	---	---	---	4.5	---	---	7.94	120	< 1.0	2.0 [#1]	< 0.015	0.83	0.19	< 0.033	< 0.010	0.19	0.19	< 0.0020	---	< 2.0 [#20]	< 10	3.6	3.2
	12-Jun-2022	96	< 1.0	3.9 [#3]	32	< 1.0	29	0.064	8.0	< 0.0040	1.1	5.1	0.085	79	< 1.0	37	220	110	7.52	150	270 [#6]	97 [#1,10]	< 0.015	0.26	0.058	< 0.033	< 0.010	0.058	0.35	0.012	0.16	< 2.0	57	6.7	5.9
	06-Aug-2022	110	< 1.0	8.9	40	< 1.0	32	0.34 [#2]	9.5	0.030	0.95	7.9	0.085	87	< 1.0	11	270	120	7.76	180	160	80 [#1,10]	< 0.015	0.23	0.052	< 0.033	< 0.010	0.052	0.31	0.026	1.4	< 2.0	21	4.9	4.7
	25-Sep-2022	120	< 1.0	10	36	< 1.0	30	< 0.060	9.3	< 0.0040	0.88	7.9	0.10	96	< 1.0	6.0	260	110	6.90	170	34	15 [#1]	< 0.015	0.26	0.059	< 0.033	< 0.010	0.059	0.19	< 0.0020	6.2	< 2.0	19	3.6	3.5
	09-Mar-2023	95	< 1.0	11	29	< 1.0	27	< 0.060	9.7	< 0.0040	0.89	9.3	---	78	< 1.0	---	230	110	---	120	---	---	< 0.015	0.82	0.19	< 0.033	< 0.010	0.19	0.16	< 0.0020	2.1	---	---	2.1	2.1
	25-Jul-2023	120	< 1.0	10	43	< 1.0	35	< 0.060	9.9	< 0.0040	0.88	9.0	---	100	< 1.0	3.3	290	130	7.35	96 [#3]	13	10 [#1]	< 0.015	0.18	0.040	< 0.033	< 0.010	0.040	0.11	< 0.0020	3.6	---	< 10 [#16]	3.6	3.1
	18-Aug-2023	120	< 1.0	10	45	< 1.0	33	< 0.060	10	< 0.0040	0.85	8.1	---	97	< 1.0	7.9	280	120	---	180	52	53 [#1]	< 0.015	0.32	0.073	< 0.033	< 0.010	0.073	0.16	< 0.0020	5.8	---	20	3.2	3.1
	24-Sep-2023	110	< 1.0	12	46	< 1.0	34	< 0.060	11	< 0.0040	0.95	10	---	90	< 1.0	9.6	290	130	---	130	6.1	7.4 [#1]	< 0.015	0.25	0.056	< 0.033	< 0.010	0.056	0.12	< 0.0020	0.45	---	22	2.7	2.4
	18-Mar-2024	110	< 1.0	14	35	< 1.0	30	< 0.060	10	< 0.0040	1.1	10	---	86	< 1.0	< 2.0	270	120	8.01	160	< 1.0	2.1 [#1]	< 0.015	0.95	0.21	< 0.033	< 0.010	0.21	0.11	< 0.0020	0.83	---	< 10 [#21]	3.4	2.6
	20-Jul-2024	120	< 1.0	10	57	< 1.0	36	< 0.060	11	< 0.0040	0.89	8.5	---	96	< 1.0	5.8	330	130	7.95	180	110	120 [#1]	< 0.015	0.40	0.089	< 0.033	< 0.010	0.089	< 0.20	0.021	5.6	---	12	3.2	3.0
	16-Aug-2024	150	< 1.0	15	73 [#4]	< 1.0	49	< 0.060	17	0.040	1.0	15	---	120	< 1.0	6.4	400	190	7.92	240 [#4]	460 [#4,6]	150 [#1]	0.016	0.19	0.043	< 0.033	< 0.010	0.043	0.23	0.020	1.6	---	31	3.0	2.7
	13-Sep-2024	120	< 1.0	10	51	< 1.0	35	< 0.060	12	< 0.0040	0.91	9.6	---	95	< 1.0	13	310	140	7.09	180	1.0	3.2 [#1]	< 0.015	0.22	0.049	< 0.033	< 0.010	0.049	< 0.20	< 0.0020	1.2	---	11	3.0	2.7
	12-Mar-2025	110	< 1.0	12	32	< 1.0	27	< 0.060	9.3	< 0.0040	0.91	9.2	---	92	< 1.0	2.4	250	110	6.97	150	< 1.0	1.6 [#1]	< 0.015	1.2	0.28	< 0.033	< 0.010	0.28	0.11	< 0.0020	5.9	---	< 10 [#7]	3.1	2.4
	19-Jul-2025	110	< 1.0	8.3	44	< 1.0	32	< 0.060	9.6	0.0055	0.86	7.4	---	91	< 1.0	9.5	270	120	7.45	160	150	120 [#1]	< 0.015	0.26	0.060	< 0.13	< 0.040	0.060	0.23	0.014	4.8	---	47	3.3	3.3
	15-Aug-2025	120	< 1.0	8.1	50	< 1.0	37	< 0.060	12	< 0.0040	0.87	8.1	---	100	< 1.0	7.3	310	140	7.35	180	150	110 [#1]	< 0.015	0.18	0.041	< 0.13	< 0.040	0.041	0.26	< 0.0020	1.3	---	35	3.1	3.3
	13-Sep-2025	130	< 1.0	11	49	< 1.0	35	< 0.060	12	0.0086	0.90	9.5	---	100	< 1.0	3.8	320	140	7.24	180	37	9.1 [#1]	< 0.015	0.26	0.058	< 0.13	< 0.040	0.058	0.15	< 0.0020	3.6	---	< 10 [#7]	2.8	3.1
AEMP-DS-03 (Island 3)	16-Sep-2017	120	< 0.50	9.4	48	< 0.50	42	< 0.060	11	< 0.0040	0.94	9.0	---	99	< 0.50	---	320	150	---	160	22	---	---	0.17	0.038	< 0.033	< 0.010	0.038	---	< 0.0020	2.5	< 2.0 [#12]	---	4.3	3.5
	16-Oct-2017	120	< 1.0	10	47	< 1.0	37	< 0.060	11	< 0.0040	0.94	9.3	---	97	< 1.0	---	310	140	---	170	8.0	---	---	0.20	0.046	< 0.033	< 0.010	0.046	---	0.0020	0.42	< 2.0	---	3.6	4.2
	23-Jun-2018	100	< 1.0	6.3	44	< 1.0	33	< 0.060	9.5	< 0.0040	0.82	6.1	---	82	< 1.0	---	260	120	---	160	71	60 [#1]	0.024	0.16	0.035	< 0.033	< 0.010	0.035	0.28	< 0.0020	0.77	---	32	5.7	5.0
	14-Aug-2018	120	< 1.0	8.7	57	< 1.0	38	< 0.060	12	< 0.0040	0.84	7.6	---	98	< 1.0	---	330	140	---	190	220	130 [#1]	0.033	0.095	0.021	< 0.033	< 0.010	0.021	0.64	0.016	2.9	< 2.0	41	4.9	5.2
	18-Oct-2018	110	< 1.0	11	32	< 1.0	30	< 0.060	10	0.0093	0.91	10	---	86	< 1.0	---	260	120	---	160	58	7.3 [#1]	< 0.015	0.35	0.079	< 0.033	< 0.010	0.079	0.21	0.0050	1.4	2.1	22	2.8	3.1
	10-Jun-2019	98	< 1.0	5.8 [#3]	37	< 1.0	31	< 0.060	8.1	< 0.0040	0.78	5.7	---	80	< 1.0	19	250	110	8.00	180	150	120 [#1]	< 0.015	0.23	0.052	< 0.033	< 0.010	0.052	0.44	0.0090	1.6	< 2.0 [#9]	45	6.8	5.8
	26-Aug-2019	120	< 1.0	9.6	57	< 1.0	38	< 0.060	12	< 0.0040	0.86	8.2	---	99	< 1.0	9.8	330	150	8.20	190	55	49 [#1]	0.027	0.17	0.038	< 0.033	< 0.010	0.038	0.30	---	2.3	< 2.0	21	5.2	4.7
	27-Aug-2019	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0050	---	---	---	---	---
	01-Oct-2019	120	< 1.0	11	60 [#4]	< 1.0	39	< 0.060	11	< 0.0040	0.93	8.9	---	96	< 1.0	21	320	140	8.07	220 [#4]	76	92 [#1]	0.020	0.15	0.033	< 0.033	< 0.010	0.033	0.37	0.011	3.2	2.2	45	6.7	5.9
	12-Jun-2020	120	< 1.0	4.7 [#3]	40	< 1.0	32	< 0.060	8.9	< 0.0040	0.74	5.2	---	100	< 1.0	29	250	120	6.69	180	190 [#6]	100 [#1]	0.023	0.26	0.058	< 0.033	< 0.010	0.058	0.69 [#10]	< 0.0020	7.4	< 2.0	84	5.8	5.8 [#13]
	28-Jul-2020	120	< 1.0	5.8 [#3]	45	< 1.0	35	< 0.060	9.9	< 0.0040	0.70	6.1	---	95	< 1.0	22	280	130	7.66	170	130	60 [#1]	< 0.015	0.088	0.020	< 0.033	< 0.010	0.020	0.50 [#10]	< 0.019	2.7	< 2.0	24	6.6	6.0
	22-Sep-2020	140	< 1.0	6.4	44	< 1.0	35	< 0.060	9.8	< 0.0040	0.85	6.7	---	110	< 1.0	20	300	130	7.75	190 [#11]	39	22 [#1]	< 0.015	0.22	0.049	< 0.033	< 0.010	0.049	0.32	0.012	8.5	< 2.0	20	6.0	5.9
	07-Jun-2021	110	< 1.0	5.8 [#3]	35	< 1.0	32	< 0.060	8.5	< 0.0040	1.1	6.4	---	91	< 1.0	33	260	120	---	240 [#4]	140	72 [#1]	0.019	0.29	0.066	< 0.033	< 0.010	0.066	0.56	0.017	1.5	< 2.0 [#12]	24	8.4	6.2 [#13]
	19-Aug-2021	110	< 1.0	6.8	42	< 1.0	37	< 0.060	11	< 0.0040	1.1	7.0	0.093	90	< 1.0	28	290	140	---	180	230 [#6]	180 [#1]	< 0.015	0.17	0.038	< 0.033	< 0.010	0.038	0.44	0.027	3.0	< 2.0 [#14]	29	5.9	6.3
	18-Sep-2021	160	< 1.0	7.5	45	< 1.0	37	< 0.060	10	< 0.0040	1.0	8.0	0.10	130	< 1.0	21	300	140	---	250 [#4]	61	43 [#1]	< 0.015	0.18	0.041	< 0.033	< 0.010	0.041	0.29	0.0098	9.3	< 2.0 [#15]	33	8.2	6.6

Table 2

Surfacewater Analytical Results: Indicator Analysis Parameters

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Anions					Cations							General								Inorganic Nitrogen Compounds							Inorganic Sulphur Compounds	Ion Balance	Miscellaneous			
		Bicarbonate	Carbonate	Chloride	Sulphate	Hydroxide	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Fluoride	Alkalinity (Total; as $CaCO_3$)	Alkalinity (PP; as $CaCO_3$)	Colour	Electrical Conductivity	Hardness (Total; as $CaCO_3$)	pH	Total Dissolved Solids	Total Suspended Solids	Turbidity	Ammonia (Total; as N)	Nitrate	Nitrate (as N)	Nitrite	Nitrite (as N)	Nitrite-plus-Nitrate (as N)	Total Kjeldahl Nitrogen	Sulphide (asH2S)	Ion Balance % Difference	Biochemical Oxygen Demand	Chemical Oxygen Demand	Dissolved Organic Carbon	Total Organic Carbon
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(color unit)	(µS/cm)	(mg/L)	(pH Units)	(mg/L)	(mg/L)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]		---	---	---	---	---	None required	---	---	0.12	---	---	1.5	---	---	---	---	---	---	---	---	1	None required	45	10	3	1	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	120	---	---	---	0.3	---	0.25	---	---	0.12	---	---	---	---	---	(6.5 - 9)	---	---	---	0.14	---	2.9	---	0.06	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL [#3]		---	---	5.8	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL [#4]		---	---	15.4	59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	215	353.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	31-Mar-2022	---	---	---	---	---	45	< 0.060	12	< 0.0040	1.4	13	---	---	---	13	---	---	8.02	210	3.5	7.0 [#1]	< 0.015	0.78	0.18	< 0.033	< 0.010	0.18	0.23	0.0060	---	< 2.0 [#20]	14	6.4	5.6
	14-Jun-2022	99	< 1.0	2.7 [#3]	34	< 1.0	30	< 0.060	7.7	< 0.0040	0.87	3.9	0.077	81	< 1.0	41	220	110	7.45	160	550 [#4,6]	410 [#1,10]	< 0.015	0.23	0.051	< 0.033	< 0.010	0.051	0.48	0.026	2.4	< 2.0	71	6.4	7.1
	06-Aug-2022	110	< 1.0	7.1	47	< 1.0	38	< 0.060	11	< 0.0040	1.1	8.0	0.090	94	< 1.0	14	290	140	7.75	200	63	45 [#1]	< 0.015	0.15	0.033	< 0.033	< 0.010	0.033	0.31	< 0.0020	0.96	< 2.0	22	6.4	5.3
	25-Sep-2022	140	< 1.0	9.7	46	< 1.0	37	< 0.060	10	< 0.0040	0.99	8.4	0.10	120	< 1.0	8.3	300	130	7.36	190	19	15 [#1]	< 0.015	0.11	0.025	< 0.033	< 0.010	0.025	0.21	< 0.0020	7.9	< 2.0	24	4.9	4.5
	09-Mar-2023	140	< 1.0	17 [#4]	51	< 1.0	46	< 0.060	12	< 0.0040	1.2	14	---	120	< 1.0	---	360	160	---	210	---	---	< 0.015	0.78	0.18	< 0.033	< 0.010	0.18	0.17	< 0.0020	0.0060	---	---	4.2	4.0
	25-Jul-2023	130	< 1.0	8.6	48	< 1.0	36	< 0.060	11	< 0.0040	0.98	7.7	---	100	< 1.0	6.9	310	130	7.55	110 [#3]	45	27 [#1]	< 0.015	0.17	0.038	< 0.033	< 0.010	0.038	0.12	< 0.0020	5.0	---	10	5.4	3.8
	19-Aug-2023	150	< 1.0	8.3	60 [#4]	< 1.0	40	< 0.060	11	0.0044	0.90	7.6	---	120	< 1.0	9.4	330	150	---	200	220	87 [#1]	< 0.015	0.30	0.068	< 0.033	< 0.010	0.068	0.16	0.0095	9.8	---	16	4.0	4.0
	25-Sep-2023	130	< 1.0	13	56	< 1.0	42	< 0.060	12	< 0.0040	1.0	10	---	110	< 1.0	7.3	340	150	---	170	14	13 [#1]	< 0.015	0.23	0.052	< 0.033	< 0.010	0.052	0.18	< 0.0020	2.4	---	21	3.5	3.2
	18-Mar-2024	140	< 1.0	22 [#4]	54	< 1.0	47	< 0.060	13	< 0.0040	1.3	15	---	120	< 1.0	6.9	390	170	8.02	230 [#4]	< 1.0	3.9 [#1]	< 0.015	0.84	0.19	< 0.033	< 0.010	0.19	0.088	< 0.0020	0.34	---	14	4.5	4.2
	19-Jul-2024	120	< 1.0	6.9	57	< 1.0	39	< 0.060	11	< 0.0040	0.95	7.3	---	95	< 1.0	9.0	310	140	7.82	190	260 [#6]	240 [#1]	< 0.015	0.40	0.091	< 0.033	< 0.010	0.091	< 0.20	0.028	1.7	---	25	4.4	3.5
	15-Aug-2024	130	< 1.0	8.5	55	< 1.0	40	< 0.060	12	< 0.0040	0.83	8.0	---	100	< 1.0	6.7	330	150	7.85	210	50	50 [#1]	< 0.015	0.25	0.056	< 0.033	< 0.010	0.056	0.23	0.011	2.9	---	24	2.9	3.2
	17-Sep-2024	130	< 1.0	9.4	61 [#4]	< 1.0	40	< 0.060	13	< 0.0040	0.89	8.3	---	110	< 1.0	4.8	350	150	7.10	210	21	16 [#1]	< 0.015	0.16	0.035	< 0.033	< 0.010	0.035	< 0.20	0.0035	3.1	---	< 10 [#7]	3.5	2.4
	12-Mar-2025	150	< 1.0	16 [#4]	51	< 1.0	44	< 0.060	12	< 0.0040	1.4	14	---	120	< 1.0	6.4	360	160	7.16	200	4.4	5.3 [#1]	< 0.015	1.1	0.24	< 0.033	< 0.010	0.24	0.15	0.0035	2.2	---	< 10 [#7]	4.4	3.6
	18-Jul-2025	120	< 1.0	6.3	57	< 1.0	36	< 0.060	10	< 0.0040	0.87	6.3	---	95	< 1.0	14	300	130	7.36	180	310	220 [#1,8]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.27	0.031	4.7	---	40	3.9	3.8
	16-Aug-2025	130	< 1.0	6.1	58	< 1.0	44	< 0.060	13	< 0.0040	0.94	7.2	---	110	< 1.0	8.7	330	170	7.40	200	230	220 [#1]	< 0.015	0.27	0.060	< 0.13	< 0.040	0.060	< 0.20	0.011	1.0	---	36	3.8	3.1
	16-Sep-2025	130	< 1.0	9.9	60 [#4]	< 1.0	43	< 0.060	12	< 0.0040	1.1	9.4	---	110	< 1.0	5.2	350	160	7.40	210	18	10 [#1]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	< 2.0	< 0.0020	1.4	---	< 10 [#7]	3.2	3.0
AEMP-DS-04 (Refinery)	21-Aug-2017	110	< 0.50	9.1	41	< 0.50	31	< 0.060	9.7	< 0.0040	0.79	8.1	---	88	< 0.50	---	270	120	---	170	35	---	---	0.25	0.056	< 0.033	< 0.010	0.056	---	---	3.1	< 2.0 [#20]	---	4.5	3.6
	16-Sep-2017	100	< 0.50	9.7	35	< 0.50	30	< 0.060	9.8	< 0.0040	0.88	8.6	---	86	< 0.50	---	260	110	---	140	25	---	---	0.31	0.070	< 0.033	< 0.010	0.070	---	< 0.0020	0.77	< 2.0 [#12]	---	5.2	4.2
	16-Oct-2017	100	< 0.50	10	37	< 0.50	29	< 0.060	9.5	0.022	0.85	8.8	---	82	< 0.50	---	260	110	---	170	17	---	---	0.37	0.083	< 0.033	< 0.010	0.083	---	< 0.0020	1.3	< 2.0 [#19]	---	3.8	3.3
	23-Jun-2018	93	< 1.0	7.7	33	< 1.0	27	< 0.060	8.4	< 0.0040	0.78	6.9	---	76	< 1.0	---	230	100	---	120	43	44 [#1]	0.022	0.23	0.053	< 0.033	< 0.010	0.053	0.31	0.0050	1.0	---	32	5.0	5.0
	13-Aug-2018	110	< 1.0	11	43	< 1.0	31	< 0.060	10	< 0.0040	0.79	8.9	---	87	< 1.0	---	290	120	---	180	110	56 [#1]	0.028	0.15	0.034	< 0.033	< 0.010	0.034	0.43	0.0040	2.9	---	41	4.6	5.0
	15-Aug-2018	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.14	0.032	< 0.033	< 0.010	0.032	---	---	---	---	< 2.0	---	---	---
	17-Oct-2018	100	< 1.0	11	35	< 1.0	28	< 0.060	9.5	0.013	0.94	10	---	82	< 1.0	---	260	110	---	150	24	12 [#1]	< 0.015	0.40	0.091	< 0.033	< 0.010	0.091	0.18	< 0.0020	0.70	---	9.2	3.0	2.5
	18-Oct-2018	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.9 [#20]	---	---	---
	03-Jun-2019	100	< 1.0	8.8	35	< 1.0	28	< 0.060	8.6	0.0098	0.81	8.7	---	82	< 1.0	18	260	100	8.16	170	230	190 [#1]	< 0.015	0.35	0.078	< 0.033	< 0.010	0.078	0.52	0.017	2.8	2.5	62	6.0	5.4
	25-Aug-2019	100	< 1.0	11	38	< 1.0	29	< 0.060	10	< 0.0040	0.81	8.2	---	85	< 1.0	5.9	270	110	8.12	160	18	22 [#1]	0.044 [#22]	0.34	0.077	< 0.033	< 0.010	0.077	0.22	---	2.6	---	15	4.5	3.8
	27-Aug-2019	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0020	---	< 2.0 [#20]	---	---	---
	02-Oct-2019	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 2.0	---	---	---
	03-Oct-2019	100	< 1.0	9.7	35	< 1.0	29	< 0.060	9.6	0.029	0.78	7.9	---	85	< 1.0	8.9	260	110	8.03	140	920 [#4]	120 [#1]	0.027	0.34	0.078	< 0.033	< 0.010	0.078	0.78	0.0070	1.8	---	81	3.7	3.8
	10-Jun-2020	97	< 1.0	7.3	31	< 1.0	26	< 0.060	7.3	< 0.0040	0.73	5.9	---	79	< 1.0	25	230	95	6.83	88 [#3]	250 [#6]	93 [#1]	< 0.015	0.32	0.073	< 0.033	< 0.010	0.073	0.77 [#10]	< 0.010	5.7	< 2.0 [#20]	31	6.0	7.1 [#13]
	24-Jul-2020	97	< 1.0	7.3	37	< 1.0	29	< 0.060	8.8	< 0.0040	0.77	6.9	---	79	< 1.0	22	260	110	7.98	150	92	41 [#1]	0.017	0.23	0.052	< 0.033	< 0.010	0.052	0.38	0.014	1.1	< 2.0	30	5.3	4.4
	18-Sep-2020	100	< 1.0	7.4	34	< 1.0	33	< 0.060	9.1	< 0.0040	0.73	7.0	---	82	< 1.0	16	260	120	8.09	200	36	19 [#1]	< 0.015	0.27	0.061	< 0.033	< 0.010	0.061	0.34	0.011	2.7	< 2.0	17	5.4	4.7
	06-Jun-2021	130	< 1.0	6.2	27	< 1.0	30	0.17	8.5	0.0073	1.1	6.7	0.095	100	< 1.0	32	240	110	---	140	120	90 [#1]	< 0.015	0.37	0.083	< 0.033	< 0.010	0.083	0.68	0.023	6.0	< 2.0 [#12]	26	6.6	7.2
	18-Aug-2021	100	< 1.0	6.9	37	< 1.0	32	< 0.060	9.7	0.0044	1.0	7.4	0.097	85	< 1.0	16	260	120	---	200	230 [#6]	220 [#1]	0.020	0.23	0.051	< 0.033	< 0.010	0.051	0.25	0.016	1.3	< 2.0	20	6.0	5.3
	17-Sep-2021	110	< 1.0	8.2	36	< 1.0	34	< 0.060	10	< 0.0040	0.95	7.7	0.11	94	< 1.0	15	260	130	8.07	190	21	22 [#1]	< 0.015	0.31	0.069	< 0.033	< 0.010	0.069	0.24	< 0.0020	0.18	< 2.0 [#20]	13	5.4	4.9
	12-Jun-2022	110	< 1.0	5.0 [#3]	36	< 1.0	32	0.076	9.4	0.0059	1.2	6.4	0.085	87	< 1.0	34	250	120	7.64	180	450 [#4,6]	290 [#1,10]	< 0.015	0.22	0.050	< 0.033	< 0.010	0.050	0.50	0.034	1.4	< 2.0	40	7.8	6.7
	06-Aug-2022	110	< 1.0	7.4	38	< 1.0	30	< 0.060	8.5	0.067	0.94	7.4	0.084	87	< 1.0	13	260	110	7.69	180	700 [#4,6]	300 [#1,10]	0.032	0.23	0.053	< 0.033	< 0.010	0.053	0.65	0.030	3.9	< 2.0	86	5.4	5.0
	24-Sep-2022	110	< 1.0	9.4	37	< 1.0	31	< 0.060	9.1	0.068	0.95	8.1	0.10	93	< 1.0	7.1	260	110	7.07	160	430 [#4]	180 [#1]	0.042	0.25	0.057	< 0.033	< 0.010	0.057	0.49	0.0040	4.5	< 2.0 [#20]	41	4.1	4.1
	11-Mar-2023	94	< 1.0	11	29	< 1.0	26	< 0.060	9.4	< 0.0040	0.84	8.7	---	77	< 1.0	---	230	100	---	120	---	---	< 0.015	1.2	0.26	< 0.033	< 0.010	0.26	0.051	< 0.0020	0.41	---	---	3.6	2.0
	26-Jul-2023	120	< 1.0	9.6	41	< 1.0	34	< 0.060	11	< 0.0040	1.0	8.8	---	96	< 1.0	6.2	290	130	7.36	170	34	21 [#1]	< 0.015	0.27	0.061	< 0.033	< 0.010	0.061	0.10	< 0.0020	1.1	---	21	3.7	3.0
	18-Aug-2023	120	< 1.0	10	46	< 1.0	32	< 0.060	9.6	0.0040	0.84	7.6	---	98	< 1.0	7.5	270	120	---	170	90	63 [#1]	< 0.015	0.39	0.089	< 0.033	< 0.010	0.089	0.22	< 0.0020	8.1	---	22	3.7	4.0
	24-Sep-2023	110	< 1.0	12	40	< 1.0	32	< 0.060	10	< 0.0040	0.88	8.8	---	89	< 1.0	3.9	280	120	---	100 [#3]	12	9.4 [#1]	< 0.015	0.43	0.097	< 0.033	< 0.010	0.097	0.11	< 0.0020	2.0	---	21	2.6	2.2
	18-Mar-2024	100	< 1.0	14	35	< 1.0	29	< 0.060	9.5	< 0.0040	0.93	9.5	---	86	< 1.0	2.6	270	110	8.02	160	< 1.0	1.5 [#1]	< 0.015	0.90	0.20	< 0.033	< 0.010	0.20	0.097	< 0.0020	2.8	---	15	3.0	2.8
	20-Jul-2024	110	< 1.0	8.1	47	< 1.0	34	< 0.060	10	0.0042	0.96	7.8	---	91	< 1.0	6.6	290	130	7.90	170	53	72 [#1]	< 0.015	0.37	0.083	< 0.033	< 0.010	0.083	< 0.20	0.016	2.3	---	12	3.5	2.8
	16-Aug-2024	110	< 1.0	8.7	44	< 1.0	32	< 0.060	9.9	0.025	0.91	7.9	---	94	< 1.0	5.1	290	120	7.63	180	750 [#4,6]	160 [#1]	< 0.015	0.27	0.060	< 0.033	< 0.010	0.060	0.42	0.015	4.1	---	36	2.6	3.1
	13-Sep-2024	120	< 1.0	8.8	44	< 1.0	31	< 0.060	10	< 0.0040	0.79	7.3	---	100	< 1.0	6.6	290	120	7.46	160	2.1	2.6 [#1]	< 0.015	0.21	0.048	< 0.033	< 0.010	0.048	< 0.20	< 0.0020	8.0	---	21	3.6	3.0
	12-Mar-2025	110	< 1.0	10	32	< 1.0	28	< 0.060	9.5	< 0.0040	0.98	9.4	---	88	< 1.0	< 2.0	250	110	6.97	140	< 1.0	2.9 [#1]	< 0.015	1.3	0.28	< 0.033	< 0.010	0.28	0.12	< 0.0020	2.8	---	< 10 [#7]	2.5	2.5
	19-Jul-2025	110	< 1.0	8.9	43	< 1.0	31	< 0.060	9.4	0.014	0.84	7.3	---	89	< 1.0	12	260	120	7.41	160	260	170 [#1]	< 0.015	0.29	0.065	< 0.13	< 0.040	0.065	0.22	0.014	4.4	---	45	3.2	3.0
	12-Aug-2025	120	< 1.0	6.9	44	< 1.0	33	< 0.060	10	0.012	0.87	7.3	---	95	< 1.0	9.9	280	120	7.14	170	430 [#4]	280 [#1]	0.028	0.30	0.068	< 0.13	< 0.040	0.068	0.55	0.0091	3.1	---	43	3.2	3.2
	13-Sep-2025	120	< 1.0	9.7	43	< 1.0	31	< 0.060	11	< 0.0040	0.66	8.3	---	100	< 1.0	4.2	290	120	7.22	160	86	19 [#1]	< 0.015	0.27	0.062	< 0.13	< 0.040	0.062	0.14	< 0.0020	6.1	---	< 10 [#7]	3.7	3.2

Table 2

Surfacewater Analytical Results: Indicator Analysis Parameters

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Anions					Cations							General									Inorganic Nitrogen Compounds							Inorganic Sulphur Compounds	Ion Balance	Miscellaneous			
		Bicarbonate	Carbonate	Chloride	Sulphate	Hydroxide	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Fluoride	Alkalinity (Total; as $CaCO_3$)	Alkalinity (PP; as $CaCO_3$)	Colour	Electrical Conductivity	Hardness (Total; as $CaCO_3$)	pH	Total Dissolved Solids	Total Suspended Solids	Turbidity	Ammonia (Total; as N)	Nitrate	Nitrate (as N)	Nitrite	Nitrite (as N)	Nitrite-plus-Nitrate (as N)	Total Kjeldahl Nitrogen	Sulphide (asH2S)	Ion Balance % Difference	Biochemical Oxygen Demand	Chemical Oxygen Demand	Dissolved Organic Carbon	Total Organic Carbon
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(color unit)	(µS/cm)	(mg/L)	(pH Units)	(mg/L)	(mg/L)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]		---	---	---	---	---	None required	---	---	0.12	---	---	1.5	---	---	---	---	---	---	---	---	1	None required	45	10	3	1	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	120	---	---	---	0.3	---	0.25	---	---	0.12	---	---	---	---	---	(6.5 - 9)	---	---	---	0.14	---	2.9	---	0.06	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL [#3]		---	---	5.8	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL [#4]		---	---	15.4	59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	215	353.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-DS-05 (Radar North)	23-Jun-2018	96	< 1.0	6.8	35	< 1.0	29	< 0.060	8.4	< 0.0040	0.82	6.4	---	79	< 1.0	---	240	110	---	140	78	37 [#1]	0.024	0.18	0.039	< 0.033	< 0.010	0.039	0.29	< 0.0020	0.76	---	31	5.2	5.0
	14-Aug-2018	110	< 1.0	9.3	44	< 1.0	37	< 0.060	10	0.0043	0.79	7.6	---	91	< 1.0	---	290	130	---	180	61	45 [#1]	0.015	0.13	0.029	< 0.033	< 0.010	0.029	0.27	0.0040	0.35	< 2.0	28	4.3	4.8
	18-Oct-2018	110	< 1.0	12	36	< 1.0	29	< 0.060	9.3	< 0.0040	0.96	9.3	---	88	< 1.0	---	280	110	---	150	81	23 [#1]	< 0.015	0.40	0.090	< 0.033	< 0.010	0.090	0.24	0.0020	3.9	< 2.0	16	3.1	2.7
	10-Jun-2019	92	< 1.0	7.7	31	< 1.0	28	< 0.060	7.6	< 0.0040	0.75	5.8	---	76	< 1.0	20	230	100	7.99	160	200	120 [#1]	< 0.015	0.27	0.061	< 0.033	< 0.010	0.061	0.39	0.0060	1.8	< 2.0 [#9]	41	6.4	5.6
	26-Aug-2019	120	< 1.0	9.8	60 [#4]	< 1.0	35	< 0.060	11	< 0.0040	0.85	8.1	---	98	< 1.0	9.8	310	130	8.18	180	47	43 [#1]	0.026	0.18	0.040	< 0.033	< 0.010	0.040	0.28	---	6.4	< 2.0	20	4.9	4.4
	27-Aug-2019	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0040	---	---	---	---	---
	01-Oct-2019	110	< 1.0	10	56	< 1.0	37	0.91 [#2]	11	0.054	0.92	9.6	---	94	< 1.0	18	320	140	8.27	200	130	120 [#1]	0.051 [#17]	0.25	0.056	< 0.033	< 0.010	0.056	0.44	0.0060	1.5	---	47	5.5	5.3
	02-Oct-2019	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 2.0	---	---	---
	12-Jun-2020	120	< 1.0	5.4 [#3]	33	< 1.0	29	< 0.060	7.7	< 0.0040	0.82	5.7	---	97	< 1.0	29 [#23]	230	100	6.69	180	700 [#4,6]	650 [#1]	0.024	0.27	0.062	< 0.033	< 0.010	0.062	1.0	< 0.010	8.4	< 2.0	95	5.9	4.4 [#13]
	28-Jul-2020	110	< 1.0	5.8 [#3]	39	< 1.0	33	< 0.060	8.9	< 0.0040	0.79	6.4	---	92	< 1.0	20	270	120	7.71	160	110	27 [#1]	< 0.015	0.090	0.020	< 0.033	< 0.010	0.020	0.73 [#10]	0.0038	3.0	< 2.0	29	6.3	5.4
	22-Sep-2020	130	< 1.0	7.1	38 [#22]	< 1.0	32	< 0.060	9.1	< 0.0040	0.86	6.7	---	110	< 1.0	18	280	120	7.63	88 [#3]	43	20 [#1]	< 0.015	0.24	0.055	< 0.033	< 0.010	0.055	0.29	0.012	7.5	< 2.0	23	6.0	5.9
	07-Jun-2021	110	< 1.0	6.3	31	< 1.0	29	< 0.060	7.4	< 0.0040	1.1	6.1	0.10	91	< 1.0	38	250	100	7.75	100 [#3,11]	110	71 [#1]	0.016	0.30	0.068	< 0.033	< 0.010	0.068	0.59	0.022	5.8	< 2.0 [#12]	43	8.5	6.6 [#13]
	19-Aug-2021	110	< 1.0	6.7	40	< 1.0	31	< 0.060	8.6	< 0.0040	0.90	6.8	0.090	89	< 1.0	28	270	110	---	180	190 [#6]	160 [#1]	< 0.015	0.17	0.038	< 0.033	< 0.010 [#11]	0.038 [#11]	0.38	0.033	4.0	< 2.0 [#14]	51	7.7	6.0
	18-Sep-2021	130	< 1.0	7.8	37	< 1.0	34	< 0.060	9.7	< 0.0040	0.95	7.8	0.10	110	< 1.0	21	280	130	---	200	60	43 [#1]	< 0.015	0.21	0.047	< 0.033	< 0.010	0.047	0.27	0.012	4.1	< 2.0 [#15]	20	6.9	5.9
	10-Aug-2022	110	< 1.0	8.2	38	< 1.0	32	< 0.060	9.3	< 0.0040	0.94	7.4	0.093	88	< 1.0	9.1	260	120	7.65	160	91	49 [#1]	< 0.015	0.25	0.057	< 0.033	< 0.010	0.057	< 0.20	0.012	1.9	< 2.0	14	5.2	4.1
	11-Mar-2023	99	< 1.0	12	35	< 1.0	30	< 0.060	11	< 0.0040	0.87	10	---	81	< 1.0	---	260	120	---	160	---	---	< 0.015	1.1	0.26	< 0.033	< 0.010	0.26	0.12	< 0.0020	2.0	---	---	3.4	2.1
	25-Jul-2023	140	< 1.0	10	42	< 1.0	34	< 0.060	9.8	< 0.0040	0.93	8.2	---	110	< 1.0	5.0	290	120	---	110 [#3]	19	16 [#1]	< 0.015	0.16	0.036	< 0.033	< 0.010	0.036	0.13	< 0.0020	8.7	---	12	3.6	3.2
	19-Aug-2023	130	< 1.0	9.1	47	< 1.0	35	< 0.060	10	< 0.0040	0.85	7.4	---	100	< 1.0	9.4	290	130	---	180	35	41 [#1]	< 0.015	0.23	0.053	< 0.033	< 0.010	0.053	0.14	0.0081	6.9	---	18	4.1	3.2
	26-Sep-2023	130	< 1.0	12	44	< 1.0	35	0.10	11	0.0080	0.97	9.5	---	110	< 1.0	9.9	300	130	---	170	120	69 [#1]	< 0.015	0.28	0.064	< 0.033	< 0.010	0.064	---	0.0037	4.2	---	28	3.1	3.0
	17-Mar-2024	110	< 1.0	11	33	< 1.0	36	< 0.060	12	< 0.0040	1.1	12	---	86	< 1.0	3.0	270	140	7.93	170	< 1.0	0.10	< 0.015	1.1	0.25	< 0.033	< 0.010	0.25	0.091	< 0.0020	9.7	---	< 10 [#16]	3.0	2.9
	19-Jul-2024	110	< 1.0	7.6	47	< 1.0	36	< 0.060	9.9	< 0.0040	0.95	7.4	---	92	< 1.0	6.7	290	130	7.90	180	280 [#6]	250 [#1]	< 0.015	0.38	0.085	< 0.033	< 0.010	0.085	< 0.20	0.030	1.5	---	10	3.7	3.1
	15-Aug-2024	130	< 1.0	8.4	48	< 1.0	36	< 0.060	11	< 0.0040	0.96	7.9	---	110	< 1.0	6.3	310	130	7.82	180	16	14 [#1]	< 0.015	0.26	0.059	< 0.033	< 0.010	0.059	0.14	< 0.0020	5.9	---	13	3.0	3.0
	17-Sep-2024	120	< 1.0	8.9	48	< 1.0	36	< 0.060	11	< 0.0040	0.98	8.4	---	98	< 1.0	4.2	310	130	6.95	180	61	26 [#1]	< 0.015	0.19	0.043	< 0.033	< 0.010	0.043	< 0.20	0.0046	2.0	---	15	3.1	2.4
	14-Mar-2025	100	< 1.0	12	32	< 1.0	27	< 0.060	10	< 0.0040	0.95	9.3	---	83	< 1.0	2.8	270	110	6.74	150	< 1.0	2.7 [#1]	< 0.015	1.6	0.36	< 0.033	< 0.010	0.36	0.086	< 0.0020	0.88	---	< 10 [#7]	2.7	2.2
	18-Jul-2025	110	< 1.0	7.0	47	< 1.0	33	< 0.060	9.4	< 0.0040	0.84	6.7	---	93	< 1.0	14	270	120	7.56	170	250	280 [#1,9]	< 0.015	< 0.18	0.040	< 0.13	< 0.040	0.040	0.21	0.025	5.6	---	49	3.4	3.5
	16-Aug-2025	120	< 1.0	6.4	49	< 1.0	35	< 0.060	11	< 0.0040	0.78	6.6	---	100	< 1.0	8.5	300	130	7.45	180	540 [#4,6]	290 [#1]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.34	0.020	3.3	---	73	3.7	3.3
	16-Sep-2025	120	< 1.0	9.8	49	< 1.0	37	< 0.060	11	0.0052	1.1	8.7	---	100	< 1.0	4.7	310	140	7.58	180	20	12 [#1]	< 0.015	0.23	0.052	< 0.13	< 0.040	0.052	< 2.0	0.0025	2.8	---	< 10 [#7]	3.1	2.7
AEMP-DS-06 (FGH - Bluefish)	10-Mar-2023	140	< 1.0	17 [#4]	51	< 1.0	46	< 0.060	12	< 0.0040	1.2	15	---	110	< 1.0	---	350	170	---	200	---	---	< 0.015	0.71	0.16	< 0.033	< 0.010	0.16	0.16	< 0.0020	3.2	---	---	3.7	3.6
	24-Jul-2023	210	< 1.0	11	70 [#4]	< 1.0	42	< 0.060	13	0.0048	0.91	9.2	---	170	< 1.0	7.8	370	160	7.66	210	17	24 [#1]	< 0.015	0.25	0.056	0.039	0.012	0.068	0.095	0.022	18	---	11	3.0	2.8
	21-Aug-2023	140	< 1.0	9.7	83 [#4]	< 1.0	43	< 0.060	14	< 0.0040	0.93	8.6	---	110	< 1.0	8.9	370	170	---	230 [#4]	54	49 [#1]	0.016	0.22	0.050	< 0.033	< 0.010	0.050	0.16	< 0.0020	6.8	---	25	3.3	2.8
	03-Oct-2023	150	< 1.0	10	110 [#4]	< 1.0	48	< 0.060	20	0.0059	0.94	12	---	120	< 1.0	9.6	430	200	---	240 [#4]	13	19 [#1]	< 0.015	0.36	0.081	< 0.033	< 0.010	0.081	0.12	< 0.0020	4.9	---	16	3.9	3.7
	15-Mar-2024	150	< 1.0	18 [#4]	67 [#4]	< 1.0	56	< 0.060	17	< 0.0040	1.3	17	---	130	< 1.0	6.7	430	210	---	280 [#4]	150	51 [#1]	< 0.015	1.7	0.38	< 0.033	< 0.010	0.38	0.59	0.0073	5.8	---	22	4.8	5.2
	17-Jul-2024	130	< 1.0	9.0	69 [#4]	< 1.0	43	< 0.060	15	0.013	0.91	8.5	---	100	< 1.0	7.7	380	170	6.99	200	79	97 [#1]	< 0.015	0.35	0.079	< 0.033	< 0.010	0.079	< 0.20	0.016	0.65	---	24	3.5	2.9
	14-Aug-2024	120	< 1.0	8.9	84 [#4]	< 1.0	47	< 0.060	16	< 0.0040	0.87	9.4	---	97	< 1.0	8.1	380	180	8.14	240 [#4]	27	26 [#1]	< 0.015	0.30	0.068	< 0.033	< 0.010	0.068	< 0.20	< 0.0020	1.6	---	20	2.9	2.8
	18-Sep-2024	120	< 1.0	7.1	140 [#4]	< 1.0	48	0.062	21	0.0058	0.95	11	---	96	< 1.0	17	470	200	7.98	290 [#4]	15	32 [#1]	< 0.015	0.27	0.061	< 0.033	< 0.010	0.061	0.26	0.0051	4.6	---	14	4.3	4.6
	13-Mar-2025	160	< 1.0	15	67 [#4]	< 1.0	46	< 0.060	14	< 0.0040	1.3	15	---	130	< 1.0	7.1	400	170	7.41	220 [#4]	140	69 [#1]	< 0.015	1.5	0.35	< 0.033	< 0.010	0.35	< 0.20	< 0.0020	4.8	---	28	4.0	3.7
	13-Aug-2025	130	< 1.0	7.2	74 [#4]	< 1.0	43	< 0.060	15	0.014	0.86	8.0	---	110	< 1.0	9.2	370	170	7.36	200	700 [#4,6]	450 [#1]	0.017	0.22	0.050	< 0.13	< 0.040	0.050	0.60	0.030	3.0	---	65	3.7	3.5
	10-Sep-2025	130	< 1.0	11	89 [#4]	< 1.0	49	< 0.060	17	< 0.0040	1.1	10	---	110	< 1.0	5.5	420	200	7.36	240 [#4]	17	8.7 [#1]	< 0.015	0.32	0.073	< 0.13	< 0.040	0.073	---	< 0.0020	0.80	---	10	2.5	2.8
AEMP-DS-07 (FGH - Ramparts)	17-Jul-2024	130	< 1.0	7.3	43	< 1.0	34	< 0.060	11	< 0.0040	0.84	7.4	---	100	< 1.0	8.5	330	130	7.03	150	170	120 [#1]	< 0.015	0.28	0.062	< 0.033	< 0.010	0.062	0.25	0.019	4.0	---	29	3.6	3.2
	14-Aug-2024	110	< 1.0	7.4	49	< 1.0	38	< 0.060	11	0.0043	0.85	7.7	---	91	< 1.0	7.2	290	140	8.05	180	300	110 [#1]	< 0.015	0.23	0.053	< 0.033	< 0.010	0.053	< 0.20	0.013	2.0	---	41	3.3	3.2
	18-Sep-2024	120	< 1.0	9.1	62 [#4]	< 1.0	38	< 0.060	11	< 0.0040	1.0	8.6	---	98	< 1.0	4.7	330	140	8.02	200	22	10 [#1]	< 0.015	0.20	0.045	< 0.033	< 0.010	0.045	0.13	0.0041	5.2	---	< 10 [#7]	3.0	2.1
	13-Aug-2025	130	< 1.0	5.8 [#3]	49	< 1.0	36	< 0.060	11	< 0.0040	0.84	6.6	---	110	< 1.0	8.9	310	140	7.17	160	370 [#4,6]	310 [#1]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.30	0.027	5.0	---	53	4.4	3.9
	10-Sep-2025	120	< 1.0	9.1	50	< 1.0	39	< 0.060	11	< 0.0040	1.0	8.3	---	100	< 1.0	6.3	310	140	7.31	170	160	40 [#1]	< 0.015	0.23	0.053	< 0.13	< 0.040	0.053	---	0.0034	1.2	---	12	2.8	3.1
AEMP-DS-08 (Radar South)	19-Jul-2024	110	< 1.0	7.7	49	< 1.0	35	< 0.060	9.9	< 0.0040	0.93	7.7	---	88	< 1.0	6.3	290	130	7.78	180	210 [#6]	200 [#1]	< 0.015	0.74	0.17	< 0.033	< 0.010	0.17	< 0.20	0.031	1.8	---	< 10 [#16]	4.2	3.3
	15-Aug-2024	130	< 1.0	8.6	48	< 1.0	33	< 0.060	10	< 0.0040	0.84	9.0	---	100	< 1.0	5.8	300	120	7.73	180	31	28 [#1]	< 0.015	0.26	0.059	< 0.033	< 0.010	0.059	0.26	0.0057	6.6	---	25	2.9	2.8
	17-Sep-2024	120	< 1.0	9.0	47	< 1.0	34	< 0.060	10	< 0.0040	0.90	8.4	---	95	< 1.0	3.5	300	130	6.98	180	9.8	6.7 [#1]	< 0.015	0.18	0.040	< 0.033	< 0.010	0.040	< 0.20	< 0.0020	3.7	---	< 10 [#7]	3.0	2.6
	18-Jul-2025	110	< 1.0	7.0	47	< 1.0	33	< 0.060	9.5	< 0.0040	0.86	6.7	---	91	< 1.0	15	270	120	7.40	160	170	180 [#1,9]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.27	0.021	4.7	---	44	3.5	3.7
	16-Aug-2025	130	< 1.0	6.6	47	< 1.0	39	< 0.060	12	< 0.0040	0.94	7.4	---	100	< 1.0	9.7	300	150	7.32	160	510 [#4,6]	260 [#1]	0.025	0.28	0.063	< 0.13	< 0.040	0.063	0.21	0.011	0.14	---	37	4.6	3.4
	16-Sep-2025	120	< 1.0	10	47	< 1.0	36	< 0.060 [#24]	10	< 0.0040	1.1	8.7	---	100	< 1.0	3.9	300	130	7.20	180	9.4	7.1 [#1]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	< 2.0	< 0.0020	3.7	---	< 10 [#7]	2.8	2.8

Table 2

Surfacewater Analytical Results: Indicator Analysis Parameters

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Anions					Cations							General									Inorganic Nitrogen Compounds							Inorganic Sulphur Compounds	Ion Balance	Miscellaneous			
		Bicarbonate	Carbonate	Chloride	Sulphate	Hydroxide	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Fluoride	Alkalinity (Total; as $CaCO_3$)	Alkalinity (PP; as $CaCO_3$)	Colour	Electrical Conductivity	Hardness (Total; as $CaCO_3$)	pH	Total Dissolved Solids	Total Suspended Solids	Turbidity	Ammonia (Total; as N)	Nitrate	Nitrate (as N)	Nitrite	Nitrite (as N)	Nitrite-plus-Nitrate (as N)	Total Kjeldahl Nitrogen	Sulphide (asH2S)	Ion Balance % Difference	Biochemical Oxygen Demand	Chemical Oxygen Demand	Dissolved Organic Carbon	Total Organic Carbon
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(color unit)	(µS/cm)	(mg/L)	(pH Units)	(mg/L)	(mg/L)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]		---	---	---	---	---	None required	---	---	0.12	---	---	1.5	---	---	---	---	---	---	---	---	1	None required	45	10	3	1	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	120	---	---	---	0.3	---	0.25	---	---	0.12	---	---	---	---	---	(6.5 - 9)	---	---	---	0.14	---	2.9	---	0.06	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL [#3]		---	---	5.8	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL [#4]		---	---	15.4	59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	215	353.0	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-DS-09 (End of Facility)	17-Mar-2024	140	< 1.0	18 [#4]	51	< 1.0	52	< 0.060	14	< 0.0040	1.4	17	---	120	< 1.0	8.2	390	190	7.97	240 [#4]	2.8	2.5 [#1]	< 0.015	0.81	0.18	< 0.033	< 0.010	0.18	0.17	< 0.0020	6.9	---	32	6.2	4.5
	19-Jul-2024	120	< 1.0	7.1	57	< 1.0	39	< 0.060	11	< 0.0040	0.94	7.3	---	95	< 1.0	7.9	320	140	7.97	180	110	150 [#1]	< 0.015	0.33	0.075	< 0.033	< 0.010	0.075	< 0.20	0.035	1.6	---	12	4.4	3.4
	15-Aug-2024	130	< 1.0	8.2	55	< 1.0	43	< 0.060	13	0.0072	0.98	8.2	---	110	< 1.0	7.0	340	160	8.07	210	38	35 [#1]	< 0.015	0.22	0.049	< 0.033	< 0.010	0.049	0.33	0.0068	0.32	---	20	4.0	3.0
	17-Sep-2024	130	< 1.0	9.2	62 [#4]	< 1.0	42	< 0.060	13	< 0.0040	0.96	8.5	---	110	< 1.0	5.1	360	160	7.22	220 [#4]	9.9	8.3 [#1]	0.023	0.14	0.032	< 0.033	< 0.010	0.032	< 0.20	< 0.0020	3.3	---	13	3.3	2.8
	14-Mar-2025	130	< 1.0	16 [#4]	46	< 1.0	39	< 0.060	11	< 0.0040	1.1	12	---	110	< 1.0	6.3	350	140	6.74	210	< 1.0	4.9 [#1]	< 0.015	0.70	0.16	< 0.033	< 0.010	0.16	0.10	< 0.0020	1.2	---	< 10 [#7]	3.8	3.7
	18-Jul-2025	140	< 1.0	6.4	55	< 1.0	37	< 0.060	11	< 0.0040	0.88	6.4	---	120	< 1.0	16	300	140	7.62	190	220	200 [#1,5]	< 0.015	0.25	0.056	< 0.13	< 0.040	0.056	0.27	0.027	9.4	---	43	3.7	3.9
	16-Aug-2025	130	< 1.0	5.7 [#3]	59	< 1.0	45	< 0.060	14	0.0041	0.93	7.3	---	110	< 1.0	8.7	340	170	7.42	200	300 [#6]	260 [#1]	< 0.015	0.28	0.063	< 0.13	< 0.040	0.063	< 0.20	0.035	2.8	---	62	4.0	3.6
	16-Sep-2025	150	< 1.0	10	60 [#4]	< 1.0	42	< 0.060	12	0.0055	1.1	9.2	---	120	< 1.0	4.7	360	160	7.48	200	6.3	9.4 [#1]	0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.38	< 0.0020	5.3	---	< 10 [#7]	3.2	2.9
Relative Percent Difference (RPD) Report																																			
AEMP-DS-02 (Marine Dock)	15-Aug-2025	120	< 1.0	8.1	50	< 1.0	37	< 0.060	12	< 0.0040	0.87	8.1	---	100	< 1.0	7.3	310	140	7.35	180	150	110 [#1]	< 0.015	0.18	0.041	< 0.13	< 0.040	0.041	0.26	< 0.0020	1.3	---	35	3.1	3.3
(Duplicate)	15-Aug-2025	120	< 1.0	8.4	51	< 1.0	36	< 0.060	11	< 0.0040	0.95	8.2	---	100	< 1.0	6.8	310	140	7.43	180	170	140 [#1]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.29	0.031	3.2	---	25	3.4	2.7
RPD(%)		**0.0%**	---	**3.6%**	**2.0%**	---	**2.7%**	---	**8.7%**	---	**8.8%**	**1.2%**	---	**0.0%**	---	**7.1%**	**0.0%**	**0.0%**	**1.1%**	**0.0%**	**12.5%**	**24.0%**	---	---	---	---	---	---	**10.9%**	---	**84.4%**	---	**33.3%**	**9.2%**	**20.0%**

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. August 2025.)
   Calcium:
   Guideline value not necessary. Calcium contributes to hardness.
   Turbidity:
   Not specifically an MAC, rather a treatment limit guideline value specific groundwater not under direct influence of surface water. Groundwater that is not under the direct influence of surface water are considered less vulnerable to faecal contamination (HC 2012). A less stringent value for turbidity may be acceptable if it is demonstrated that the system has a history of acceptable microbiological quality and that a higher turbidity value will not compromise disinfection. Health Canada (2012). Guidelines for Canadian Drinking Water Quality: Guideline Technical Document - Turbidity. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Canada. December 2012.
   Ammonia (Total; as N):
   Guideline value not necessary. No adverse effects at levels found in drinking water. To help prevent nitrification, limit excess free ammonia entering the distribution system to below 0.1 mg/L and preferably below 0.05 mg/L as N.
7. Superscript [#2] denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life. http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)
   Chloride:
   Guideline based on chronic exposure
   Ammonia (Total; as N):
   Guideline for total ammonia is dependent on pH and temperature of surface water. Guideline based on Temperature of 20oC and pH of 8.5
   Nitrate (as N):
   Guideline based on long term exposure
   Nitrite (as N):
   Standard is for NO_2 as N, equivalent standard for NO_2 is 0.197 mg/L.
8. Superscript [#3] denotes values below
   (UPSTEAM DATA LCL)
9. Superscript [#4] denotes values exceeding
   (UPSTEAM DATA UCL)
10. Superscript [#5] - Sample filtered and preserved past method specified hold time
11. Superscript [#6] - Detection limit raised based on sample volume used for analysis.
12. Superscript [#7] - COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.
13. Superscript [#8] - Sample was analyzed after holding time expired.
14. Superscript [#9] - Sample incubation time was outside method specifications. This may increase the uncertainty associated with these results.
15. Superscript [#10] - Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
16. Superscript [#11] - Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

Table 2

Surfacewater Analytical Results: Indicator Analysis Parameters

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Anions					Cations							General									Inorganic Nitrogen Compounds							Inorganic Sulphur Compounds	Ion Balance	Miscellaneous			
		Bicarbonate	Carbonate	Chloride	Sulphate	Hydroxide	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Fluoride	Alkalinity (Total; as $CaCO_3$)	Alkalinity (PP; as $CaCO_3$)	Colour	Electrical Conductivity	Hardness (Total; as $CaCO_3$)	pH	Total Dissolved Solids	Total Suspended Solids	Turbidity	Ammonia (Total; as N)	Nitrate	Nitrate (as N)	Nitrite	Nitrite (as N)	Nitrite-plus-Nitrate (as N)	Total Kjeldahl Nitrogen	Sulphide (asH2S)	Ion Balance % Difference	Biochemical Oxygen Demand	Chemical Oxygen Demand	Dissolved Organic Carbon	Total Organic Carbon
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(color unit)	(µS/cm)	(mg/L)	(pH Units)	(mg/L)	(mg/L)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]		---	---	---	---	---	None required	---	---	0.12	---	---	1.5	---	---	---	---	---	---	---	---	1	None required	45	10	3	1	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	120	---	---	---	0.3	---	0.25	---	---	0.12	---	---	---	---	---	(6.5 - 9)	---	---	---	0.14	---	2.9	---	0.06	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL [#3]		---	---	5.8	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL [#4]		---	---	15.4	59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	215	353.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---

17. Superscript [#12] - Method blank exceeds 0.2 mg/L stipulated in Reference Method. No other Quality Control measures affected.
18. Superscript [#13] - Detection limits raised due to sample matrix.
19. Superscript [#14] - Method blank exceeds 0.2 mg/L stipulated in Reference Method. No other Quality Control measures affected.Sample analyzed past hold time. Sample analysis is recommended within 48 hours of sampling.
20. Superscript [#15] - Sample analyzed past hold time. Sample analysis is recommended within 48 hours of sampling. Method blank exceeds 0.2 mg/L stipulated in Reference Method. No other Quality Control measures affected.
21. Superscript [#16] - COD < DOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.
22. Superscript [#17] - Detection limits raised due to matrix interference.
23. Superscript [#18] - Duplicate exceeds acceptance criteria due to sample non homogeneity. Reanalysis yields similar results.
24. Superscript [#19] - Sample was past hold time when received.
25. Superscript [#20] - Sample analyzed past hold time. Sample analysis is recommended within 48 hours of sampling.
26. Superscript [#21] - COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. COD < DOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.
27. Superscript [#22] - Detection limits raised due to dilution to bring analyte within the calibrated range.
28. Superscript [#23] - Matrix spike exceeds acceptance limits due to matrix interference.
29. Superscript [#24] - Matrix spike exceeds acceptance limits due to probable matrix interference.

Table 3

Surfacewater Analytical Results: Petroleum Hydrocarbons (PHCs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Date (dd-mmm-yyyy)	Status	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	m&p-Xylene (mg/L)	o-Xylene (mg/L)	Xylenes (Total) (mg/L)	PHC F1 (C_6-C_{10}) (mg/L)	PHC F1 (C_6-C_{10}) - BTEX (mg/L)	PHC F2 (C_{10}-C_{16}) (mg/L)	PHC F3 (C_{16}-C_{34}) (mg/L)	PHC F4 (C_{34}-C_{50}) (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			**0.005**	**0.06**	**0.14**	**---**	**---**	**0.09**	**---**	**---**	**---**	**---**	**---**
2024 Federal Environmental Quality Guidelines - Freshwater-MAC [#2]			**0.59**	**0.03**	**0.07**	**---**	**---**	**0.07**	**---**	**---**	**---**	**---**	**---**
CCME CEQG Freshwater AL-MACKENZIE [#3]			**0.37**	**0.002**	**0.09**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
AEMP-MACKENZIE-US													
AEMP-US-01 (Midway)	12-Mar-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	25-Jul-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	19-Aug-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	26-Sep-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	16-Mar-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	19-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	15-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	08-Mar-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	16-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-US-02 (10 mile)	23-Jun-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	14-Aug-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Oct-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Jun-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	26-Aug-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	01-Oct-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Jun-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	28-Jul-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	22-Sep-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	07-Jun-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	19-Aug-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Sep-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Aug-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Mar-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	25-Jul-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	19-Aug-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	24-Sep-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	17-Mar-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	19-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	15-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	08-Mar-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	16-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-US-03 (Norman Wells U/S)	09-Mar-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Mar-2024	Grab	0.00051	**0.0027** [#3]	0.00090	0.0038	0.0019	0.0057	< 0.10	< 0.10	< 0.10	---	---
	19-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	08-Mar-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	16-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-MACKENZIE-DS													
AEMP-DS-02 (Marine Dock)	17-Aug-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	21-Aug-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	16-Sep-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	16-Oct-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	23-Jun-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	13-Aug-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Oct-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	03-Jun-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	28-Aug-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	03-Oct-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Jun-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	24-Jul-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Sep-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	06-Jun-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Aug-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Sep-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	31-Mar-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Jun-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	06-Aug-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	25-Sep-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	09-Mar-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	25-Jul-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	18-Aug-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	24-Sep-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	18-Mar-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	20-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	13-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Mar-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	19-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	15-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	13-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-DS-03 (Island 3)	16-Sep-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	16-Oct-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	23-Jun-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	14-Aug-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Oct-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Jun-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	26-Aug-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	01-Oct-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Jun-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	28-Jul-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	22-Sep-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	07-Jun-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	19-Aug-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Sep-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	31-Mar-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	14-Jun-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	06-Aug-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	25-Sep-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	09-Mar-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	25-Jul-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	19-Aug-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	0.23	< 0.20

Table 3

Surfacewater Analytical Results: Petroleum Hydrocarbons (PHCs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Date (dd-mmm-yyyy)	Status	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	m&p-Xylene (mg/L)	o-Xylene (mg/L)	Xylenes (Total) (mg/L)	PHC F1 (C_6-C_{10}) (mg/L)	PHC F1 (C_6-C_{10}) - BTEX (mg/L)	PHC F2 (C_{10}-C_{16}) (mg/L)	PHC F3 (C_{16}-C_{34}) (mg/L)	PHC F4 (C_{34}-C_{50}) (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			**0.005**	**0.06**	**0.14**	**---**	**---**	**0.09**	**---**	**---**	**---**	**---**	**---**
2024 Federal Environmental Quality Guidelines - Freshwater-MAC [#2]			**0.59**	**0.03**	**0.07**	**---**	**---**	**0.07**	**---**	**---**	**---**	**---**	**---**
CCME CEQG Freshwater AL-MACKENZIE [#3]			**0.37**	**0.002**	**0.09**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
	25-Sep-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	18-Mar-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	19-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	15-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Mar-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	16-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-DS-04 (Refinery)	21-Aug-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	16-Sep-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	16-Oct-2017	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	23-Jun-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	13-Aug-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Oct-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	03-Jun-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	25-Aug-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	03-Oct-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Jun-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	24-Jul-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Sep-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	06-Jun-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Aug-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Sep-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Jun-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	06-Aug-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	24-Sep-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	11-Mar-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	26-Jul-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	18-Aug-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	0.33	< 0.20
	24-Sep-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	18-Mar-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	20-Jul-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	13-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Mar-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	19-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	13-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-DS-05 (Radar)	23-Jun-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	14-Aug-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Oct-2018	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Jun-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	26-Aug-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	01-Oct-2019	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Jun-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	28-Jul-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	22-Sep-2020	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	07-Jun-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	19-Aug-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Sep-2021	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Aug-2022	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	11-Mar-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	25-Jul-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	19-Aug-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	26-Sep-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	17-Mar-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	19-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	15-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	14-Mar-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	16-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-DS-06 (Fort Good Hope)	10-Mar-2023	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	24-Jul-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	21-Aug-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	03-Oct-2023	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	15-Mar-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	14-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Sep-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	13-Mar-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	13-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Sep-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-DS-07 (Fort G H-Rampart)	17-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	14-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	13-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	10-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-DS-08 (Radar South)	19-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	15-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	16-Sep-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-DS-09 (Goose)	17-Mar-2024	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	19-Jul-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	15-Aug-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	17-Sep-2024	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	14-Mar-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	18-Jul-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	16-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	16-Sep-2025	Grab	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
Relative Percent Difference (RPD) Report													
AEMP-DS-02 (Marine Dock)	15-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
(Duplicate)	15-Aug-2025	PDB	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
RPD(%)			---	---	---	---	---	---	---	---	---	---	---

Table 3

Surfacewater Analytical Results: Petroleum Hydrocarbons (PHCs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Date (dd-mmm-yyyy)	Status	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	m&p-Xylene (mg/L)	o-Xylene (mg/L)	Xylenes (Total) (mg/L)	PHC F1 (C_6-C_{10}) (mg/L)	PHC F1 (C_6-C_{10}) - BTEX (mg/L)	PHC F2 (C_{10}-C_{16}) (mg/L)	PHC F3 (C_{16}-C_{34}) (mg/L)	PHC F4 (C_{34}-C_{50}) (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			0.005	0.06	0.14	---	---	0.09	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC [#2]			0.59	0.03	0.07	---	---	0.07	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#3]			0.37	0.002	0.09	---	---	---	---	---	---	---	---

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. August 2025.)
7. Superscript [#2] denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
8. Superscript [#3] denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life. http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)

Table 4

Surfacewater Analytical Results: Total Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Selenium	Silicon	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#]		**2.9**	**0.006**	**0.01**	**2**	**---**	**5**	**0.007**	**None required**	**0.05**	**---**	**2**	**---**	**0.005**	**---**	**---**	**0.12**	**0.001**	**---**	**---**	**---**	**---**	**0.05**	**---**	**---**	**---**	**7**	**---**	**---**	**---**	**0.02**	**---**	**---**
2024 Federal Environmental Quality Guidelines - Freshwa		**0.97**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00106**	**---**	**0.33**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**2.5**	**---**	**---**	**---**	**---**	**0.12**	**---**
CCME CEQG Freshwater AL-MACKENZIE [#3]		**0.1**	**---**	**0.005**	**---**	**---**	**1.5**	**0.00017**	**---**	**0.0089**	**---**	**0.00257**	**0.3**	**0.00359**	**---**	**---**	**---**	**0.000026**	**0.073**	**0.103**	**---**	**---**	**0.001**	**---**	**0.00025**	**---**	**---**	**0.0008**	**---**	**---**	**0.015**	**---**	**---**
MACKENZIE UPSTEAM DATA LCL [#4]		**0.01**	**---**	**0.00019**	**0.031**	**---**	**---**	**0.000010**	**21**	**0.0001**	**---**	**0.0005**	**0.0003**	**---**	**---**	**7.0**	**---**	**---**	**0.0005**	**0.0007**	**---**	**---**	**0.00013**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00043**	**---**	**0.0006**
MACKENZIE UPSTEAM DATA UCL [#5]		**4.43**	**---**	**0.00385**	**0.137**	**---**	**---**	**0.000281**	**46**	**0.0068**	**---**	**0.0103**	**9.1466**	**---**	**---**	**14.1**	**---**	**---**	**0.0017**	**0.0145**	**---**	**---**	**0.00069**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00114**	**---**	**0.1007**
AEMP-MACKENZIE-US																																	
AEMP-US-01 (Midway)	12-Mar-2023	**1.6** [#2,3]	< 0.00060	0.0014	0.073	< 0.0010	< 0.020	0.000072	23	0.0029	**0.0013** [#2]	**0.0027** [#3]	**2.6** [#2,3]	0.0017	< 0.020	9.5	0.069	0.0000046	0.00057	0.0039	< 0.10	1.4	< 0.00020	5.0	< 0.00010	7.8	0.18	< 0.00020	< 0.0010	0.062	0.00059	0.0051	0.016
	25-Jul-2023	**0.39** [#3]	< 0.00060	0.00048	0.051	< 0.0010	< 0.020	0.000033	34	< 0.0010	< 0.00030	0.0013	**0.48** [#2,3]	0.00028	< 0.020	10	0.014	< 0.0000019	0.00095	0.0015	< 0.10	1.1	0.00031	2.4	< 0.00010	8.7	0.22	< 0.00020	< 0.0010	0.0093	0.00068	< 0.0010	0.0031
	19-Aug-2023	**0.70** [#3]	0.00075	0.00071	0.054	< 0.0010	< 0.020	0.000048	30	0.0013	0.00036	0.0017	**0.78** [#2,3]	0.00056	< 0.020	9.8	0.018	0.0000028	0.00090	0.0021	< 0.10	1.0	0.00035	2.6	< 0.00010	8.5	0.21	< 0.00020	< 0.0010	0.016	0.00071	0.0023	0.0050
	26-Sep-2023	0.079	< 0.00060	0.00026	0.035	< 0.0010	< 0.020	< 0.000020	24	< 0.0010	< 0.00030	< 0.0010	0.11	< 0.00020	< 0.020	8.9	0.0045	< 0.0000019	0.00058	0.00071	< 0.10	0.82	< 0.00020	1.3	< 0.00010	7.7	0.18	< 0.00020	< 0.0010	0.0019	0.00048	< 0.0010	< 0.0030
	16-Mar-2024	**0.38** [#3]	< 0.00060	0.00038	0.044	< 0.0010	< 0.020	< 0.000020	25	< 0.0010	< 0.00030	0.0017	**0.64** [#2,3]	0.00030	< 0.020	9.1	0.013	---	0.00058	0.0014	< 0.10	1.1	< 0.00020	3.0	< 0.00010	8.4	0.18	< 0.00020	< 0.0010	0.011	0.00047	< 0.0010	0.0064
	19-Jul-2024	**3.2** [#1,2,3]	< 0.00060	0.0033	0.10	< 0.0010	0.025	0.00017 [#3]	33	0.0052	**0.0033** [#2]	**0.0072** [#3]	**6.6** [#2,3]	0.0034	< 0.020	11	0.11	< 0.0000019	0.0014	0.011	0.12	1.7	0.00047	5.1	< 0.00010	8.5	0.21	< 0.00020	< 0.0010	0.032	0.00094	0.0097	0.052
	15-Aug-2024	**0.30** [#3]	< 0.00060	0.00044	0.051	< 0.0010	< 0.020	0.000021	30	< 0.0010	< 0.00030	0.0011	**0.45** [#2,3]	0.00025	< 0.020	10	0.013	< 0.0000019	0.00088	0.0013	< 0.10	1.0	0.00028	2.2	< 0.00010	8.7	0.21	< 0.00020	< 0.0010	0.012	0.00066	0.0010	< 0.0030
	17-Sep-2024	**0.23** [#3]	< 0.00060	0.00043	0.045	< 0.0010	< 0.020	0.000029	26	< 0.0010	< 0.00030	< 0.0010	**0.38** [#2,3]	0.00049	< 0.020	8.8	0.011	< 0.0000019	0.00062	0.0015	< 0.10	0.89	< 0.00020	1.4	< 0.00010	12	0.19	< 0.00020	< 0.0010	0.0068	0.00051	< 0.0010	< 0.0030
	08-Mar-2025	0.046	< 0.00060	0.00023	0.034	< 0.0010	< 0.020	< 0.000020	23	< 0.0010	< 0.00030	< 0.0010	0.085	< 0.00020	< 0.020	8.8	< 0.0040	< 0.0000019	0.00060	0.00081	< 0.10	1.1	< 0.00020	1.6	< 0.00010	8.2	0.20	< 0.00020	< 0.0010	< 0.0010	0.00044	< 0.0010	< 0.0030
	18-Jul-2025	**1.8** [#2,3]	< 0.00060	0.0017	0.095	< 0.0010	< 0.020	0.00014	34	0.0028	**0.0016** [#2]	**0.0048** [#3]	**3.6** [#2,3]	0.0017	< 0.020	11	0.059	0.0000069	0.0011	0.0061	< 0.10	1.5	0.00045	3.5	< 0.00010	8.9	0.23	< 0.00020	< 0.0010	0.019	0.00074	0.0055	0.043
	16-Aug-2025	**2.2** [#2,3]	< 0.00060	0.0010	0.076	< 0.0010	< 0.020	0.000098	33	0.0029	**0.0012** [#2]	**0.0030** [#3]	**2.5** [#2,3]	0.0011	< 0.020	11	0.043	0.0000028	0.0010	0.0042	< 0.10	1.6	0.00032	7.1	< 0.00010	8.2	0.24	< 0.00020	< 0.0010	0.046	0.00083	0.0049	0.012
	16-Sep-2025	**0.14** [#3]	< 0.00060	0.00038	0.049	< 0.0010	< 0.020	0.000033	33	< 0.0010	< 0.00030	< 0.0010	0.22	< 0.00020	< 0.020	11	0.010	< 0.0000019	0.00072	0.00095	< 0.10	0.90	0.00022	1.5	< 0.00010	20	0.24	< 0.00020	< 0.0010	0.0069	0.00054	< 0.0010	< 0.0030
AEMP-US-02 (10 mile)	23-Jun-2018	**0.93** [#3]	< 0.00060	0.0011	0.061	< 0.0010	< 0.020	0.000080	32	0.0018	**0.0012** [#2]	**0.0036** [#3]	**1.5** [#2,3]	0.00093	< 0.020	8.7	0.031	0.0000033	0.0011	0.0050	< 0.10	1.1	0.00041	2.5	< 0.00010	6.1	0.15	< 0.00020	< 0.0010	0.024	0.00085	0.0027	0.011
	14-Aug-2018	**1.6** [#2,3]	< 0.00060	0.0013	0.077	< 0.0010	< 0.020	0.00015	40	0.0014	**0.0016** [#2]	**0.0037** [#3]	**2.0** [#2,3]	0.0012	< 0.020	12	0.052	0.0000068	0.0011	0.0057	< 0.10	1.3	0.00047	4.1	< 0.00010	7.8	0.24	< 0.00020	< 0.0010	0.029	0.00084	0.0035	0.021
	18-Oct-2018	**0.44** [#3]	< 0.00060	0.00069	0.057	< 0.0010	< 0.020	0.000053	28	< 0.0010	0.00047	0.0016	**0.89** [#2,3]	0.00057	< 0.020	9.6	0.028	< 0.0000020	0.00079	0.0031	< 0.10	0.98	< 0.00020	1.9	< 0.00010	9.5	0.22	< 0.00020	< 0.0010	0.014	0.00057	0.0016	0.0055
	10-Jun-2019	**2.0** [#2,3]	0.00096	0.0021	0.098	< 0.0010	< 0.020	0.00015	38	0.0033	**0.0024** [#2]	**0.0074** [#3]	**4.8** [#2,3]	0.0026	< 0.020	10	0.11	0.0000090	0.0012	0.0081	0.11	1.5	0.00038	4.0	< 0.00010	6.2	0.18	< 0.00020	< 0.0010	0.028	0.00087	0.0056	0.042
	26-Aug-2019	**1.7** [#2,3]	< 0.00060	0.0013	0.076	< 0.0010	< 0.020	0.000083	40	0.0026	0.0010	**0.0031** [#3]	**2.2** [#2,3]	0.0011	< 0.020	11	0.042	< 0.0000020	0.0011	0.0043	< 0.10	1.5	0.00053	5.2	< 0.00010	8.1	0.24	< 0.00020	< 0.0010	0.028	0.00097	0.0048	0.013
	01-Oct-2019	**1.6** [#2,3]	< 0.00060	0.0011	0.085	< 0.0010	< 0.020	0.000086	37	0.0026	0.0010	**0.0043** [#3]	**2.3** [#2,3]	0.0014	< 0.020	11	0.028	0.0000061	0.0012	0.0051	< 0.10	1.4	0.00050	3.1	< 0.00010	8.9	0.24	< 0.00020	< 0.0010	0.039	0.00095	0.0050	0.012
	12-Jun-2020	**4.7** [#1,2,3]	< 0.00060	0.0039	0.16	< 0.0010	< 0.020	**0.00028** [#3]	45	0.0074	**0.0049** [#2]	**0.012** [#3]	**11** [#2,3]	**0.0051** [#1,3]	< 0.020	13	**0.18** [#1]	0.000024 [#6]	0.0019	0.017	0.19	2.0	0.00061	7.8	< 0.00010	5.2	0.22	< 0.00020	< 0.0010	0.044	0.0011	0.013	0.079
	28-Jul-2020	**1.1** [#2,3]	< 0.00060	0.0017	0.084	< 0.0010	< 0.020	0.00012	39	0.0032	**0.0013** [#2]	**0.0042** [#3]	**2.8** [#2,3]	0.0016	< 0.020	10	0.064	< 0.000019 [#6]	0.0011	0.0063	< 0.10	1.0	0.00067	3.3	< 0.00010	6.0	0.19	< 0.00020	< 0.0010	0.020	0.00083	0.0037	0.012
	22-Sep-2020	**0.76** [#3]	0.00087	0.00099	0.060	< 0.0010	< 0.020	0.000065	39	0.0021	0.00075	**0.0028** [#3]	**1.2** [#2,3]	0.00075	< 0.020	10	0.032	0.0000023	0.0012	0.0039	< 0.10	1.1	0.00050	3.0	0.00013	7.2	0.19	< 0.00020	< 0.0010	0.016	0.00094	0.0038	0.0077
	07-Jun-2021	**2.7** [#2,3]	< 0.00060	0.0016	0.081	< 0.0010	0.020	0.000088	38	0.0044	**0.0015** [#2]	**0.0050** [#3]	**3.3** [#2,3]	0.0017	< 0.020	10	0.064	0.0000029	0.00099	0.0066	< 0.10	1.6	0.00032	4.2	< 0.00010	7.1	0.17	< 0.00020	< 0.0010	0.069	0.00079	0.0075	0.017
	19-Aug-2021	**3.0** [#1,2,3]	< 0.00060	0.0027	0.12	< 0.0010	0.048	**0.00018** [#3]	41	0.0045	**0.0029** [#2]	**0.0073** [#3]	**6.6** [#2,3]	0.0030	< 0.020	12	0.12 [#1]	0.000011	0.0015	0.0098	0.13	2.1	0.00052	7.9	< 0.00010	6.9	0.21	< 0.00020	0.0013	0.031	0.0011	0.0082	0.099
	18-Sep-2021	**1.7** [#2,3]	< 0.00060	0.0013	0.075	< 0.0010	< 0.020	0.000062	37	0.0033	0.0010	**0.0032** [#3]	**1.9** [#2,3]	0.0010	< 0.020	11	0.039	0.0000038	0.0011	0.0046	< 0.10	1.6	0.00042	5.9	< 0.00010	7.5	0.21	< 0.00020	< 0.0010	0.040	0.00091	0.0053	0.0098
	10-Aug-2022	**0.84** [#3]	< 0.00060	0.0010	0.075	< 0.0010	< 0.020	0.000077	35	< 0.0010	0.00076	0.0024	**1.6** [#2,3]	0.00088	< 0.020	10	0.037	0.0000034	0.00086	0.0033	< 0.10	1.3	0.00030	4.6	< 0.00010	7.2	0.21	< 0.00020	< 0.0010	0.015	0.00076	0.0024	0.0097
	12-Mar-2023	0.037	< 0.00060	< 0.00020	0.036	< 0.0010	< 0.020	< 0.000020	24	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	8.6	< 0.0040	< 0.0000019	0.00060	0.00078	< 0.10	0.77	< 0.00020	1.5	< 0.00010	8.2	0.20	< 0.00020	< 0.0010	< 0.0010	0.00050	< 0.0010	< 0.0030
	25-Jul-2023	**0.23** [#3]	< 0.00060	0.00048	0.052	< 0.0010	< 0.020	0.000029	38	< 0.0010	< 0.00030	0.0012	0.30 [#3]	0.00022	< 0.020	11	0.014	< 0.0000019	0.0012	0.0015	< 0.10	1.0	0.00037	2.0	< 0.00010	8.8	0.24	< 0.00020	< 0.0010	0.0050	0.00083	< 0.0010	< 0.0030
	19-Aug-2023	**1.5** [#2,3]	< 0.00060	0.0012	0.078	< 0.0010	< 0.020	0.000067	37	0.0026	0.00087	**0.0027** [#3]	**1.7** [#2,3]	0.00098	< 0.020	11	0.040	0.0000025	0.0013	0.0045	< 0.10	1.4	0.00045	4.4	< 0.00010	8.4	0.24	< 0.00020	< 0.0010	0.046	0.00098	0.0048	0.0095
	24-Sep-2023	**0.96** [#3]	< 0.00060	0.00095	0.072	< 0.0010	< 0.020	0.000063	36	0.0015	0.00084	**0.0026** [#3]	**1.6** [#2,3]	0.00097	< 0.020	12	0.040	< 0.0000019	0.0014	0.0052	< 0.10	1.2	0.00038	2.8	< 0.00010	9.9	0.26	< 0.00020	< 0.0010	0.017	0.0010	0.0024	0.0093
	17-Mar-2024	0.046	< 0.00060	0.00041	0.041	< 0.0010	< 0.020	< 0.000020	29	< 0.0010	< 0.00030	0.0012	0.062	< 0.00020	< 0.020	9.4	< 0.0040	< 0.0000019	0.0010	0.0012	< 0.10	0.92	0.00024	1.9	< 0.00010	9.7	0.22	< 0.00020	< 0.0010	< 0.0010	0.00083	< 0.0010	< 0.0030
	19-Jul-2024	**1.7** [#2,3]	< 0.00060	0.00092	0.035	< 0.0010	< 0.020	0.000048	10	0.0029	0.00088	0.0019	**1.8** [#2,3]	0.0011	< 0.020	3.1	0.024	0.000011	0.00044	0.0030	< 0.10	0.64	< 0.00020	1.6	< 0.00010	2.2	0.065	< 0.00020	< 0.0010	0.085	0.00032	0.0071	0.0091
	15-Aug-2024	**0.49** [#3]	< 0.00060	0.00051	0.054	< 0.0010	< 0.020	0.000029	35	< 0.0010	0.00031	0.0014	**0.53** [#2,3]	0.00037	< 0.020	11	0.016	< 0.0000019	0.0010	0.0019	< 0.10	1.1	0.00036	2.5	< 0.00010	8.0	0.23	< 0.00020	< 0.0010	0.0077	0.00080	0.0014	0.0035
	17-Sep-2024	0.091	< 0.00060	0.00034	0.040	< 0.0010	< 0.020	0.000021	30	< 0.0010	< 0.00030	< 0.0010	0.097	< 0.00020	0.025	9.4	0.0052	< 0.0000019	0.00093	0.0014	< 0.10	0.89	0.00024	1.3	< 0.00010	7.4	0.22	< 0.00020	< 0.0010	0.0015	0.00071	< 0.0010	< 0.0030
	08-Mar-2025	0.065	< 0.00060	0.00029	0.040	< 0.0010	< 0.020	< 0.000020	27	< 0.0010	< 0.00030	0.0010	0.078	< 0.00020	< 0.020	9.4	< 0.0040	< 0.0000019	0.00075	0.00093	< 0.10	1.1	< 0.00020	1.8	< 0.00010	9.1	0.22	< 0.00020	< 0.0010	< 0.0010	0.00056	< 0.0010	0.0053
	18-Jul-2025	**2.2** [#2,3]	< 0.00060	0.0020	0.11	< 0.0010	< 0.020	0.00011	37	0.0033	**0.0018** [#2]	**0.0054** [#3]	**4.2** [#2,3]	0.0021	< 0.020	11	0.064	0.0000073	0.0013	0.0069	< 0.10	1.7	0.00056	4.6	< 0.00010	7.7	0.25	< 0.00020	< 0.0010	0.023	0.00087	0.0068	0.044
	16-Aug-2025	**2.7** [#2,3]	< 0.00060	0.0020	0.092	< 0.0010	< 0.020	0.00014	41	0.0040	**0.0025** [#2]	**0.0058** [#3]	**5.3** [#2,3]	0.0024	< 0.020	14	0.098	0.0000058	0.0013	0.0084	0.10	1.6	0.00049	4.8	< 0.00010	8.0	0.30	< 0.00020	< 0.0010	0.023	0.00099	0.0065	0.047
	16-Sep-2025	**0.13** [#3]	< 0.00060	0.00036	0.054	< 0.0010	0.020	0.000041	47	< 0.0010	< 0.00030	< 0.0010	0.19	< 0.00020	< 0.020	16	0.026	< 0.0000019	0.0013	0.0012	< 0.10	1.0	0.00037	1.7	< 0.00010	9.7	0.64	< 0.00020	< 0.0010	0.0012	0.00098	< 0.0010	< 0.0030
AEMP-US-03 (6 Mile Island)	09-Mar-2023	0.027	< 0.00060	0.00024	0.035	< 0.0010	< 0.020	0.000023	26	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	9.1	< 0.0040	< 0.0000019	0.00057	0.00071	< 0.10	0.80	< 0.00020	1.5	< 0.00010	8.6	0.21	< 0.00020	< 0.0010	< 0.0010	0.00046	0.0010	< 0.0030
	17-Mar-2024	0.025	< 0.00060	0.00034	0.040	< 0.0010	< 0.020	< 0.000020	29	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	9.6	< 0.0040	< 0.0000019	0.0010	0.0010	< 0.10	0.91	0.00025	1.9	< 0.00010	9.5	0.23	< 0.00020	0.022	< 0.0010	0.00077	< 0.0010	< 0.0030
	19-Jul-2024	**4.3** [#1,2,3]	< 0.00060	0.0043	0.13	< 0.0010	0.022	**0.00023** [#3]	38	0.006	**0.0044** [#2]	**0.0091** [#3]	**8.8** [#2,3]	**0.0046** [#3]	< 0.020	11	**0.14** [#1]	0.000014 [#6]	0.0017	0.014	0.17	1.9	0.00060	6.4	< 0.00010	7.3	0.22	< 0.00020	< 0.0010	0.038	0.0011	0.013	0.058
	16-Aug-2024	**6.3** [#1,2,3]	< 0.0024	**0.0066** [#3]	0.24	< 0.0040	0.024	**0.00044** [#3]	57	**0.011** [#3]	**0.0076** [#2]	**0.015** [#3]	**15** [#2,3]	**0.0072** [#1,3]	< 0.020	18	**0.31** [#1]	0.000021	0.0019	0.021	0.36	3.4	0.00099	9.3	< 0.00040 [#3]	8.1	0.28	< 0.00080	< 0.0040	0.066	0.0013	0.019	0.24
	12-Sep-2024	**0.12** [#3]	< 0.00060	0.00038	0.045	< 0.0010	< 0.020	0.000037	32	< 0.0010	< 0.00030	0.0011	0.11	< 0.00020	< 0.020	11	0.0050	< 0.0000019	0.00094	0.0016	< 0.10	0.94	0.00033	1.4	< 0.00010	8.2	0.22	< 0.00020	< 0.0010	0.0016	0.00077	< 0.0010	< 0.0030
	08-Mar-2025	0.037	< 0.00060	0.00028	0.041	< 0.0010	< 0.020	< 0.000020	28	0.0013	< 0.00030	0.0016	< 0.060	< 0.00020	< 0.020	10	< 0.0040	< 0.0000019	0.00074	0.0014	< 0.10	1.0	0.00020	1.8	< 0.00010	9.5	0.23	< 0.00020	< 0.0010	< 0.0010	0.00058	< 0.0010	0.0034
	18-Jul-2025	**2.6** [#2,3]	< 0.00060	0.0024	0.13	< 0.0010	< 0.020	0.00017 [#3]	38	0.0043	**0.0024** [#2]	**0.0066** [#3]	**5.5** [#2,3]	0.0028	< 0.020	11	0.084	0.0000092	0.0014	0.0086	0.13	1.8	0.00051	4.8	< 0.00010	7.6	0.24	< 0.00020	< 0.0010	0.028	0.0010	0.0079	0.050
	16-Aug-2025	**2.6** [#2,3]	< 0.00060	0.0020	0.086	< 0.0010	< 0.020	0.00015	39	0.0038	**0.0023** [#2]	**0.0051** [#3]	**4.9** [#2,3]	0.0021	< 0.020	13	0.087	0.0000061	0.0013	0.0078	< 0.10	1.6	0.00047	4.6	< 0.00010	7.6	0.26	< 0.00020	< 0.0010	0.021	0.00098	0.0063	0.050
	16-Sep-2025	**0.61** [#3]	< 0.00060	0.00064	0.059	< 0.0010	0.020	0.000026	35	0.0010	0.00053	0.0014	**0.95** [#2,3]	0.00047	< 0.020	11	0.024	< 0.0000019	0.00097	0.0023	< 0.10	1.1	0.00031	2.6	< 0.00010	8.7	0.24	< 0.00020	< 0.0010	0.010	0.00071	0.0016	0.0044

Table 4

Surfacewater Analytical Results: Total Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date (dd-mmm-yyyy)	Aluminum (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (Total) (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Lithium (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Phosphorus (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silicon (mg/L)	Silver (mg/L)	Sodium (mg/L)	Strontium (mg/L)	Thallium (mg/L)	Tin (mg/L)	Titanium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#]		**2.9**	**0.006**	**0.01**	**2**	**---**	**5**	**0.007**	**None required**	**0.05**	**---**	**2**	**---**	**0.005**	**---**	**---**	**0.12**	**0.001**	**---**	**---**	**---**	**---**	**0.05**	**---**	**---**	**---**	**7**	**---**	**---**	**---**	**0.02**	**---**	**---**
2024 Federal Environmental Quality Guidelines - Freshwa		**0.97**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00106**	**---**	**0.33**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**2.5**	**---**	**---**	**---**	**---**	**0.12**	**---**
CCME CEQG Freshwater AL-MACKENZIE [#3]		**0.1**	**---**	**0.005**	**---**	**---**	**1.5**	**0.00017**	**---**	**0.0089**	**---**	**0.00257**	**0.3**	**0.00359**	**---**	**---**	**---**	**0.000026**	**0.073**	**0.103**	**---**	**---**	**0.001**	**---**	**0.00025**	**---**	**---**	**0.0008**	**---**	**---**	**0.015**	**---**	**---**
MACKENZIE UPSTEAM DATA LCL [#4]		**0.01**	**---**	**0.00019**	**0.031**	**---**	**---**	**0.000010**	**21**	**0.0001**	**---**	**0.0005**	**0.0003**	**---**	**---**	**7.0**	**---**	**---**	**0.0005**	**0.0007**	**---**	**---**	**0.00013**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00043**	**---**	**0.0006**
MACKENZIE UPSTEAM DATA UCL [#5]		**4.43**	**---**	**0.00385**	**0.137**	**---**	**---**	**0.000281**	**46**	**0.0068**	**---**	**0.0103**	**9.1466**	**---**	**---**	**14.1**	**---**	**---**	**0.0017**	**0.0145**	**---**	**---**	**0.00069**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00114**	**---**	**0.1007**
AEMP-MACKENZIE-DS																																	
AEMP-DS-02 (Marine Dock)	17-Aug-2017	**0.65** [#3]	< 0.00060	0.0011	0.066	< 0.0010	< 0.020	0.000071	39	0.0011	0.00079	0.0025	**1.2** [#2,3]	0.00077	< 0.020	12	0.031	0.0000038	0.0012	0.0037	< 0.10	1.1	0.00052	2.6	< 0.00010	7.3	0.25	< 0.00020	< 0.0010	0.011	0.00094	0.0032	0.011
	21-Aug-2017	**0.50** [#3]	< 0.00060	0.00079	0.056	< 0.0010	< 0.020	0.000035	33	< 0.0010	0.00056	0.0020	**0.98** [#2,3]	0.00054	< 0.020	10	0.024	0.0000026	0.00095	0.0027	< 0.10	1.1	0.00031	2.2	< 0.00010	8.3	0.24	< 0.00020	< 0.0010	0.011	0.00072	0.0019	0.0057
	16-Sep-2017	**1.2** [#2,3]	< 0.00060	0.0015	0.085	< 0.0010	< 0.020	0.000092	39	0.0022	**0.0016** [#2]	**0.0037** [#3]	**3.2** [#2,3]	0.0017	< 0.020	14	0.077	0.0000026	0.00095	0.0051	< 0.10	1.2	0.00026	3.0	< 0.00010	9.4	0.24	< 0.00020	< 0.0010	0.016	0.00074	0.0043	0.016
	16-Oct-2017	**0.33** [#3]	< 0.00060	0.00056	0.048	< 0.0010	< 0.020	0.000029	31	< 0.0010	0.00039	0.0013	**0.74** [#2,3]	0.00040	< 0.020	11	0.020	< 0.0000020	0.00077	0.0020	< 0.10	0.99	0.00033	2.1	< 0.00010	9.2	0.23	< 0.00020	< 0.0010	0.0069	0.00060	0.0026	0.0040
	23-Jun-2018	**0.80** [#3]	< 0.00060	0.00098	0.063	< 0.0010	< 0.020	0.000066	31	0.0014	**0.0011** [#2]	**0.0031** [#3]	**1.6** [#2,3]	0.00089	< 0.020	9.5	0.038	0.0000030	0.0011	0.0043	< 0.10	1.0	0.00028	2.3	< 0.00010	7.3	0.20	< 0.00020	< 0.0010	0.010	0.00073	0.0026	0.011
	13-Aug-2018	**0.73** [#3]	< 0.00060	0.00083	0.057	< 0.0010	< 0.020	0.000087	35	< 0.0010	0.00072	0.0023	**1.1** [#2,3]	0.00060	< 0.020	11	0.028	0.0000039	0.0010	0.0034	< 0.10	1.0	0.00034	2.6	< 0.00010	9.2	0.26	< 0.00020	< 0.0010	0.015	0.00074	0.0021	0.011
	17-Oct-2018	**0.12** [#3]	< 0.00060	0.00029	0.041	< 0.0010	< 0.020	< 0.000020	29	< 0.0010	< 0.00030	0.00095	0.19	< 0.00020	< 0.020	10	0.0069	< 0.0000020	0.00075	0.0012	< 0.10	0.94	< 0.00020	1.6	< 0.00010	9.4	0.28	< 0.00020	< 0.0010	0.0020	0.00052	< 0.0010	< 0.0030
	03-Jun-2019	**1.7** [#2,3]	< 0.00060	0.0017	0.086	< 0.0010	< 0.020	0.00012	37	0.0031	**0.0021** [#2]	**0.0048** [#3]	**4.0** [#2,3]	0.0021	< 0.020	13	0.092	0.0000080	0.0012	0.0065	< 0.10	1.4	0.00039	3.7	< 0.00010	7.9	0.31	< 0.00020	< 0.0010	0.019	0.00076	0.0046	0.021
	28-Aug-2019	**0.59** [#3]	< 0.00060	0.00052	0.056	< 0.0010	< 0.020	0.000023	35	< 0.0010	0.00037	0.0015	**0.86** [#2,3]	0.00042	< 0.020	11	0.018	< 0.0000020	0.00091	0.0018	< 0.10	1.1	0.00032	2.9	< 0.00010	8.8	0.29	< 0.00020	< 0.0010	0.015 [#7]	0.00069	0.0024	0.0044
	03-Oct-2019	**0.38** [#3]	< 0.00060	0.00064	0.054	< 0.0010	< 0.020	0.000031	33	< 0.0010	0.00039	0.0015	**0.87** [#2,3]	0.00041	< 0.020	10	0.015	0.0000020	0.00092	0.0023	< 0.10	1.1	0.00037	3.1	< 0.00010	8.9	0.27	< 0.00020	< 0.0010	0.0074	0.00060	0.0018	0.0051
	10-Jun-2020	**3.7** [#1,2,3]	< 0.00060	0.0032	**0.14** [#5]	< 0.0010	< 0.020	**0.00023** [#3]	35	0.0058	**0.0030** [#2]	**0.0074** [#3]	**6.8** [#2,3]	**0.0036** [#3]	< 0.020	10	**0.13** [#1]	< 0.000019 [#6]	0.0013	0.0096	0.15	2.4	0.00043	13	< 0.00010	6.0	0.20	< 0.00020	< 0.0010	0.086	0.00092	0.011	0.030
	24-Jul-2020	**1.9** [#2,3]	< 0.00060	0.0013	0.074	< 0.0010	< 0.020	0.000063	34	0.0030	**0.0013** [#2]	**0.0035** [#3]	**2.4** [#2,3]	0.0012	< 0.020	9.9	0.047	< 0.000019 [#6]	0.00095	0.0040	0.10	1.1	0.00031	3.2	< 0.00010	6.7	0.20	< 0.00020	< 0.0010	0.044	0.00075	0.0051	0.012
	18-Sep-2020	**0.58** [#3]	< 0.00060	0.00085	0.061	< 0.0010	< 0.020	0.000047	34	0.0012	0.00055	**0.0037** [#3]	**1.1** [#2,3]	0.00053	< 0.020	9.2	0.025	< 0.0000019	0.00094	0.0062	< 0.10	1.1	0.00029	3.7	< 0.00010	7.7	0.19	< 0.00020	0.0018	0.014	0.00087	0.0019	0.0060
	06-Jun-2021	**3.4** [#1,2,3]	< 0.00060	0.0021	0.074	< 0.0010	< 0.020	0.00010	33	0.0057	**0.0016** [#2]	**0.0041** [#3]	**3.2** [#2,3]	0.0017	< 0.020	9.5	0.065	0.0000053	0.0011	0.0059	< 0.10	1.6	0.00038	4.1	< 0.00010	6.7	0.17	< 0.00020	< 0.0010	0.15	0.00068	0.0086	0.018
	18-Aug-2021	**4.4** [#1,2,3]	< 0.00060	0.0037	0.13	< 0.0010	< 0.020	**0.00021** [#3]	39	**0.0069** [#5]	**0.0043** [#2]	**0.010** [#3]	**8.5** [#2,3]	**0.0043** [#3]	< 0.020	13	**0.15** [#1]	0.000013	0.0015	0.013	0.17	2.3	0.00049	6.9	< 0.00010	7.5	0.23	< 0.00020	< 0.0010	0.044	0.0010	0.013	0.095
	17-Sep-2021	**0.46** [#3]	< 0.00060	0.00061	0.049	< 0.0010	< 0.020	0.000030	33	0.0011	0.00042	0.0016	**0.85** [#2,3]	0.00040	< 0.020	9.9	0.021	< 0.0000019	0.00086	0.0020	< 0.10	1.0	0.00030	2.6	< 0.00010	7.5	0.21	< 0.00020	< 0.0010	0.0083	0.00061	0.0019	< 0.0030
	31-Mar-2022	0.027	< 0.00060	0.00026	0.034	< 0.0010	< 0.020	0.000038	36	< 0.0010	< 0.00030	0.0021	0.061	**0.0051** [#1,3]	< 0.020	10	0.0055	0.0000032	0.00055	0.0011	0.16	1.0	< 0.00020	1.6	< 0.00010	9.5	0.22	< 0.00020	< 0.0010	< 0.0010	**0.00036** [#4]	< 0.0010	0.023
	12-Jun-2022	**3.3** [#1,2,3]	< 0.00060	0.0036	0.13	< 0.0010	< 0.020	**0.00027** [#3]	43	0.0057	**0.0040** [#2]	**0.0095** [#3]	**9.0** [#2,3]	**0.0040** [#3]	< 0.020	11	**0.16** [#1]	0.000023	**0.0027** [#5]	0.014	0.19	2.0	**0.00073** [#5]	6.1	< 0.00010	5.3	0.20	< 0.00020	< 0.0010	0.039	0.0011	0.010	0.10
	06-Aug-2022	**1.7** [#2,3]	< 0.00060	0.0019	0.11	< 0.0010	< 0.020	0.00014	39	0.0025	**0.0018** [#2]	**0.0048** [#3]	**4.2** [#2,3]	0.0022	< 0.020	12	0.090	< 0.0000019	0.0012	0.0060	< 0.10	1.9	0.00036	7.1	< 0.00010	8.4	0.26	< 0.00020	< 0.0010	0.027	0.00077	0.0050	0.074
	25-Sep-2022	**0.49** [#3]	< 0.00060	0.00073	0.056	< 0.0010	< 0.020	0.000042	33	< 0.0010	< 0.00030	0.0020	**1.0** [#2,3]	0.00054	< 0.020	11	0.024	< 0.0000019	0.00095	0.0023	< 0.10	1.2	0.00022	2.5	< 0.00010	8.7	0.22	< 0.00020	< 0.0010	0.014	0.00063	0.0021	0.0062
	09-Mar-2023	0.038	< 0.00060	0.00023	0.036	< 0.0010	< 0.020	0.000033	26	0.0011	< 0.00030	0.0013	< 0.060	0.00029	< 0.020	9.1	< 0.0040	< 0.0000019	0.00057	0.0012	< 0.10	0.85	< 0.00020	1.6	< 0.00010	8.8	0.21	< 0.00020	0.0013	< 0.0010	0.00047	0.0017	0.0042
	25-Jul-2023	**0.61** [#3]	< 0.00060	0.00076	0.057	< 0.0010	< 0.020	0.000050	35	0.0011	0.00045	0.0020	**0.59** [#2,3]	0.00045	< 0.020	10	0.017	< 0.0000019	0.0014	0.0023	< 0.10	1.0	0.00045	2.6	< 0.00010	8.9	0.25	< 0.00020	< 0.0010	0.014	0.0011	0.0020	0.0054
	18-Aug-2023	**1.7** [#2,3]	< 0.00060	0.0012	0.081	< 0.0010	0.039	0.000089	36	0.0028	0.00097	**0.0030** [#3]	**2.1** [#2,3]	0.0011	< 0.020	11	0.042	0.0000044	0.0012	0.0042	< 0.10	1.5	0.00042	6.7	< 0.00010	8.4	0.24	< 0.00020	< 0.0010	0.051	0.00084	0.0053	0.012
	24-Sep-2023	**0.16** [#3]	< 0.00060	0.00035	0.046	< 0.0010	< 0.020	< 0.000020	33	< 0.0010	< 0.00030	0.0011	0.23	< 0.00020	< 0.020	11	0.0099	< 0.0000019	0.00094	0.0011	< 0.10	0.92	0.00031	1.6	< 0.00010	9.1	0.26	< 0.00020	< 0.0010	0.0024	0.00069	< 0.0010	< 0.0030
	18-Mar-2024	0.024	< 0.00060	0.00029	0.042	< 0.0010	< 0.020	< 0.000020	30	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	9.7	< 0.0040	< 0.0000019	0.00088	0.0016	< 0.10	0.95	0.00023	1.7	< 0.00010	9.9	0.23	< 0.00020	< 0.0010	< 0.0010	0.00071	< 0.0010	0.0067
	20-Jul-2024	**1.8** [#2,3]	< 0.00060	0.0020	0.086	< 0.0010	0.022	0.000093	39	0.0030	**0.0018** [#2]	**0.0043** [#3]	**3.3** [#2,3]	0.0020	< 0.026	12	0.055	0.0000068 [#6]	0.0010	0.0071	< 0.10	1.5	0.00037	3.3	< 0.00010	8.8	0.32	< 0.00020	< 0.0010	0.018	0.00091	0.0057	0.035
	16-Aug-2024	**3.4** [#1,2,3]	< 0.00060	0.0031	**0.17** [#5]	< 0.0010	0.025	**0.00022** [#3]	**61** [#5]	0.0049	**0.0035** [#2]	**0.0074** [#3]	**7.7** [#2,3]	**0.0043** [#3]	< 0.020	**21** [#5]	**0.18** [#1]	0.000013	**0.0017** [#5]	0.011	0.20	1.9	0.00047	5.7	< 0.00010	14	0.61	< 0.00020	< 0.0010	0.036	**0.0012** [#5]	0.0088	0.058
	13-Sep-2024	**0.16** [#3]	< 0.00060	0.00044	0.048	< 0.0010	< 0.020	0.000044	35	< 0.0010	< 0.00030	0.0013	0.16	< 0.00020	< 0.020	12	0.0066	< 0.0000019	0.0011	0.0019	< 0.10	0.96	0.00032	1.5	< 0.00010	9.4	0.30	< 0.00020	< 0.0010	0.0020	0.00087	< 0.0010	0.0051
	12-Mar-2025	0.029	< 0.00060	0.00026	0.038	< 0.0010	< 0.020	< 0.000020	27	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	9.3	< 0.0040	< 0.0000019	0.00075	0.0014	< 0.10	0.92	0.00021	1.7	< 0.00010	8.9	0.23	< 0.00020	< 0.0010	0.0010	0.00055	< 0.0010	0.0037
	19-Jul-2025	**2.5** [#2,3]	< 0.00060	0.0024	0.13	< 0.0010	< 0.020	**0.00018** [#3]	41	0.0043	**0.0026** [#2]	**0.0068** [#3]	**5.5** [#2,3]	0.0030	< 0.020	12	0.099	0.0000062	0.0014	0.0092	0.13	1.8	0.00056	5.0	< 0.00010	7.7	0.24	< 0.00020	< 0.0010	0.028	0.0010	0.0075	0.071
	15-Aug-2025	**2.6** [#2,3]	< 0.00060	0.0020	0.098	< 0.0010	< 0.020	**0.00019** [#3]	**47** [#5]	0.0040	**0.0022** [#2]	**0.0051** [#3]	**5.1** [#2,3]	0.0023	< 0.020	**15** [#5]	0.088	0.0000054	0.0016	0.0087	< 0.10	1.7	0.00047	4.3	< 0.00010	8.5	0.34	< 0.00020	< 0.0010	0.025	0.0011	0.0066	0.042
	13-Sep-2025	**0.43** [#3]	< 0.00060	0.00051	0.063	< 0.0010	< 0.020	0.000030	39	< 0.0010	0.00036	0.0016	**0.70** [#2,3]	0.00037	< 0.020	12	0.023	< 0.0000019	0.00096	0.0022	< 0.10	1.0	0.00021	2.4	< 0.00010	10	0.34	< 0.00020	< 0.0010	0.011	0.00085	0.0013	0.0052
AEMP-DS-03 (Island 3)	16-Sep-2017	**0.52** [#3]	< 0.00060	0.00065	0.061	< 0.0010	< 0.020	0.000040	38	0.0010	0.00054	0.0020	**0.88** [#2,3]	0.00048	< 0.020	11	0.022	< 0.0000020	0.0011	0.0029	< 0.10	1.1	0.00034	2.4	< 0.00010	9.4	0.23	< 0.00020	< 0.0010	0.0082	0.00083	0.0026	0.023
	16-Oct-2017	**0.33** [#3]	< 0.00060	0.00050	0.053	< 0.0010	< 0.020	0.000050	37	< 0.0010	0.00034	0.0017	**0.50** [#2,3]	0.00034	< 0.020	11	0.015	< 0.0000020	0.0011	0.0026	< 0.10	1.1	0.00039	2.1	< 0.00010	9.1	0.24	< 0.00020	< 0.0010	0.0083	0.00080	0.0020	0.0045
	23-Jun-2018	**1.5** [#2,3]	< 0.00060	0.0015	0.073	< 0.0010	< 0.020	0.00015	37	0.0028	**0.0025** [#2]	**0.0055** [#3]	**2.3** [#2,3]	0.0016	< 0.020	11	0.054	0.0000049	0.0016	0.0086	< 0.10	1.2	0.00060	2.9	< 0.00010	6.4	0.17	< 0.00020	< 0.0010	0.018	0.0011	0.0040	0.026
	14-Aug-2018	**2.1** [#2,3]	< 0.00060	0.0016	0.099	< 0.0010	< 0.020	**0.00042** [#3,5]	**51** [#5]	0.0022	**0.0033** [#2]	**0.0064** [#3]	**3.3** [#2,3]	0.0023	< 0.020	**15** [#5]	**0.13** [#1]	0.000010	0.0010	0.011	0.17	1.3	0.00048	4.3	< 0.00010	7.5	0.27	< 0.00020	< 0.0010	0.024	0.0011	0.0054	0.056
	18-Oct-2018	**0.45** [#3]	< 0.00060	0.00070	0.059	< 0.0010	< 0.020	0.000065	32	< 0.0010	0.00053	0.0021	**1.0** [#2,3]	0.00063	< 0.020	10	0.028	0.0000047	0.00076	0.0025	< 0.10	1.1	0.00030	2.1	< 0.00010	9.4	0.22	< 0.00020	< 0.0010	0.0079	0.00057	0.0016	0.0070
	10-Jun-2019	**2.1** [#2,3]	0.00094	0.0023	0.10	< 0.0010	< 0.020	0.00015	39	0.0038	**0.0024** [#2]	**0.0078** [#3]	**5.0** [#2,3]	0.0026	< 0.020	11	0.11	0.0000089	0.0013	0.0087	0.11	1.6	0.00045	4.2	< 0.00010	6.3	0.19	< 0.00020	< 0.0010	0.028	0.00086	0.0059	0.045
	26-Aug-2019	**1.9** [#2,3]	< 0.00060	0.0011	0.077	< 0.0010	< 0.020	0.000084	42	0.0028	**0.0012** [#2]	**0.0034** [#3]	**2.2** [#2,3]	0.0010	< 0.020	12	0.040	0.0000033	0.0011	0.0049	< 0.10	1.5	0.00062	5.5	< 0.00010	8.3	0.27	< 0.00020	< 0.0010	0.086	0.0011	0.0055	0.013
	01-Oct-2019	**2.0** [#2,3]	< 0.00060	0.0017	0.11	< 0.0010	< 0.020	0.00012	39	0.0037	**0.0015** [#2]	**0.0050** [#3]	**3.4** [#2,3]	0.0018	< 0.020	12	0.047	0.0000074	0.0014	0.0066	< 0.10	1.5	0.00061	3.3	< 0.00010	9.2	0.25	< 0.00020	< 0.0010	0.037	0.00097	0.0060	0.017
	12-Jun-2020	**5.3** [#1,2,3,5]	< 0.00060	0.0050 [#3,5]	**0.19** [#5]	< 0.0010	< 0.020	**0.00036** [#3,5]	**51** [#5]	0.0089 [#3,5]	**0.0060** [#2]	**0.013** [#3,5]	**12** [#2,3,5]	**0.0061** [#1,3]	< 0.020	**15** [#5]	**0.22** [#1]	0.000021 [#6]	**0.0018** [#5]	**0.020** [#5]	0.24	2.3	0.00066	8.8	< 0.00010	5.2	0.24	< 0.00020	< 0.0010	0.045	**0.0012** [#5]	0.014	0.078
	28-Jul-2020	**1.7** [#2,3]	< 0.00060	0.0020	0.11	< 0.0010	< 0.020	**0.00020** [#3]	44	**0.0074** [#5]	**0.0021** [#2]	**0.0060** [#3]	**3.6** [#2,3]	0.0021	< 0.020	12	0.086	0.000020 [#6]	0.0013	0.0079	< 0.10	1.1	0.00062	3.7	< 0.00010	6.0	0.21	< 0.00020	< 0.0010	0.029	0.00098	0.0056	0.025
	22-Sep-2020	**0.86** [#3]	0.0019	0.00092	0.061	< 0.0010	< 0.020	0.000074	40	0.0012	0.00065	**0.0026** [#3]	**1.3** [#2,3]	0.00066	< 0.020	11	0.029	0.000026 [#3,6]	0.0011	0.0044	< 0.10	1.2	0.00036	3.3	< 0.00010	7.3	0.21	< 0.00020	< 0.0010	0.019	0.00090	0.0042	0.0076
	07-Jun-2021	**3.4** [#1,2,3]	< 0.00060	0.0022	0.10	< 0.0010	< 0.020	**0.00019** [#3]	39	0.0059	**0.0022** [#2]	**0.0059** [#3]	**3.8** [#2,3]	0.0022	< 0.020	11	0.088	0.0000048	0.0012	0.0089	0.11	1.6	0.00051	3.9	< 0.00010	6.2	0.18	< 0.00020	< 0.0010	0.084	0.00098	0.0091	0.029
	19-Aug-2021	**3.9** [#1,2,3]	< 0.00060	0.0032	**0.14** [#5]	< 0.0010	0.022	**0.00023** [#3]	46	0.0062	**0.0039** [#2]	**0.0091** [#3]	**8.5** [#2,3]	0.0035	< 0.020	14	**0.16** [#1]	0.0000042	0.0014	0.013	0.17	2.1	0.00046	6.4	< 0.00010	6.6	0.23	< 0.00020	< 0.0010	0.041	0.00094	0.010	0.083
	18-Sep-2021	**1.2** [#2,3]	0.00063	0.0015	0.071	< 0.0010	< 0.020	0.00013	38	0.0028	**0.0013** [#2]	**0.0041** [#3]	**2.4** [#2,3]	0.0013	< 0.020	11	0.048	0.0000031	0.0012	0.0060	< 0.10	1.3	0.00043	3.4	< 0.00010	7.5	0.22	< 0.00020	< 0.0010	0.018	0.00091	0.0042	0.092
	31-Mar-2022	0.10 [#3]	< 0.00060	0.00047	0.059	< 0.0010	< 0.020	0.000024	42	< 0.0010	< 0.00030	0.0023	**0.67** [#2,3]	< 0.00020	< 0.020	12	0.012	0.0000022	0.0011	0.0015	< 0.10	1.3	0.00037	2.9	< 0.00010	12	0.27	< 0.00020	< 0.0010	0.0020	0.00081	< 0.0010	< 0.0030

Table 4

Surfacewater Analytical Results: Total Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Selenium	Silicon	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#]		2.9	0.006	0.01	2	---	5	0.007	None required	0.05	---	2	---	0.005	---	---	0.12	0.001	---	---	---	---	0.05	---	---	---	7	---	---	---	0.02	---	---
2024 Federal Environmental Quality Guidelines - Freshwa		0.97	---	---	---	---	---	---	---	---	0.00106	---	0.33	---	---	---	---	---	---	---	---	---	---	---	---	---	2.5	---	---	---	---	0.12	---
CCME CEQG Freshwater AL-MACKENZIE [#3]		0.1	---	0.005	---	---	1.5	0.00017	---	0.0089	---	0.00257	0.3	0.00359	---	---	---	0.000026	0.073	0.103	---	---	0.001	---	0.00025	---	---	0.0008	---	---	0.015	---	---
MACKENZIE UPSTEAM DATA LCL [#4]		0.01	---	0.00019	0.031	---	---	0.000010	21	0.0001	---	0.0005	0.0003	---	---	7.0	---	---	0.0005	0.0007	---	---	0.00013	---	---	---	---	---	---	---	0.00043	---	0.0006
MACKENZIE UPSTEAM DATA UCL [#5]		4.43	---	0.00385	0.137	---	---	0.000281	46	0.0068	---	0.0103	9.1466	---	---	14.1	---	---	0.0017	0.0145	---	---	0.00069	---	---	---	---	---	---	---	0.00114	---	0.1007
	14-Jun-2022	**7.9** [#1,2,3,5]	< 0.00060	**0.0068** [#3,5]	**0.24** [#5]	< 0.0010	< 0.020	**0.00050** [#3,5]	**55** [#5]	**0.013** [#3,5]	**0.0087** [#2]	**0.019** [#3,5]	**16** [#2,3,5]	**0.0082** [#1,3]	< 0.020	**16** [#5]	**0.34** [#1]	**0.000034** [#3]	**0.0018** [#5]	**0.026** [#5]	0.33	2.4	**0.00081** [#5]	9.0	< 0.00010	4.0	0.20	< 0.00020	< 0.0010	0.14	**0.0013** [#5]	0.024	0.087
	06-Aug-2022	**0.97** [#2,3]	< 0.00060	0.0012	0.085	< 0.0010	< 0.020	0.000074	41	0.0018	0.00097	**0.0033** [#3]	**2.3** [#2,3]	0.0011	< 0.020	12	0.051	0.0000068	0.0012	0.0041	< 0.10	1.6	0.00046	5.3	< 0.00010	7.6	0.23	< 0.00020	< 0.0010	0.014	0.00081	0.0029	0.080
	25-Sep-2022	**0.46** [#3]	< 0.00060	0.00067	0.057	< 0.0010	< 0.020	0.000047	39	< 0.0010	< 0.00030	0.0022	**0.71** [#2,3]	0.00045	< 0.020	9.9	0.020	< 0.0000019	0.0011	0.0025	< 0.10	1.2	0.00040	3.0	< 0.00010	8.9	0.22	< 0.00020	< 0.0010	0.011	0.00076	0.0015	0.0050
	09-Mar-2023	**0.17** [#3]	< 0.00060	0.00091	0.069	< 0.0010	< 0.020	0.000097	45	**0.040** [#3,5]	0.00055	**0.0036** [#3]	**0.47** [#2,3]	0.00063	< 0.020	12	0.011	< 0.0000019	**0.0027** [#5]	**0.022** [#5]	< 0.10	1.2	0.00067	2.5	< 0.00010	14	0.32	< 0.00020	< 0.0010	0.0026	**0.0013** [#5]	< 0.0010	0.0090
	25-Jul-2023	**0.88** [#3]	< 0.00060	0.00080	0.064	< 0.0010	< 0.020	0.000054	41	0.0013	0.00051	0.0020	**1.0** [#2,3]	0.00054	< 0.020	12	0.026	< 0.0000019	0.0011	0.0026	< 0.10	1.2	0.00046	3.5	< 0.00010	8.0	0.24	< 0.00020	< 0.0010	0.024	0.00092	0.0020	0.0072
	19-Aug-2023	**2.0** [#2,3]	< 0.00060	0.0013	0.087	< 0.0010	< 0.020	0.00010	44	0.0027	0.0010	**0.0037** [#3]	**2.2** [#2,3]	0.0012	< 0.020	12	0.045	0.000012	0.0013	0.0046	< 0.10	1.5	0.00056	5.0	< 0.00010	8.1	0.25	< 0.00020	< 0.0010	0.079	0.0011	0.0052	0.016
	25-Sep-2023	**0.23** [#3]	< 0.00060	0.00031	0.059	< 0.0010	< 0.020	0.000038	42	< 0.0010	< 0.00030	0.0013	**0.32** [#3]	< 0.00020	< 0.020	13	0.011	< 0.0000019	0.0011	0.0017	< 0.10	1.0	0.00040	2.2	< 0.00010	9.9	0.28	< 0.00020	< 0.0010	0.0031	0.00087	< 0.0010	< 0.0030
	18-Mar-2024	0.059	< 0.00060	0.00036	0.064	< 0.0010	< 0.020	0.000023	45	< 0.0010	< 0.00030	0.0016	0.078	< 0.00020	< 0.020	12	< 0.0040	< 0.0000019	0.0013	0.0018	< 0.10	1.2	0.00047	2.3	< 0.00010	15	0.33	< 0.00020	< 0.0010	0.0027	0.0011	< 0.0010	0.0045
	19-Jul-2024	**4.8** [#1,2,3,5]	< 0.00060	**0.0049** [#5]	**0.15** [#5]	< 0.0010	0.023	**0.00027** [#3]	**47** [#5]	**0.0077** [#5]	**0.0051** [#2]	**0.010** [#3]	**9.9** [#2,3,5]	0.0050 [#1,3]	< 0.026	14	**0.16** [#1]	< 0.0000019	0.0016	**0.017** [#5]	0.18	2.2	0.00065	6.4	< 0.00010	6.9	0.26	< 0.00020	< 0.0010	0.041	**0.0012** [#5]	0.014	0.066
	15-Aug-2024	**1.7** [#2,3]	< 0.00060	0.0011	0.089	< 0.0010	0.021	0.000085	45	0.0023	**0.0012** [#2]	**0.0031** [#3]	**2.1** [#2,3]	0.0013	< 0.020	13	0.046	< 0.0000019	0.0013	0.0046	< 0.10	1.7	0.00054	6.0	< 0.00010	8.5	0.27	< 0.00020	< 0.0010	0.035	0.0011	0.0042	0.012
	17-Sep-2024	**0.80** [#3]	< 0.00060	0.00079	0.071	< 0.0010	0.025	0.00011	**47** [#5]	0.0011	0.00076	**0.0026** [#3]	**0.95** [#2,3]	0.00055	< 0.020	13	0.026	< 0.0000019	0.0013	0.0048	< 0.10	1.3	0.00048	3.3	< 0.00010	9.4	0.30	< 0.00020	< 0.0010	0.020	0.0011	0.0032	0.014
	12-Mar-2025	0.10 [#3,8]	< 0.00060	0.00036	0.061	< 0.0010	< 0.020	0.000021	40	< 0.0010	< 0.00030	0.0016	0.13	0.00033	< 0.020	11	< 0.0040	< 0.0000019	0.0013	0.0017	< 0.10	1.3	0.00039	2.3	< 0.00010	13	0.29	< 0.00020	< 0.0010	0.0023	0.00094	< 0.0010	< 0.0030
	18-Jul-2025	**3.4** [#1,2,3]	< 0.00060	0.0031	**0.17** [#5]	< 0.0010	< 0.020	**0.00025** [#3]	44	0.0059	**0.0033** [#2]	**0.0089** [#3]	**7.3** [#2,3]	**0.0038** [#3]	< 0.020	14	0.12 [#1]	0.000013	**0.0017** [#5]	0.012	0.18	2.0	**0.00071** [#5]	6.0	< 0.00010	6.2	0.27	< 0.00020	< 0.0010	0.032	**0.0013** [#5]	0.011	0.071
	16-Aug-2025	**4.6** [#1,2,3,5]	< 0.00060	0.0032	0.13	< 0.0010	< 0.020	**0.00022** [#3]	**56** [#5]	**0.0073** [#5]	**0.0045** [#2]	**0.0091** [#3]	**9.0** [#2,3]	**0.0039** [#3]	< 0.020	**18** [#5]	**0.16** [#1]	0.000010	**0.0017** [#5]	0.014	0.16	2.2	**0.00070** [#5]	6.7	< 0.00010	7.1	0.30	< 0.00020	< 0.0010	0.036	**0.0014** [#5]	0.011	0.076
	16-Sep-2025	**0.49** [#3]	< 0.00060	0.00050	0.060	< 0.0010	< 0.020	0.000054	42	< 0.0010	0.00036	0.0014	**0.57** [#2,3]	0.00030	< 0.020	13	0.017	< 0.0000019	0.0011	0.0023	< 0.10	1.0	0.00047	2.2	< 0.00010	8.9	0.27	< 0.00020	< 0.0010	0.0072	0.00088	0.0013	0.0035
AEMP-DS-04 (Refinery)	21-Aug-2017	**0.62** [#3]	< 0.00060	0.00083	0.058	< 0.0010	< 0.020	0.000060	33	0.0011	0.00069	0.0023	**1.2** [#2,3]	0.00063	< 0.020	10	0.029	0.0000024	0.00097	0.0030	< 0.10	1.1	0.00034	2.4	< 0.00010	8.1	0.23	< 0.00020	< 0.0010	0.0089	0.00074	0.0022	0.0082
	16-Sep-2017	**0.28** [#3]	< 0.00060	0.00056	0.047	< 0.0010	< 0.020	0.000028	30	< 0.0010	0.00034	0.0013	**0.67** [#2,3]	0.00039	< 0.020	10	0.018	< 0.0000020	0.00076	0.0018	< 0.10	0.89	< 0.00020	1.9	< 0.00010	9.0	0.20	< 0.00020	< 0.0010	0.0038	0.00057	0.0017	0.0042
	16-Oct-2017	**0.54** [#3]	< 0.00060	0.00086	0.056	< 0.0010	< 0.020	0.000057	29	0.0010	0.00050	0.0020	**0.80** [#2,3]	0.00058	< 0.020	10	0.048	< 0.0000020	0.00095	0.0026	< 0.10	1.1	0.00028	1.9	< 0.00010	8.8	0.22	< 0.00020	< 0.0010	0.023	0.00075	0.0038	0.0064
	23-Jun-2018	**1.1** [#2,3]	< 0.00060	0.0013	0.060	< 0.0010	< 0.020	0.000098	29	0.0022	**0.0015** [#2]	**0.0042** [#3]	**1.6** [#2,3]	0.0014	< 0.020	8.9	0.038	0.0000033	0.0014	0.0059	< 0.10	1.1	0.00042	2.4	< 0.00010	7.2	0.16	< 0.00020	< 0.0010	0.017	0.00094	0.0040	0.014
	13-Aug-2018	**1.4** [#2,3]	< 0.00060	0.0018	0.093	< 0.0010	< 0.020	0.00017 [#3]	39	0.0019	**0.0017** [#2]	**0.0044** [#3]	**3.0** [#2,3]	0.0019	< 0.020	12	0.079	0.000010	0.00098	0.0060	0.12	1.2	0.00040	3.2	< 0.00010	9.0	0.23	< 0.00020	< 0.0010	0.019	0.00081	0.0043	0.021
	17-Oct-2018	**0.34** [#3]	< 0.00060	0.00060	0.052	< 0.0010	< 0.020	0.000040	28	< 0.0010	0.00042	0.0018	**0.66** [#2,3]	0.00047	< 0.020	9.1	0.024	< 0.0000020	0.00091	0.0020	< 0.10	1.0	< 0.00020	2.1	< 0.00010	9.5	0.21	< 0.00020	< 0.0010	0.013	0.00059	< 0.0010	0.0039
	03-Jun-2019	**3.5** [#1,2,3]	< 0.00060	0.0028	0.11	< 0.0010	< 0.020	0.00015	37	0.0062	**0.0036** [#2]	**0.0083** [#3]	**7.5** [#2,3]	0.0034	< 0.020	12	0.15 [#1]	0.000013	0.0014	0.012	0.15	1.9	0.00031	5.5	< 0.00010	9.8	0.20	< 0.00020	< 0.0010	0.12	0.00088	0.0096	0.035
	25-Aug-2019	**0.81** [#3]	< 0.00060	0.00061	0.051	< 0.0010	< 0.020	0.000028	31	0.0011	0.00047	0.0017	**0.89** [#2,3]	0.00046	< 0.020	9.9	0.018	< 0.0000020	0.00082	0.0024	< 0.10	1.1	0.00035	3.0	< 0.00010	8.3	0.22	< 0.00020	< 0.0010	0.013	0.00065	0.0017	0.0060
	03-Oct-2019	**4.6** [#1,2,3,5]	< 0.00060	**0.0062** [#3,5]	**0.34** [#5]	< 0.0010	0.021	**0.00048** [#3,5]	**70** [#5]	**0.0093** [#3,5]	**0.0069** [#2]	**0.014** [#3,5]	**16** [#2,3,5]	**0.0077** [#1,3]	< 0.020	**24** [#5]	**0.36** [#1]	0.000021	**0.0019** [#5]	**0.021** [#5]	0.51	2.2	0.00063	9.0	< 0.00010	8.6	0.27	< 0.00020	< 0.0010	0.059	**0.0012** [#5]	0.015	0.072
	10-Jun-2020	**4.3** [#1,2,3]	< 0.00060	0.0034	0.13	< 0.0010	< 0.020	**0.00024** [#3]	35	**0.0070** [#5]	**0.0034** [#2]	**0.0081** [#3]	**7.1** [#2,3]	**0.0040** [#3]	< 0.020	11	**0.14** [#1]	0.000020 [#6]	0.0015	0.011	0.17	1.6	0.00050	5.0	< 0.00010	6.0	0.20	< 0.00020	< 0.0010	0.11	0.00092	0.013	0.033
	24-Jul-2020	**1.8** [#2,3]	< 0.00060	0.0014	0.073	< 0.0010	< 0.020	0.000087	34	0.0033	0.00092	**0.0036** [#3]	**2.6** [#2,3]	0.0015	< 0.020	9.7	0.051	< 0.000019 [#6]	0.00096	0.0047	< 0.10	1.1	0.00040	3.2	< 0.00010	6.5	0.19	< 0.00020	< 0.0010	0.038	0.00072	0.0056	0.0091
	18-Sep-2020	**0.60** [#3]	< 0.00060	0.00069	0.060	< 0.0010	< 0.020	0.000037	34	0.0012	0.00043	0.0023	**1.0** [#2,3]	0.00046	< 0.020	9.0	0.024	< 0.0000019	0.00075	0.0027	< 0.10	1.1	0.00027	3.0	< 0.00010	7.4	0.18	< 0.00020	0.0012	0.046	0.00063	0.0017	0.0053
	06-Jun-2021	**3.2** [#1,2,3]	< 0.00060	0.0021	0.079	< 0.0010	< 0.020	0.00011	33	0.0057	**0.0016** [#2]	**0.0045** [#3]	**3.5** [#2,3]	0.0017	< 0.020	9.6	0.069	0.0000060	0.00099	0.0064	< 0.10	1.6	0.00042	4.3	< 0.00010	6.6	0.17	< 0.00020	< 0.0010	0.082	0.00065	0.010	0.020
	18-Aug-2021	**4.5** [#1,2,3,5]	< 0.00060	0.0037	0.13	< 0.0010	< 0.020	**0.00020** [#3]	39	**0.0073** [#5]	**0.0042** [#2]	**0.010** [#3]	**8.5** [#2,3]	**0.0043** [#3]	< 0.020	12	**0.15** [#1]	0.000012	0.0016	**0.015** [#5]	0.17	2.3	0.00041	7.2	< 0.00010	7.3	0.22	< 0.00020	< 0.0010	0.041	0.0010	0.013	0.088
	17-Sep-2021	**0.63** [#3]	< 0.00060	0.00083	0.053	< 0.0010	< 0.020	0.000048	33	0.0014	0.00048	0.0022	**1.2** [#2,3]	0.00062	< 0.020	9.6	0.028	< 0.0000019	0.00087	0.0024	< 0.10	1.1	0.00030	3.0	< 0.00010	7.1	0.18	< 0.00020	< 0.0010	0.014	0.00068	0.0026	0.0040
	12-Jun-2022	**5.1** [#1,2,3,5]	< 0.00060	**0.0067** [#3,5]	**0.18** [#5]	< 0.0010	< 0.020	**0.00045** [#3,5]	44	**0.0091** [#3,5]	**0.0066** [#2]	**0.015** [#3,5]	**14** [#2,3,5]	**0.0069** [#1,3]	< 0.020	13	**0.25** [#1]	**0.000032** [#3]	**0.0068** [#5]	**0.023** [#5]	0.28	2.4	**0.00095** [#5]	8.0	< 0.00010	6.1	0.19	0.00030	< 0.0010	0.055	**0.0019** [#5]	0.017	**0.16** [#5]
	06-Aug-2022	**8.5** [#1,2,3,5]	< 0.00060	**0.0093** [#3,5]	**0.39** [#5]	< 0.0010	0.023	**0.00071** [#3,5]	**75** [#5]	**0.014** [#3,5]	**0.010** [#2]	**0.021** [#3,5]	**24** [#2,3,5]	**0.012** [#1,3]	< 0.020	**23** [#5]	**0.53** [#1]	< 0.0000019	**0.0025** [#5]	**0.030** [#5]	0.61	3.1	**0.00099** [#5]	12	0.00015	8.1	0.29	< 0.00020	< 0.0010	0.089	**0.0016** [#5]	0.026	**0.17** [#5]
	24-Sep-2022	**3.8** [#1,2,3]	< 0.00060	**0.0045** [#5]	**0.16** [#5]	< 0.0010	< 0.020	**0.00033** [#3,5]	45	**0.0070** [#5]	**0.0044** [#2]	**0.013** [#3,5]	**8.6** [#2,3]	0.0050 [#1,3]	< 0.020	13	**0.22** [#1]	0.000020	0.0016	0.014	0.19	2.0	0.00057	5.9	< 0.00010	8.2	0.21	< 0.00020	< 0.0010	0.054	0.0011	0.012	0.086
	11-Mar-2023	0.020	< 0.00060	0.00022	0.035	< 0.0010	0.025	0.000026	25	< 0.0010	< 0.00030	0.0018	< 0.060	< 0.00020	< 0.020	8.9	< 0.0040	< 0.0000019	0.00060	0.00071	< 0.10	0.79	0.00022	1.5	< 0.00010	8.3	0.22	< 0.00020	< 0.0010	< 0.0010	0.00044	< 0.0010	< 0.0030
	26-Jul-2023	**0.40** [#3]	< 0.00060	0.00063	0.054	< 0.0010	< 0.020	0.000031	36	< 0.0010	0.00030	0.0018	**0.55** [#2,3]	0.00031	< 0.020	10	0.017	< 0.0000019	0.0011	0.0016	< 0.10	1.0	0.00033	2.4	< 0.00010	8.4	0.22	< 0.00020	< 0.0010	0.0078	0.00076	0.0010	0.0047
	18-Aug-2023	**1.9** [#2,3]	< 0.00060	0.0014	0.087	< 0.0010	< 0.020	0.000095	36	0.0031	**0.0011** [#2]	**0.0036** [#3]	**2.4** [#2,3]	0.0014	< 0.020	11	0.051	0.0000057	0.0012	0.0047	< 0.10	1.5	0.00045	5.6	< 0.00010	8.0	0.23	< 0.00020	< 0.0010	0.056	0.00090	0.0059	0.013
	24-Sep-2023	**0.30** [#3]	< 0.00060 [#9]	0.00044	0.055	< 0.0010	< 0.020	0.000032	33	< 0.0010	0.00034	0.0013	**0.55** [#2,3]	< 0.00020	< 0.020	10	0.015	< 0.0000019	0.00098	0.0016	< 0.10	1.1	0.00028	1.8	< 0.00010	8.9	0.23	< 0.00020	< 0.0010	0.0065	0.00075	< 0.0010	0.0041
	18-Mar-2024	0.023	< 0.00060	0.00037	0.042	< 0.0010	< 0.020	0.000025	30	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	9.6	< 0.0040	< 0.0000019	0.00084	0.0010	< 0.10	0.91	0.00021	1.8	< 0.00010	9.6	0.23	< 0.00020	< 0.0010	< 0.0010	0.00068	< 0.0010	0.0055
	20-Jul-2024	**1.2** [#2,3]	< 0.00060	0.0012	0.071	< 0.0010	< 0.020	0.000064	34	0.0018	**0.0011** [#2]	**0.0029** [#3]	**2.2** [#2,3]	0.0011	< 0.020	10	0.036	0.0000046	0.00099	0.0048	< 0.10	1.3	0.00035	2.9	< 0.00010	7.3	0.22	< 0.00020	< 0.0010	0.011	0.00084	0.0040	0.030
	16-Aug-2024	**3.0** [#1,2,3]	< 0.00060	0.0029	**0.16** [#5]	< 0.0010	< 0.020	**0.00021** [#3]	**47** [#5]	0.0043	**0.0031** [#2]	**0.0064** [#3]	**6.9** [#2,3]	0.0035	< 0.020	**15** [#5]	**0.16** [#1]	0.000020 [#6]	0.0015	0.0096	0.20	1.7	0.00048	5.1	< 0.00010	8.0	0.25	< 0.00020	< 0.0010	0.033	0.0010	0.0078	0.056 [#7]
	13-Sep-2024	**0.19** [#3]	< 0.00060	0.00044	0.045	< 0.0010	< 0.020	0.000066	32	< 0.0010	< 0.00030	0.0015	0.12	0.00027	< 0.020	10	0.0052	< 0.0000019	0.0013	0.0024 [#7]	< 0.10	0.92	0.00044	1.4	< 0.00010	8.0	0.22	< 0.00020	< 0.0010	0.0035	0.0010	< 0.0010	0.0053
	12-Mar-2025	0.035	< 0.00060	0.00031	0.037	< 0.0010	< 0.020	< 0.000020	25	< 0.0010	< 0.00030	0.0013	0.095	0.00033	< 0.020	9.0	< 0.0040	< 0.0000019	0.00061	0.00082	< 0.10	0.91	< 0.00020	1.6	< 0.00010	8.5	0.22	< 0.00020	< 0.0010	< 0.0010	0.00044	< 0.0010	0.0057
	19-Jul-2025	2.9 [#1,2,3]	< 0.00060	0.0029	**0.14** [#5]	< 0.0010	< 0.020	**0.00022** [#3]	39	0.0049	**0.0031** [#2]	**0.0074** [#3]	**6.5** [#2,3]	0.0034	< 0.020	13	0.12 [#1]	0.000010	0.0014	0.011	0.16	1.8	0.00048	6.3	< 0.00010	7.0	0.25	< 0.00020	< 0.0010	0.035	0.0011	0.0092	0.054
	12-Aug-2025	**5.1** [#1,2,3,5]	< 0.00060	**0.0042** [#5]	**0.17** [#5]	< 0.0010	< 0.020	**0.00029** [#3,5]	**57** [#5]	**0.0087** [#5]	**0.0055** [#2]	**0.012** [#3,5]	**11** [#2,3,5]	**0.0059** [#1,3]	< 0.020	**17** [#5]	**0.20** [#1]	0.000013	**0.0020** [#5]	**0.018** [#5]	0.24	2.1	0.00057	7.0	< 0.00010	7.4	0.28	< 0.00020	< 0.0010	0.040	**0.0013** [#5]	0.014	0.070
	13-Sep-2025	**0.27** [#3]	< 0.00060	0.00046	0.053	< 0.0010	< 0.020	0.000027	34	< 0.0010	< 0.00030	**0.0033** [#3,7]	**0.46** [#2,3]	0.00025	< 0.020	11	0.013	< 0.0000019	0.0010	0.0022	< 0.10	1.0	0.00038	2.0	< 0.00010	8.8	0.25	< 0.00020	< 0.0010	0.0043	0.00077	< 0.0010	< 0.0030
AEMP-DS-05 (Radar North)	23-Jun-2018	**0.88** [#3]	< 0.00060	0.00099	0.066	< 0.0010	< 0.020	0.000085	32	0.0019	**0.0014** [#2]	**0.0036** [#3]	**1.7** [#2,3]	0.0010	< 0.020	9.3	0.042	0.0000036	0.00095	0.0049	< 0.10	1.1	0.00036	2.6	< 0.00010	6.6	0.16	< 0.00020	< 0.0010	0.018	0.00079	0.0028	0.011
	14-Aug-2018	**1.2** [#2,3]	< 0.00060	0.00086	0.065	< 0.0010	< 0.020	0.00013	37	0.0012	**0.0013** [#2]	**0.0029** [#3]	**1.5** [#2,3]	0.00097	< 0.020	11	0.043	0.0000043	0.00092	0.0044	< 0.10	1.2	0.00036	3.3	< 0.00010	7.6	0.22	< 0.00020	< 0.0010	0.017	0.00080	0.0031	0.016
	18-Oct-2018	**1.0** [#2,3]	< 0.00060	0.0011	0.071	< 0.0010	< 0.020	0.000071	32	0.0018	**0.0011** [#2]	**0.0031** [#3]	**2.1** [#2,3]	0.0012	< 0.020	11	0.049	0.0000038	0.00089	0.0040	< 0.10	1.2	0.00031	2.5	< 0.00010	9.9	0.27	< 0.00020	< 0.0010	0.016	0.00059	0.0035	0.012

Table 4

Surfacewater Analytical Results: Total Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Selenium	Silicon	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#]		**2.9**	**0.006**	**0.01**	**2**	**---**	**5**	**0.007**	**None required**	**0.05**	**---**	**2**	**---**	**0.005**	**---**	**---**	**0.12**	**0.001**	**---**	**---**	**---**	**---**	**0.05**	**---**	**---**	**---**	**7**	**---**	**---**	**---**	**0.02**	**---**	**---**
2024 Federal Environmental Quality Guidelines - Freshwa		**0.97**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00106**	**---**	**0.33**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**2.5**	**---**	**---**	**---**	**---**	**0.12**	**---**
CCME CEQG Freshwater AL-MACKENZIE [#3]		**0.1**	**---**	**0.005**	**---**	**---**	**1.5**	**0.00017**	**---**	**0.0089**	**---**	**0.00257**	**0.3**	**0.00359**	**---**	**---**	**---**	**0.000026**	**0.073**	**0.103**	**---**	**---**	**0.001**	**---**	**0.00025**	**---**	**---**	**0.0008**	**---**	**---**	**0.015**	**---**	**---**
MACKENZIE UPSTEAM DATA LCL [#4]		**0.01**	**---**	**0.00019**	**0.031**	**---**	**---**	**0.000010**	**21**	**0.0001**	**---**	**0.0005**	**0.0003**	**---**	**---**	**7.0**	**---**	**---**	**0.0005**	**0.0007**	**---**	**---**	**0.00013**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00043**	**---**	**0.0006**
MACKENZIE UPSTEAM DATA UCL [#5]		**4.43**	**---**	**0.00385**	**0.137**	**---**	**---**	**0.000281**	**46**	**0.0068**	**---**	**0.0103**	**9.1466**	**---**	**---**	**14.1**	**---**	**---**	**0.0017**	**0.0145**	**---**	**---**	**0.00069**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00114**	**---**	**0.1007**
	10-Jun-2019	**2.1** [#2,3]	0.00098	0.0023	0.10	< 0.0010	< 0.020	0.00016	38	0.0038	**0.0027** [#2]	**0.0079** [#3]	**5.4** [#2,3]	0.0028	< 0.020	11	**0.12** [#1]	0.0000092	0.0012	0.0086	0.13	1.6	0.00040	4.2	< 0.00010	6.4	0.18	< 0.00020	< 0.0010	0.032	0.00076	0.0063	0.038
	26-Aug-2019	**1.5** [#2,3]	< 0.00060	0.0010	0.074	< 0.0010	< 0.020	0.000063	39	0.0025	**0.0011** [#2]	**0.0031** [#3]	**2.1** [#2,3]	0.00098	< 0.020	11	0.039	0.0000036	0.0011	0.0046	< 0.10	1.4	0.00047	5.0	< 0.00010	8.0	0.24	< 0.00020	< 0.0010	0.043	0.0011	0.0050	0.0096
	01-Oct-2019	**1.6** [#2,3]	0.0015	0.0018	0.11	< 0.0010	0.023	0.00014	36	0.0028	**0.0025** [#2]	**0.0078** [#3]	**6.7** [#2,3]	0.0025	< 0.020	11	0.086	0.0000092	0.0014	0.0090	0.10	1.7	0.00048	3.9	< 0.00010	9.8	0.24	< 0.00020	< 0.0010	0.020	0.00098	0.0048	0.044
	12-Jun-2020	**8.1** [#1,2,3,5]	< 0.00060	**0.0081** [#3,5]	**0.33** [#5]	< 0.0010	< 0.020	**0.00062** [#3,5]	**69** [#5]	**0.014** [#3,5]	**0.0094** [#2]	**0.021** [#3,5]	**21** [#2,3,5]	**0.011** [#1,3]	< 0.020	**21** [#5]	**0.41** [#1]	< 0.000019 [#6]	**0.0025** [#5]	**0.031** [#5]	0.50	2.5	**0.00074** [#5]	12	0.00013	5.6	0.27	< 0.00020	< 0.0010	0.074	**0.0015** [#5]	0.023	**0.11** [#5]
	28-Jul-2020	**1.3** [#2,3]	< 0.00060	0.0014	0.072	< 0.0010	0.021	0.000097	36	0.0037	**0.0012** [#2]	**0.0045** [#3]	**2.3** [#2,3]	0.0012	< 0.020	9.8	0.049	< 0.000019 [#6]	0.0013	0.0061	< 0.10	1.1	0.00052	3.2	0.00014	6.1	0.18	< 0.00020	< 0.0010	0.017	0.00089	0.0048	0.012
	22-Sep-2020	**0.67** [#3]	0.0020	0.00094	0.058	< 0.0010	< 0.020	0.000056	36	< 0.0010	0.00063	0.0022	**1.2** [#2,3]	0.00067	< 0.020	9.7	0.031	0.0000022	0.00085	0.0032	< 0.10	1.1	0.00044	2.8	< 0.00010	7.0	0.18	< 0.00020	< 0.0010	0.017	0.00076	0.0033	0.0067
	07-Jun-2021	**2.2** [#2,3]	< 0.00060	0.0018	0.082	< 0.0010	< 0.020	0.00012	38	0.0052	**0.0016** [#2]	**0.0045** [#3]	**3.3** [#2,3]	0.0017	< 0.020	10	0.067	< 0.0000019	0.0011	0.0069	< 0.10	1.6	0.00041	4.0	< 0.00010	7.1	0.17	< 0.00020	< 0.0010	0.075	0.00095	0.0068	0.020
	19-Aug-2021	2.9 [#1,2,3]	< 0.00060	0.0026	0.13	< 0.0010	0.030	**0.00019** [#3]	42	0.0046	**0.0030** [#2]	**0.0075** [#3]	**6.8** [#2,3]	0.0031	< 0.020	12	**0.13** [#1]	0.0000086	0.0013	0.011	0.15	2.0	0.00044	7.7 [#10]	< 0.00010	7.0	0.21	< 0.00020	< 0.0010	0.036	0.00088	0.0079	0.080
	18-Sep-2021	**0.78** [#3]	0.0010	0.0011	0.068	< 0.0010	< 0.020	0.000058	36	0.0023	0.00086	**0.0034** [#3]	**1.7** [#2,3]	0.00091	< 0.020	11	0.037	0.0000037	0.0011	0.0060	< 0.10	1.2	0.00052	3.1	< 0.00010	7.7	0.20	< 0.00020	< 0.0010	0.013	0.00085	0.0028	**0.11** [#5]
	10-Aug-2022	**0.91** [#3]	< 0.00060	0.0011	0.081	< 0.0010	0.020	0.000069	34	0.0014	0.0010	**0.0028** [#3]	**2.3** [#2,3]	0.0012	< 0.020	10	0.051	0.0000041	0.00087	0.0039	< 0.10	1.4	0.00032	4.9	< 0.00010	7.0	0.20	< 0.00020	< 0.0010	0.015	0.00071	0.0030	0.053
	11-Mar-2023	0.034	< 0.00060	0.00036	0.039	< 0.0010	< 0.020	0.000037	29	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	9.9	< 0.0040	< 0.0000019	0.00092	0.00073	< 0.10	0.89	< 0.00020	1.6	< 0.00010	9.6	0.27	< 0.00020	< 0.0010	0.0015	0.00082	< 0.0010	0.0044
	25-Jul-2023	**0.51** [#3]	< 0.00060	0.00069	0.057	< 0.0010	< 0.020	0.000041	37	< 0.0010	0.00043	0.0016	**0.78** [#2,3]	0.00044	< 0.020	11	0.023	< 0.0000019	0.0010	0.0036	< 0.10	1.1	0.00041	2.6	< 0.00010	8.1	0.22	< 0.00020	< 0.0010	0.010	0.00079	0.0013	0.0051
	19-Aug-2023	**1.4** [#2,3]	< 0.00060	0.0013	0.078	< 0.0010	< 0.020	0.000081	39	0.0023	0.00073	**0.0028** [#3]	**1.6** [#2,3]	0.00094	< 0.020	11	0.034	0.0000047	0.0012	0.0037	< 0.10	1.4	0.00048	4.2	< 0.00010	8.3	0.23	< 0.00020	< 0.0010	0.034	0.0010	0.0042	0.0091
	26-Sep-2023	**1.4** [#2,3]	< 0.00060	0.00095	0.075	< 0.0010	< 0.020	0.000079	40	0.0023	0.00092	**0.0027** [#3]	**2.0** [#2,3]	0.00099	< 0.020	12	0.051	0.0000021	0.0011	0.0037	< 0.10	1.5	0.00036	4.5	< 0.00010	9.2	0.24	< 0.00020	< 0.0010	0.031	0.00089	0.0033	0.011
	17-Mar-2024	0.024	< 0.00060	0.00037	0.041	< 0.0010	< 0.020	< 0.000020	29	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	9.8	< 0.0040	< 0.0000019	0.0011	0.00092	< 0.10	1.0	0.00027	1.9	< 0.00010	9.7	0.24	< 0.00020	< 0.0010	< 0.0010	0.00084	< 0.0010	< 0.0030
	19-Jul-2024	**4.5** [#1,2,3,5]	< 0.00060	**0.0048** [#5]	**0.14** [#5]	< 0.0010	0.025	**0.00027** [#3]	42	**0.0074** [#5]	**0.0049** [#2]	**0.010** [#3]	**9.6** [#2,3,5]	**0.0049** [#3]	< 0.026	13	**0.15** [#1]	0.000017	0.0015	**0.016** [#5]	0.17	2.2	0.00064	6.3	< 0.00010	7.1	0.24	< 0.00020	< 0.0010	0.041	**0.0012** [#5]	0.014	0.065
	15-Aug-2024	**0.47** [#3]	< 0.00060	0.00051	0.060	< 0.0010	< 0.020	0.000037	39	< 0.0010	0.00035	0.0019	**0.68** [#2,3]	0.00052	< 0.020	11	0.023	< 0.0000019	0.0011	0.0021	< 0.10	1.1	0.00041	3.2	< 0.00010	7.8	0.23	< 0.00020	< 0.0010	0.020	0.00087	0.0022	0.0043
	17-Sep-2024	**1.6** [#2,3]	< 0.00060	0.0012	0.066	< 0.0010	< 0.020	0.000092	46	0.0018	0.0010	**0.0030** [#3]	**1.5** [#2,3]	0.0014	< 0.020	11	0.041	< 0.0000019	0.0010	0.0044	< 0.10	1.5	0.00034	2.3	< 0.00010	10	0.24	< 0.00020	< 0.0010	0.048	0.00098	0.0034	0.013
	14-Mar-2025	0.021	< 0.00060	0.00026	0.039	< 0.0010	< 0.020	< 0.000020	28	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	9.9	< 0.0040	< 0.0000019	0.00058	0.00077	< 0.10	1.2	< 0.00020	1.7	< 0.00010	9.5	0.26	< 0.00020	< 0.0010	< 0.0010	0.00060	< 0.0010	< 0.0030
	18-Jul-2025	**4.2** [#1,2,3]	< 0.00060	**0.0039** [#5]	**0.19** [#5]	< 0.0010	< 0.020	**0.00033** [#3,5]	41	**0.0069** [#5]	**0.0041** [#2]	**0.011** [#3,5]	**9.2** [#2,3,5]	**0.0049** [#3]	< 0.020	13	**0.15** [#1]	0.000016	0.0017 [#5]	0.014	0.22	2.3	**0.00082** [#5]	6.8	0.00010	6.6	0.25	< 0.00020	< 0.0010	0.044	**0.0013** [#5]	0.013	0.082
	16-Aug-2025	**7.2** [#1,2,3,5]	< 0.00060	**0.0055** [#3,5]	**0.21** [#5]	< 0.0010	< 0.020	**0.00036** [#3,5]	**75** [#5]	**0.011** [#3,5]	**0.0072** [#2]	**0.015** [#3,5]	**16** [#2,3,5]	**0.0070** [#1,3]	< 0.020	**24** [#5]	**0.30** [#1]	0.000015 [#6]	**0.0023** [#5]	**0.023** [#5]	0.30	2.6	**0.00073** [#5]	9.3	< 0.00010	7.5	0.34	< 0.00020	< 0.0010	0.049	**0.0015** [#5]	0.018	**0.11** [#5]
	16-Sep-2025	**0.49** [#3]	< 0.00060	0.00051	0.058	< 0.0010	< 0.020	0.000073	37	< 0.0010	0.00042	0.0013	**0.66** [#2,3]	0.00037	< 0.020	11	0.022	< 0.0000019	0.00089	0.0021	< 0.10	1.1	0.00027	2.4	< 0.00010	8.4	0.24	< 0.00020	< 0.0010	0.014	0.00072	0.0012	0.0042
AEMP-DS-06 (FGH - Bluefish)	10-Mar-2023	**0.13** [#3]	< 0.00060	0.00043	0.060	< 0.0010	< 0.020	0.000046	43	< 0.0010	< 0.00030	**0.0033** [#3]	0.12	0.00023	< 0.020	11	< 0.0040	< 0.0000019	0.0013	0.0023	< 0.10	1.2	0.00055	2.3	< 0.00010	14	0.30	< 0.00020	< 0.0010	0.0025	0.0010	0.0018	< 0.0030
	24-Jul-2023	**1.3** [#2,3]	< 0.00060	0.00093	0.075	< 0.0010	< 0.020	0.000098	44	0.0022	0.00086	**0.0027** [#3]	**1.4** [#2,3]	0.00088	< 0.020	14	0.035	< 0.0000019	0.0012	0.0035	< 0.10	1.2	0.00053	3.5	< 0.00010	9.2	0.27	< 0.00020	< 0.0010	0.021	0.0011	0.0035	0.010
	21-Aug-2023	**2.3** [#2,3]	< 0.00060	0.0014	0.098	< 0.0010	0.020	0.00010	**50** [#5]	0.0034	**0.0013** [#2]	**0.0032** [#3]	**2.4** [#2,3]	0.0012	< 0.020	**17** [#5]	0.051	0.0000035	0.0013	0.0052	< 0.10	1.7	0.00065	5.9	< 0.00010	9.5	0.29	< 0.00020	< 0.0010	0.060	0.0011	0.0072	0.016
	03-Oct-2023	**0.98** [#2,3]	< 0.00060	0.00069	0.068	< 0.0010	< 0.020	0.00014	**50** [#5]	< 0.0010	**0.0020** [#2]	**0.0028** [#3]	**1.3** [#2,3]	0.00045	< 0.020	**20** [#5]	0.028	< 0.0000019	0.0011	0.0063	< 0.10	1.1	0.00050	3.1	< 0.00010	12	0.27	< 0.00020	< 0.0010	0.0081	0.00099	0.0020	0.017
	15-Mar-2024	**1.0** [#2,3]	< 0.00060	0.0013	0.13	< 0.0010	0.021	0.00011	**55** [#5]	0.0021	**0.0016** [#2]	**0.0048** [#3]	**2.9** [#2,3]	0.0018	< 0.020	**17** [#5]	0.057	0.0000042	0.0012	0.0056	< 0.10	2.1	0.00050	6.1	< 0.00010	16	0.36	< 0.00020	< 0.0010	0.013	0.0010	0.0021	0.056
	17-Jul-2024	**1.6** [#2,3]	< 0.00060	0.0017	0.10	< 0.0010	< 0.020	0.00014	45	0.0027	**0.0017** [#2]	**0.0043** [#3]	**2.9** [#2,3]	0.0017	< 0.020	**15** [#5]	0.050	0.0000064	0.0012	0.0077	< 0.10	1.4	0.00057	5.6	< 0.00010	8.5	0.28	< 0.00020	< 0.0010	0.017	0.0010	0.0052	0.041
	14-Aug-2024	**0.87** [#3]	< 0.00060	0.00081	0.076	< 0.0010	< 0.020	0.000098	**48** [#5]	0.0018	0.00071	0.0023	**1.3** [#2,3]	0.00098	< 0.020	**17** [#5]	0.030	< 0.0000019	0.0012	0.0036	< 0.10	1.3	0.00069	4.6	< 0.00010	9.1	0.29	< 0.00020	< 0.0010	0.037	0.0011	0.0030	0.011
	18-Sep-2024	**1.1** [#2,3]	< 0.00060	0.00071	0.072	< 0.0010	< 0.020	0.000093	**53** [#5]	< 0.0010	**0.0019** [#2]	**0.0027** [#3]	**1.9** [#2,3]	0.00037	< 0.020	**24** [#5]	0.038	< 0.0000019	0.00089	0.0056	< 0.10	1.1	0.00056	2.3	< 0.00010	11	0.26	< 0.00020	< 0.0010	0.026	0.00089	0.0025	0.016
	13-Mar-2025	**2.2** [#2,3]	< 0.00060	0.0017	0.11	< 0.0010	0.028	0.00012	**52** [#5]	0.0032	**0.0028** [#2]	**0.0057** [#3]	**4.7** [#2,3]	0.0020	< 0.020	**18** [#5]	0.088	0.0000060	0.0014	0.0083	0.11	1.9	0.00046	6.8	< 0.00010	14	0.32	< 0.00020	< 0.0010	0.042	0.0010	0.0060	0.028
	13-Aug-2025	**8.9** [#1,2,3,5]	< 0.00060	**0.0064** [#3,5]	**0.23** [#5]	< 0.0010	< 0.020	**0.00050** [#3,5]	**84** [#5]	**0.015** [#3,5]	**0.0099** [#2]	**0.020** [#3,5]	**19** [#2,3,5]	**0.0097** [#1,3]	0.024	**26** [#5]	**0.32** [#1]	0.000019 [#6]	**0.0023** [#5]	**0.031** [#5]	0.37	2.8	**0.00094** [#5]	11	< 0.00010	8.3	0.39	< 0.00020	< 0.0010	0.050	**0.0017** [#5]	0.023	**0.12** [#5]
	10-Sep-2025	**0.60** [#3]	< 0.00060	0.00055	0.072	< 0.0010	< 0.020	0.000071	**51** [#5]	0.0011	0.00050	0.0018	**0.66** [#2,3]	0.00032	< 0.020	**18** [#5]	0.019	< 0.0000019	0.0013	0.0030	< 0.10	1.2	0.00049	3.9	< 0.00010	11	0.32	< 0.00020	< 0.0010	0.017	0.0011	0.0017	0.0079
AEMP-DS-07 (FGH - Ramparts)	17-Jul-2024	**2.2** [#2,3]	< 0.00060	0.0022	0.12	< 0.0010	0.024	0.00015	42	0.0035	**0.0024** [#2]	**0.0059** [#3]	**4.7** [#2,3]	0.0027	< 0.020	12	0.085	0.000012	0.0015	0.0079	0.13	1.6	0.00057	4.3	< 0.00010	7.1	0.23	< 0.00020	< 0.0010	0.025	0.0011	0.0070	0.062
	14-Aug-2024	**2.1** [#2,3]	< 0.00060	0.0021	0.12	< 0.0010	< 0.020	0.00014	46	0.0032	**0.0024** [#2]	**0.0054** [#3]	**4.8** [#2,3]	0.0024	< 0.020	14	0.10	0.0000061	0.0013	0.0076	0.13	1.5	0.00050	4.3	< 0.00010	7.6	0.25	< 0.00020	< 0.0010	0.027	0.0011	0.0059	0.055
	18-Sep-2024	**0.36** [#3]	< 0.00060	0.00054	0.068	< 0.0010	0.020	0.000043	41	< 0.0010	0.00035	0.0016	**0.60** [#2,3]	0.00024	< 0.020	12	0.015	< 0.0000019	0.0010	0.0022	< 0.10	1.2	0.00044	2.0	< 0.00010	8.7	0.30	< 0.00020	< 0.0010	0.0063	0.00086	0.0013	0.0040
	13-Aug-2025	**5.5** [#1,2,3,5]	< 0.00060	0.0038	**0.14** [#5]	< 0.0010	< 0.020	0.00015	**59** [#5]	**0.0086** [#5]	**0.0050** [#2]	**0.011** [#3,5]	**10** [#2,3,5]	**0.0051** [#1,3]	< 0.020	**17** [#5]	**0.15** [#1]	0.000012	**0.0019** [#5]	**0.017** [#5]	0.19	2.2	0.00065	7.0	0.00013	6.9	0.33	< 0.00020	< 0.0010	0.033	**0.0012** [#5]	0.013	0.070
	10-Sep-2025	**1.7** [#2,3]	< 0.00060	0.0013	0.11	< 0.0010	< 0.020	0.00014	46	0.0026	**0.0014** [#2]	**0.0034** [#3]	**2.6** [#2,3]	0.0013	< 0.020	14	0.058	< 0.0000019	0.0012	0.0056	< 0.10	1.5	0.00039	4.8	< 0.00010	8.6	0.28	< 0.00020	< 0.0010	0.036	0.0010	0.0045	0.016
AEMP-DS-08 (Radar South)	19-Jul-2024	**3.2** [#1,2,3]	< 0.00060	**0.0043** [#5]	0.12	< 0.0010	0.025	**0.00022** [#3]	40	0.0061	**0.0041** [#2]	**0.0083** [#3]	**8.2** [#2,3]	**0.0046** [#3]	< 0.026	12	**0.13** [#1]	0.000012	0.0014	0.014	0.15	2.1	0.00053	5.7	< 0.00010	7.6	0.24	< 0.00020	< 0.0010	0.035	0.0011	0.012	0.064
	15-Aug-2024	**0.96** [#3]	< 0.00060	0.00090	0.070	< 0.0010	0.021	0.000075	37	0.0012	0.00079	**0.0027** [#3]	**1.7** [#2,3]	0.0010	< 0.020	11	0.040	0.0000025	0.0011	0.0031	< 0.10	1.4	0.00045	2.8	< 0.00010	12	0.24	< 0.00020	< 0.0010	0.013	0.00088	0.0024	0.032
	17-Sep-2024	**0.28** [#3]	< 0.00060	0.00058	0.049	< 0.0010	0.021	0.000063	41	< 0.0010	0.00036	0.0016	**0.32** [#3]	0.00026	< 0.020	11	0.010	< 0.0000019	0.0011	0.0025	< 0.10	1.2	0.00038	1.8	< 0.00010	10	0.23	< 0.00020	< 0.0010	0.0077	0.00092	< 0.0010	0.0060
	18-Jul-2025	**2.8** [#2,3]	< 0.00060	0.0025	0.13	< 0.0010	< 0.020	0.00014	36	0.0044	**0.0025** [#2]	**0.0072** [#3]	**5.6** [#2,3]	0.0030	< 0.020	11	0.082	0.0000098	0.0014	0.0091	0.13	1.8	0.00059	5.4	< 0.00010	6.5	0.24	< 0.00020	< 0.0010	0.027	0.0011	0.0085	0.049
	16-Aug-2025	**5.1** [#1,2,3,5]	< 0.00060	**0.0042** [#5]	**0.15** [#5]	< 0.0010	< 0.020	**0.00023** [#3]	**63** [#5]	**0.0083** [#5]	**0.0054** [#2]	**0.011** [#3,5]	**11** [#2,3,5]	0.0050 [#1,3]	< 0.020	**20** [#5]	**0.21** [#1]	0.000025 [#6]	**0.0019** [#5]	**0.017** [#5]	0.22	2.2	0.00065	7.2	< 0.00010	7.2	0.28	< 0.00020	< 0.0010	0.041	**0.0014** [#5]	0.013	0.078
	16-Sep-2025	**0.25** [#3]	< 0.00060	0.00040	0.052	< 0.0010	< 0.020	< 0.000020	36	< 0.0010	< 0.00030	0.0010	**0.32** [#3]	< 0.00020	< 0.020	11	0.013	< 0.0000019	0.00087	0.0016	< 0.10	0.94	0.00028	1.7	< 0.00010	8.4	0.23	< 0.00020	< 0.0010	0.0046	0.00072	< 0.0010	< 0.0030
AEMP-DS-09 (End of Facility)	17-Mar-2024	0.069	< 0.00060	0.00046	0.065	< 0.0010	< 0.020	0.000027	45	< 0.0010	< 0.00030	**0.0026** [#3]	0.089	< 0.00020	< 0.020	12	< 0.0040	< 0.0000019	**0.0025** [#5]	0.0025	< 0.10	1.3	0.00051	2.7	< 0.00010	15	0.34	< 0.00020	< 0.0010	0.0027	**0.0014** [#5]	0.0011	0.0048
	19-Jul-2024	**1.5** [#2,3]	< 0.00060	0.0016	0.079	< 0.0010	< 0.020	0.000073	39	0.0025	**0.0012** [#2]	**0.0036** [#3]	**2.7** [#2,3]	0.0013	< 0.020	11	0.033	0.000014 [#6]	0.0011	0.0060	< 0.10	1.4	0.00046	3.3	< 0.00010	6.9	0.24	< 0.00020	< 0.0010	0.031	0.00091	0.0049	0.039
	15-Aug-2024	**1.2** [#2,3]	< 0.00060	0.00088	0.072	< 0.0010	< 0.020	0.000078	41	0.0016	0.00086	0.0023	**1.5** [#2,3]	0.00080	< 0.020	12	0.046	< 0.0000019	0.0011	0.0034	< 0.10	1.7	0.00049	2.7	< 0.00010	19	0.26	< 0.00020	< 0.0010	0.032	0.0010	0.0036	0.0086

Table 4

Surfacewater Analytical Results: Total Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Selenium	Silicon	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#]		**2.9**	**0.006**	**0.01**	**2**	**---**	**5**	**0.007**	**None required**	**0.05**	**---**	**2**	**---**	**0.005**	**---**	**---**	**0.12**	**0.001**	**---**	**---**	**---**	**---**	**0.05**	**---**	**---**	**---**	**7**	**---**	**---**	**---**	**0.02**	**---**	**---**
2024 Federal Environmental Quality Guidelines - Freshwa		**0.97**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00106**	**---**	**0.33**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**2.5**	**---**	**---**	**---**	**---**	**0.12**	**---**
CCME CEQG Freshwater AL-MACKENZIE [#3]		**0.1**	**---**	**0.005**	**---**	**---**	**1.5**	**0.00017**	**---**	**0.0089**	**---**	**0.00257**	**0.3**	**0.00359**	**---**	**---**	**---**	**0.000026**	**0.073**	**0.103**	**---**	**---**	**0.001**	**---**	**0.00025**	**---**	**---**	**0.0008**	**---**	**---**	**0.015**	**---**	**---**
MACKENZIE UPSTEAM DATA LCL [#4]		**0.01**	**---**	**0.00019**	**0.031**	**---**	**---**	**0.000010**	**21**	**0.0001**	**---**	**0.0005**	**0.0003**	**---**	**---**	**7.0**	**---**	**---**	**0.0005**	**0.0007**	**---**	**---**	**0.00013**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00043**	**---**	**0.0006**
MACKENZIE UPSTEAM DATA UCL [#5]		**4.43**	**---**	**0.00385**	**0.137**	**---**	**---**	**0.000281**	**46**	**0.0068**	**---**	**0.0103**	**9.1466**	**---**	**---**	**14.1**	**---**	**---**	**0.0017**	**0.0145**	**---**	**---**	**0.00069**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00114**	**---**	**0.1007**
	17-Sep-2024	**0.38** [#3]	< 0.00060	0.00048	0.063	< 0.0010	< 0.020	0.000063	**50** [#5]	< 0.0010	0.00041	0.0018	**0.45** [#2,3]	0.00031	< 0.020	13	0.024	< 0.0000019	0.0013	0.0034	< 0.10	1.3	0.00047	2.1	< 0.00010	9.9	0.29	< 0.00020	< 0.0010	0.0058	0.0011	0.0010	0.0069
	14-Mar-2025	0.065	< 0.00060	0.00030	0.057	< 0.0010	< 0.020	< 0.000020	40	< 0.0010	< 0.00030	0.0013	0.14	< 0.00020	< 0.020	11	< 0.0040	< 0.0000019	0.0011	0.0018	< 0.10	1.1	0.00040	2.2	< 0.00010	12	0.29	< 0.00020	< 0.0010	0.0010	0.00093	< 0.0010	< 0.0030
	18-Jul-2025	**3.1** [#1,2,3]	< 0.00060	0.0028	**0.18** [#5]	< 0.0010	< 0.020	**0.00020** [#3]	46	0.0053	**0.0031** [#2]	**0.0087** [#3]	**6.6** [#2,3]	**0.0036** [#3]	< 0.020	13	0.10	0.000013	0.0017 [#5]	0.011	0.17	2.1	0.00066	5.5	< 0.00010	6.8	0.26	< 0.00020	< 0.0010	0.031	**0.0012** [#5]	0.0096	0.071
	16-Aug-2025	**4.9** [#1,2,3,5]	< 0.00060	0.0036	**0.14** [#5]	< 0.0010	< 0.020	**0.00023** [#3]	**60** [#5]	**0.0074** [#5]	**0.0050** [#2]	**0.010** [#3]	**10** [#2,3,5]	**0.0044** [#3]	< 0.020	**19** [#5]	**0.18** [#1]	0.000012	**0.0018** [#5]	**0.016** [#5]	0.16	2.2	**0.00077** [#5]	7.0	< 0.00010	7.1	0.31	< 0.00020	< 0.0010	0.038	**0.0014** [#5]	0.012	0.077
	16-Sep-2025	**0.29** [#3]	< 0.00060	0.00043	0.061	< 0.0010	< 0.020	0.000033	44	< 0.0010	0.00033	0.0012	**0.32** [#3]	< 0.00020	< 0.020	13	0.033	< 0.0000019	0.0011	0.0021	< 0.10	0.99	0.00044	2.1	< 0.00010	8.9	0.29	< 0.00020	< 0.0010	0.0035	0.00084	< 0.0010	< 0.0030
Relative Percent Difference (RPD) Report																																	
AEMP-DS-02 (Marine Dock)	15-Aug-2025	**2.6** [#2,3]	< 0.00060	0.0020	0.098	< 0.0010	< 0.020	**0.00019** [#3]	**47** [#5]	0.0040	**0.0022** [#2]	**0.0051** [#3]	**5.1** [#2,3]	0.0023	< 0.020	**15** [#5]	0.088	0.0000054	0.0016	0.0087	< 0.10	1.7	0.00047	4.3	< 0.00010	8.5	0.34	< 0.00020	< 0.0010	0.025	0.0011	0.0066	0.042
(Duplicate)	15-Aug-2025	**2.6** [#2,3]	< 0.00060	0.0022	0.098	< 0.0010	< 0.020	0.00014	**47** [#5]	**0.0076** [#5]	**0.0032** [#2]	**0.0055** [#3]	**5.2** [#2,3]	0.0023	< 0.020	**15** [#5]	0.094	0.0000058	0.0016	**0.039** [#5]	0.11	1.6	0.00044	4.3	< 0.00010	8.5	0.34	< 0.00020	< 0.0010	0.022	0.0011	0.0067	0.093
RPD(%)		**0.0%**	**---**	**9.5%**	**0.0%**	**---**	**---**	**30.3%**	**0.0%**	**62.1%**	**37.0%**	**7.5%**	**1.9%**	**0.0%**	**---**	**0.0%**	**6.6%**	**7.1%**	**0.0%**	**127.0%**	**---**	**6.1%**	**6.6%**	**0.0%**	**---**	**0.0%**	**0.0%**	**---**	**---**	**12.8%**	**0.0%**	**1.5%**	**75.6%**

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. August 2025.)
   Arsenic:
   ALARA - As Low as Reasonably Possible
   Calcium:
   Guideline value not necessary. Calcium contributes to hardness.
   Chromium (Total):
   MAC established for total chromium to protect from Chromium (VI).
   Lead:
   ALARA - As Low as Reasonably Possible
7. Superscript [#2] denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
   Aluminum:
   FWQG (µg/L) = exp([0.645 × ln(DOC)] + [2.255 × ln(hardness)] + [1.995 × pH] + [-0.284 × (ln(hardness) × pH)] -9.898)
   Cobalt:
   For hardness values between 52-396 mg/L, the FWQG can be calculated with the following equation: FWQG = exp{(0.414[ln(hardness)] – 1.887}
   Iron:
   The FWQG look-up table and/or calculator are valid between a DOC concentration of 0.3 to 10.9 mg/L, and a pH between 6 and 8.5.
8. Superscript [#3] denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life. http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)
   Aluminum:
   Standard varies with pH.
   pH < 6.5 = 0.005 mg/L
   pH >= 6.5 = 0.1 mg/L
   Boron:
   Guideline based on long term exposure
   Cadmium:
   Guideline based on long term exposure
   Chromium (Total):
   Limit is for Chromium(III).
   Copper:
   Guideline is hardness dependent. Presented guideline set to lower limit.

Table 4

Surfacewater Analytical Results: Total Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Selenium	Silicon	Silver	Sodium	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#]		2.9	0.006	0.01	2	---	5	0.007	None required	0.05	---	2	---	0.005	---	---	0.12	0.001	---	---	---	---	0.05	---	---	---	7	---	---	---	0.02	---	---
2024 Federal Environmental Quality Guidelines - Freshwa		0.97	---	---	---	---	---	---	---	---	0.00106	---	0.33	---	---	---	---	---	---	---	---	---	---	---	---	---	2.5	---	---	---	---	0.12	---
CCME CEQG Freshwater AL-MACKENZIE [#3]		0.1	---	0.005	---	---	1.5	0.00017	---	0.0089	---	0.00257	0.3	0.00359	---	---	---	0.000026	0.073	0.103	---	---	0.001	---	0.00025	---	---	0.0008	---	---	0.015	---	---
MACKENZIE UPSTEAM DATA LCL [#4]		0.01	---	0.00019	0.031	---	---	0.000010	21	0.0001	---	0.0005	0.0003	---	---	7.0	---	---	0.0005	0.0007	---	---	0.00013	---	---	---	---	---	---	---	0.00043	---	0.0006
MACKENZIE UPSTEAM DATA UCL [#5]		4.43	---	0.00385	0.137	---	---	0.000281	46	0.0068	---	0.0103	9.1466	---	---	14.1	---	---	0.0017	0.0145	---	---	0.00069	---	---	---	---	---	---	---	0.00114	---	0.1007

Lead:
Guideline is hardness dependent. Presented guideline set to lower limit.
Mercury:
Guideline for Inorganic mercury
Nickel:
Guideline is hardness dependent. Presented guideline set to lower limit.
Silver:
Guideline based on long term exposure
Uranium:
Guideline based on long term exposure

9. Superscript [#4]denotes values below (UPSTEAM DATA LCL)
10. Superscript [#5]denotes values exceeding (UPSTEAM DATA UCL)
11. Superscript [#6] - Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
12. Superscript [#7] - Duplicate exceeds acceptance criteria due to sample non homogeneity. Reanalysis yields similar results.
13. Superscript [#8] - Matrix spike exceeds acceptance limits due to matrix interference.
14. Superscript [#9] - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results.
15. Superscript [#10] - Matrix spike exceeds acceptance limits due to probable matrix interference.

Table 5

Surfacewater Analytical Results: Dissolved Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Selenium	Silicon	Silver	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
2024 Federal Environmental Quality Guidelines - Freshwa		---	---	---	---	---	---	---	---	---	**0.0067**	---	**0.00717**	---	---	---	---	---	---	---	---	---	**2.5**	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	---	---	---	---	---	---	---	---	---	---	---	**0.25**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.015**
AEMP-MACKENZIE-US																													
AEMP-US-01 (Midway)	12-Mar-2023	0.018	< 0.00060	0.00021	0.034	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00057	< 0.00050	< 0.10	< 0.00020	1.3	< 0.00010	0.18	< 0.00020	< 0.0010	< 0.0010	0.00037	< 0.0010	< 0.0030
	25-Jul-2023	0.024	< 0.00060	0.00032	0.056	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00082	0.0013	< 0.10	0.00024	1.7	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00063	< 0.0010	< 0.0030
	19-Aug-2023	0.0087	< 0.00060	< 0.00020	0.015	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00030	< 0.00050	< 0.10	< 0.00020	< 0.50	< 0.00010	0.065	< 0.00020	< 0.0010	< 0.0010	0.00023	< 0.0010	< 0.0030
	26-Sep-2023	0.010	< 0.00060	< 0.00020	0.034	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00055	0.00068	< 0.10	< 0.00020	1.1	< 0.00010	0.19	< 0.00020	< 0.0010	< 0.0010	0.00044	< 0.0010	< 0.0030
	16-Mar-2024	< 0.0030	< 0.00060	0.00028	0.035	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	---	0.00052	0.00061	< 0.10	< 0.00020	1.5	< 0.00010	0.18	< 0.00020	< 0.0010	< 0.0010	0.00043	< 0.0010	< 0.0030
	19-Jul-2024	0.051	< 0.00060	0.00033	0.043	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	0.038	< 0.0040	< 0.0000019	0.00072	0.00083	< 0.10	0.00034	1.4	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00062	< 0.0010	< 0.0030
	15-Aug-2024	0.025	< 0.00060	0.00040	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00090	0.00083	< 0.10	0.00032	1.3	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00066	< 0.0010	< 0.0030
	17-Sep-2024	0.019	< 0.00060	0.00024	0.038	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	0.024	< 0.0040	< 0.0000019	0.00075	0.00084	< 0.10	< 0.00020	1.3	< 0.00010	0.20	< 0.00020	< 0.0010	< 0.0010	0.00047	< 0.0010	0.0043
	08-Mar-2025	0.0041	< 0.00060	< 0.00020	0.035	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00056	0.00063	< 0.10	< 0.00020	1.6	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00044	< 0.0010	0.0065
	18-Jul-2025	0.022 [#3]	< 0.00060	0.00028	0.039	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00089	0.0010	< 0.10	0.00030	1.5	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00063	< 0.0010	< 0.0030
	16-Aug-2025	0.035	< 0.00060	< 0.00020	0.040	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00083	0.00088	< 0.10	0.00025	1.5	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00065	< 0.0010	< 0.0030
	16-Sep-2025	0.020	< 0.00060	0.00030	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00072	0.00089	< 0.10	< 0.00020	1.3	< 0.00010	0.25	< 0.00020	< 0.0010	< 0.0010	0.00048	< 0.0010	< 0.0030
AEMP-US-02 (10 mile)	23-Jun-2018	0.045	< 0.00060	0.00025	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00094	0.0012	< 0.10	0.00029	1.5	< 0.00010	0.16	< 0.00020	< 0.0010	< 0.0010	0.00062	< 0.0010	< 0.0030
	14-Aug-2018	0.074	< 0.00060	< 0.00020	0.047	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00097	0.0017	< 0.10	0.00036	1.6	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00076	< 0.0010	< 0.0030
	18-Oct-2018	0.0061	< 0.00060	0.00030	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00081	< 0.060	< 0.00020	< 0.020	0.0099	< 0.0000020	0.00077	0.00079	< 0.10	< 0.00020	1.4	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00050	< 0.0010	< 0.0030
	10-Jun-2019	0.017	< 0.00060	0.00021	0.040	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0022	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00090	0.0013	< 0.10	0.00026	1.6	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00065	< 0.0010	< 0.0030
	26-Aug-2019	0.039	< 0.00060	< 0.00020	0.047	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00077	0.0012	< 0.10	0.00038	1.8	< 0.00010	0.25	< 0.00020	0.0019	< 0.0010	0.00078	< 0.0010	< 0.0030
	01-Oct-2019	0.026	< 0.00060	0.00028	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.0011	0.0018	< 0.10	0.00048	1.8	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00082	< 0.0010	< 0.0030
	12-Jun-2020	0.017	< 0.00060	0.00023	0.040	< 0.0010	< 0.020	0.000021	< 0.0010	< 0.00030	0.0019	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00089	0.0015	< 0.10	0.00042	1.7	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00069	< 0.0010	< 0.0030
	28-Jul-2020	0.029	< 0.00060	0.00031	0.042	< 0.0010	< 0.020	0.000026	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0012	0.0016	< 0.10	0.00054	1.7	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00086	< 0.0010	< 0.0030
	22-Sep-2020	0.066	< 0.00060	0.00044	0.048	< 0.0010	< 0.020	0.000020	< 0.0010	< 0.00030	0.0015	0.17	< 0.00020	< 0.020	0.0077	< 0.0000019	0.00089	0.0021	< 0.10	0.00039	2.4	< 0.00010	0.19	< 0.00020	< 0.0010	0.0015	0.00071	< 0.0010	< 0.0030
	07-Jun-2021	0.024	< 0.00060	0.00054	0.041	< 0.0010	< 0.020	< 0.000020	0.0012	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00081	0.0012	< 0.10	0.00035	1.8	< 0.00010	0.15	< 0.00020	< 0.0010	0.0027	0.00055	< 0.0010	< 0.0030
	19-Aug-2021	0.029	< 0.00060	0.00042	0.049	< 0.0010	< 0.020	0.000029	< 0.0010	< 0.00030	0.0042	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00090	0.0018	< 0.10	< 0.00020	1.8	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00069	< 0.0010	0.0042
	18-Sep-2021	0.026	< 0.00060	0.00041	0.043	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0046	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00092	0.0017	< 0.10	0.00025	1.7	< 0.00010	0.19	< 0.00020	< 0.0010	< 0.0010	0.00071	< 0.0010	< 0.0030
	10-Aug-2022	0.022	< 0.00060	0.00029	0.051	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0028	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00082	0.0011	< 0.10	0.00026	1.8	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00068	< 0.0010	0.0031
	12-Mar-2023	< 0.0030	< 0.00060	0.00020	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0037	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00053	< 0.00050	< 0.10	< 0.00020	1.3	< 0.00010	0.20	< 0.00020	< 0.0010	< 0.0010	0.00043	< 0.0010	0.0040
	25-Jul-2023	0.035	< 0.00060	0.00032	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0023	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0011	< 0.10	0.00034	1.6	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00078	< 0.0010	< 0.0030
	19-Aug-2023	0.018	< 0.00060	0.00040	0.050	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	0.0075	< 0.0000019	0.0011	0.00096	< 0.10	0.00038	1.4	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00073	< 0.0010	< 0.0030
	24-Sep-2023	0.017	< 0.00060	0.00027	0.055	< 0.0010	0.021	< 0.000020	< 0.0010	< 0.00030	0.0026	0.091	< 0.00020	< 0.020	0.018	0.0000026	0.0012	0.0016	< 0.10	0.00028	1.3	< 0.00010	0.28	< 0.00020	< 0.0010	< 0.0010	0.00079	< 0.0010	< 0.0030
	17-Mar-2024	0.0030	< 0.00060	< 0.00020	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.000014 [#4]	0.00054	0.00061	< 0.10	< 0.00020	1.9	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00045	< 0.0010	0.0035
	19-Jul-2024	0.033	< 0.00060	0.00035	0.052	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0012	0.00099	< 0.10	0.00038	1.5	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00078	< 0.0010	< 0.0030
	15-Aug-2024	0.051	< 0.00060	0.00031	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	**0.0080** [#1]	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00099	0.0012	< 0.10	0.00038	1.6	< 0.00010	0.24	< 0.00020	< 0.0010	0.0011	0.00081	< 0.0010	< 0.0030
	17-Sep-2024	0.032	< 0.00060	0.00029	0.036	< 0.0010	< 0.020	0.000021	< 0.0010	< 0.00030	< 0.0010	< 0.060	0.00052	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0012	< 0.10	0.00025	1.2	< 0.00010	0.20	< 0.00020	< 0.0010	< 0.0010	0.00068	< 0.0010	< 0.0030
	08-Mar-2025	< 0.0030	< 0.00060	< 0.00020	0.038	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0018	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00066	0.00068	< 0.10	< 0.00020	1.7	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00049	< 0.0010	0.0042
	18-Jul-2025	0.036	< 0.00060	0.00030	0.042	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0012	< 0.10	0.00040	2.0	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00070	< 0.0010	< 0.0030
	16-Aug-2025	0.039	< 0.00060	< 0.00020	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000034	0.00099	0.00084	< 0.10	0.00030	1.5	< 0.00010	0.28	< 0.00020	< 0.0010	< 0.0010	0.00079	< 0.0010	< 0.0030
	16-Sep-2025	0.017	< 0.00060	0.00023	0.049	< 0.0010	< 0.020	0.000023	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.018	0.0000027	0.0013	0.0012	< 0.10	0.00033	1.4	< 0.00010	0.61	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
AEMP-US-03 (Norman Wells U/S)	09-Mar-2023	0.012	< 0.00060	< 0.00020	0.036	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00051	0.00074	< 0.10	< 0.00020	1.4	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00041	< 0.0010	< 0.0030
	17-Mar-2024	< 0.0030	< 0.00060	< 0.00020	0.043	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.000021 [#4]	0.00055	0.00069	< 0.10	< 0.00020	1.9	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00048	< 0.0010	< 0.0030
	19-Jul-2024	0.038	< 0.00060	0.00032	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	0.034	< 0.0040	< 0.0000019	0.00084	0.00094	< 0.10	0.00037	1.4	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00074	< 0.0010	< 0.0030
	16-Aug-2024	0.027	< 0.00060	0.00042	0.052	< 0.0010	< 0.020	0.000041	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	0.021	< 0.0000019	0.00098	0.0011	< 0.10	0.00038	1.5	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00082	< 0.0010	< 0.0030
	12-Sep-2024	0.039	< 0.00060	0.00024	0.042	< 0.0010	< 0.020	0.000021	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00096	0.0011	< 0.10	0.00026	1.4	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00065	< 0.0010	< 0.0030
	08-Mar-2025	< 0.0030	< 0.00060	< 0.00020	0.037	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00061	0.00071	< 0.10	< 0.00020	1.5	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00047	< 0.0010	0.0031
	18-Jul-2025	0.025	< 0.00060	0.00037	0.043	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00097	0.0013	< 0.10	0.00037	1.7	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00076	< 0.0010	< 0.0030
	16-Aug-2025	0.044	< 0.00060	< 0.00020	0.043	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000037	0.00088	0.00094	< 0.10	0.00031	1.5	< 0.00010	0.25	< 0.00020	< 0.0010	< 0.0010	0.00073	< 0.0010	< 0.0030
	16-Sep-2025	0.023	< 0.00060	0.00032	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00091	0.0011	< 0.10	0.00023	1.3	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00076	< 0.0010	< 0.0030

Table 5

Surfacewater Analytical Results: Dissolved Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date (dd-mmm-yyyy)	Aluminum (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (Total) (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Lithium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Phosphorus (mg/L)	Selenium (mg/L)	Silicon (mg/L)	Silver (mg/L)	Strontium (mg/L)	Thallium (mg/L)	Tin (mg/L)	Titanium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
2024 Federal Environmental Quality Guidelines - Freshwa		---	---	---	---	---	---	---	---	---	**0.0067**	---	**0.00717**	---	---	---	---	---	---	---	---	---	**2.5**	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	---	---	---	---	---	---	---	---	---	---	---	**0.25**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.015**
AEMP-MACKENZIE-DS																													
AEMP-DS-02 (Marine Dock)	17-Aug-2017	0.067	< 0.00060	0.00043	0.051	< 0.0010	< 0.020	0.000030	< 0.0010	< 0.00030	0.0019	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.0012	0.0015	< 0.10	0.00044	1.9	< 0.00010	0.25	< 0.00020	< 0.0010	< 0.0010	0.00085	0.0011	0.0049
	21-Aug-2017	0.035	< 0.00060	0.00035	0.044	< 0.0010	< 0.020	0.000032	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00086	0.0011	< 0.10	0.00026	1.6	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00065	< 0.0010	< 0.0030
	16-Sep-2017	0.033	< 0.00060	0.00027	0.038	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	0.0041	< 0.0000020	0.00070	0.0010	< 0.10	< 0.00020	1.5	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00053	< 0.0010	< 0.0030
	16-Oct-2017	0.015	< 0.00060	0.00035	0.036	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0010	< 0.060	< 0.00020	< 0.020	0.0049	< 0.0000020	0.00070	0.0011	< 0.10	0.00025	1.4	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00054	< 0.0010	< 0.0030
	23-Jun-2018	0.13	< 0.00060	0.00031	0.047	< 0.0010	< 0.020	0.000023	< 0.0010	< 0.00030	0.0030	0.20	0.00026	< 0.020	0.011	0.0000026	0.00079	0.0012	< 0.10	0.00021	1.4	< 0.00010	0.18	< 0.00020	< 0.0010	0.0010	0.00050	< 0.0010	0.0078
	13-Aug-2018	0.048	< 0.00060	0.00036	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00086	0.0017	< 0.10	0.00022	1.5	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00067	< 0.0010	< 0.0030
	17-Oct-2018	0.0097	< 0.00060	0.00023	0.039	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00077	0.00099	< 0.10	< 0.00020	1.4	< 0.00010	0.28	< 0.00020	< 0.0010	< 0.0010	0.00055	< 0.0010	< 0.0030
	03-Jun-2019	0.018	< 0.00060	0.00029	0.040	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	0.0048	< 0.0000020	0.00081	0.00096	< 0.10	0.00028	1.4	< 0.00010	0.28	< 0.00020	< 0.0010	< 0.0010	0.00056	< 0.0010	< 0.0030
	28-Aug-2019	0.022	< 0.00060	0.00024	0.042	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00079	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00091	0.00088	< 0.10	0.00021	1.5	< 0.00010	0.31	< 0.00020	< 0.0010	< 0.0010	0.00066	< 0.0010	< 0.0030
	03-Oct-2019	0.014	< 0.00060	0.00039	0.038	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0021	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00091	0.00086	< 0.10	0.00026	1.4	< 0.00010	0.27	< 0.00020	< 0.0010	0.0012	0.00057	< 0.0010	0.0098
	10-Jun-2020	0.013	< 0.00060	0.00044	0.041	< 0.0010	< 0.020	0.000021	0.0038	< 0.00030	0.0062	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0015	0.0034	< 0.10	0.00039	1.5	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00055	< 0.0010	< 0.0030
	24-Jul-2020	0.018	< 0.00060	0.00026	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00086	0.0012	< 0.10	< 0.00020	1.5	< 0.00010	0.19	< 0.00020	0.0028	< 0.0010	0.00062	< 0.0010	< 0.0030
	18-Sep-2020	0.015	< 0.00060	0.00023	0.038	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00075	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00066	0.0013	< 0.10	0.00027	1.7	< 0.00010	0.19	< 0.00020	< 0.0010	< 0.0010	0.00056	< 0.0010	< 0.0030
	06-Jun-2021	0.015	< 0.00060	0.00041	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	0.066	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00066	0.0015	< 0.10	0.00027	1.8	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00035	< 0.0010	< 0.0030
	18-Aug-2021	0.025	< 0.00060	0.00034	0.042	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	0.000011	0.00086	0.0014	< 0.10	0.00022	1.5	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00061	< 0.0010	< 0.0030
	22-Aug-2021	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.0000019	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	17-Sep-2021	0.014	< 0.00060	0.00035	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0031	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00075	0.00093	< 0.10	0.00020	1.5	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00057	< 0.0010	< 0.0030
	31-Mar-2022	0.019	< 0.00060	0.00026	0.032	< 0.0010	< 0.020	0.00016	< 0.0010	< 0.00030	0.0013	< 0.060	0.00021	< 0.020	< 0.0040	< 0.0000019	0.00055	0.00063	< 0.10	< 0.00020	1.5	< 0.00010	0.21	< 0.00020	< 0.0010	0.0018	0.00049	< 0.0010	0.0042
	12-Jun-2022	0.016	< 0.00060	0.00033	0.033	< 0.0010	< 0.020	0.000023	< 0.0010	< 0.00030	0.0017	0.064	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0020	0.0024	< 0.10	0.00051	1.6	< 0.00010	0.16	< 0.00020	< 0.0010	0.0011	0.00076	< 0.0010	< 0.0030
	06-Aug-2022	0.12	< 0.00060	0.00053	0.057	< 0.0010	< 0.020	0.000030	< 0.0010	0.00032	0.0024	0.34	0.00058	< 0.020	0.030	< 0.0000019	0.00080	0.0017	< 0.10	0.00024	2.0	< 0.00010	0.24	< 0.00020	< 0.0010	0.0027	0.00061	< 0.0010	0.0057
	25-Sep-2022	0.011	< 0.00060	0.00029	0.049	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0031	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0018	0.0013	< 0.10	0.00022	1.4	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00057	< 0.0010	0.0031
	09-Mar-2023	0.0033	< 0.00060	0.00030	0.038	< 0.0010	< 0.020	< 0.000020	< 0.0010	0.00052	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00053	0.0011	< 0.10	< 0.00020	1.4	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00013	< 0.0010	0.0064
	25-Jul-2023	0.023	< 0.00060	0.00032	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000020	0.00083	0.0012	< 0.10	0.00024	1.6	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00061	< 0.0010	< 0.0030
	18-Aug-2023	0.021	< 0.00060	0.00034	---	< 0.0010	---	< 0.000020	< 0.0010	< 0.00030	0.0016	< 0.060	< 0.00020	---	< 0.0040	< 0.0000019	0.0011	0.00099	---	0.00029	---	< 0.00010	---	< 0.00020	< 0.0010	< 0.0010	0.00063	< 0.0010	< 0.0030
	24-Sep-2023	0.021	< 0.00060	0.00032	0.050	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00083	0.00099	< 0.10	0.00024	1.4	< 0.00010	0.29	< 0.00020	< 0.0010	< 0.0010	0.00065	< 0.0010	< 0.0030
	18-Mar-2024	< 0.0030	< 0.00060	0.00021	0.040	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	0.00049	< 0.020	< 0.0040	< 0.000025 [#4]	0.00063	0.00085	< 0.10	< 0.00020	1.7	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00049	< 0.0010	0.0036
	20-Jul-2024	0.041	< 0.00060	0.00031	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	0.029	< 0.0040	< 0.0000019	0.00080	0.00082	< 0.10	0.00030	1.5	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00075	< 0.0010	< 0.0030
	16-Aug-2024	0.020	< 0.00060	0.00037	0.064	< 0.0010	0.021	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	0.040	< 0.0000019	0.0015	0.00099	< 0.10	0.00033	1.8	< 0.00010	0.61	< 0.00020	< 0.0010	< 0.0010	0.00086	< 0.0010	< 0.0030
	13-Sep-2024	0.058	< 0.00060	0.00025	0.047	< 0.0010	< 0.020	0.000033	< 0.0010	< 0.00030	< 0.0010	< 0.060	0.00036	< 0.020	< 0.0040	< 0.0000019	0.0012	0.0011	< 0.10	0.00030	1.2	< 0.00010	0.31	< 0.00020	< 0.0010	< 0.0010	0.00072	< 0.0010	< 0.0030
	12-Mar-2025	< 0.0030	< 0.00060	< 0.00020	0.036	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00068	0.00067	< 0.10	< 0.00020	1.4	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00041	< 0.0010	0.0054
	19-Jul-2025	0.033	< 0.00060	0.00032	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0020	< 0.060	< 0.00020	< 0.020	0.0055	< 0.0000019	0.0010	0.0011	< 0.10	0.00034	1.8	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00069	< 0.0010	< 0.0030
	15-Aug-2025	0.029	< 0.00060	0.00031	0.047	< 0.0010	< 0.020	0.000023	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.00097	< 0.10	0.00044	1.5	< 0.00010	0.31	< 0.00020	< 0.0010	< 0.0010	0.00089	< 0.0010	< 0.0030
	13-Sep-2025	0.024	< 0.00060	0.00029	0.047	< 0.0010	< 0.020	0.000024	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0086	< 0.0000019	0.0010	0.0015	< 0.10	0.00026	1.5	< 0.00010	0.32	< 0.00020	< 0.0010	< 0.0010	0.00076	< 0.0010	< 0.0030
AEMP-DS-03 (Island 3)	16-Sep-2017	0.051	< 0.00060	0.00025	0.047	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00092	0.0014	< 0.10	0.00035	1.8	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00072	< 0.0010	< 0.0030
	16-Oct-2017	0.024	< 0.00060	0.00028	0.047	< 0.0010	< 0.020	0.000022	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.0010	0.0017	< 0.10	0.00034	1.7	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00076	< 0.0010	< 0.0030
	23-Jun-2018	0.047	< 0.00060	0.00036	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00097	0.0011	< 0.10	0.00029	1.6	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00065	< 0.0010	< 0.0030
	14-Aug-2018	0.090	< 0.00060	0.00028	0.048	< 0.0010	< 0.020	0.000023	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000031	0.00090	0.0015	< 0.10	0.00034	1.6	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00083	< 0.0010	< 0.0030
	18-Oct-2018	0.0060	< 0.00060	0.00031	0.047	< 0.0010	0.020	< 0.000020	< 0.0010	< 0.00030	0.00088	< 0.060	< 0.00020	< 0.020	0.0093	< 0.0000020	0.00075	0.00092	< 0.10	< 0.00020	1.4	< 0.00010	0.27	< 0.00020	< 0.0010	< 0.0010	0.00056	< 0.0010	< 0.0030
	10-Jun-2019	0.020	< 0.00060	0.00021	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00085	0.0014	< 0.10	0.00026	1.7	< 0.00010	0.18	< 0.00020	< 0.0010	< 0.0010	0.00066	< 0.0010	< 0.0030
	26-Aug-2019	0.047	< 0.00060	0.00020	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00094	0.0014	< 0.10	0.00036	1.8	< 0.00010	0.27	< 0.00020	< 0.0010	< 0.0010	0.00084	< 0.0010	< 0.0030
	01-Oct-2019	0.032	< 0.00060	0.00033	0.051	< 0.0010	< 0.020	0.000021	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.0011	0.0017	< 0.10	0.00057	1.8	< 0.00010	0.24	< 0.00020	< 0.0010	0.0011	0.00078	< 0.0010	0.0057
	12-Jun-2020	0.023	< 0.00060	0.00030	0.042	< 0.0010	< 0.020	0.000022	< 0.0010	< 0.00030	0.0019	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000038	0.00090	0.0017	< 0.10	0.00034	1.9	< 0.00010	0.19	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	28-Jul-2020	0.0084	< 0.00060	0.00032	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.00020	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0013	0.0014	< 0.10	0.00047	1.8	< 0.00010	0.20	< 0.00020	< 0.0010	< 0.0010	0.00083	0.0020	0.0084
	22-Sep-2020	0.026	< 0.00060	0.00039	0.044	< 0.0010	< 0.020	0.000026	< 0.0010	< 0.00030	0.0023	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0010	0.0015	< 0.10	0.00032	1.9	< 0.00010	0.20	< 0.00020	< 0.0010	< 0.0010	0.00074	< 0.0010	< 0.0030
	07-Jun-2021	0.034	< 0.00060	0.00025	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00078	0.0015	< 0.10	0.00024	2.0	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00053	< 0.0010	< 0.0030
	19-Aug-2021	0.036	< 0.00060	0.00032	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0045	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00094	0.0018	< 0.10	0.00044	1.8	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00075	< 0.0010	0.0050
	18-Sep-2021	0.044	< 0.00060	0.00049	0.047	< 0.0010	< 0.020	0.000021	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000020	0.00096	0.0017	< 0.10	0.00035	1.8	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00081	< 0.0010	< 0.0030
	31-Mar-2022	0.0054	< 0.00060	0.00040	0.061	< 0.0010	< 0.020	< 0.000020	0.0017	< 0.00030	0.0027	< 0.060	**0.019** [#1]	< 0.020	< 0.0040	0.0000051	0.0012	0.0017	< 0.10	0.00035	2.5	< 0.00010	0.29	< 0.00020	< 0.0010	< 0.0010	0.00082	< 0.0010	0.013
	14-Jun-2022	0.022	< 0.00060	0.00030	0.039	< 0.0010	< 0.020	0.000025	< 0.0010	< 0.00030	0.0016	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000022	0.00082	0.0015	< 0.10	0.00026	1.6	< 0.00010	0.16	< 0.00020	0.0033	< 0.0010	0.00062	< 0.0010	< 0.0030
	06-Aug-2022	0.039	< 0.00060	0.00038	0.053	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000024	0.0010	0.0015	< 0.10	0.00035	1.9	< 0.00010	0.23	< 0.00020	< 0.0010	0.0011	0.00070	< 0.0010	0.0037
	25-Sep-2022	0.029	< 0.00060	0.00032	0.051	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0031	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0016	< 0.10	0.00035	1.6	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00071	< 0.0010	0.0068
	09-Mar-2023	0.0075	< 0.00060	0.00046	0.066	< 0.0010	< 0.020	0.000024	0.0010	< 0.00030	0.0018	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0058	< 0.10	0.00048	2.1	< 0.00010	0.32	< 0.00020	< 0.0010	< 0.0010	0.00079	< 0.0010	0.0036

Table 5

Surfacewater Analytical Results: Dissolved Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Selenium	Silicon	Silver	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
2024 Federal Environmental Quality Guidelines - Freshwa		---	---	---	---	---	---	---	---	---	**0.0067**	---	**0.00717**	---	---	---	---	---	---	---	---	---	**2.5**	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	---	---	---	---	---	---	---	---	---	---	---	**0.25**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.015**
	25-Jul-2023	0.039	< 0.00060	0.00031	0.050	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0011	< 0.10	0.00037	1.6	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00083	< 0.0010	< 0.0030
	19-Aug-2023	0.036	< 0.00060	0.00032	0.051	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0023	< 0.060	< 0.00020	< 0.020	0.0044	< 0.0000019	0.0011	0.0016	< 0.10	0.00051	1.7	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00092	< 0.0010	< 0.0030
	25-Sep-2023	0.030	< 0.00060	0.00026	0.052	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0017	< 0.10	0.00038	1.6	< 0.00010	0.28	< 0.00020	< 0.0010	< 0.0010	0.00082	< 0.0010	< 0.0030
	18-Mar-2024	0.0033	< 0.00060	0.00029	0.061	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.000025 [#4]	0.0010	0.0015	< 0.10	0.00039	2.3	< 0.00010	0.33	< 0.00020	< 0.0010	< 0.0010	0.00084	< 0.0010	0.0049
	19-Jul-2024	0.048	< 0.00060	0.00023	0.050	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000087	0.00095	0.00098	< 0.10	0.00044	1.6	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00083	< 0.0010	< 0.0030
	15-Aug-2024	0.047	< 0.00060	0.00039	0.053	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0012	0.0013	< 0.10	0.00050	1.7	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00095	< 0.0010	< 0.0030
	17-Sep-2024	0.060	< 0.00060	0.00028	0.047	< 0.0010	< 0.020	0.000031	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0010	0.0019	< 0.10	0.00038	1.6	< 0.00010	0.25	< 0.00020	< 0.0010	< 0.0010	0.00083	< 0.0010	< 0.0030
	12-Mar-2025	0.0035	< 0.00060	0.00032	0.058	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00086	0.0014	< 0.10	0.00042	1.9	< 0.00010	0.29	< 0.00020	< 0.0010	< 0.0010	0.00074	< 0.0010	0.0044
	18-Jul-2025	0.034	< 0.00060	0.00035	0.047	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0012	0.0014	< 0.10	0.00045	1.7	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00092	< 0.0010	< 0.0030
	16-Aug-2025	0.072	< 0.00060	< 0.00020	0.051	< 0.0010	< 0.020	0.000024	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0012	0.0011	< 0.10	0.00041	1.8	< 0.00010	0.30	< 0.00020	< 0.0010	< 0.0010	0.00095	< 0.0010	< 0.0030
	16-Sep-2025	0.045	< 0.00060	0.00027	0.051	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0012	0.0014	< 0.10	0.00039	1.5	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00095	< 0.0010	< 0.0030
AEMP-DS-04 (Refinery)	21-Aug-2017	0.033	< 0.00060	0.00034	0.043	< 0.0010	< 0.020	0.000028	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00084	0.0011	< 0.10	0.00032	1.5	< 0.00010	0.22	< 0.00020	0.0010	< 0.0010	0.00065	< 0.0010	< 0.0030
	16-Sep-2017	0.026	< 0.00060	0.00022	0.040	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00075	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00072	0.0011	< 0.10	0.00022	1.4	< 0.00010	0.22	< 0.00020	0.0019	< 0.0010	0.00054	< 0.0010	< 0.0030
	16-Oct-2017	0.012	< 0.00060	0.00036	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00070	< 0.060	< 0.00020	< 0.020	0.022	< 0.0000020	0.00082	0.0010	< 0.10	< 0.00020	1.4	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00060	< 0.0010	< 0.0030
	23-Jun-2018	0.028	< 0.00060	0.00025	0.038	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000031	0.00081	0.0010	< 0.10	< 0.00020	1.4	< 0.00010	0.16	< 0.00020	< 0.0010	< 0.0010	0.00053	< 0.0010	< 0.0030
	13-Aug-2018	0.048	< 0.00060	0.00027	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000022	0.00076	0.0014	< 0.10	0.00026	1.4	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00062	< 0.0010	< 0.0030
	17-Oct-2018	0.0077	< 0.00060	0.00044	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00092	< 0.060	< 0.00020	< 0.020	0.013	< 0.0000020	0.00081	0.00086	< 0.10	0.00025	1.3	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00050	< 0.0010	< 0.0030
	03-Jun-2019	0.016	< 0.00060	0.00033	0.037	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	0.0098	0.0000020	0.00089	0.0012	< 0.10	0.00023	1.4	< 0.00010	0.19	< 0.00020	0.0018	< 0.0010	0.00060	< 0.0010	< 0.0030
	25-Aug-2019	0.022	< 0.00060	0.00030	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00084	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00085	0.00092	< 0.10	0.00024	1.5	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00069	< 0.0010	< 0.0030
	03-Oct-2019	0.014	< 0.00060	0.00043	0.062	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00070	< 0.060	< 0.00020	< 0.020	0.029	< 0.0000020	0.00081	0.0025	< 0.10	0.00022	1.4	< 0.00010	0.20	< 0.00020	< 0.0010	< 0.0010	0.00057	< 0.0010	< 0.0030
	10-Jun-2020	0.012	< 0.00060	0.00030	0.036	< 0.0010	< 0.020	0.000023	0.0042	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00084	0.0039	< 0.10	0.00030	1.5	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00058	0.0013	< 0.0030
	24-Jul-2020	0.018	< 0.00060	0.00026	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00097	0.0013	< 0.10	< 0.00020	1.5	< 0.00010	0.19	< 0.00020	0.0020	< 0.0010	0.00068	< 0.0010	< 0.0030
	18-Sep-2020	0.016	< 0.00060	0.00029	0.040	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00072	0.0022	< 0.10	0.00022	1.8	< 0.00010	0.19	< 0.00020	< 0.0010	< 0.0010	0.00053	< 0.0010	< 0.0030
	06-Jun-2021	0.094	< 0.00060	0.00055	0.044	< 0.0010	< 0.020	< 0.000020	0.0014	< 0.00030	0.0017	0.17	< 0.00020	< 0.020	0.0073	< 0.0000019	0.00060	0.0016	< 0.10	0.00025	2.0	< 0.00010	0.17	< 0.00020	< 0.0010	0.0020	0.00040	< 0.0010	< 0.0030
	18-Aug-2021	0.026	< 0.00060	0.00038	0.043	< 0.0010	0.054	< 0.000020	< 0.0010	< 0.00030	0.0016	< 0.060	< 0.00020	< 0.020	0.0044	---	0.00083	0.0013	< 0.10	0.00030	1.5	< 0.00010	0.19	< 0.00020	< 0.0010	< 0.0010	0.00064	< 0.0010	< 0.0030
	22-Aug-2021	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.0000019	---	---	---	---	---	---	---	---	---	---	---	---	---
	17-Sep-2021	0.014	< 0.00060	0.00030	0.044	< 0.0010	0.042	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00068	0.00095	< 0.10	0.00022	1.5	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00052	< 0.0010	< 0.0030
	12-Jun-2022	0.013	< 0.00060	0.00033	0.043	< 0.0010	< 0.020	0.000026	< 0.0010	< 0.00030	0.0030	0.076	< 0.00020	< 0.020	0.0059	< 0.0000019	0.0034	0.0020	< 0.10	0.00034	1.6	< 0.00010	0.16	< 0.00020	0.0016	0.0013	0.0011	< 0.0010	< 0.0030
	06-Aug-2022	0.011	< 0.00060	0.00050	0.054	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.067	< 0.0000019	0.0011	0.0012	< 0.10	0.00028	1.6	< 0.00010	0.20	< 0.00020	< 0.0010	0.0011	0.00062	< 0.0010	< 0.0030
	24-Sep-2022	0.0060	< 0.00060	0.00055	0.065	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.068	< 0.0000019	0.00089	0.0011	< 0.10	0.00026	1.4	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00062	< 0.0010	< 0.0030
	11-Mar-2023	0.0044	< 0.00060	0.00023	0.035	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00054	< 0.00050	< 0.10	< 0.00020	1.3	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00040	< 0.0010	< 0.0030
	26-Jul-2023	0.026	< 0.00060	0.00027	0.047	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00097	0.00095	< 0.10	0.00027	1.5	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00069	< 0.0010	0.0044
	18-Aug-2023	0.022	< 0.00060	0.00034	---	< 0.0010	---	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	---	0.0040	< 0.0000019	0.00086	0.00083	---	0.00034	---	< 0.00010	---	< 0.00020	< 0.0010	< 0.0010	0.00066	< 0.0010	< 0.0030
	24-Sep-2023	0.017	< 0.00060	0.00028	0.043	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00081	0.0011	< 0.10	0.00022	1.3	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00064	< 0.0010	< 0.0030
	18-Mar-2024	< 0.0030	< 0.00060	< 0.00020	0.040	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00061	0.00069	< 0.10	< 0.00020	1.6	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00049	< 0.0010	< 0.0030
	20-Jul-2024	0.038	< 0.00060	0.00033	0.047	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	0.028	0.0042	< 0.0000019	0.00091	0.0011	< 0.10	0.00036	1.5	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00078	< 0.0010	< 0.0030
	16-Aug-2024	0.027	< 0.00060	0.00040	0.053	< 0.0010	0.022	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.025	< 0.0000019	0.00094	0.00094	< 0.10	0.00041	1.5	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00078	< 0.0010	< 0.0030
	13-Sep-2024	0.051	< 0.00060	0.00021	0.038	< 0.0010	< 0.020	0.000029	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00091	0.0012	< 0.10	0.00025	1.2	< 0.00010	0.19	< 0.00020	< 0.0010	< 0.0010	0.00070	< 0.0010	< 0.0030
	12-Mar-2025	< 0.0030	< 0.00060	0.00022	0.036	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00057	0.00065	< 0.10	< 0.00020	1.5	< 0.00010	0.22	< 0.00020	0.0012	< 0.0010	0.00036	< 0.0010	0.0074
	19-Jul-2025	0.038	< 0.00060	0.00043	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	0.014	< 0.0000019	0.0013	0.0011	< 0.10	0.00036	1.6	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00071	< 0.0010	< 0.0030
	12-Aug-2025	0.020	< 0.00060	0.00048	0.051	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.012	< 0.0000019	0.0012	0.0011	< 0.10	0.00043	1.6	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00087	< 0.0010	< 0.0030
	13-Sep-2025	0.025	< 0.00060	0.00031	0.044	< 0.0010	< 0.020	0.000024	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00085	0.0011	< 0.10	0.00032	1.4	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00075	< 0.0010	< 0.0030
AEMP-DS-05 (Radar North)	23-Jun-2018	0.037	< 0.00060	0.00027	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.0011	0.0011	< 0.10	0.00027	1.5	< 0.00010	0.15	< 0.00020	< 0.0010	< 0.0010	0.00059	< 0.0010	0.0031
	14-Aug-2018	0.068	< 0.00060	0.00037	0.044	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	0.0043	0.0000022	0.00084	0.0017	< 0.10	0.00024	1.5	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00067	< 0.0010	< 0.0030
	18-Oct-2018	0.0074	< 0.00060	0.00021	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.00099	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00076	0.00097	< 0.10	< 0.00020	1.4	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00053	< 0.0010	< 0.0030
	10-Jun-2019	0.014	< 0.00060	0.00025	0.038	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0016	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00076	0.0011	< 0.10	0.00024	1.5	< 0.00010	0.16	< 0.00020	< 0.0010	< 0.0010	0.00055	< 0.0010	< 0.0030
	26-Aug-2019	0.038	< 0.00060	< 0.00020	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000020	0.00079	0.0013	< 0.10	0.00033	1.8	< 0.00010	0.25	< 0.00020	< 0.0010	< 0.0010	0.00079	< 0.0010	< 0.0030
	01-Oct-2019	0.023	< 0.00060	0.00024	0.042	< 0.0010	0.020	0.000027	< 0.0010	0.00092	0.0023	0.91	< 0.00020	< 0.020	0.054	< 0.0000020	0.00085	0.0030	< 0.10	0.00032	1.7	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00062	< 0.0010	0.011
	12-Jun-2020	0.017	< 0.00060	0.00029	0.040	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0016	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000043	0.00088	0.0014	< 0.10	0.00042	1.6	< 0.00010	0.17	< 0.00020	< 0.0010	< 0.0010	0.00063	< 0.0010	< 0.0030
	28-Jul-2020	0.030	< 0.00060	0.00041	0.044	< 0.0010	0.020	< 0.000020	0.0010	< 0.00030	0.0033	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0013	0.00097	< 0.10	0.00044	1.7	< 0.00010	0.18	< 0.00020	< 0.0010	< 0.0010	0.00076	< 0.0010	0.0035
	22-Sep-2020	0.020	< 0.00060	0.00030	0.041	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00099	0.0014	< 0.10	0.00035	1.8	< 0.00010	0.18	< 0.00020	< 0.0010	< 0.0010	0.00068	< 0.0010	< 0.0030
	07-Jun-2021	0.018	< 0.00060	0.00057	0.041	< 0.0010	< 0.020	0.000025	0.0014	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00090	0.0012	< 0.10	0.00039	1.7	< 0.00010	0.15	< 0.00020	< 0.0010	< 0.0010	0.00055	< 0.0010	< 0.0030
	19-Aug-2021	0.034	< 0.00060	0.00036	0.045	< 0.0010	0.051	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00084	0.0014	< 0.10	0.00034	1.6	< 0.00010	0.19	< 0.00020	< 0.0010	0.0013	0.00059	< 0.0010	< 0.0030
	18-Sep-2021	0.034	< 0.00060	0.00045	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00090	0.0015	< 0.10	0.00035	1.7	< 0.00010	0.20	< 0.00020	< 0.0010	< 0.0010	0.00077	< 0.0010	< 0.0030

Table 5

Surfacewater Analytical Results: Dissolved Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date (dd-mmm-yyyy)	Aluminum (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (Total) (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Lithium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Phosphorus (mg/L)	Selenium (mg/L)	Silicon (mg/L)	Silver (mg/L)	Strontium (mg/L)	Thallium (mg/L)	Tin (mg/L)	Titanium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
2024 Federal Environmental Quality Guidelines - Freshwa		---	---	---	---	---	---	---	---	---	**0.0067**	---	**0.00717**	---	---	---	---	---	---	---	---	---	**2.5**	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	---	---	---	---	---	---	---	---	---	---	---	**0.25**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.015**
	10-Aug-2022	0.019	< 0.00060	0.00030	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00083	0.0010	< 0.10	< 0.00020	1.5	< 0.00010	0.20	< 0.00020	< 0.0010	< 0.0010	0.00059	< 0.0010	< 0.0030
	11-Mar-2023	< 0.0030	< 0.00060	< 0.00020	0.039	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00053	< 0.00050	< 0.10	0.00022	1.4	< 0.00010	0.29	< 0.00020	< 0.0010	< 0.0010	0.00048	< 0.0010	0.0086
	25-Jul-2023	0.028	< 0.00060	0.00038	0.047	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0028	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00094	0.0012	< 0.10	0.00033	1.7	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00067	< 0.0010	< 0.0030
	19-Aug-2023	0.025	< 0.00060	0.00026	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00089	0.00096	< 0.10	0.00038	1.6	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00074	< 0.0010	< 0.0030
	26-Sep-2023	0.023	< 0.00060	0.00028	0.045	< 0.0010	0.022	0.000021	< 0.0010	< 0.00030	< 0.0010	0.10	< 0.00020	< 0.020	0.0080	< 0.0000019	0.00094	0.0012	< 0.10	0.00030	1.5	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00072	< 0.0010	< 0.0030
	17-Mar-2024	< 0.0030	< 0.00060	0.00034	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.000024 [#4]	0.00066	0.00086	< 0.10	0.00025	2.0	< 0.00010	0.27	< 0.00020	< 0.0010	< 0.0010	0.00053	< 0.0010	0.0035
	19-Jul-2024	0.030	< 0.00060	0.00027	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	0.033	< 0.0040	< 0.0000019	0.00093	0.00092	< 0.10	0.00037	1.4	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00077	< 0.0010	< 0.0030
	15-Aug-2024	0.035	< 0.00060	0.00043	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0037	< 0.060	< 0.00020	0.021	< 0.0040	< 0.0000019	0.00098	0.0010	< 0.10	0.00039	1.6	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00078	< 0.0010	< 0.0030
	17-Sep-2024	0.038	< 0.00060	0.00027	0.042	< 0.0010	< 0.020	0.000026	< 0.0010	< 0.00030	0.0026	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00091	0.0014	< 0.10	0.00029	1.4	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00071	< 0.0010	0.0031
	14-Mar-2025	0.0043	< 0.00060	0.00020	0.036	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0027	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00059	0.00064	< 0.10	< 0.00020	1.6	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00047	< 0.0010	< 0.0030
	18-Jul-2025	0.029	< 0.00060	0.00034	0.042	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0011	< 0.10	0.00032	1.5	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00084	< 0.0010	< 0.0030
	16-Aug-2025	0.053	< 0.00060	0.00034	0.049	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0010	< 0.10	0.00040	1.7	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00091	< 0.0010	< 0.0030
	16-Sep-2025	0.028	< 0.00060	0.00025	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0052	< 0.0000019	0.0011	0.0016	< 0.10	0.00027	1.4	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00079	< 0.0010	< 0.0030
AEMP-DS-06 (FGH - Bluefish)	10-Mar-2023	0.0036	< 0.00060	0.00024	0.063	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00095	0.0011	< 0.10	< 0.00020	2.0	< 0.00010	0.32	< 0.00020	< 0.0010	< 0.0010	0.00079	< 0.0010	0.0058
	24-Jul-2023	0.052	< 0.00060	0.00032	0.056	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	0.0048	< 0.0000019	0.0015	0.0012	< 0.10	0.00039	1.5	< 0.00010	0.28	< 0.00020	< 0.0010	< 0.0010	0.00081	< 0.0010	< 0.0030
	21-Aug-2023	0.051	< 0.00060	0.00031	0.059	< 0.0010	0.028	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0011	< 0.10	0.00050	1.6	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00093	< 0.0010	< 0.0030
	03-Oct-2023	0.048	< 0.00060	0.00021	0.062	< 0.0010	< 0.020	0.000023	< 0.0010	< 0.00030	0.0026	< 0.060	< 0.00020	< 0.020	0.0059	< 0.0000019	0.00086	0.0028	< 0.10	0.00059	1.5	< 0.00010	0.28	< 0.00020	< 0.0010	< 0.0010	0.00075	< 0.0010	0.0032
	15-Mar-2024	0.0052	< 0.00060	< 0.00020	0.066	< 0.0010	< 0.020	0.000021	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00086	0.0012	< 0.10	0.00035	2.2	< 0.00010	0.37	< 0.00020	< 0.0010	< 0.0010	0.00075	< 0.0010	< 0.0030
	17-Jul-2024	0.061	< 0.00060	0.00028	0.057	< 0.0010	< 0.020	0.000025	< 0.0010	< 0.00030	0.0018	< 0.060	< 0.00020	< 0.020	0.013	< 0.0000019	0.0011	0.0011	< 0.10	0.00054	1.8	< 0.00010	0.27	< 0.00020	< 0.0010	< 0.0010	0.00082	< 0.0010	< 0.0030
	14-Aug-2024	0.063	< 0.00060	0.00029	0.054	< 0.0010	< 0.020	0.000026	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00096	0.0012	< 0.10	0.00048	1.7	< 0.00010	0.29	< 0.00020	< 0.0010	< 0.0010	0.00081	< 0.0010	< 0.0030
	18-Sep-2024	0.094	< 0.00060	0.00026	0.052	< 0.0010	< 0.020	0.000030	< 0.0010	< 0.00030	0.0023	0.062	< 0.00020	< 0.020	0.0058	< 0.0000019	0.00079	0.0027	< 0.10	0.00056	1.3	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00076	< 0.0010	0.0058
	13-Mar-2025	0.0086	< 0.00060	0.00025	0.055	< 0.0010	< 0.020	0.000024	< 0.0010	< 0.00030	0.0024	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0012	< 0.10	0.00032	1.5	< 0.00010	0.29	< 0.00020	< 0.0010	< 0.0010	0.00076	< 0.0010	0.0053
	13-Aug-2025	0.048	< 0.00060	0.00029	0.062	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	0.014	0.0000029	0.0012	0.0015	< 0.10	0.00058	1.7	< 0.00010	0.33	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	10-Sep-2025	0.053	< 0.00060	0.00032	0.054	< 0.0010	< 0.020	0.000029	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0017	< 0.10	0.00050	1.5	< 0.00010	0.28	< 0.00020	< 0.0010	< 0.0010	0.00096	< 0.0010	< 0.0030
AEMP-DS-07 (FGH - Ramparts)	17-Jul-2024	0.036	< 0.00060	0.00025	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00099	0.00084	< 0.10	0.00039	1.8	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00070	< 0.0010	< 0.0030
	14-Aug-2024	0.032	< 0.00060	0.00032	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0043	< 0.0000019	0.00099	0.00097	< 0.10	0.00040	1.7	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00079	< 0.0010	< 0.0030
	18-Sep-2024	0.050	< 0.00060	0.00032	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0010	0.0016	< 0.10	0.00039	1.3	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00086	< 0.0010	< 0.0030
	13-Aug-2025	0.032	< 0.00060	0.00029	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0013	0.0011	< 0.10	0.00046	1.7	< 0.00010	0.29	< 0.00020	< 0.0010	< 0.0010	0.00091	< 0.0010	< 0.0030
	10-Sep-2025	0.030	< 0.00060	0.00033	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0012	0.0020	< 0.10	0.00033	1.6	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00087	< 0.0010	< 0.0030
AEMP-DS-08 (Radar South)	19-Jul-2024	0.036	< 0.00060	0.00030	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	0.00073	< 0.020	< 0.0040	< 0.0000019	0.00085	0.0010	< 0.10	0.00036	1.5	< 0.00010	0.21	< 0.00020	< 0.0010	< 0.0010	0.00072	< 0.0010	< 0.0030
	15-Aug-2024	0.036	< 0.00060	0.00033	0.048	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0037	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0011	< 0.10	0.00041	1.6	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00079	< 0.0010	0.0030
	17-Sep-2024	0.051	< 0.00060	0.00033	0.043	< 0.0010	< 0.020	0.000030	< 0.0010	< 0.00030	0.0013	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00087	0.0015	< 0.10	0.00032	1.4	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00071	< 0.0010	0.0040
	18-Jul-2025	0.028	< 0.00060	0.00032	0.042	< 0.0010	< 0.020	0.000020	< 0.0010	< 0.00030	0.0016	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0010	0.0013	< 0.10	0.00034	1.7	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00081	< 0.0010	< 0.0030
	16-Aug-2025	0.056	< 0.00060	< 0.00020	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0010	0.00091	< 0.10	0.00038	1.7	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00084	< 0.0010	< 0.0030
	16-Sep-2025	0.028	< 0.00060	0.00025	0.046	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060 [#5]	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00095	0.0011	< 0.10	0.00027	1.3	< 0.00010	0.22	< 0.00020	< 0.0010	< 0.0010	0.00080	< 0.0010	< 0.0030
AEMP-DS-09 (End of Facility)	17-Mar-2024	0.0071	< 0.00060	0.00035	0.066	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0015	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.000015 [#4]	0.0012	0.0012	< 0.10	0.00039	2.5	< 0.00010	0.36	< 0.00020	< 0.0010	< 0.0010	0.00093	< 0.0010	0.0036
	19-Jul-2024	0.040	< 0.00060	0.00028	0.051	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	0.030	< 0.0040	< 0.0000019	0.00098	0.00097	< 0.10	0.00043	1.6	< 0.00010	0.23	< 0.00020	< 0.0010	< 0.0010	0.00086	< 0.0010	< 0.0030
	15-Aug-2024	0.054	< 0.00060	0.00031	0.052	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	0.00025	< 0.020	0.0072	< 0.0000019	0.0012	0.0013	< 0.10	0.00046	1.7	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00097	< 0.0010	< 0.0030
	17-Sep-2024	0.053	< 0.00060	0.00027	0.051	< 0.0010	< 0.020	0.000026	< 0.0010	< 0.00030	0.0016	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.0020	< 0.10	0.00045	1.6	< 0.00010	0.27	< 0.00020	< 0.0010	< 0.0010	0.00082	< 0.0010	0.0046
	14-Mar-2025	0.0070	< 0.00060	0.00023	0.053	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0030	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.00097	0.0015	< 0.10	0.00033	2.0	< 0.00010	0.27	< 0.00020	< 0.0010	< 0.0010	0.00080	< 0.0010	< 0.0030
	18-Jul-2025	0.039	< 0.00060	0.00032	0.047	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0017	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0012	0.0013	< 0.10	0.00046	2.1	< 0.00010	0.24	< 0.00020	< 0.0010	< 0.0010	0.00085	< 0.0010	< 0.0030
	16-Aug-2025	0.068	< 0.00060	0.00038	0.054	< 0.0010	< 0.020	0.000042	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	0.0041	< 0.0000019	0.0013	0.0012	< 0.10	0.00054	1.8	< 0.00010	0.29	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	16-Sep-2025	0.042	< 0.00060	0.00028	0.052	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0055	< 0.0000019	0.0012	0.0015	< 0.10	0.00034	1.5	< 0.00010	0.26	< 0.00020	< 0.0010	< 0.0010	0.00093	< 0.0010	< 0.0030
Relative Percent Difference (RPD) Report																													
AEMP-DS-02 (Marine Dock)	15-Aug-2025	0.029	< 0.00060	0.00031	0.047	< 0.0010	< 0.020	0.000023	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.00097	< 0.10	0.00044	1.5	< 0.00010	0.31	< 0.00020	< 0.0010	< 0.0010	0.00089	< 0.0010	< 0.0030
(Duplicate)	15-Aug-2025	0.036	< 0.00060	0.00029	0.045	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0011	0.00095	< 0.10	0.00038	1.5	< 0.00010	0.28	< 0.00020	0.0015	< 0.0010	0.00087	< 0.0010	< 0.0030
RPD(%)		**21.5%**	---	**6.7%**	**4.3%**	---	---	---	---	---	---	---	---	---	---	---	**0.0%**	**2.1%**	---	**14.6%**	**0.0%**	---	**10.2%**	---	---	---	**2.3%**	---	---

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.

Table 5

Surfacewater Analytical Results: Dissolved Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Selenium	Silicon	Silver	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
2024 Federal Environmental Quality Guidelines - Freshwa		---	---	---	---	---	---	---	---	---	**0.0067**	---	**0.00717**	---	---	---	---	---	---	---	---	---	---	**2.5**	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE [#2]		---	---	---	---	---	---	---	---	---	---	---	---	---	**0.25**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.015**

2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
   Copper:
   The FWQG is for dissolved copper and can be calculated using the Biotic Ligand Model Tool (ECCC 2021).
   Lead:
   The FWQG is valid for DOC 0.5-31.5 mg/L and hardness 4.7-511 mg/L, and can be calculated with the following equation: FWQG = exp(0.514[ln(DOC)] + 0.214[ln(Hardness)] + 0.4354)
7. Superscript [#2] denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life.
   http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)
8. Superscript [#3] - Matrix spike exceeds acceptance limits due to matrix interference.
9. Superscript [#4] - Mercury RDL raised due to background interference.
10. Superscript [#5] - Matrix spike exceeds acceptance limits due to probable matrix interference.

Table 6

Mackenzie River Surface Water Quality Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Polycyclic aromatic hydrocarbons (PAHs) Carcinogenics								Polycyclic aromatic hydrocarbons (PAHs) Non-Carcinogenics														
			Benzo(a)Anthracene (mg/L)	Benzo(b,j)Fluoranthene (mg/L)	Benzo(k)Fluoranthene (mg/L)	Benzo(g,h,i)Perylene (mg/L)	Benzo(a)Pyrene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)Anthracene (mg/L)	Indeno(1,2,3-c,d)Pyrene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Acridine (mg/L)	Anthracene (mg/L)	Benzo(c)Phenanthrene (mg/L)	Benzo(e)Pyrene (mg/L)	Biphenyl (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Perylene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Retene (mg/L)	Quinoline (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	**0.00004**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**
CCME CEQG Freshwater AL-MACKENZIE			**0.000018**	---	---	---	**0.000015**	---	---	---	**0.0058**	---	**0.0044**	**0.000012**	---	---	---	**0.00004**	**0.003**	---	**0.0011**	---	**0.0004**	**0.000025**	---	**0.0034**
AEMP-MACKENZIE-US																									
AEMP-US-01 (Midway)	Grab	12-Mar-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	25-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Aug-2023	0.000000026	0.000000019	0.000000011	0.000000038	0.000000009	0.000000335	N/D	0.000000012	0.000000850	0.000000186	N/A	0.000000317	N/A	0.000000093	0.000006429	0.000001084	0.000001624	0.000001895	0.000008678	0.000000201	0.000008225	0.000000802	N/A	N/A
	Grab	26-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	0.000057	< 0.00020
	Grab	16-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	15-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	17-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Jul-2024	0.000000018	0.000000028	N/D	0.000000035	N/D	0.000000204	N/D	N/D	0.000000709	0.000000045	N/A	0.000000041	N/A	0.000000080	0.000000357	0.000000432	0.000000367	0.000001085	0.000005820	0.000000291	0.000001867	0.000000440	N/A	N/A
	SPMD	15-Aug-2024	0.000000051	0.000000063	N/D	0.000000070	N/D	0.000000490	N/D	N/D	0.000000652	0.000000478	N/A	0.000000220	N/A	0.000000150	0.000010995	0.000001547	0.000002191	0.000002728	0.000017814	0.000000276	0.000012625	0.000001017	N/A	N/A
	SPMD	17-Sep-2024	0.000000050	0.000000033	N/D	0.000000035	N/D	0.000000507	N/D	0.000000011	0.000000272	0.000000165	N/A	0.000000198	N/A	0.000000082	0.000002776	0.000002739	0.000001009	0.000001371	0.000005902	0.000000304	0.000010624	0.000001224	N/A	N/A
	Grab	08-Mar-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	18-Jul-2025	0.000000012	N/A	N/A	0.000000059	N/D	0.00000018	N/A	N/A	0.000000341	N/D	N/A	0.000000028	N/A	N/A	0.000000406	0.000000296	0.000000258	0.000000946	0.000003593	0.000000219	0.000001439	0.000000391	N/D	N/A
	Grab	16-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Aug-2025	0.000000027	N/A	N/A	N/D	N/D	0.00000014	N/A	N/A	0.000001077	0.000000036	N/A	0.000000042	N/A	N/A	0.000000470	0.000000468	0.000000515	0.000001469	0.000010239	0.000000189	0.000002227	0.000000367	N/D	N/A
	Grab	16-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
AEMP-US-02 (10 mile)	Grab	12-Jun-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	28-Jul-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	22-Sep-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	07-Jun-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	19-Aug-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Sep-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	12-Mar-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	25-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	24-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	17-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	15-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	17-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Jul-2024	0.000000021	0.000000045	N/D	0.000000045	N/D	0.00000023	N/D	N/D	0.000000443	0.000000036	N/A	0.000000029	N/A	0.000000111	0.000000268	0.000000370	0.000000252	0.000000754	0.000003924	0.000000300	0.000001530	0.000000473	N/A	N/A
	SPMD	15-Aug-2024	0.000000022	0.000000030	N/D	0.000000036	N/D	0.00000025	N/D	0.000000004	0.000000398	0.000000259	N/A	0.000000098	N/A	0.000000090	0.000004706	0.000000575	0.000000875	0.000001273	0.000010298	0.000000133	0.000005058	0.000000531	N/A	N/A
	SPMD	17-Sep-2024	0.000000021	0.000000019	N/D	0.000000021	0.000000005	0.00000023	N/D	0.000000007	0.000000251	0.000000127	N/A	0.000000117	N/A	0.000000046	0.000001643	0.000001242	0.000000679	0.000001129	0.000004474	0.000000133	0.000006901	0.000000628	N/A	N/A
	Grab	08-Mar-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	16-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Aug-2025	N/D	N/A	N/A	0.000000005	N/D	0.00000004	N/A	N/A	0.000000278	0.000000019	N/A	N/D	N/A	N/A	0.000000213	0.000000076	0.000000128	0.000000582	0.000003076	0.000000034	0.000000588	0.000000075	N/D	N/A
	Grab	16-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
AEMP-US-03 (Norman Wells U/S)	Grab	09-Mar-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	17-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	0.00081	0.0011	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	16-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	12-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Jul-2024	0.000000025	0.000000046	N/D	0.000000059	N/D	0.000000278	N/D	N/D	0.000000625	0.000000000	N/A	0.000000045	N/A	0.000000129	0.000000309	0.000000504	0.000000303	0.000000881	0.000004854	0.000000358	0.000001940	0.000000624	N/A	N/A
	SPMD	16-Aug-2024	0.000000027	0.000000037	N/D	0.000000039	0.000000008	0.000000302	N/D	0.000000008	0.000000427	0.000000360	N/A	0.000000120	N/A	0.000000105	0.000005253	0.000000843	0.000001265	0.000001852	0.000013777	0.000000138	0.000007771	0.000000637	N/A	N/A
	SPMD	12-Sep-2024	0.000000033	0.000000028	N/D	0.000000034	0.000000008	0.000000364	N/D	0.000000012	0.000000269	0.000000119	N/A	0.000000153	N/A	0.000000069	0.000001674	0.000001797	0.000000930	0.000000945	0.000003934	0.000000212	0.000008797	0.000000891	N/A	N/A
	Grab	08-Mar-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	18-Jul-2025	0.000000010	N/A	N/A	0.000000028	N/D	0.000000142	N/A	N/A	0.000000311	N/D	N/A	0.000000022	N/A	N/A	0.000000329	0.000000229	0.000000191	0.000000770	0.000003349	0.000000147	0.000001184	0.000000302	N/D	N/A
	Grab	16-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Aug-2025	0.000000024	N/A	N/A	0.000000033	N/D	0.000000225	N/A	N/A	0.000000764	N/D	N/A	0.000000043	N/A	N/A	0.000000377	0.000000429	0.000000368	0.000001186	0.000006610	0.000000247	0.000001944	0.000000468	N/D	N/A
	Grab	16-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Sep-2025	0.000000014	N/A	N/A	N/D	N/D	0.000000230	N/A	N/A	0.000001026	0.000000227	N/A	0.000000177	N/A	N/A	0.000002021	0.000001003	0.000001319	0.000001156	0.000007869	0.000000213	0.000008615	0.000000651	N/D	N/A

Table 6

Mackenzie River Surface Water Quality Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Polycyclic aromatic hydrocarbons (PAHs) Carcinogenics								Polycyclic aromatic hydrocarbons (PAHs) Non-Carcinogenics														
			Benzo(a)Anthracene (mg/L)	Benzo(b,j)Fluoranthene (mg/L)	Benzo(k)Fluoranthene (mg/L)	Benzo(g,h,i)Perylene (mg/L)	Benzo(a)Pyrene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)Anthracene (mg/L)	Indeno(1,2,3-c,d)Pyrene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Acridine (mg/L)	Anthracene (mg/L)	Benzo(c)Phenanthrene (mg/L)	Benzo(e)Pyrene (mg/L)	Biphenyl (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Perylene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Retene (mg/L)	Quinoline (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	**0.00004**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**
CCME CEQG Freshwater AL-MACKENZIE			**0.000018**	---	---	---	**0.000015**	---	---	---	**0.0058**	---	**0.0044**	**0.000012**	---	---	---	**0.00004**	**0.003**	---	**0.0011**	---	**0.0004**	**0.000025**	---	**0.0034**
AEMP-MACKENZIE-DS																									
AEMP-DS-02 (Marine Dock)	Grab	10-Jun-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	24-Jul-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Sep-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	06-Jun-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Aug-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	12-Jun-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	06-Aug-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	25-Sep-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	09-Mar-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	25-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	18-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	18-Aug-2023	0.000000091	0.000000054	0.000000024	0.000000052	N/D	0.000001328	N/D	N/D	0.000000692	0.000000189	N/A	0.000000537	N/A	0.000000189	0.000005813	0.000001393	0.000002465	0.000006362	0.000007659	0.000000251	0.000017421	0.000001906	N/A	N/A
	Grab	24-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	24-Sep-2023	0.000000159	0.000000122	0.000000025	0.000000084	0.000000027	0.000003253	0.000000014	N/D	0.000001129	0.000000157	N/A	0.000000301	N/A	0.000000388	0.000005191	0.000001317	0.000005038	0.000020804	0.000012121	0.000000381	0.000035883	0.000002869	N/A	N/A
	SPMD	24-Sep-2023	N/D	N/D	N/D	0.000000006	N/D	0.000000162	N/D	N/D	0.000000255	0.000000074	N/A	0.000000092	N/A	0.000000020	0.000002470	0.000000205	0.000000768	0.000002748	0.000003976	0.000000027	0.000004823	0.000000267	N/A	N/A
	Grab	18-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	20-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	16-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	13-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	20-Jul-2024	0.000000052	0.000000042	N/D	0.000000036	N/D	0.000000938	N/D	N/D	0.000000723	N/D	N/A	N/D	N/A	0.000000151	0.000001837	0.000000426	0.000002012	0.000010131	0.000007979	0.000000225	0.000000225	0.000001126	N/A	N/A
(Duplicate)	**SPMD**	20-Jul-2024	0.000000046	0.000000029	N/D	0.000000028	N/D	0.000000575	N/D	N/D	0.000000315	N/D	N/A	N/D	N/A	0.000000104	0.000001184	0.000000229	0.000001138	0.000006636	0.000003976	0.000000110	0.000009144	0.000000688	N/A	N/A
	SPMD	16-Aug-2024	0.000000148	0.000000123	N/D	0.000000113	0.000000028	0.000002382	N/D	N/D	0.000000442	0.000000125	N/A	0.000000130	N/A	0.000000423	0.000003062	0.000000814	0.000002142	0.000004687	0.000003936	0.000000324	0.000014894	0.000001958	N/A	N/A
(Duplicate)	**SPMD**	16-Aug-2024	0.000000038	0.000000036	N/D	0.000000033	N/D	0.000000769	N/D	N/D	0.000000272	0.000000071	N/A	0.000000077	N/A	0.000000135	0.000002259	0.000000282	0.000001308	0.000002794	0.000001944	0.000000093	0.000008167	0.000000695	N/A	N/A
	SPMD	13-Sep-2024	0.000000344	0.000000228	N/D	0.000000183	0.000000044	0.000003253	0.000000034	N/D	0.000000890	0.000000107	N/A	0.000000579	N/A	0.000000838	0.000004351	0.000001133	0.000006401	0.000024693	0.000009275	0.000000381	0.000052668	0.000002969	N/A	N/A
	Grab	12-Mar-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	19-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	19-Jul-2025	0.000000056	N/A	N/A	0.000000025	N/D	0.000001127	N/A	N/A	0.000000437	0.000000024	N/A	0.000000098	N/A	N/A	0.000001015	0.000000389	0.000001060	0.000006243	0.000005875	0.000000206	0.000009001	0.000001064	N/D	N/A
	Grab	15-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	15-Aug-2025	N/D	N/A	N/A	0.000000108	N/D	0.000003258	N/A	N/A	0.000001104	0.000000059	N/A	0.000001058	N/A	N/A	0.000001527	0.000000967	0.000002981	0.000010372	0.000007979	0.000000421	0.000023893	0.000002890		N/A
	Grab	13-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
AEMP-DS-03 (Island 3)	Grab	12-Jun-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	28-Jul-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	22-Sep-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	07-Jun-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	19-Aug-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Sep-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	14-Jun-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	06-Aug-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	25-Sep-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	09-Mar-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	25-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Aug-2023	0.000000007	0.000000006	N/D	0.000000013	N/D	0.000000103	N/D	N/D	0.000000423	0.000000061	N/A	0.000000077	N/A	0.000000031	0.000001366	0.000000325	0.000000451	0.000000805	0.000003887	0.000000065	0.000002661	0.000000280	N/A	N/A
	Grab	25-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	25-Sep-2023	0.000000013	0.000000018	N/D	0.000000026	N/D	0.000000181	N/D	0.000000007	0.000000458	0.000000183	N/A	0.000000143	N/A	0.000000059	0.000002288	0.000000831	0.000000947	0.000001208	0.000007505	0.000000178	0.000007906	0.000000573	N/A	N/A
	Grab	18-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Jul-2024	0.000000009	0.000000022	N/D	0.000000031	N/D	0.000000130	N/D	N/D	0.000000302	0.000000000	N/A	N/D	N/A	0.000000059	0.000000265	0.000000219	0.000000157	0.000000754	0.000003676	0.000000175	0.000001065	0.000000285	N/A	N/A
	SPMD	15-Aug-2024	0.000000026	0.000000043	N/D	0.000000050	0.000000013	0.000000278	N/D	0.000000015	0.000000254	0.000000114	N/A	0.000000042	N/A	0.000000125	0.000001059	0.000000492	0.000000396	0.000000800	0.000004100	0.000000199	0.000002455	0.000000540	N/A	N/A
	Grab	15-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	17-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	12-Mar-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	18-Jul-2025	0.000000006	N/A	N/A	0.000000011	N/D	0.000000096	N/A	N/A	0.000000330	N/D	N/A	0.000000009	N/A	N/A	0.000000225	0.000000159	0.000000169	0.000000726	0.000003990	0.000000082	0.000000971	0.000000209	N/D	N/A
	Grab	16-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Aug-2025	N/D	N/A	N/A	0.000000024	N/D	0.000000119	N/A	N/A	0.000000538	N/D	N/A	0.000000025	N/A	N/A	0.000000273	0.000000225	0.000000294	0.000000828	0.000006500	0.000000124	0.000001285	0.000000245	N/D	N/A

Table 6

Mackenzie River Surface Water Quality Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Polycyclic aromatic hydrocarbons (PAHs) Carcinogenics								Polycyclic aromatic hydrocarbons (PAHs) Non-Carcinogenics														
			Benzo(a)Anthracene (mg/L)	Benzo(b,j)Fluoranthene (mg/L)	Benzo(k)Fluoranthene (mg/L)	Benzo(g,h,i)Perylene (mg/L)	Benzo(a)Pyrene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)Anthracene (mg/L)	Indeno(1,2,3-c,d)Pyrene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Acridine (mg/L)	Anthracene (mg/L)	Benzo(c)Phenanthrene (mg/L)	Benzo(e)Pyrene (mg/L)	Biphenyl (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Perylene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Retene (mg/L)	Quinoline (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	**0.00004**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**
CCME CEQG Freshwater AL-MACKENZIE			**0.000018**	---	---	---	**0.000015**	---	---	---	**0.0058**	---	**0.0044**	**0.000012**	---	---	---	**0.00004**	**0.003**	---	**0.0011**	---	**0.0004**	**0.000025**	---	**0.0034**
AEMP-DS-04 (Refinery)	Grab	10-Jun-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	24-Jul-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Sep-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	06-Jun-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Aug-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	12-Jun-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	06-Aug-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	24-Sep-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	0.00011	< 0.00010	< 0.000050	0.000068	< 0.000020	---	< 0.00020
	Grab	11-Mar-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	26-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	18-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	18-Aug-2023	0.000000047	0.000000033	N/D	0.000000044	N/D	0.000000660	N/D	N/D	0.000000517	0.000000146	N/A	0.000000241	N/A	0.000000131	0.000005323	0.000000817	0.000001722	0.000003941	0.000005659	0.000000174	0.000011132	0.000000891	N/A	N/A
	Grab	24-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	18-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	20-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	16-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	13-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	20-Jul-2024	0.000000049	0.000000052	N/D	0.000000050	N/D	0.000000711	N/D	N/D	0.000000479	0.000000000	N/A	0.000000294	N/A	0.000000186	0.000001385	0.000000328	0.000001260	0.000008303	0.000005817	0.000000272	0.000007058	0.000000731	N/A	N/A
	SPMD	18-Aug-24	0.000000047	0.000000033	N/D	0.000000044	N/D	0.000000660	N/D	N/D	0.000000517	0.000000146	N/A	0.000000241	N/A	0.000000131	0.000005323	0.000000817	0.000001722	0.000003941	0.000005659	0.000000174	0.000011132	0.000000891	N/A	N/A
	SPMD	13-Sep-2024	0.000000097	0.000000076	N/D	0.000000076	0.000000022	0.000001288	N/D	N/D	0.000000426	0.000000119	N/A	0.000000181	N/A	0.000000273	0.000001882	0.000001970	0.000001926	0.000004551	0.000004174	0.000000303	0.000015541	0.000001511	N/A	N/A
	Grab	12-Mar-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	19-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	19-Jul-2025	0.000000045	N/A	N/A	0.000000039	0.000000017	0.000000497	N/A	N/A	0.000000434	N/D	N/A	0.000000040	N/A	N/A	0.000000896	0.000000280	0.000000767	0.000006769	0.000005531	0.000000160	0.000005421	0.000000614	N/D	N/A
	Grab	12-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	12-Aug-2025	0.000000034	N/A	N/A	0.000000030	N/D	0.000000530	N/A	N/A	0.000001050	N/D	N/A	N/D	N/A	N/A	0.000001073	0.000000372	0.000001182	0.000008070	0.000010299	0.000000157	0.000007436	0.000000629	N/D	N/A
	Grab	13-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	13-Sep-2025	0.000000020	N/A	N/A	N/D	N/D	0.000000403	N/A	N/A	0.000001342	0.000000278	N/A	0.000000176	N/A	N/A	0.000002731	0.000000984	0.000001981	0.000005264	0.000011127	0.000000179	0.000011955	0.000000824	N/D	N/A
AEMP-DS-05 (Radar)	Grab	12-Jun-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	28-Jul-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	22-Sep-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	07-Jun-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	19-Aug-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Sep-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	11-Mar-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	25-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Aug-2023	0.000000009	0.000000006	0.000000005	0.000000015	N/D	0.000000135	N/D	N/D	0.000000434	0.000000064	N/A	0.000000132	N/A	0.000000032	0.000002138	0.000000417	0.000000628	0.000000796	0.000003765	0.000000072	0.000003559	0.000000358	N/A	N/A
	Grab	26-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	26-Sep-2023	0.000000037	0.000000037	N/D	0.000000043	N/D	0.000000497	N/D	0.000000012	0.000000399	0.000000206	N/A	0.000000228	N/A	0.000000104	0.000003064	0.000001170	0.000001359	0.000001352	0.000006684	0.000000256	0.000010742	0.000000752	N/A	N/A
	Grab	17-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	15-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	17-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Jul-2024	0.000000012	0.000000026	N/D	0.000000035	N/D	0.000000189	N/D	N/D	0.000000206	N/D	N/D	0.000000030	N/D	0.000000087	0.000000209	0.000000257	0.000000141	0.000000581	0.000002933	0.000000230	0.000001029	0.000000415	N/A	N/A
	SPMD	17-Sep-2024	0.000000047	0.000000035	N/D	0.000000036	0.000000022	0.000000489	N/D	N/D	0.000000453	0.000000112	N/D	0.000000168	N/D	0.000000119	0.000001492	0.000001284	0.000000739	0.000001180	0.000005224	0.000000162	0.000007090	0.000000851	N/A	N/A
	Grab	18-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	18-Jul-2025	0.000000010	N/A	N/A	0.000000018	N/D	0.000000150	N/A	N/A	0.000000315	N/D	N/A	0.000000019	N/A	N/A	0.000000259	0.000000212	0.000000237	0.000000799	0.000003458	0.000000138	0.000001185	0.000000337	N/D	N/A
	Grab	16-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Aug-2025	0.000000012	N/A	N/A	0.000000035	N/D	0.000000172	N/A	N/A	0.000000496	N/D	N/A	0.000000035	N/A	N/A	0.000000286	0.000000256	0.000000231	0.000000801	0.000005205	0.000000165	0.000001254	0.000000325	N/D	N/A
	SPMD	16-Sep-25	0.000000024	N/A	N/A	0.000000023	N/D	0.000000256	N/A	N/A	0.000001380	0.000000252	N/A	0.000000198	N/A	N/A	0.000001631	0.000001154	0.000001283	0.000001438	0.000009823	0.000000179	0.000009909	0.000000737	N/D	N/A
AEMP-DS-06 (Fort Good Hope)	Grab	10-Mar-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	24-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	21-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	21-Aug-2023	0.000000021	0.000000027	N/D	0.000000041	N/D	0.000000239	N/D	N/D	0.000000436	0.000000049	N/A	0.000000099	N/A	0.000000084	0.000001441	0.000000541	0.000000618	0.000000793	0.000003608	0.000000185	0.000003458	0.000000506	N/A	N/A
	Grab	03-Oct-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	15-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020

Table 6

Mackenzie River Surface Water Quality Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Benzo(a)Anthracene (mg/L)	Benzo(b,j)Fluoranthene (mg/L)	Benzo(k)Fluoranthene (mg/L)	Benzo(g,h,i)Perylene (mg/L)	Benzo(a)Pyrene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)Anthracene (mg/L)	Indeno(1,2,3-c,d)Pyrene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Acridine (mg/L)	Anthracene (mg/L)	Benzo(c)Phenanthrene (mg/L)	Benzo(e)Pyrene (mg/L)	Biphenyl (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Perylene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Retene (mg/L)	Quinoline (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	**0.00004**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**
CCME CEQG Freshwater AL-MACKENZIE			**0.000018**	---	---	---	**0.000015**	---	---	---	**0.0058**	---	**0.0044**	**0.000012**	---	---	---	**0.00004**	**0.003**	---	**0.0011**	---	**0.0004**	**0.000025**	---	**0.0034**
	Grab	17-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	14-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	14-Aug-2024	0.000000015	0.000000027	N/D	0.000000033	0.000000006	0.000000191	N/D	0.000000010	0.000000184	0.000000045	N/A	0.000000017	N/A	0.000000078	0.000000484	0.000000238	0.000000208	0.000000809	0.000002830	0.000000135	0.000001353	0.000000342	N/A	N/A
	Grab	18-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	13-Mar-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Jul-25	N/D	N/A	N/A	N/D	N/D	0.000000084	N/A	N/A	0.000000353	N/D	N/A	0.000000018	N/A	N/A	0.000000253	0.000000130	0.000000138	0.000000831	0.000003870	0.000000059	0.000000840	0.000000187	N/D	N/A
	Grab	13-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	13-Aug-2025	0.000000018	N/A	N/A	0.000000044	N/D	0.000000168	N/A	N/A	0.000000509	N/D	N/A	N/D	N/A	N/A	0.000000283	0.000000278	0.000000229	0.000000828	0.000004465	0.000000201	0.000001244	0.000000344	N/D	N/A
	Grab	10-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	10-Sep-2025	N/D	N/A	N/A	N/D	N/D	0.000000150	N/A	N/A	0.000000674	N/D	N/A	0.000000040	N/A	N/A	0.000000396	0.000000319	0.000000326	0.000001239	0.000005191	0.000000153	0.000001646	0.000000359	N/D	N/A
AEMP-DS-07 (Fort G H-Rampart)	Grab	17-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	14-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	18-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	14-Aug-2024	0.000000014	0.000000021	N/D	0.000000022	N/D	0.000000182	N/D	0.000000005	0.000000187	0.000000090	N/A	0.000000036	N/A	0.000000065	0.000000581	0.000000282	0.000000286	0.000000526	0.000003444	0.000000115	0.000001833	0.000000366	N/A	N/A
	SPMD	18-Sep-2024	0.000000020	0.000000020	N/D	0.000000023	0.000000005	0.000000234	N/D	0.000000008	0.000000440	0.000000066	N/A	0.000000063	N/A	0.000000058	0.000000503	0.000000796	0.000000418	0.000000643	0.000003881	0.000000133	0.000004142	0.000000547	N/A	N/A
	SPMD	16-Jul-25	0.000000007	N/A	N/A	N/D	N/D	0.000000124	N/A	N/A	0.000000370	N/D	N/A	0.000000030	N/A	N/A	0.000000262	0.000000213	0.000000199	0.000001305	0.000005784	0.000000116	0.000001030	0.000000274	N/D	N/A
	Grab	13-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	13-Aug-2025	0.000000016	N/A	N/A	0.000000032	N/D	0.000000194	N/A	N/A	0.000000337	N/D	N/A	N/D	N/A	N/A	0.000000196	0.000000223	0.000000157	0.000000623	0.000003861	0.000000202	0.000000988	0.000000366	N/D	N/A
	Grab	10-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
AEMP-DS-08 (Radar South)	Grab	19-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	15-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	17-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Jul-2024	N/D	0.000000030	N/D	0.000000040	N/D	0.000000226	N/D	N/D	0.000000241	0.000000000	N/A	N/D	N/A	0.000000104	0.000000234	0.000000292	0.000000137	0.000000576	0.000002824	0.000000263	0.000001075	0.000000455	N/A	N/A
	SPMD	15-Aug-2024	0.000000025	0.000000023	N/D	0.000000029	0.000000006	0.000000295	N/D	0.000000003	0.000000327	0.000000304	N/A	0.000000139	N/A	0.000000074	0.000004392	0.000000643	0.000001026	0.000001102	0.000011594	0.000000116	0.000005979	0.000000582	N/A	N/A
	SPMD	17-Sep-2024	0.000000033	0.000000022	N/D	0.000000019	N/D	0.000000415	N/D	0.000000006	0.000000296	0.000000112	N/A	0.000000154	N/A	0.000000061	0.000001559	0.000001339	0.000000650	0.000001109	0.000005169	0.000000124	0.000006458	0.000000826	N/A	N/A
	Grab	18-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	18-Jul-2025	0.000000013	N/A	N/A	0.000000031	N/D	0.000000156	N/A	N/A	0.000000318	N/D	N/A	0.000000018	N/A	N/A	0.000000305	0.000000215	0.000000195	0.000000777	0.000003942	0.000000142	0.000001218	0.000000339	N/D	N/A
	SPMD	16-Aug-25	0.000000014	N/A	N/A	0.000000031	N/D	0.000000213	N/A	N/A	0.000000458	N/D	N/A	N/D	N/A	N/A	0.000000285	0.000000289	0.000000314	0.000000850	0.000005497	0.000000210	0.000001299	0.000000379	N/D	N/A
	Grab	16-Aug-25	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Sep-25	0.000000025	N/A	N/A	N/D	N/D	0.000000305	N/A	N/A	0.000001677	0.000000213	N/A	0.000000178	N/A	N/A	0.000001731	0.000001148	0.000001471	0.000001645	0.000011138	0.000000216	0.000009440	0.000000756	N/D	N/A
AEMP-DS-09 (Goose)	Grab	17-Mar-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	19-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	15-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	17-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Jul-2024	0.000000013	0.000000026	N/D	0.000000055	N/D	0.000000167	N/D	N/D	0.000000205	N/D	N/A	0.000000034	N/A	0.000000083	0.000000225	0.000000232	0.000000150	0.000003299	0.000009345	0.000000216	0.000000926	0.000000351	N/A	N/A
	SPMD	15-Aug-2024	0.000000031	0.000000043	N/D	0.000000068	N/D	0.000000345	N/D	0.000000016	0.000000265	0.000000146	N/A	0.000000069	N/A	0.000000140	0.000001897	0.000000652	0.000000612	0.000000692	0.000005285	0.000000242	0.000003679	0.000000655	N/A	N/A
	SPMD	17-Sep-2024	0.000000020	0.000000015	N/D	0.000000020	N/D	0.000000191	N/D	0.000000007	0.000000233	0.000000074	N/A	0.000000099	N/A	0.000000045	0.000000798	0.000000836	0.000000417	0.000000663	0.000003785	0.000000106	0.000004149	0.000000602	N/A	N/A
	Grab	14-Mar-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	18-Jul-2025	0.000000008	N/A	N/A	0.000000024	N/D	0.000000112	N/A	N/A	0.000000339	N/D	N/A	0.000000012	N/A	N/A	0.000000268	0.000000175	0.000000163	0.000000736	0.000003635	0.000000107	0.000001001	0.000000254	N/D	N/A
	Grab	16-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	16-Aug-2025	0.000000006	N/A	N/A	0.000000025	N/D	0.000000098	N/A	N/A	0.000000442	N/D	N/A	0.000000027	N/A	N/A	0.000000255	0.000000176	0.000000223	0.000000783	0.000005347	0.000000111	0.000001016	0.000000220	N/D	N/A

Table 6

Mackenzie River Surface Water Quality Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Polycyclic aromatic hydrocarbons (PAHs) Carcinogenics								Polycyclic aromatic hydrocarbons (PAHs) Non-Carcinogenics															
			Benzo(a)Anthracene (mg/L)	Benzo(b,j)Fluoranthene (mg/L)	Benzo(k)Fluoranthene (mg/L)	Benzo(g,h,i)Perylene (mg/L)	Benzo(a)Pyrene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)Anthracene (mg/L)	Indeno(1,2,3-c,d)Pyrene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Acridine (mg/L)	Anthracene (mg/L)	Benzo(c)Phenanthrene (mg/L)	Benzo(e)Pyrene (mg/L)	Biphenyl (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Perylene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Retene (mg/L)	Quinoline (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	**0.00004**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**
CCME CEQG Freshwater AL-MACKENZIE			**0.000018**	---	---	---	**0.000015**	---	---	---	**0.0058**	---	**0.0044**	**0.000012**	---	---	---	**0.00004**	**0.003**	---	**0.0011**	---	**0.0004**	**0.000025**	---	**0.0034**
QA/QC DATA																										
TRIP BLANK	**SPMD**	21-Aug-2023	N/D	N/D	N/D	N/D	N/D	0.000000005	N/D	N/D	0.000000150	N/D	N/A	0.000000013	N/A	N/D	0.000000627	0.000000101	0.000000052	0.000001037	0.000003631	N/A	0.000000407	0.000000027	N/A	N/A
	SPMD	19-Jun-2024	N/D	N/D	N/D	N/D	N/D	0.000000005	N/D	N/D	0.000000150	N/D	N/A	0.000000013	N/A	N/D	0.000000627	0.000000101	0.000000052	0.000001037	0.000003631	N/A	0.000000407	0.0000000269	N/A	N/A
	SPMD	16-Aug-25	N/A	N/A	N/A	N/A	N/A	0.000000011	N/A	N/A	0.000000276	N/A	N/A	N/A	N/A	N/A	0.000000593	0.000000116	0.000000120	0.000001947	0.000004820	N/A	0.000000626	0.0000000586		
FIELD BLANK	**SPMD**	21-Aug-2023	N/D	N/D	N/D	N/D	N/D	0.000000007	N/D	N/D	0.000000150	N/D	N/A	0.000000008	N/A	N/D	0.000001451	0.000000053	0.000000078	0.000002158	0.000007509	N/A	0.000000483	0.0000000244	N/A	N/A
	SPMD	19-Jun-2024	N/D	N/D	N/D	N/D	N/D	0.000000007	N/D	N/D	0.000000150	N/D	N/A	0.000000008	N/A	N/D	0.000001451	0.000000053	0.000000078	0.000002158	0.000007509	N/A	0.000000483	0.0000000244	N/A	N/A
	SPMD	19-Jun-2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000000277	0.000000015	0.000000025	0.000000851	0.000002350	N/A	0.000000147	0.0000000118	N/A	N/A
	SPMD	16-Aug-25	N/A	N/A	N/A	N/A	N/A	0.000000007	N/A	N/A	0.000000309	N/A	N/A	0.000000011	N/A	N/A	0.000000616	0.000000105	0.000000110	0.000001758	0.000005094	N/A	0.000000655	0.0000000485	N/A	N/A
	SPMD	13=Sep-25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DAY ZERO	**SPMD**	2023	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	0.000000069	N/D	N/A	0.000000012	N/A	N/D	0.000000416	0.000000046	N/D	0.000000704	0.000002030	N/A	0.000000302	0.0000000208	N/A	N/A
	SPMD	2024	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	0.000000069	N/D	N/A	0.000000012	N/A	N/D	0.000000416	0.000000046	N/D	0.000000704	0.000002030	N/A	0.000000302	0.0000000208	N/A	N/A
	SPMD	Jul-25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000000314	0.000000015	0.000000017	0.000000826	0.000001994	N/A	0.000000155	0.0000000097	N/A	N/A
	SPMD	Aug-25	N/A	N/A	N/A	N/A	N/A	0.000000009	N/A	N/A	0.000000293	N/A	N/A	0.000000017	N/A	N/A	0.000000469	0.000000102	0.000000109	0.000001412	0.000003896	N/A	0.000000591	0.0000000430	N/A	N/A
	SPMD	Sep-25	N/A	N/A	N/A	N/A	N/A	0.000000008	N/A	N/A	0.000000276	N/A	N/A	0.000000020	N/A	N/A	0.000000385	0.000000091	0.000000063	0.000001087	0.000003503	N/A	N/A	0.0000000485	N/A	N/A
Relative Percent Difference (RPD) Report																										
AEMP-DS-02 (Marine Dock)		15-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
(Duplicate)	Field Duplicate	15-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
RPD(%)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates non-detect parameters above applied guideline/criteria.
4. Highlighting indicates parameters at applied guideline/criteria.
5. Benzo(a)Pyrene Total Potency Equivalent (ESRD)
   (Benzo(a)Pyrene*1) + (Benzo(a)Anthracene*0.1) + (Benzo(b,j)Fluoranthene*0.1) + (Benzo(k)Fluoranthene*0.1) + (Benzo(g,h,i)Perylene*0.01) + (Chrysene*0.01) + (Dibenzo(a,h)Anthracene*1) + (Indeno(1,2,3-c,d)Pyrene*0.1)
   Non-Detect Isomer values calculated as 0.5 x detection limit.
   Final result value rounded to 2 significant digits
6. Denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration.
   Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.
   August 2025.)
7. Denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
8. Denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life.
   http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)

Table 7

Surfaced Water Analytical Results:
Alkylated Polycyclic Aromatic Hyrdrocarbons (PAHs)

PROJECT No.: 417085-59897

Monitoring Station	Date (dd-mmm-yyyy)	Status	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	C1benzo(k)fluoranthene/benzo(a)pyrene (ug/L)	C1-Substituted Acenaphthene (ug/L)	C1-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C1-Substituted Biphenyl (ug/L)	C1-Substituted Dibenzothiophene (ug/L)	C1-Substituted Fluoranthene/Pyrene (ug/L)	C1-Substituted Fluorene (ug/L)	C1-Substituted Naphthalene (ug/L)	C1-Substituted Phenanthrene/Anthracene (ug/L)	C2benzo(k)fluoranthene/benzo(a)pyrene (ug/L)	C2-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C2-Substituted Biphenyl (ug/L)	C2-Substituted Dibenzothiophene (ug/L)	C2-Substituted Fluoranthene/Pyrene (ug/L)	C2-Substituted Fluorene (ug/L)	C2-Substituted Naphthalene (ug/L)	C2-Substituted Phenanthrene/Anthracene (ug/L)	C3-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C3-Substituted Dibenzothiophene (ug/L)	C3-Substituted Fluoranthene/Pyrene (ug/L)	C3-Substituted Fluorene (ug/L)	C3-Substituted Naphthalene (ug/L)	C3-Substituted Phenanthrene/Anthracene (ug/L)	C4-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C4-Substituted Dibenzothiophene (ug/L)	C4-Substituted Fluoranthene/Pyrene (ug/L)	C4-Substituted Naphthalene (ug/L)	C4-Substituted Phenanthrene/Anthracene (ug/L)	1,2-dimethylnaphthalene (ug/L)	2,6-Dimethylnaphthalene (ug/L)	2,3,5-trimethylnaphthalene (ug/L)	Dibenzothiophene (ug/L)	2-methylphenanthrene (ug/L)	1-Methylphenanthrene (ug/L)	3,6-dimethylphenanthrene (ug/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-MACKENZIE-US																																							
AEMP-US-01 (Midway)	12-Mar-2023	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	25-Jul-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Aug-2023	**SPMD**	0.0025	---	---	---	---	0.0000	0.0022	0.0031	0.0076	0.0074	---	---	---	0.0020	---	0.0059	0.0081	0.0089	---	0.0023	---	0.0053	---	0.0126	---	---	---	0.0100	0.0540	---	0.0007	0.0011	0.0024	0.0002	0.0014	0.0030	0.0003
	26-Sep-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	16-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	15-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	17-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	**SPMD**	0.0009	0.0011	---	---	---	---	0.0005	0.0012	0.0001	0.0035	0.0020	---	---	---	0.0016	---	0.0009	0.0026	0.0030	---	0.0017	---	0.0020	---	0.0066	---	---	---	0.0027	0.0083	0.0002	0.0004	0.0004	0.0002	0.0004	0.0005	0.0001
	15-Aug-2024	**SPMD**	0.0042	0.0027	---	---	---	---	0.0004	0.0012	0.0030	0.0118	0.0081	---	---	---	0.0017	---	0.0050	0.0100	0.0098	---	0.0016	---	0.0031	---	0.0059	---	---	---	0.0187	0.0463	0.0011	0.0011	0.0025	0.0002	0.0018	0.0036	0.0003
	17-Sep-2024	**SPMD**	0.0016	0.0014	---	---	---	---	---	0.0031	0.0011	0.0051	0.0113	---	---	---	0.0017	---	0.0063	0.0056	0.0210	---	0.0025	---	0.0059	---	0.0125	---	---	---	0.0109	0.1028	0.0005	0.0006	0.0019	0.0002	0.0032	0.0052	0.0006
	08-Mar-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	**SPMD**	0.0008	0.0009	---	---	---	---	0.0003	0.0005	0.0002	0.0018	0.0015	---	---	---	---	---	---	0.0005	0.0000	0.0007	0.0023	0.0014	0.0000	0.0005	---	---	---	---	---	0.0009	0.0024	0.0008	---	---	---	---	---	---
	16-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Aug-2025	**SPMD**	0.0010	0.0015	---	---	---	---	0.0002	0.0002	0.0002	0.0025	0.0011	---	---	---	---	---	---	0.0004	---	0.0004	0.0014	0.0010	---	0.0003	---	0.0005	0.0013	0.0004	---	---	---	0.0010	0.0017	0.0001	0.0002	0.0003	0.0001	0.0001
	16-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-US-02 (10 mile)	12-Mar-2023	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	25-Jul-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	24-Sep-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	17-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	15-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	17-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	**SPMD**	0.0006	0.0008	---	---	---	---	0.0006	0.0012	0.0001	0.0024	0.0020	---	---	---	0.0014	---	0.0009	0.0023	0.0030	---	0.0020	---	0.0022	---	0.0266	---	---	---	0.0031	0.0083	0.0001	0.0004	0.0004	0.0001	0.0004	0.0005	0.0001
	15-Aug-2024	**SPMD**	0.0024	0.0013	---	---	---	---	0.0004	0.0011	0.0014	0.0066	0.0050	---	---	---	0.0017	---	0.0023	0.0058	0.0067	---	0.0015	---	0.0018	---	0.0042	---	---	---	0.0063	0.0328	0.0005	0.0007	0.0009	0.0001	0.0006	0.0021	0.0001
	17-Sep-2024	**SPMD**	0.0012	0.0011	---	---	---	---	0.0001	0.0019	0.0009	0.0042	0.0080	---	---	---	0.0015	---	0.0042	0.0046	0.0118	---	0.0016	---	0.0035	---	0.0066	---	---	---	0.0042	0.0523	0.0003	0.0005	0.0010	0.0001	0.0015	0.0037	0.0003
	08-Mar-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Aug-2025	**SPMD**	0.00041	0.00058	---	---	---	---	0.00006	0.00005	0.00004	0.00099	0.00029	---	---	---	0.00009	---	0.00010	0.00072	0.00022	---	0.00006	---	0.00011	0.00045	0.00009	---	---	---	0.00022	0.00036	0.00005	0.00013	0.00008	0.00004	0.00008	0.00008	0.00002
	16-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-US-03 (Norman Wells U/S)	09-Mar-2023	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	17-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	0.025	< 0.020	< 0.020	< 0.050	1.0	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	0.17	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	16-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	12-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	**SPMD**	0.0007	0.0009	---	---	---	---	0.0007	0.0012	0.0001	0.0027	0.0020	---	---	---	0.0017	---	0.0009	0.0025	0.0031	---	0.0019	---	0.0012	---	0.0219	---	---	---	0.0033	0.0079	0.0002	0.0003	0.0005	0.0002	0.0004	0.0005	0.0001
	16-Aug-2024	**SPMD**	0.0030	0.0019	---	---	---	---	0.0006	0.0013	0.0008	0.0088	0.0070	---	---	---	0.0024	---	0.0035	0.0074	0.0090	---	0.0026	---	0.0026	---	0.0056	---	---	---	0.0074	0.0416	0.0007	0.0003	0.0013	0.0002	0.0010	0.0005	0.0002
	13-Sep-2024	**SPMD**	0.0011	0.0009	---	---	---	---	0.0002	0.0019	0.0009	0.0036	0.0082	---	---	---	0.0028	---	0.0048	0.0044	0.0116	---	0.0029	---	0.0037	---	0.0063	---	---	---	0.0076	0.0474	0.0004	0.0005	0.0014	0.0002	0.0021	0.0037	0.0004
	08-Mar-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	**SPMD**	0.0007	0.0008	---	---	---	---	0.0001	0.0004	0.0002	0.0014	0.0012	---	---	---	0.0004	---	0.0006	0.0022	0.0010	---	0.0003	---	0.0007	0.0021	0.0006	---	---	---	0.0017	0.0024	0.0002	0.0003	0.0004	0.0001	0.0003	0.0003	0.0001
	16-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Aug-2025	**SPMD**	0.0009	0.0012	---	---	---	---	0.0004	0.0004	0.0003	0.0021	0.0017	---	---	---	0.0006	---	0.0007	0.0017	0.0017	---	0.0004	---	0.0006	0.0022	0.0006	---	---	---	0.0017	0.0031	0.0001	0.0003	0.0004	0.0001	0.0004	0.0005	0.0001
	16-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Sep-2025	**SPMD**	0.0016	0.0012	---	---	---	---	0.0004	0.0007	0.0014	0.0027	0.0040	---	---	---	0.0010	---	0.0021	0.0033	0.0033	---	0.0005	---	0.0027	0.0042	0.0026	---	---	---	0.0028	0.0083	0.0004	0.0004	0.0010	0.0004	0.0010	0.0016	0.0002
AEMP-MACKENZIE-DS																																							
AEMP-DS-02 (Marine Dock)	09-Mar-2023	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	25-Jul-2023	Grab	< 0.00010	< 0.00010	< 0.0075	< 0.10	< 0.0085	< 0.020	0.033	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	0.085	< 0.020	< 0.050	< 0.10	0.098	< 0.0085	0.048	< 0.020	0.073	< 0.10	0.14	< 0.0085	< 0.020	< 0.020	< 0.10	0.050	---	---	---	---	---	---	---
	18-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Aug-2023	**SPMD**	0.0079	---	---	---	---	0.0337	0.0072	0.0104	0.0225	0.0490	---	---	---	0.0691	---	0.0371	0.0441	0.0792	---	0.0491	---	0.0524	---	0.0624	---	---	---	0.0723	0.0898	---	0.0031	0.0080	0.0163	0.0052	0.0120	0.0128	0.0038
	24-Sep-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	0.032	< 0.020	< 0.050	< 0.10	0.057	< 0.0075	< 0.0085	< 0.020	0.081	< 0.020	< 0.050	< 0.10	0.083	< 0.0085	0.040	< 0.020	0.087	< 0.10	0.092	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	24-Sep-2023	**SPMD**	0.0225	---	---	---	---	0.0387	0.0124	0.0122	0.0738	0.0388	---	---	---	0.1595	---	0.0820	0.1729	0.1683	---	0.1151	---	0.1108	---	0.1410	---	---	---	0.1499	0.1601	---	0.0083	0.0332	0.0398	0.0171	0.0323	0.0090	0.0099
(Duplicate)	24-Sep-2023	**SPMD**	0.0034	---	---	---	---	0.0052	0.0022	0.0020	0.0112	0.0059	---	---	---	0.0231	---	0.0126	0.0260	0.0264	---	0.0176	---	0.0163	---	0.0011	---	---	---	0.0235	0.0318	---	0.0011	0.0047	0.0029	0.0015	0.0022	0.0014	0.0005
	18-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	20-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	0.067	< 0.020	< 0.050	< 0.10	0.10	< 0.0075	< 0.0085	0.025	0.065	< 0.020	0.064	0.11	0.075	< 0.0085	< 0.020	< 0.020	0.077	0.14	< 0.050	< 0.0085	< 0.020	< 0.020	0.10	< 0.050	---	---	---	---	---	---	---
(Duplicate)	20-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	16-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
(Duplicate)	16-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	13-Sep-2024	Grab	---	---	0.014	< 0.10	0.036	< 0.020	0.14	0.042	< 0.050	< 0.10	0.20	0.015	0.13	< 0.020	0.40	0.12	0.17	< 0.10	0.44	0.052	0.24	0.26	0.45	0.20	0.59	< 0.0085	0.062	0.15	0.24	0.25	---	---	---	---	---	---	---
	20-Jul-2024	**SPMD**	0.0121	0.0101	---	---	---	---	0.0038	0.0040	0.0011	0.0035	0.0038	---	---	---	0.0184	---	0.0094	0.0073	0.0119	---	0.0173	---	0.0108	---	0.0126	---	---	---	0.0265	0.0275	0.0047	0.0010	0.0158	0.0072	0.0127	0.0019	0.0037
(Duplicate)	20-Jul-2024	**SPMD**	0.0079	0.0092	---	---	---	---	0.0051	0.0113	0.0050	0.0263	0.0732	---	---	---	0.1524	---	0.0529	0.0739	0.1677	---	0.1224	---	0.0838	---	0.1282	---	---	---	0.1544	0.1485	0.0021	0.0131	0.0160	0.0048	0.0079	0.0167	0.0021
	16-Aug-2024	**SPMD**	0.0060	0.0047	---	---	---	---	0.0733	0.0113	0.0170	0.0191	0.1032	---	---	---	0.2134	---	0.0703	0.0673	0.2509	---	0.1785	---	0.1146	---	0.1995	---	---	---	0.1469	0.2456	0.0036	0.0116	0.0182	0.0064	0.0158	0.0249	0.0064
(Duplicate)	16-Aug-2024	**SPMD**	0.0038	0.0028	---	---	---	---	0.0486	0.0077	0.0115	0.0120	0.0688	---	---	---	0.1414	---	0.0475	0.0459	0.1626	---	0.1208	---	0.0762	---	0.1310	---	---	---	0.0883	0.1627	0.0020	0.0080	0.0070	0.0038	0.0068	0.0166	0.0021
	12-Sep-2024	**SPMD**

Table 7

Surfaced Water Analytical Results: Alkylated Polycyclic Aromatic Hyrdrocarbons (PAHs)

PROJECT No.: 417085-59897

Monitoring Station	Date (dd-mmm-yyyy)	Status	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	C1benzo[k]fluoranthene/benzo[a]pyrene (ug/L)	C1-Substituted Acenaphthene (ug/L)	C1-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C1-Substituted Biphenyl (ug/L)	C1-Substituted Dibenzothiophene (ug/L)	C1-Substituted Fluoranthene/Pyrene (ug/L)	C1-Substituted Fluorene (ug/L)	C1-Substituted Naphthalene (ug/L)	C1-Substituted Phenanthrene/Anthracene (ug/L)	C2benzo[k]fluoranthene/benzo[a]pyrene (ug/L)	C2-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C2-Substituted Biphenyl (ug/L)	C2-Substituted Dibenzothiophene (ug/L)	C2-Substituted Fluoranthene/Pyrene (ug/L)	C2-Substituted Fluorene (ug/L)	C2-Substituted Naphthalene (ug/L)	C2-Substituted Phenanthrene/Anthracene (ug/L)	C3-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C3-Substituted Dibenzothiophene (ug/L)	C3-Substituted Fluoranthene/Pyrene (ug/L)	C3-Substituted Fluorene (ug/L)	C3-Substituted Naphthalene (ug/L)	C3-Substituted Phenanthrene/Anthracene (ug/L)	C4-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C4-Substituted Dibenzothiophene (ug/L)	C4-Substituted Fluoranthene/Pyrene (ug/L)	C4-Substituted Naphthalene (ug/L)	C4-Substituted Phenanthrene/Anthracene (ug/L)	1,2-dimethylnaphthalene (ug/L)	2,6-Dimethylnaphthalene (ug/L)	2,3,5-trimethylnaphthalene (ug/L)	Dibenzothiophene (ug/L)	2-methylphenanthrene (ug/L)	1-Methylphenanthrene (ug/L)	3,6-dimethylphenanthrene (ug/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	17-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	---	---	---	---	---	---
	19-Jul-2024	**SPMD**	0.0006	0.0008	---	---	---	---	0.0004	0.0010	0.0001	0.0025	0.0019	---	---	---	0.0012	---	0.0009	0.0023	0.0026	---	0.0015	---	0.0014	---	0.0123	---	---	---	0.0026	0.0071	0.0001	0.0004	0.0003	0.0001	0.0002	0.0005	0.0001
	15-Aug-2024	**SPMD**	0.0012	0.0008	---	---	---	---	0.0004	0.0010	0.0007	0.0035	0.0031	---	---	---	0.0014	---	0.0012	0.0034	0.0043	---	0.0011	---	0.0011	---	0.0031	---	---	---	0.0037	0.0211	0.0002	0.0005	0.0006	0.0001	0.0005	0.0012	0.0001
	12-Mar-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	**SPMD**	0.0006	0.0007	---	---	---	---	0.0001	0.0002	0.0002	0.0013	0.0008	---	---	---	0.0003	---	0.0003	0.0011	0.0006	---	0.0001	---	0.0003	0.0014	0.0002	---	---	---	0.0010	0.0012	0.0001	0.0002	0.0003	0.0001	0.0002	0.0002	0.0000
	16-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Aug-2025	**SPMD**	0.0006	0.0008	---	---	---	---	0.0001	0.0002	0.0001	0.0015	0.0008	---	---	---	0.0003	---	0.0003	0.0010	0.0009	---	0.0002	---	0.0003	0.0012	0.0004	---	---	---	0.0011	0.0016	---	0.0002	0.0002	0.0001	0.0002	0.0002	0.0001
	16-Sep-2025	Grab	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-DS-04 (Refinery)	11-Mar-2023	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	26-Jul-2023	Grab	< 0.00010	< 0.00010	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
(Duplicate)	26-Jul-2023	Grab	< 0.00010	< 0.00010	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	0.047	< 0.020	0.024	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	0.036	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Aug-2023	**SPMD**	0.0060	---	---	---	---	0.0220	0.0043	0.0071	0.0169	0.0317	---	---	---	0.0456	---	0.0262	0.0355	0.0491	---	0.0363	---	0.0323	---	0.0423	---	---	---	0.0529	0.0686	---	0.0021	0.0064	0.0097	0.0027	0.0062	0.0084	0.0018
	24-Sep-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
(Duplicate)	18-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	20-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	16-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	0.023	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	13-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	20-Jul-2024	**SPMD**	0.0091	0.0083	---	---	---	---	---	0.0057	0.0034	0.0314	0.0349	---	---	---	0.0671	---	0.0251	0.0848	0.0732	---	0.0574	---	0.0639	---	0.0591	---	---	---	0.0672	0.0877	0.0034	0.0162	0.0100	0.0037	0.0056	0.0079	0.0018
	18-Aug-2024	**SPMD**	0.0060	---	---	---	---	0.0220	0.0043	0.0071	0.0169	0.0317	---	---	---	0.0456	---	0.0262	0.0355	0.0491	---	0.0363	---	0.0323	---	0.0423	---	---	---	0.0529	0.0686	0.0021	0.0064	0.0097	0.0027	0.0062	0.0084	0.0018
	13-Sep-2024	**SPMD**	0.0051	0.0046	---	---	---	---	---	0.0059	0.0032	0.0162	0.0402	---	---	---	0.0623	---	0.0267	0.0448	0.0723	---	0.0454	---	0.0324	---	0.0492	---	---	---	0.0622	0.1184	0.0024	0.0084	0.0122	0.0040	0.0104	0.0112	0.0030
	12-Mar-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	19-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	19-Jul-2025	**SPMD**	0.0071	0.0068	---	---	---	---	0.0098	0.0014	0.0035	0.0138	0.0167	---	---	---	0.0151	---	0.0115	0.0336	0.0218	---	0.0060	---	0.0122	0.0353	0.0138	---	---	---	0.0260	0.0152	0.0023	0.0064	0.0074	0.0025	0.0045	0.0038	0.0013
	12-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	12-Aug-2025	**SPMD**	0.0085	0.0081	---	---	---	---	0.0140	0.0013	0.0052	0.0166	0.0233	---	---	---	0.0191	---	0.0155	0.0439	0.0310	---	0.0088	---	0.0167	0.0512	0.0153	---	---	---	0.0293	0.0146	0.0029	0.0081	0.0102	0.0034	0.0060	0.0051	0.0018
	13-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	13-Sep-2025	**SPMD**	0.0058	0.0053	---	---	---	---	0.0093	0.0014	0.0044	0.0110	0.0173	---	---	---	0.0128	---	0.0118	0.0262	0.0202	---	0.0047	---	0.0117	0.0377	0.0110	---	---	---	0.0257	0.0141	0.0019	0.0048	0.0071	0.0025	0.0045	0.0044	0.0013
AEMP-DS-05 (Radar)	11-Mar-2023	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	25-Jul-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Aug-2023	**SPMD**	0.0010	---	---	---	---	0.0008	0.0016	0.0015	0.0033	0.0051	---	---	---	0.0024	---	0.0040	0.0043	0.0074	---	0.0030	---	0.0041	---	0.0066	---	---	---	0.0073	0.0297	---	---	---	---	---	---	---	---
	26-Sep-2023	Grab	---	---	< 0.0075	< 0.10	0.012	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	0.034	< 0.020	0.047	0.031	< 0.050	< 0.10	0.062	0.010	0.044	0.078	0.058	< 0.10	0.14	< 0.0085	0.022	0.042	< 0.10	0.074	---	---	---	---	---	---	---
	26-Sep-2023	**SPMD**	0.0017	---	---	---	---	0.0007	0.0021	0.0011	0.0054	0.0029	---	---	---	0.0079	---	0.0047	0.0067	0.0136	---	0.0119	---	0.0072	---	0.0177	---	---	---	0.0060	0.0377	---	0.0005	0.0010	0.0015	0.0003	0.0019	0.0011	0.0006
	17-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	0.018	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	0.030	< 0.050	< 0.10	0.055	< 0.0085	< 0.020	0.028	< 0.10	< 0.050	---	---	---	---	---	---	---
	15-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	17-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	**SPMD**	0.0006	0.0006	---	---	---	---	0.0009	0.0014	0.0002	0.0021	0.0025	---	---	---	0.0012	0.0022	---	0.0012	0.0028	0.0045	---	0.0026	---	0.0020	---	0.0188	---	---	---	0.0040	0.0100	0.0001	0.0004	0.0004	0.0001	0.0004	0.0007	0.0001
	17-Sep-2024	**SPMD**	0.0014	0.0012	---	---	---	---	0.0008	0.0043	0.0011	0.0047	0.0121	---	---	---	0.0133	---	0.0066	0.0066	0.0297	---	0.0302	---	0.0097	---	0.0331	---	---	---	0.0126	0.1247	0.0004	0.0008	0.0013	0.0003	0.0020	0.0048	0.0006
	14-Mar-2025	Grab	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	**SPMD**	0.0007	0.0008	---	---	---	---	0.0003	0.0004	0.0002	0.0015	0.0014	---	---	---	0.0004	---	0.0005	0.0019	0.0012	---	0.0004	---	0.0007	0.0023	0.0007	---	---	---	0.0015	0.0024	0.0002	0.0003	0.0005	0.0001	0.0003	0.0003	0.0001
	16-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Aug-2025	**SPMD**	0.0006	0.0008	---	---	---	---	0.0004	0.0003	0.0002	0.0014	0.0014	---	---	---	0.0008	---	0.0008	0.0015	0.0020	---	0.0006	---	0.0011	0.0020	0.0013	---	---	---	0.0019	0.0028	0.0001	0.0002	0.0003	0.0001	0.0003	0.0004	0.0001
	16-Sep-2025	Grab	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Sep-2025	**SPMD**	0.0020	0.0014	---	---	---	---	0.0009	0.0008	0.0016	0.0034	0.0054	---	---	---	0.0023	---	0.0031	0.0042	0.0061	---	0.0015	---	0.0033	0.0061	0.0063	---	---	---	0.0046	0.0102	0.0005	0.0005	0.0014	0.0005	0.0014	0.0020	0.0003
AEMP-DS-06 (Fort Good Hope)	10-Mar-2023	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
(Duplicate)	10-Mar-2023	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	24-Jul-2023	Grab	< 0.00010	< 0.00010	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	21-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	21-Aug-2023	**SPMD**	0.0012	---	---	---	---	0.0002	0.0008	0.0009	0.0031	0.0025	---	---	---	0.0009	---	0.0018	0.0031	0.0029	---	0.0011	---	0.0015	---	0.0022	---	---	---	0.0038	0.0139	---	0.0003	0.0004	0.0011	0.0001	0.0006	0.0009	0.0001
	03-Oct-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	15-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	17-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	14-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	14-Aug-2024	**SPMD**	0.0008	0.0008	---	---	---	---	0.0007	0.0009	0.0001	0.0028	0.0026	---	---	---	0.0017	---	0.0009	0.0027	0.0040	---	0.0012	---	0.0011	---	0.0029	---	---	---	0.0028	0.0127	0.0001	0.0004	0.0003	0.0001	0.0003	0.0008	0.0001
	13-Mar-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Jul-25	**SPMD**	0.0008	0.0008	---	---	---	---	0.0001	0.0002	0.0002	0.0016	0.0008	---	---	---	0.0001	---	0.0003	0.0016	0.0005	---	0.0002	---	0.0004	0.0014	0.0003	---	---	---	0.0008	0.0011	0.0002	0.0002	0.0004	0.0001	0.0002	0.0002	0.0000
	13-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	13-Aug-2025	**SPMD**	0.0007	0.0008	---	---	---	---	0.0003	0.0003	0.0003	0.0015	0.0012	---	---	---	0.0004	---	0.0006	0.0016	0.0011	---	0.0002	---	0.0005	0.0018	0.0006	---	---	---	0.0012	0.0015	0.0001	0.0002	0.0003	0.0001	0.0003	0.0003	0.0001
	10-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	10-Sep-2025	**SPMD**	0.0013	0.0012	---	---	---	---	0.0002	0.0004	0.0003	0.0025	0.0013	---	---	---	0.0005	---	0.0006	0.0026	0.0012	---	0.0002	---	0.0010	0.0025	0.0063	---	---	---	0.0019	0.0019	0.0003	0.0004	0.0005	0.0001	0.0003	0.0004	0.0001
AEMP-DS-07 (Fort G H-Rampart)	17-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	14-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085

Table 7

Surfaced Water Analytical Results:
Alkylated Polycyclic Aromatic Hyrdrocarbons (PAHs)

PROJECT No.: 417085-59897

Monitoring Station	Date (dd-mmm-yyyy)	Status	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	C1benzo(b)kfluoranthene/benzo(a)pyrene (ug/L)	C1-Substituted Acenaphthene (ug/L)	C1-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C1-Substituted Biphenyl (ug/L)	C1-Substituted Dibenzothiophene (ug/L)	C1-Substituted Fluoranthene/Pyrene (ug/L)	C1-Substituted Fluorene (ug/L)	C1-Substituted Naphthalene (ug/L)	C1-Substituted Phenanthrene/Anthracene (ug/L)	C2benzo(b)kfluoranthene/benzo(a)pyrene (ug/L)	C2-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C2-Substituted Biphenyl (ug/L)	C2-Substituted Dibenzothiophene (ug/L)	C2-Substituted Fluoranthene/Pyrene (ug/L)	C2-Substituted Fluorene (ug/L)	C2-Substituted Naphthalene (ug/L)	C2-Substituted Phenanthrene/Anthracene (ug/L)	C3-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C3-Substituted Dibenzothiophene (ug/L)	C3-Substituted Fluoranthene/Pyrene (ug/L)	C3-Substituted Fluorene (ug/L)	C3-Substituted Naphthalene (ug/L)	C3-Substituted Phenanthrene/Anthracene (ug/L)	C4-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C4-Substituted Dibenzothiophene (ug/L)	C4-Substituted Fluoranthene/Pyrene (ug/L)	C4-Substituted Naphthalene (ug/L)	C4-Substituted Phenanthrene/Anthracene (ug/L)	1,2-dimethylnaphthalene (ug/L)	2,6-Dimethylnaphthalene (ug/L)	2,3,5-trimethylnaphthalene (ug/L)	Dibenzothiophene (ug/L)	2-methylphenanthrene (ug/L)	1-Methylphenanthrene (ug/L)	3,6-dimethylphenanthrene (ug/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-MACKENZIE			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA LCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MACKENZIE UPSTEAM DATA UCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Sep-2025	Grab	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Sep-2025	**SPMD**	0.0020	0.0016	---	---	---	---	0.0009	0.0010	0.0016	0.0037	0.0051	---	---	---	0.0024	---	0.0027	0.0043	0.0064	---	0.0020	---	0.0042	0.0059	0.0077	---	---	---	0.0040	0.0123	0.0004	0.0006	0.0013	0.0005	0.0012	0.0018	0.0004
AEMP-DS-09 (Goose)	17-Mar-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	15-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	17-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	19-Jul-2024	**SPMD**	0.0017	0.0033	---	---	---	---	0.0004	0.0010	0.0001	0.0090	0.0018	---	---	---	0.0013	---	0.0009	0.0023	0.0025	---	0.0018	---	0.0011	---	0.0222	---	---	---	0.0022	0.0071	0.0001	0.0004	0.0003	0.0001	0.0003	0.0005	0.0001
	15-Aug-2024	**SPMD**	0.0013	0.0007	---	---	---	---	0.0005	0.0009	0.0010	0.0034	0.0040	---	---	---	0.0018	---	0.0018	0.0036	0.0058	---	0.0011	---	0.0016	---	0.0037	---	---	---	0.0042	0.0272	0.0003	0.0004	0.0007	0.0001	0.0007	0.0015	0.0002
	17-Sep-2024	**SPMD**	0.0009	0.0007	---	---	---	---	0.0001	0.0018	0.0006	0.0028	0.0057	---	---	---	0.0018	---	0.0032	0.0031	0.0091	---	0.0021	---	0.0027	---	0.0058	---	---	---	0.0061	0.0418	0.0002	0.0003	0.0006	0.0001	0.0009	0.0025	0.0002
	14-Mar-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	18-Jul-2025	**SPMD**	0.0006	0.0007	---	---	---	---	0.0001	0.0003	0.0002	0.0014	0.0009	---	---	---	0.0002	0.0000	0.0005	0.0016	0.0008	0.0000	0.0002	0.0000	0.0005	0.0015	0.0003	---	---	---	0.0011	0.0015	0.0002	0.0002	0.0003	0.0001	0.0002	0.0002	0.0001
	16-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	16-Aug-2025	**SPMD**	0.0006	0.0008	---	---	---	---	0.0002	0.0002	0.0001	0.0014	0.0007	---	---	---	0.0002	0.0000	0.0003	0.0009	0.0007	0.0000	0.0001	0.0000	0.0002	0.0011	0.0003	---	---	---	0.0008	0.0010	---	0.0002	0.0002	0.0001	0.0002	0.0002	0.0000
	16-Sep-2025	Grab	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Benzo(a)Pyrene Total Potency Equivalent (ESRD)
   (Benzo(a)Pyrene*1) + (Benzo(a)Anthracene*0.1) + (Benzo(b,j)Fluoranthene*0.1) + (Benzo(k)Fluoranthene*0.1) + (Benzo(g,h,i)Perylene*0.01) + (Chrysene*0.01) + (Dibenzo(a,h)Anthracene*1) + (Indeno(1,2,3-c,d)Pyrene*0.1)
   Non-Detect isomer values calculated as 0.5 x detection limit.
   Final result value rounded to 2 significant digits
7. Superscript #1 denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration.
   Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.
   August 2025.)
8. Superscript #2 denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
9. Superscript #3 denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life.
   http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)

Table 8

Surfacewater Analytical Results: Indicator Analysis Parameters

PROJECT No.: 417085-59897

			Anions					Cations							General										Inorganic Nitrogen Compounds							Inorganic Sulphur Compounds	Ion Balance	Miscellaneous			
Monitoring Station	Sample Type	Date	Bicarbonate	Carbonate	Chloride	Sulphate	Hydroxide	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Fluoride	Alkalinity (Total; as $CaCO_3$)	Alkalinity (PP; as $CaCO_3$)	Colour	Electrical Conductivity	Hardness (Total; as $CaCO_3$)	pH	Total Dissolved Solids	Total Suspended Solids	Turbidity	Ammonia (Total; as N)	Nitrate	Nitrate (as N)	Nitrite	Nitrite (as N)	Nitrite-plus-Nitrate (as N)	Total Kjeldahl Nitrogen	Sulphide (asH_2S)	Ion Balance % Difference	Biochemical Oxygen Demand	Chemical Oxygen Demand	Dissolved Organic Carbon	Total Organic Carbon
		(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(color unit)	(µS/cm)	(mg/L)	(pH Units)	(mg/L)	(mg/L)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			---	---	---	---	---	None required	---	---	0.12	---	---	1.5	---	---	---	---	---	---	---	---	1	None required	45	10	3	1	---	---	---	---	---	---	---	---
BOSWORTH UPSTEAM DATA LCL [#2]			---	---	21.9	149	---	---	---	---	---	---	---	---	---	---	---	---	---	---	358	0.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BOSWORTH UPSTEAM DATA UCL [#3]			---	---	48.2	189	---	---	---	---	---	---	---	---	---	---	---	---	---	---	562	61.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-BOSWORTH [#4]			---	---	120	---	---	---	0.3	---	0.29	---	---	0.12	---	---	---	---	---	(6.5 - 9)	---	---	---	0.14	---	2.9	---	0.06	---	---	---	---	---	---	---	---
AEMP-BOSWORTH-US																																				
AEMP-US-04 (Upr Bosworth Crk)	Grab	26-Jul-2023	240	< 1.0	29	160	< 1.0	78	< 0.060	29	< 0.0040	1.2	25	---	190	< 1.0	7.7	720	320	---	460	1.4	0.78	< 0.015	0.22	0.049	< 0.033	< 0.010	0.049	0.088	< 0.0020	3.4	---	17	2.9	2.4
	Grab	18-Aug-2023	240	< 1.0	34	160	< 1.0	81	< 0.060	30	0.0062	1.1	27	---	200	< 1.0	5.6	740	330	---	480	1.3	0.58	< 0.015	0.22	0.049	< 0.033	< 0.010	0.049	0.082	< 0.0020	3.7	---	11	2.3	2.1
	Grab	24-Sep-2023	240	< 1.0	30	170	< 1.0	83	< 0.060	33	0.0052	1.2	27	---	200	< 1.0	2.1	720	340	---	380	< 1.0	< 0.10	< 0.015	0.21	0.048	< 0.033	< 0.010	0.048	0.16	< 0.0020	0.81	---	19	2.2	1.6
	Grab	18-Jul-2024	210	1.7	33	170	< 1.0	81	< 0.060	32	< 0.0040	1.3	27	---	180	1.4	6.3	740	330	8.34	460	4.1	2.9 [#1]	< 0.015	0.33	0.074	< 0.033	< 0.010	0.074	0.098	< 0.0020	0.47	---	11	3.2	2.4
	Grab	16-Aug-2024	220	3.9	38	180	< 1.0	86	< 0.060	32	0.0058	1.2	33	---	190	3.3	4.2	790	350	8.35	510	3.5	0.85	< 0.015	0.19	0.042	< 0.033	< 0.010	0.042	0.20	< 0.0020	1.2	---	< 10 [#5]	1.8	2.0
	Grab	13-Sep-2024	230	< 1.0	39	170	< 1.0	93	< 0.060	36	0.0057	1.3	34	---	190	< 1.0	3.5	800	380	7.91	500	30	2.0 [#1]	< 0.015	0.20	0.045	< 0.033	< 0.010	0.045	0.25	< 0.0020	3.3	---	< 10 [#5]	2.5	1.9
	Grab	17-Jul-2025	240	< 1.0	40	180	< 1.0	83	< 0.060	31	0.0070	1.3	32	---	200	< 1.0	6.1	780	340	8.28	490	< 1.0	0.57	< 0.015	0.25	0.057	< 0.13	< 0.040	0.057	0.094	< 0.0020	3.6	---	< 10 [#5]	2.7	1.9
	Grab	14-Aug-2025	230	< 1.0	27	160	< 1.0	77	< 0.060	33	0.0063	1.1	23	---	190	< 1.0	6.0	730	330	8.10	440	2.3	2.0 [#1]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.28	< 0.0020	1.5	---	< 10 [#5]	3.6	3.6
	Grab	13-Sep-2025	230	< 1.0	26	160	< 1.0	75	< 0.060	31	0.0056	1.2	22	---	190	< 1.0	5.7	710	320	8.18	420	4.8	0.15	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.17	< 0.0020	3.2	---	< 10 [#5]	3.0	3.0
AEMP-US-05 (Bosworth Creek)	Grab	19-Jul-2024	210	2.2	33	170	< 1.0	80	< 0.060	31	0.0045	1.2	27	---	180	1.8	8.0	740	330	8.34	460	1.9	1.5 [#1]	< 0.015	0.33	0.074	< 0.033	< 0.010	0.074	0.099	< 0.0020	1.3	---	< 10 [#6]	2.8	2.2
	Grab	16-Aug-2024	220	1.7	38	180	< 1.0	87	< 0.060	34	0.0056	1.3	33	---	180	1.4	2.3	790	360	8.32	500	1.3	0.31	< 0.015	0.22	0.050	< 0.033	< 0.010	0.050	0.17	< 0.0020	0.087	---	< 10 [#5]	3.3	2.2
	Grab	12-Sep-2024	250	< 1.0	36	180	< 1.0	91	< 0.060	36	0.0053	1.2	33	---	200	< 1.0	9.5	800	370	8.28	400	< 1.0	1.2 [#1]	< 0.015	0.18	0.041	< 0.033	< 0.010	0.041	0.14	< 0.0020	1.0	---	< 10 [#5]	2.2	2.0
	Grab	17-Jul-2025	230	< 1.0	39	180	< 1.0	85	< 0.060	32	0.0085	1.2	32	---	190	< 1.0	3.7	770	350	8.25	490	1.9	0.56	< 0.015	0.25	0.057	< 0.13	< 0.040	0.057	0.40	< 0.0020	1.7	---	< 10 [#5]	2.9	1.5
	Grab	14-Aug-2025	230	< 1.0	27	160	< 1.0	77	< 0.060	33	0.0064	1.1	22	---	190	< 1.0	6.3	730	330	8.04	420	1.1	< 0.10	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.21	< 0.0020	1.5	---	< 10 [#5]	2.8	2.5
	Grab	13-Sep-2025	230	< 1.0	26	160	< 1.0	73	< 0.060	33	0.0058	0.87	22	---	190	< 1.0	6.6	710	320	8.17	440	1.5	0.16	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.17	< 0.0020	3.1	---	< 10 [#5]	3.0	16 [#7]
AEMP-BOSWORTH-DS																																				
AEMP-DS-01 (Lwr Bosworth Crk)	Grab	18-Aug-2017	230	< 0.50	24	140 [#2]	< 0.50	76	< 0.060	28	0.0077	1.1	23	---	190	< 0.50	---	650	310	---	400	4.0	---	---	0.054	0.012	< 0.033	< 0.010	< 0.014	---	---	1.5	< 2.0 [#8]	---	3.3	4.0
	Grab	16-Sep-2017	220	< 0.50	19 [#2]	130 [#2]	< 0.50	80	< 0.060	29	0.0081	1.0	18	---	180	< 0.50	---	630	320	---	390	2.7	---	---	0.15	0.033	< 0.033	< 0.010	0.033	---	0.0030	2.7	< 2.0 [#9]	---	5.1	4.2
	Grab	16-Oct-2017	220	< 1.0	20 [#2]	150	< 1.0	75	< 0.060	30	0.0091	0.97	19	---	180	< 1.0	---	650	310	---	420	21	---	---	0.26	0.059	< 0.033	< 0.010	0.059	---	< 0.0020	0.47	< 2.0	---	3.8	4.0
	Grab	23-Jun-2018	230	< 1.0	19 [#2]	130 [#2]	< 1.0	78	< 0.060	28	0.0058	1.1	17	---	180	< 1.0	---	620	310	---	400	2.0	1.3 [#1]	0.019	0.17	0.038	< 0.033	< 0.010	0.038	0.21	< 0.0020	0.36	---	13	4.8	4.3
	Grab	12-Aug-2018	220	< 1.0	14 [#2]	140 [#2]	< 1.0	74	< 0.060	29	0.0079	1.0	16	---	180	< 1.0	---	610	300	---	400	3.3	---	0.018	0.068	0.015	< 0.033	< 0.010	0.015	0.23	0.0030	1.0	---	19	3.8	4.2
	Grab	15-Aug-2018	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.086	0.019	< 0.033	< 0.010	0.019	---	---	---	< 2.0	---	---	---
	Grab	16-Oct-2018	230	< 1.0	17 [#2]	160	< 1.0	78	< 0.060	31	0.0046	1.0	18	---	190	< 1.0	---	660	320	---	410	19	1.5 [#1]	< 0.015	0.17	0.038	< 0.033	< 0.010	0.038	0.17	< 0.0020	2.2	---	13	2.7	2.9
	Grab	17-Oct-2018	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.5 [#9]	---	---	---
	Grab	03-Jun-2019	190	< 1.0	17 [#2]	120 [#2]	< 1.0	65	< 0.060	24	0.0050	0.85	14	---	160	< 1.0	16	560	260	8.21	350 [#2]	4.7	3.7 [#1]	< 0.015	0.18	0.041	< 0.033	< 0.010	0.041	0.21	< 0.0020	2.9	< 2.0	15	5.2	4.7
	Grab	28-Aug-2019	230	< 1.0	17 [#2]	140 [#2]	< 1.0	76	< 0.060	27	0.0069	0.96	16	---	190	< 1.0	15	630	300	8.29	400	3.3	2.0 [#1]	0.028	0.18	0.040	< 0.033	< 0.010	0.040	0.24	< 0.0020	2.9	< 2.0	< 10	5.6	4.5
	Grab	02-Oct-2019	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 2.0	---	---	---
	Grab	03-Oct-2019	230	< 1.0	19 [#2]	160	< 1.0	83	< 0.060	32	0.0069	1.0	19	---	190	< 1.0	7.0	670	340	---	430	3.3	2.0 [#1]	0.022	0.27	0.060	< 0.033	< 0.010	0.060	0.19	0.0020	0.53	---	20	3.1	2.9
	Grab	10-Jun-2020	210	< 1.0	16 [#2]	130 [#2]	< 1.0	70	< 0.060	24	0.0043	0.96	14	---	180	< 1.0	15	600	270	8.25	320 [#2]	7.5	2.1 [#1]	0.021	0.22	0.049	< 0.033	< 0.010	0.049	0.25	0.0099	4.4	< 2.0	< 10	5.2	4.4
	Grab	24-Jul-2020	220	< 1.0	25	140 [#2]	< 1.0	81	0.062	29	0.0075	1.0	22	---	180	< 1.0	11	710	320	8.29	470	1.0	0.43	< 0.015	0.14	0.032	< 0.033	< 0.010	0.032	0.20	0.0034	0.83	< 2.0	10	3.3	3.0
	Grab	18-Sep-2020	220	< 1.0	21 [#2]	160	< 1.0	80	< 0.060	31	0.0062	0.97	19	---	180	< 1.0	6.0	690	330	8.25	490	3.6	0.64	< 0.015	0.10	0.022	< 0.033	< 0.010	0.022	0.15	0.0072	1.4	< 2.0	< 10	2.8	2.5
	Grab	06-Jun-2021	240	1.5	17 [#2]	110 [#2]	< 1.0	72	< 0.060	26	0.0063	1.0	15	0.20 [#4]	200	1.3	23	610	290	---	430	9.1	3.1 [#1]	< 0.015	0.14	0.031	< 0.033	< 0.010	0.031	0.45	0.0043	3.3	< 2.0 [#9]	16	5.2	6.4
	Grab	18-Aug-2021	220	< 1.0	30	160	< 1.0	83	< 0.060	32	0.0058	1.2	28	0.23 [#4]	180	< 1.0	6.4	720	340	---	510	< 1.0	0.48	< 0.015	< 0.044	< 0.010	< 0.033	< 0.010	< 0.010	0.23	< 0.0020	2.0	< 2.0	13	3.0	2.7
	Grab	19-Sep-2021	250	< 1.0	38	190 [#3]	< 1.0	83	< 0.060	32	0.0072	1.1	31	0.26 [#4]	200	< 1.0	3.7	780	340	8.27	490	1.8	0.69	0.022	0.24	0.055	< 0.033	< 0.010	0.055	0.12	< 0.0020	5.0	< 2.0	13	2.1	2.0
	Grab	11-Jun-2022	200	< 1.0	18 [#2]	110 [#2]	< 1.0	69	< 0.060	26	0.0076	1.2	16	0.17 [#4]	170	< 1.0	12	580	280	8.22	370	< 1.0	1.7 [#1]	< 0.015	0.11	0.026	< 0.033	< 0.010	0.026	0.29	< 0.0020	0.87	< 2.0	16	4.5	3.9
	Grab	06-Aug-2022	220	< 1.0	28	150	< 1.0	79	< 0.060	29	0.0061	1.2	24	0.20 [#4]	180	< 1.0	6.4	680	310	8.28	430	4.7	1.5 [#1]	< 0.015	0.21	0.048	< 0.033	< 0.010	0.048	0.19	< 0.0020	0.083	< 2.0 [#10]	24	3.4	2.7
	Grab	26-Sep-2022	230	< 1.0	30	150	< 1.0	78	< 0.060	30	0.0055	1.0	24	0.22 [#4]	190	< 1.0	5.5	720	320	7.91	460	1.2	1.1 [#1]	< 0.015	0.23	0.053	< 0.033	< 0.010	0.053	0.16	< 0.0020	1.7	< 2.0 [#8]	16	3.0	2.6
	Grab	26-Jul-2023	250	< 1.0	28	160	< 1.0	83	< 0.060	30	0.0063	1.2	27	---	200	< 1.0	7.3	720	330	8.32	450	2.9	< 0.10	< 0.015	0.24	0.054	< 0.033	< 0.010	0.054	0.093	0.0058	1.8	---	< 10 [#6]	3.2	2.4
	Grab	18-Aug-2023	240	< 1.0	34	170	< 1.0	81	< 0.060	30	0.0073	1.2	29	---	200	< 1.0	8.0	740	330	---	470	4.5	2.4 [#1]	< 0.015	0.18	0.041	< 0.033	< 0.010	0.041	0.095	0.0090	3.8	---	14	2.2	1.9
	Grab	25-Sep-2023	240	< 1.0	29	170	< 1.0	0.33	< 0.060	< 0.20	< 0.0040	< 0.30	< 0.50	---	200	< 1.0	5.0	710	0.80	---	400	< 1.0	< 0.10	< 0.015	0.21	0.048	< 0.033	< 0.010	0.048	0.088	0.018	NC	---	18	< 0.50	2.0
	Grab	18-Jul-2024	210	1.7	33	170	< 1.0	82	< 0.060	31	< 0.0040	1.3	28	---	180	1.4	5.7	750	330	8.34	460	3.1	1.6 [#1]	< 0.015	0.44	0.099	< 0.033	< 0.010	0.099	0.13	0.0057	0.59	---	< 10 [#6]	2.5	1.7
	Grab	16-Aug-2024	220	2.7	38	180	< 1.0	87	< 0.060	34	0.0072	1.3	34	---	190	2.2	7.2	800	360	8.36	500	< 1.0	0.32	< 0.015	0.23	0.051	< 0.033	< 0.010	0.051	0.11	0.012	0.24	---	11	2.4	2.3
	Grab	13-Sep-2024	250	< 1.0	37	180	< 1.0	85	< 0.060	33	0.0069	1.2	33	---	210	< 1.0	4.4	800	350	8.25	490	< 1.0	< 0.10	< 0.015	0.12	0.028	< 0.033	< 0.010	0.028	0.12	0.011	2.6	---	< 10 [#5]	2.9	2.3
	Grab	19-Jul-2025	230	< 1.0	36	180	< 1.0	80	< 0.060	30	0.0068	1.2	30	---	190	< 1.0	9.6	750	320	8.30	460	< 1.0	0.12	0.036	0.23	0.052	< 0.13	< 0.040	0.052	0.099	0.011	4.9	---	< 10 [#5]	2.5	1.8
	Grab	14-Aug-2025	230	< 1.0	26	170	< 1.0	75	< 0.060	33	0.0062	1.1	24	---	190	< 1.0	6.4	730	320	8.22	440	6.7 [#11]	2.3 [#1]	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.17	0.0038	3.0	---	< 10 [#5]	2.6	2.7
	Grab	13-Sep-2025	230	< 1.0	26	160	< 1.0	74	< 0.060	33	0.0075	1.0	24	---	190	< 1.0	5.5	700	320	8.11	430 [#11]	< 1.0	0.19	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.16	0.0097	2.6	---	< 10 [#5]	2.5	2.8

Table 8

Surfacewater Analytical Results: Indicator Analysis Parameters

PROJECT No.: 417085-59897

			Anions					Cations							General										Inorganic Nitrogen Compounds							Inorganic Sulphur Compounds	Ion Balance	Miscellaneous			
Monitoring Station	Sample Type	Date	Bicarbonate	Carbonate	Chloride	Sulphate	Hydroxide	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Fluoride	Alkalinity (Total; as $CaCO_3$)	Alkalinity (PP; as $CaCO_3$)	Colour	Electrical Conductivity	Hardness (Total; as $CaCO_3$)	pH	Total Dissolved Solids	Total Suspended Solids	Turbidity	Ammonia (Total; as N)	Nitrate	Nitrate (as N)	Nitrite	Nitrite (as N)	Nitrite-plus-Nitrate (as N)	Total Kjeldahl Nitrogen	Sulphide (asH2S)	Ion Balance % Difference	Biochemical Oxygen Demand	Chemical Oxygen Demand	Dissolved Organic Carbon	Total Organic Carbon
		(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(color unit)	(µS/cm)	(mg/L)	(pH Units)	(mg/L)	(mg/L)	(NTU)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			---	---	---	---	---	None required	---	---	0.12	---	---	1.5	---	---	---	---	---	---	---	---	1	None required	45	10	3	1	---	---	---	---	---	---	---	---
BOSWORTH UPSTEAM DATA LCL [#2]			---	---	21.9	149	---	---	---	---	---	---	---	---	---	---	---	---	---	---	358	0.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BOSWORTH UPSTEAM DATA UCL [#3]			---	---	48.2	189	---	---	---	---	---	---	---	---	---	---	---	---	---	---	562	61.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-BOSWORTH [#4]			---	---	120	---	---	---	0.3	---	0.29	---	---	0.12	---	---	---	---	---	(6.5 - 9)	---	---	---	0.14	---	2.9	---	0.06	---	---	---	---	---	---	---	---
Relative Percent Difference (RPD) Report																																				
AEMP-DS-01 (Lwr Bosworth Crk)	Grab	13-Sep-2025	230	< 1.0	26	160	< 1.0	74	< 0.060	33	0.0075	1.0	24	---	190	< 1.0	5.5	700	320	8.11	430 [#11]	< 1.0	0.19	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.16	0.0097	2.6	---	< 10 [#5]	2.5	2.8
(Duplicate)	Grab	13-Sep-2025	230	< 1.0	28	150	< 1.0	74	< 0.060	31	0.0060	1.1	23	---	190	< 1.0	6.3	710	320	8.19	430 [#11]	< 1.0	0.19	< 0.015	< 0.18	< 0.040	< 0.13	< 0.040	< 0.040	0.16	0.012	3.1	---	< 10 [#5]	2.8	2.9
RPD(%)			**0.0%**	---	**7.4%**	**6.5%**	---	**0.0%**	---	**6.3%**	**22.2%**	**9.5%**	**4.3%**	---	**0.0%**	---	**13.6%**	**1.4%**	**0.0%**	**1.0%**	**0.0%**	---	**0.0%**	---	---	---	---	---	---	**0.0%**	**21.2%**	**17.5%**	---	---	**11.3%**	**3.5%**

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. August 2025.)
   Calcium:
   Guideline value not necessary. Calcium contributes to hardness.
   Turbidity:
   Not specifically an MAC, rather a treatment limit guideline value specific groundwater not under direct influence of surface water. Groundwater that is not under the direct influence of surface water are considered less vulnerable to faecal contamination (HC 2012). A less stringent value for turbidity may be acceptable if it is demonstrated that the system has a h
   Ammonia (Total; as N):
   Guideline value not necessary. No adverse effects at levels found in drinking water. To help prevent nitrification, limit excess free ammonia entering the distribution system to below 0.1 mg/L and preferably below 0.05 mg/L as N.
7. Superscript [#2] denotes values below
   (UPSTEAM DATA LCL)
8. Superscript [#3] denotes values exceeding
   (UPSTEAM DATA UCL)
9. Superscript [#4] denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life. http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)
   Chloride:
   Guideline based on chronic exposure
   Ammonia (Total; as N):
   Guideline for total ammonia is dependent on pH and temperature of surface water. Guideline based on Temperature of 20oC and pH of 8.5
   Nitrate (as N):
   Guideline based on long term exposure
   Nitrite (as N):
   Standard is for NO_2 as N, equivalent standard for NO_2 is 0.197 mg/L.
10. Superscript [#5] - COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.
11. Superscript [#6] - COD < DOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.
12. Superscript [#7] - Detection limits raised due to matrix interference.
13. Superscript [#8] - Sample analyzed past hold time. Sample analysis is recommended within 48 hours of sampling.
14. Superscript [#9] - Method blank exceeds 0.2 mg/L stipulated in Reference Method. No other Quality Control measures affected.
15. Superscript [#10] - Method blank exceeds 0.2 mg/L stipulated in Reference Method. No other Quality Control measures affected
16. Superscript [#11] - Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

Table 9
Surface Water Analytical Results: Petroleum Hydrocarbons (PHCs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	m&p-Xylene (mg/L)	o-Xylene (mg/L)	Xylenes (Total) (mg/L)	PHC F1 (C_6-C_{10}) (mg/L)	PHC F1 (C_6-C_{10}) - BTEX (mg/L)	PHC F2 (C_{10}-C_{16}) (mg/L)	PHC F3 (C_{16}-C_{34}) (mg/L)	PHC F4 (C_{34}-C_{50}) (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			**0.005**	**0.06**	**0.14**	---	---	**0.09**	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-BOS [#2]			**0.59**	**0.03**	**0.07**	---	---	**0.07**	---	---	---	---	---
CCME CEQG Freshwater AL-BOSWORTH [#3]			**0.37**	**0.002**	**0.09**	---	---	---	---	---	---	---	---
AEMP-BOSWORTH-US													
AEMP-US-04 (Upr Bosworth Crk)	PDB	26-Jul-2023	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	PDB	18-Aug-2023	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	PDB	24-Sep-2023	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	PDB	18-Jul-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	16-Aug-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	13-Sep-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	17-Jul-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	14-Aug-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	13-Sep-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-US-05 (Bosworth Creek)	PDB	19-Jul-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	16-Aug-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	12-Sep-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	17-Jul-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	14-Aug-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	13-Sep-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
AEMP-BOSWORTH-DS													
AEMP-DS-01 (Lwr Bosworth Crk)	Grab	18-Aug-2017	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	Grab	16-Sep-2017	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	Grab	16-Oct-2017	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00080	< 0.10	< 0.10	< 0.10	---	---
	Grab	23-Jun-2018	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	12-Aug-2018	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	16-Oct-2018	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	03-Jun-2019	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	28-Aug-2019	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	03-Oct-2019	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	10-Jun-2020	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	24-Jul-2020	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	18-Sep-2020	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	06-Jun-2021	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	18-Aug-2021	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	19-Sep-2021	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	11-Jun-2022	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	06-Aug-2022	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	Grab	26-Sep-2022	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	26-Jul-2023	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	PDB	18-Aug-2023	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	PDB	25-Sep-2023	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
	PDB	18-Jul-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	16-Aug-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	13-Sep-2024	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	19-Jul-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	PDB	14-Aug-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	0.26	< 0.20
	PDB	13-Sep-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---

Table 9
Surface Water Analytical Results: Petroleum Hydrocarbons (PHCs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	m&p-Xylene (mg/L)	o-Xylene (mg/L)	Xylenes (Total) (mg/L)	PHC F1 (C_6-C_{10}) (mg/L)	PHC F1 (C_6-C_{10}) - BTEX (mg/L)	PHC F2 (C_{10}-C_{16}) (mg/L)	PHC F3 (C_{16}-C_{34}) (mg/L)	PHC F4 (C_{34}-C_{50}) (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			**0.005**	**0.06**	**0.14**	---	---	**0.09**	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-BOS [#2]			**0.59**	**0.03**	**0.07**	---	---	**0.07**	---	---	---	---	---
CCME CEQG Freshwater AL-BOSWORTH [#3]			**0.37**	**0.002**	**0.09**	---	---	---	---	---	---	---	---
Relative Percent Difference (RPD) Report													
AEMP-DS-01 (Lwr Bosworth Crk)	PDB	13-Sep-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
(Duplicate)	PDB	13-Sep-2025	< 0.00040	< 0.00040	< 0.00040	< 0.00080	< 0.00040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
RPD(%)			---	---	---	---	---	---	---	---	---	---	---

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. August 2025.)
7. Superscript [#2] denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
8. Superscript [#3] denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life. http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)

Table 10

Surfacewater Analytical Results: Total Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Aluminum (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (Total) (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Lithium (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Phosphorus (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silicon (mg/L)	Silver (mg/L)	Sodium (mg/L)	Strontium (mg/L)	Thallium (mg/L)	Tin (mg/L)	Titanium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			**2.9**	**0.006**	**0.01**	**2**	**---**	**5**	**0.007**	**None required**	**0.05**	**---**	**2**	**---**	**0.005**	**---**	**---**	**0.12**	**0.001**	**---**	**---**	**---**	**---**	**0.05**	**---**	**---**	**---**	**7**	**---**	**---**	**---**	**0.02**	**---**	**---**
2024 Federal Environmental Quality Guidelines - Freshwater-BOS [#2]			**0.79**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00167**	**---**	**0.29**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**2.5**	**---**	**---**	**---**	**---**	**0.12**	**---**
BOSWORTH UPSTEAM DATA LCL [#3]			**0.008**	**---**	**0.00006**	**0.071**	**---**	**---**	**---**	**71**	**---**	**---**	**---**	**0.016**	**---**	**---**	**28**	**---**	**---**	**0.0016**	**0.00036**	**---**	**---**	**0.00017**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.0009**	**---**	**---**
BOSWORTH UPSTEAM DATA UCL [#4]			**0.648**	**---**	**0.00067**	**0.098**	**---**	**---**	**---**	**94**	**---**	**---**	**---**	**1.503**	**---**	**---**	**36**	**---**	**---**	**0.0024**	**0.00197**	**---**	**---**	**0.00028**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.0016**	**---**	**---**
CCME CEQG Freshwater AL-BOSWORTH [#5]			**0.1**	**---**	**0.005**	**---**	**---**	**1.5**	**0.00043**	**---**	**0.0089**	**---**	**0.00656**	**0.3**	**0.007**	**---**	**---**	**---**	**0.000026**	**0.073**	**0.15**	**---**	**---**	**0.001**	**---**	**0.00025**	**---**	**---**	**0.0008**	**---**	**---**	**0.015**	**---**	**---**
AEMP-BOSWORTH-US																																		
AEMP-US-04 (Upr Bosworth Crk)	Grab	26-Jul-2023	0.024	< 0.00060	0.00025	0.080	< 0.0010	0.040	< 0.000020	83	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	31	0.0066	< 0.0000019	0.0019	0.00071	< 0.10	1.2	0.00022	2.4	< 0.00010	25	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	Grab	18-Aug-2023	0.033	< 0.00060	< 0.00020	0.077	< 0.0010	0.040	< 0.000020	80	< 0.0010	< 0.00030	< 0.0010	0.068	< 0.00020	< 0.020	29	0.0081	< 0.0000019	0.0021	0.00072	< 0.10	1.1	0.00025	2.3	< 0.00010	27	1.4	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	Grab	24-Sep-2023	**0.22** [#5]	< 0.00060	0.00030	0.083	< 0.0010	0.030	< 0.000020	82	< 0.0010	< 0.00030	< 0.0010	**0.45** [#2,5]	< 0.00020	< 0.020	32	0.023	< 0.0000019	0.0021	0.0011	< 0.10	1.2	0.00022	2.9	< 0.00010	25	1.5	< 0.00020	< 0.0010	0.0028	0.0014	< 0.0010	< 0.0030
	Grab	18-Jul-2024	0.088	< 0.00060	< 0.00020	0.086	< 0.0010	0.038	< 0.000020	79	< 0.0010	< 0.00030	< 0.0010	0.22	< 0.00020	< 0.020	31	0.011	< 0.0000019	0.0018	0.0010	< 0.10	1.2	< 0.00020	2.5	< 0.00010	26	1.6	< 0.00020	< 0.0010	0.0021	0.0011	< 0.0010	< 0.0030
	Grab	16-Aug-2024	0.055	< 0.00060	< 0.00020	0.089	< 0.0010	0.055	< 0.000020	87	< 0.0010	< 0.00030	< 0.0010	0.095	< 0.00020	< 0.020	35	0.0094	< 0.0000019	0.0021	0.00060	< 0.10	1.3	< 0.00020	2.5	< 0.00010	33	1.7	< 0.00020	< 0.0010	< 0.0010	0.0013	< 0.0010	< 0.0030
	Grab	13-Sep-2024	**0.40** [#5]	< 0.00060	0.00048	0.088	< 0.0010	0.037	< 0.000020	83	< 0.0010	0.00052	0.0010	**0.75** [#2,5]	0.00046	< 0.020	33	0.028	< 0.0000019	0.0021	0.0018	< 0.10	1.3	0.00024	2.5	< 0.00010	32	1.6	< 0.00020	< 0.0010	0.0062	0.0014	0.0010	0.0034
	Grab	17-Jul-2025	0.049	< 0.00060	0.00024	0.089	< 0.0010	0.038	< 0.000020	91	< 0.0010	< 0.00030	< 0.0010	0.13	< 0.00020	< 0.020	33	0.010	< 0.0000019	0.0021	0.00075	< 0.10	1.3	0.00021	3.1	< 0.00010	34	1.6	< 0.00020	< 0.0010	0.0016	0.0013	< 0.0010	< 0.0030
	Grab	14-Aug-2025	0.054	< 0.00060	< 0.00020	0.074	< 0.0010	0.027	< 0.000020	78	< 0.0010	< 0.00030	< 0.0010	0.14	< 0.00020	< 0.020	30	0.0076	< 0.0000019	0.0018	0.00070	< 0.10	1.1	< 0.00020	2.2	< 0.00010	24	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	Grab	13-Sep-2025	0.063	< 0.00060	0.00022	0.083	< 0.0010	0.031	< 0.000020	75	< 0.0010	< 0.00030	< 0.0010	0.17	< 0.00020	< 0.020	31	0.011	< 0.0000019	0.0018	0.00063	< 0.10	1.1	0.00024	2.2	< 0.00010	23	1.6	< 0.00020	< 0.0010	0.0012	0.0011	< 0.0010	< 0.0030
AEMP-US-05 (Bosworth Creek)	Grab	19-Jul-2024	0.022	< 0.00060	0.00023	0.084	< 0.0010	0.045	< 0.000020	79	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.026	32	0.0061	< 0.0000019	0.0019	0.0011	< 0.10	1.1	< 0.00020	2.2	< 0.00010	26	1.7	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	Grab	16-Aug-2024	0.017	< 0.00060	< 0.00020	0.085	< 0.0010	0.046	< 0.000020	88	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	35	0.0073	< 0.0000019	0.0019	0.00054	< 0.10	1.3	< 0.00020	2.3	< 0.00010	33	1.7	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	Grab	12-Sep-2024	0.018	< 0.00060	0.00023	0.080	< 0.0010	0.036	< 0.000020	86	< 0.0010	< 0.00030	< 0.0010	0.070	0.00082	< 0.020	33	0.0063	< 0.0000019	0.0020	0.00061	< 0.10	1.2	< 0.00020	2.2	< 0.00010	33	1.6	< 0.00020	< 0.0010	0.0016	0.0012	< 0.0010	< 0.0030
	Grab	17-Jul-2025	0.045	< 0.00060	0.00025	0.087	< 0.0010	0.041	< 0.000020	90	< 0.0010	< 0.00030	< 0.0010	0.12	< 0.00020	< 0.020	33	0.0098	< 0.0000019	0.0019	0.00065	< 0.10	1.3	0.00023	3.7	< 0.00010	34	1.6	< 0.00020	< 0.0010	0.0011	0.0013	< 0.0010	< 0.0030
	Grab	14-Aug-2025	0.014	< 0.00060	0.00022	0.075	< 0.0010	0.033	< 0.000020	77	< 0.0010	< 0.00030	< 0.0010	0.065	< 0.00020	< 0.020	30	0.0056	< 0.0000019	0.0019	0.00064	< 0.10	1.1	< 0.00020	2.1	< 0.00010	23	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	Grab	13-Sep-2025	0.016	< 0.00060	< 0.00020	0.083	< 0.0010	0.029	< 0.000020	77	< 0.0010	< 0.00030	< 0.0010	0.11	< 0.00020	< 0.020	31	0.0068	< 0.0000019	0.0016	< 0.00050	< 0.10	1.2	< 0.00020	2.3	< 0.00010	23	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
AEMP-BOSWORTH-DS																																		
AEMP-DS-01 (Lwr Bosworth Crk)	Grab	18-Aug-2017	0.039	< 0.00060	0.00026	0.085	< 0.0010	0.031	0.000020	74	< 0.0010	< 0.00030	0.00092	0.11	< 0.00020	< 0.020	**27** [#3]	0.0098	0.0000021	0.0018	0.00079	< 0.10	1.1	0.00021	2.1	< 0.00010	22	1.3	< 0.00020	< 0.0010	0.0032	0.0010	0.0014	< 0.0030
	Grab	16-Sep-2017	0.031	< 0.00060	0.00032	0.082	< 0.0010	0.024	< 0.000020	73	< 0.0010	< 0.00030	0.00064	0.096	< 0.00020	< 0.020	29	0.0087	< 0.0000020	0.0017	0.00077	< 0.10	1.0	< 0.00020	2.1	< 0.00010	19	1.3	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	Grab	16-Oct-2017	**0.23** [#5]	< 0.00060	0.00040	0.079	< 0.0010	0.022	0.000027	75	< 0.0010	< 0.00030	0.00074	**0.57** [#2,5]	0.00030	< 0.020	31	0.020	< 0.0000020	0.0019	0.0014	< 0.10	1.1	0.00025	2.3	< 0.00010	20	1.4	< 0.00020	< 0.0010	0.0039	0.0012	0.0020	< 0.0030
	Grab	23-Jun-2018	0.047	< 0.00060	0.00036	0.086	< 0.0010	0.029	< 0.000020	76	< 0.0010	< 0.00030	0.00073	0.12	< 0.00020	< 0.020	**27** [#3]	0.0085	< 0.0000020	**0.0027** [#4]	0.0012	< 0.10	1.1	**0.00031** [#4]	2.0	< 0.00010	18	1.3	< 0.00020	< 0.0010	< 0.0010	**0.0016** [#4]	< 0.0010	< 0.0030
	Grab	12-Aug-2018	0.030	< 0.00060	0.00026	0.073	< 0.0010	0.023	< 0.000020	72	< 0.0010	< 0.00030	0.00033	0.11	< 0.00020	< 0.020	28	0.0091	0.0000025	0.0018	0.0010	< 0.10	0.93	< 0.00020	2.1	< 0.00010	14	1.3	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	Grab	16-Oct-2018	**0.20** [#5]	< 0.00060	0.00024	0.074	< 0.0010	0.027	0.000031	78	< 0.0010	< 0.00030	0.00071	**0.50** [#2,5]	0.00026	< 0.020	31	0.017	0.0000020	0.0019	0.0013	< 0.10	1.1	**0.00031** [#4]	2.3	< 0.00010	18	1.5	< 0.00020	< 0.0010	0.0038	0.0013	< 0.0010	< 0.0030
	Grab	03-Jun-2019	0.081	< 0.00060	0.00032	0.076	< 0.0010	0.022	< 0.000020	**67** [#3]	< 0.0010	< 0.00030	0.00076	0.18	< 0.00020	< 0.020	**25** [#3]	0.0078	< 0.0000020	**0.0016** [#3]	0.00089	< 0.10	1.1	< 0.00020	1.8	< 0.00010	15	1.1	< 0.00020	< 0.0010	0.0012	0.0011	< 0.0010	< 0.0030
	Grab	28-Aug-2019	0.079	< 0.00060	0.00023	0.083	< 0.0010	0.023	< 0.000020	79	< 0.0010	< 0.00030	0.00047	0.17	< 0.00020	< 0.020	28	0.0087	< 0.0000020	0.0018	0.00083	< 0.10	1.1	< 0.00020	2.1	< 0.00010	17	1.2	< 0.00020	< 0.0010	0.077	0.0011	< 0.0010	< 0.0030
	Grab	03-Oct-2019	0.020	< 0.00060	< 0.00020	0.075	< 0.0010	0.029	< 0.000020	79	< 0.0010	< 0.00030	0.00051	0.082	< 0.00020	< 0.020	28	0.0078	< 0.0000020	**0.0016** [#3]	0.0010	< 0.10	1.0	**0.00032** [#4]	1.8	< 0.00010	19	1.4	< 0.00020	< 0.0010	0.0010	0.0012	< 0.0010	< 0.0030
	Grab	10-Jun-2020	0.082	< 0.00060	0.00038	0.081	< 0.0010	< 0.020	< 0.000020	72	< 0.0010	< 0.00030	0.00067	0.29 [#2]	< 0.00020	< 0.020	**26** [#3]	0.0067	< 0.0000019	**0.0026** [#4]	0.00091	< 0.10	1.0	< 0.00020	2.2	< 0.00010	13	1.2	< 0.00020	< 0.0010	0.0024	0.0015	< 0.0010	< 0.0030
	Grab	24-Jul-2020	0.024	< 0.00060	< 0.00020	0.081	< 0.0010	0.029	< 0.000020	81	0.0010	< 0.00030	0.00063	0.12	< 0.00020	< 0.020	28	0.0078	< 0.0000019	0.0019	< 0.00050	< 0.10	0.89	< 0.00020	1.9	< 0.00010	22	1.4	< 0.00020	< 0.0010	< 0.0010	0.0013	< 0.0010	0.0033
	Grab	18-Sep-2020	0.016	< 0.00060	0.00031	0.082	< 0.0010	0.025	< 0.000020	82	< 0.0010	< 0.00030	0.00058	0.074	< 0.00020	< 0.020	28	0.0074	0.0000024	0.0018	0.00094	< 0.10	1.2	0.00020	1.9	< 0.00010	19	1.4	< 0.00020	0.0020	< 0.0010	0.0014	< 0.0010	< 0.0030
	Grab	06-Jun-2021	0.095	< 0.00060	0.00036	0.072	< 0.0010	0.024	0.000034	72	0.0019	< 0.00030	0.00093	0.18	< 0.00020	< 0.020	**26** [#3]	0.0086	< 0.0000019	0.0018	0.0013	< 0.10	0.95	0.00024	2.1	< 0.00010	15	1.2	< 0.00020	< 0.0010	0.0042	0.0012	< 0.0010	< 0.0030
	Grab	18-Aug-2021	0.012	< 0.00060	< 0.00020	0.078	< 0.0010	0.036	< 0.000020	78	< 0.0010	< 0.00030	0.00045	0.070	< 0.00020	< 0.020	30	0.0076	< 0.0000019	0.0020	0.00071	< 0.10	1.2	< 0.00020	2.3	< 0.00010	26	1.5	< 0.00020	< 0.0010	< 0.0010	0.0013	< 0.0010	< 0.0030
	Grab	19-Sep-2021	0.012	< 0.00060	0.00028	0.080	< 0.0010	0.040	< 0.000020	86	< 0.0010	< 0.00030	0.00047	0.065	< 0.00020	< 0.020	32	0.0078	< 0.0000019	0.0019	0.00058	< 0.10	1.1	0.00024	2.2	< 0.00010	31	1.6	< 0.00020	< 0.0010	0.0012	0.0011	< 0.0010	0.0043
	Grab	11-Jun-2022	0.038	< 0.00060	0.00020	0.072	< 0.0010	0.025	< 0.000020	**65** [#3]	< 0.0010	< 0.00030	< 0.0010	0.11	< 0.00020	< 0.020	**23** [#3]	0.0076	< 0.0000019	0.0018	0.00088	< 0.10	0.91	< 0.00020	1.8	< 0.00010	16	1.2	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	Grab	06-Aug-2022	0.019	< 0.00060	0.00024	0.081	< 0.0010	0.033	< 0.000020	74	< 0.0010	< 0.00030	< 0.0010	0.063	< 0.00020	< 0.020	**27** [#3]	0.0060	< 0.0000019	0.0017	0.00073	< 0.10	1.1	< 0.00020	2.2	< 0.00010	23	1.4	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	0.0078
	Grab	26-Sep-2022	0.018	< 0.00060	< 0.00020	**0.068** [#3]	< 0.0010	0.032	< 0.000020	80	< 0.0010	< 0.00030	< 0.0010	0.066	< 0.00020	< 0.020	28	0.0067	< 0.0000019	0.0018	0.00066	< 0.10	1.1	0.00024	2.1	< 0.00010	26	1.3	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	Grab	26-Jul-2023	0.029	< 0.00060	0.00022	0.086	< 0.0010	0.044	< 0.000020	88	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	33	0.0077	< 0.0000019	0.0020	0.00082	< 0.10	1.3	< 0.00020	2.5	< 0.00010	28	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	Grab	18-Aug-2023	0.043	< 0.00060	0.00036	0.083	< 0.0010	0.039	< 0.000020	83	< 0.0010	< 0.00030	< 0.0010	0.095	< 0.00020	< 0.020	31	0.0085	< 0.0000019	0.0021	0.00060	< 0.10	1.2	< 0.00020	2.4	< 0.00010	30	1.5	< 0.00020	< 0.0010	< 0.0010	0.0013	< 0.0010	< 0.0030
	Grab	25-Sep-2023	0.024	< 0.00060	< 0.00020	0.084	< 0.0010	0.041	< 0.000020	86	< 0.0010	< 0.00030	< 0.0010	0.084	< 0.00020	< 0.020	36	0.0079	< 0.0000019	0.0017	0.00067	< 0.10	1.2	< 0.00020	2.6	< 0.00010	27	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	Grab	18-Jul-2024	0.051	< 0.00060	0.00031	0.087	< 0.0010	0.039	< 0.000020	80	< 0.0010	< 0.00030	< 0.0010	0.11	< 0.00020	< 0.020	31	0.0074	< 0.0000019	0.0021	**0.0036** [#4]	< 0.10	1.2	< 0.00020	2.5	< 0.00010	27	1.6	< 0.00020	< 0.0010	0.0022	0.0012	< 0.0010	0.0093
	Grab	16-Aug-2024	0.010	< 0.00060	0.00021	0.087	< 0.0010	0.044	< 0.000020	83	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	34	0.0053	< 0.0000019	0.0020	< 0.00050	< 0.10	1.3	< 0.00020	2.3	< 0.00010	33	1.7	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	Grab	13-Sep-2024	0.074	< 0.00060	0.00022	0.082	< 0.0010	0.040	< 0.000020	84	< 0.0010	< 0.00030	< 0.0010	0.18	< 0.00020	< 0.020	32	0.011	< 0.0000019	**0.0059** [#4]	0.00075	< 0.10	1.2	< 0.00020	2.2	< 0.00010	34	1.6	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	Grab	19-Jul-2025	0.029	< 0.00060	0.00027	0.085	< 0.0010	0.039	< 0.000020	84	< 0.0010	< 0.00030	< 0.0010	0.065	< 0.00020	< 0.020	31	0.0080	< 0.0000019	0.0021	0.00062	< 0.10	1.3	0.00020	2.2	< 0.00010	32	1.5	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	Grab	14-Aug-2025	**0.11** [#5]	< 0.00060	0.00028	0.086	< 0.0010	0.033	< 0.000020	84	< 0.0010	< 0.00030	< 0.0010	0.27	< 0.00020	< 0.020	33	0.012	< 0.0000019	0.0019	0.00092	< 0.10	1.2	0.00020	2.4	< 0.00010	25	1.6	< 0.00020	< 0.0010	0.0013	0.0012	< 0.0010	< 0.0030
	Grab	13-Sep-2025	0.014	< 0.00060	< 0.00020	0.083	< 0.0010	0.031	< 0.000020	79	< 0.0010	< 0.00030	< 0.0010	0.066	< 0.00020	< 0.020	31	0.0080	< 0.0000019	0.0018	0.00077	< 0.10	1.2	< 0.00020	2.1	< 0.00010	25	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030

Table 10

Surfacewater Analytical Results: Total Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Aluminum (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (Total) (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Lithium (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Phosphorus (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silicon (mg/L)	Silver (mg/L)	Sodium (mg/L)	Strontium (mg/L)	Thallium (mg/L)	Tin (mg/L)	Titanium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC [#1]			**2.9**	**0.006**	**0.01**	**2**	**---**	**5**	**0.007**	**None required**	**0.05**	**---**	**2**	**---**	**0.005**	**---**	**---**	**0.12**	**0.001**	**---**	**---**	**---**	**---**	**0.05**	**---**	**---**	**---**	**7**	**---**	**---**	**---**	**0.02**	**---**	**---**
2024 Federal Environmental Quality Guidelines - Freshwater-BOS [#2]			**0.79**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.00167**	**---**	**0.29**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**2.5**	**---**	**---**	**---**	**---**	**0.12**	**---**
BOSWORTH UPSTEAM DATA LCL [#3]			**0.008**	**---**	**0.00006**	**0.071**	**---**	**---**	**---**	**71**	**---**	**---**	**---**	**0.016**	**---**	**---**	**28**	**---**	**---**	**0.0016**	**0.00036**	**---**	**---**	**0.00017**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.0009**	**---**	**---**
BOSWORTH UPSTEAM DATA UCL [#4]			**0.648**	**---**	**0.00067**	**0.098**	**---**	**---**	**---**	**94**	**---**	**---**	**---**	**1.503**	**---**	**---**	**36**	**---**	**---**	**0.0024**	**0.00197**	**---**	**---**	**0.00028**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.0016**	**---**	**---**
CCME CEQG Freshwater AL-BOSWORTH [#5]			**0.1**	**---**	**0.005**	**---**	**---**	**1.5**	**0.00043**	**---**	**0.0089**	**---**	**0.00656**	**0.3**	**0.007**	**---**	**---**	**---**	**0.000026**	**0.073**	**0.15**	**---**	**---**	**0.001**	**---**	**0.00025**	**---**	**---**	**0.0008**	**---**	**---**	**0.015**	**---**	**---**
Relative Percent Difference (RPD) Report																																		
AEMP-DS-01 (Lwr Bosworth Crk)	Grab	13-Sep-2025	0.014	< 0.00060	< 0.00020	0.083	< 0.0010	0.031	< 0.000020	79	< 0.0010	< 0.00030	< 0.0010	0.066	< 0.00020	< 0.020	31	0.0080	< 0.0000019	0.0018	0.00077	< 0.10	1.2	< 0.00020	2.1	< 0.00010	25	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
(Duplicate)	Grab	13-Sep-2025	0.014	< 0.00060	< 0.00020	0.081	< 0.0010	0.030	< 0.000020	76	< 0.0010	< 0.00030	< 0.0010	0.060	< 0.00020	< 0.020	31	0.0070	< 0.0000019	0.0019	< 0.00050	< 0.10	1.2	< 0.00020	2.2	< 0.00010	24	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
RPD(%)			**0.0%**	**---**	**---**	**2.4%**	**---**	**3.3%**	**---**	**3.9%**	**---**	**---**	**---**	**9.5%**	**---**	**---**	**0.0%**	**13.3%**	**---**	**5.4%**	**---**	**---**	**0.0%**	**---**	**4.7%**	**---**	**4.1%**	**0.0%**	**---**	**---**	**---**	**0.0%**	**---**	**---**

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. August 2025.)
   Arsenic:
   ALARA - As Low as Reasonably Possible
   Calcium:
   Guideline value not necessary. Calcium contributes to hardness.
   Chromium (Total):
   MAC established for total chromium to protect from Chromium (VI).
   Lead:
   ALARA - As Low as Reasonably Possible
7. Superscript [#2] denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
   Aluminum:
   FWQG (µg/L) = exp([0.645 × ln(DOC)] + [2.255 × ln(hardness)] + [1.995 × pH] + [-0.284 × (ln(hardness) × pH)] -9.898)
   Cobalt:
   For hardness values between 52-396 mg/L, the FWQG can be calculated with the following equation: FWQG = exp{(0.414[ln(hardness)] – 1.887}
   Iron:
   The FWQG look-up table and/or calculator are valid between a DOC concentration of 0.3 to 10.9 mg/L, and a pH between 6 and 8.5.
8. Superscript [#3] denotes values below
   (UPSTEAM DATA LCL)
9. Superscript [#4] denotes values exceeding
   (UPSTEAM DATA UCL)
10. Superscript [#5] denotes values exceeding
    (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life. http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)
    Aluminum:
    Standard varies with pH.
    pH < 6.5 = 0.005 mg/L
    pH >= 6.5 = 0.1 mg/L
    Boron:
    Guideline based on long term exposure
    Cadmium:
    Guideline based on long term exposure
    Chromium (Total):
    Limit is for Chromium(III).
    Copper:
    Guideline is hardness dependent. Presented guideline set to lower limit.
    Lead:
    Guideline is hardness dependent. Presented guideline set to lower limit.
    Mercury:
    Guideline for Inorganic mercury
    Nickel:
    Guideline is hardness dependent. Presented guideline set to lower limit.
    Silver:
    Guideline based on long term exposure
    Uranium:
    Guideline based on long term exposure

Table 11

Surfacewater Analytical Results: Dissolved Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Selenium	Silicon	Silver	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
2024 Federal Environmental Quality Guidelines - Freshwater-BOS [#1]		---	---	---	---	---	---	---	---	---	**0.0077**	---	**0.00838**	---	---	---	---	---	---	---	---	---	**2.5**	---	---	---	---	---	---
CCME CEQG Freshwater AL-BOSWORTH [#2]		---	---	---	---	---	---	---	---	---	---	---	---	---	**0.29**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.037**
AEMP-BOSWORTH-US																													
AEMP-US-04 (Upr Bosworth Crk)	26-Jul-2023	0.0051	< 0.00060	0.00023	0.082	< 0.0010	0.038	< 0.000020	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	< 0.0040	0.0000032	0.0018	0.00092	< 0.10	< 0.00020	2.4	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	18-Aug-2023	0.0053	< 0.00060	< 0.00020	---	< 0.0010	---	< 0.000020	< 0.0010	< 0.00030	0.0016	< 0.060	< 0.00020	---	0.0062	< 0.0000019	0.0017	0.00070	---	< 0.00020	---	< 0.00010	---	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	24-Sep-2023	0.0077	< 0.00060	< 0.00020	0.083	< 0.0010	0.035	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0052	< 0.0000019	0.0018	0.00070	< 0.10	< 0.00020	2.6	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	18-Jul-2024	0.0081	< 0.00060	0.00020	0.083	< 0.0010	0.034	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	0.0017	0.00061	< 0.10	< 0.00020	2.3	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	16-Aug-2024	0.0032	< 0.00060	< 0.00020	0.086	< 0.0010	0.034	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0058	< 0.0000019	0.0017	0.00051	< 0.10	< 0.00020	2.2	< 0.00010	1.7	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	13-Sep-2024	< 0.0030	< 0.00060	< 0.00020	0.080	< 0.0010	0.039	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0057	< 0.0000019	0.0017	< 0.00050	< 0.10	< 0.00020	2.2	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	17-Jul-2025	0.015	< 0.00060	< 0.00020	0.084	< 0.0010	0.038	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0070	< 0.0000019	0.0019	0.00057	< 0.10	< 0.00020	2.6	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	14-Aug-2025	< 0.0030	< 0.00060	< 0.00020	0.078	< 0.0010	0.029	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0063	< 0.0000019	0.0017	0.00056	< 0.10	< 0.00020	2.2	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	13-Sep-2025	< 0.0030	< 0.00060	< 0.00020	0.076	< 0.0010	0.022	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0056	< 0.0000019	0.0017	0.00073	< 0.10	< 0.00020	2.0	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
AEMP-US-05 (Bosworth Creek)	19-Jul-2024	< 0.0030	< 0.00060	0.00023	0.082	< 0.0010	0.031	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	0.035	0.0045	< 0.0000019	0.0016	0.00063	< 0.10	< 0.00020	2.2	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	16-Aug-2024	0.0030	< 0.00060	< 0.00020	0.083	< 0.0010	0.034	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	0.024	0.0056	< 0.0000019	0.0018	< 0.00050	< 0.10	0.00023	2.2	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	12-Sep-2024	< 0.0030	< 0.00060	< 0.00020	0.079	< 0.0010	0.033	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0053	< 0.0000019	0.0020	< 0.00050	< 0.10	< 0.00020	2.2	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	17-Jul-2025	0.0040	< 0.00060	< 0.00020	0.082	< 0.0010	0.039	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0085	< 0.0000019	0.0020	0.00060	< 0.10	< 0.00020	2.6	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	14-Aug-2025	0.0051	< 0.00060	< 0.00020	0.082	< 0.0010	0.029	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0064	< 0.0000019	0.0017	0.00059	< 0.10	< 0.00020	2.3	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	13-Sep-2025	< 0.0030	< 0.00060	< 0.00020	0.077	< 0.0010	0.029	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0058	< 0.0000019	0.0016	0.0011	< 0.10	< 0.00020	2.2	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
AEMP-BOSWORTH-DS																													
AEMP-DS-01 (Lwr Bosworth Crk)	18-Aug-2017	< 0.0030	< 0.00060	< 0.00020	0.087	< 0.0010	0.027	< 0.000020	< 0.0010	< 0.00030	0.00086	< 0.060	< 0.00020	< 0.020	0.0077	< 0.0000020	0.0019	0.00088	< 0.10	< 0.00020	2.1	< 0.00010	1.3	< 0.00020	< 0.0010	< 0.0010	0.00099	< 0.0010	< 0.0030
	16-Sep-2017	0.0054	< 0.00060	0.00020	0.077	< 0.0010	0.026	< 0.000020	< 0.0010	< 0.00030	0.00042	< 0.060	< 0.00020	< 0.020	0.0081	0.0000023	0.0017	0.00069	< 0.10	< 0.00020	2.0	< 0.00010	1.3	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	16-Oct-2017	0.0033	< 0.00060	0.00021	0.072	< 0.0010	0.024	< 0.000020	< 0.0010	< 0.00030	0.00042	< 0.060	< 0.00020	< 0.020	0.0091	< 0.0000020	0.0018	0.00077	< 0.10	< 0.00020	2.1	< 0.00010	1.4	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	23-Jun-2018	< 0.0030	< 0.00060	0.00023	0.085	< 0.0010	0.028	< 0.000020	< 0.0010	< 0.00030	0.00045	< 0.060	< 0.00020	< 0.020	0.0058	< 0.0000020	0.0019	0.00074	< 0.10	< 0.00020	2.0	< 0.00010	1.3	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	12-Aug-2018	< 0.0030	< 0.00060	< 0.00020	0.078	< 0.0010	0.029	< 0.000020	< 0.0010	< 0.00030	0.00062	< 0.060	< 0.00020	< 0.020	0.0079	0.0000020	0.0017	0.00078	< 0.10	0.00024	2.1	< 0.00010	1.4	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	16-Oct-2018	0.0060	< 0.00060	< 0.00020	0.068	< 0.0010	0.027	< 0.000020	< 0.0010	< 0.00030	0.00092	< 0.060	< 0.00020	< 0.020	0.0046	< 0.0000020	0.0019	< 0.00050	< 0.10	< 0.00020	2.0	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	03-Jun-2019	0.0033	< 0.00060	0.00023	0.072	< 0.0010	0.021	< 0.000020	< 0.0010	< 0.00030	0.00086	< 0.060	< 0.00020	< 0.020	0.0050	< 0.0000020	0.0017	0.00060	< 0.10	< 0.00020	1.6	< 0.00010	1.1	< 0.00020	< 0.0010	< 0.0010	0.00098	< 0.0010	< 0.0030
	28-Aug-2019	< 0.0030	< 0.00060	< 0.00020	0.076	< 0.0010	0.024	< 0.000020	< 0.0010	< 0.00030	0.0014	< 0.060	< 0.00020	< 0.020	0.0069	< 0.0000020	0.0016	< 0.00050	< 0.10	< 0.00020	1.9	< 0.00010	1.3	< 0.00020	0.0047	< 0.0010	0.0011	< 0.0010	< 0.0030
	03-Oct-2019	< 0.0030	< 0.00060	< 0.00020	0.076	< 0.0010	0.029	< 0.000020	< 0.0010	< 0.00030	0.00059	< 0.060	< 0.00020	< 0.020	0.0069	< 0.0000020	0.0018	0.00062	< 0.10	0.00020	2.1	< 0.00010	1.4	< 0.00020	0.0020	< 0.0010	0.0012	< 0.0010	0.0055
	10-Jun-2020	0.0039	< 0.00060	0.00030	0.080	< 0.0010	0.032	< 0.000020	< 0.0010	< 0.00030	0.00061	< 0.060	< 0.00020	< 0.020	0.0043	< 0.0000019	0.0018	0.0026	< 0.10	0.00021	1.9	< 0.00010	1.2	< 0.00020	< 0.0010	< 0.0010	0.0012	0.0012	< 0.0030
	24-Jul-2020	0.0037	< 0.00060	< 0.00020	0.082	< 0.0010	0.034	< 0.000020	< 0.0010	< 0.00030	0.00098	0.062	0.00041	< 0.020	0.0075	< 0.0000019	0.0019	0.00087	< 0.10	0.00026	1.9	< 0.00010	1.4	< 0.00020	0.0018	< 0.0010	0.0015	< 0.0010	< 0.0030
	18-Sep-2020	0.0042	< 0.00060	0.00021	0.075	< 0.0010	0.029	< 0.000020	< 0.0010	< 0.00030	0.00064	< 0.060	< 0.00020	< 0.020	0.0062	< 0.0000019	0.0018	< 0.00050	< 0.10	< 0.00020	1.9	< 0.00010	1.4	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	06-Jun-2021	< 0.0030	< 0.00060	0.00045	0.074	< 0.0010	0.023	< 0.000020	0.0015	< 0.00030	0.00069	< 0.060	< 0.00020	< 0.020	0.0063	< 0.0000019	0.0014	0.0011	< 0.10	0.00021	1.9	< 0.00010	1.3	< 0.00020	< 0.0010	< 0.0010	0.00092	< 0.0010	< 0.0030
	18-Aug-2021	0.0041	< 0.00060	0.00022	0.079	< 0.0010	0.037	< 0.000020	< 0.0010	< 0.00030	0.0032	< 0.060	< 0.00020	< 0.020	0.0058	---	0.0018	0.00072	< 0.10	< 0.00020	2.0	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	0.0057
	22-Aug-2021	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.0000019	---	---	---	---	---	---	---	---	---	---	---	---	---
	19-Sep-2021	< 0.0030	< 0.00060	< 0.00020	0.079	< 0.0010	0.048	< 0.000020	< 0.0010	< 0.00030	0.0028	< 0.060	< 0.00020	< 0.020	0.0072	< 0.0000019	0.0017	< 0.00050	< 0.10	< 0.00020	2.0	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	0.0036
	11-Jun-2022	0.018	< 0.00060	0.00021	0.073	< 0.0010	0.027	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0076	< 0.0000019	0.0015	0.0015	< 0.10	< 0.00020	1.7	< 0.00010	1.2	< 0.00020	0.0021	< 0.0010	0.00090	< 0.0010	< 0.0030
	06-Aug-2022	< 0.0030	< 0.00060	0.00035	0.082	< 0.0010	0.036	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0061	< 0.0000019	0.0018	0.00053	< 0.10	< 0.00020	2.2	< 0.00010	1.4	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	26-Sep-2022	< 0.0030	< 0.00060	< 0.00020	0.073	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0055	< 0.0000019	0.0035	0.00052	< 0.10	< 0.00020	1.8	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	26-Jul-2023	0.0057	< 0.00060	0.00025	0.087	< 0.0010	0.044	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0063	< 0.0000019	0.0018	0.00068	< 0.10	< 0.00020	2.6	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.00099	< 0.0010	< 0.0030
	18-Aug-2023	0.0038	< 0.00060	0.00023	0.081	< 0.0010	0.039	< 0.000020	< 0.0010	< 0.00030	0.0011	< 0.060	< 0.00020	< 0.020	0.0073	< 0.0000019	0.0018	< 0.00050	< 0.10	0.00020	2.0	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	25-Sep-2023	0.0054	< 0.00060	< 0.00020	< 0.010	< 0.0010	< 0.020	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	< 0.0040	< 0.0000019	< 0.00020	< 0.00050	< 0.10	< 0.00020	< 0.50	< 0.00010	< 0.020	< 0.00020	< 0.0010	< 0.0010	< 0.00010	< 0.0010	< 0.0030
	18-Jul-2024	< 0.0030	< 0.00060	0.00027	0.090	< 0.0010	0.038	< 0.000020	< 0.0010	< 0.00030	0.0012	< 0.060	< 0.00020	0.037	< 0.0040	< 0.0000019	0.0017	0.00062	< 0.10	< 0.00020	2.4	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	16-Aug-2024	< 0.0030	< 0.00060	0.00020	0.085	< 0.0010	0.038	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	0.027	0.0072	< 0.0000019	0.0018	0.00059	< 0.10	< 0.00020	2.2	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0030
	13-Sep-2024	0.0046	< 0.00060	0.00025	0.083	< 0.0010	0.042	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	0.036	0.0069	< 0.0000019	0.0017	< 0.00050	< 0.10	0.00031	2.0	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	19-Jul-2025	< 0.0030	< 0.00060	< 0.00020	0.081	< 0.0010	0.039	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0068	< 0.0000019	0.0019	< 0.00050	< 0.10	< 0.00020	2.2	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0030
	14-Aug-2025	0.0079	< 0.00060	< 0.00020	0.083	< 0.0010	0.032	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0062	< 0.0000019	0.0017	0.00056	< 0.10	< 0.00020	2.2	< 0.00010	1.6	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
	13-Sep-2025	< 0.0030	< 0.00060	0.00022	0.078	< 0.0010	0.030	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0075	< 0.0000019	0.0015	0.0055	< 0.10	0.00023	2.2	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.00098	< 0.0010	< 0.0030
Relative Percent Difference (RPD) Report																													
AEMP-DS-01 (Lwr Bosworth Crk)	13-Sep-2025	< 0.0030	< 0.00060	0.00022	0.078	< 0.0010	0.030	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0075	< 0.0000019	0.0015	0.0055	< 0.10	0.00023	2.2	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.00098	< 0.0010	< 0.0030
(Duplicate)	13-Sep-2025	< 0.0030	< 0.00060	< 0.00020	0.077	< 0.0010	0.024	< 0.000020	< 0.0010	< 0.00030	< 0.0010	< 0.060	< 0.00020	< 0.020	0.0060	< 0.0000019	0.0018	0.00061	< 0.10	< 0.00020	2.0	< 0.00010	1.5	< 0.00020	< 0.0010	< 0.0010	0.0011	< 0.0010	< 0.0030
RPD(%)		---	---	---	**1.3%**	---	**22.2%**	---	---	---	---	---	---	---	**22.2%**	---	**18.2%**	**160.1%**	---	---	**9.5%**	---	**0.0%**	---	---	---	**11.5%**	---	---

Table 11

Surfacewater Analytical Results: Dissolved Metals and Trace Elements

PROJECT No.: 417085-59897-25200

Monitoring Station	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (Total)	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Selenium	Silicon	Silver	Strontium	Thallium	Tin	Titanium	Uranium	Vanadium	Zinc
	(dd-mmm-yyyy)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
2024 Federal Environmental Quality Guidelines - Freshwater-BOS [#1]		---	---	---	---	---	---	---	---	---	**0.0077**	---	**0.00838**	---	---	---	---	---	---	---	---	---	**2.5**	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-BOSWORTH [#2]		---	---	---	---	---	---	---	---	---	---	---	---	---	**0.29**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.037**

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Superscript [#1] denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
   Copper:
   The FWQG is for dissolved copper and can be calculated using the Biotic Ligand Model Tool (ECCC 2021).
   Lead:
   The FWQG is valid for DOC 0.5-31.5 mg/L and hardness 4.7-511 mg/L, and can be calculated with the following equation: FWQG = exp(0.514[ln(DOC)] + 0.214[ln(Hardness)] + 0.4354)
7. Superscript [#2] denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life. http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)

Table 12

Water Quality Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Benzo(a)Anthracene (mg/L)	Benzo(b,j)Fluoranthene (mg/L)	Benzo(k)Fluoranthene (mg/L)	Benzo(g,h,i)Perylene (mg/L)	Benzo(a)Pyrene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)Anthracene (mg/L)	Indeno(1,2,3-c,d)Pyrene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Acridine (mg/L)	Anthracene (mg/L)	Benzo(c)Phenanthrene (mg/L)	Benzo(e)Pyrene (mg/L)	Biphenyl (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Perylene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Retene (mg/L)	Quinoline (mg/L)
Polycyclic aromatic hydrocarbons (PAHs) Carcinogenics / **Polycyclic aromatic hydrocarbons (PAHs) Non-Carcinogenics**																										
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	**0.00004**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-BOS			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**
CCME CEQG Freshwater AL-BOSWORTH			**0.000018**	---	---	---	**0.000015**	---	---	---	**0.0058**	---	**0.0044**	**0.000012**	---	---	---	**0.00004**	**0.003**	---	**0.0011**	---	**0.0004**	**0.000025**	---	**0.0034**
AEMP-BOSWORTH-US																										
AEMP-US-04 (Upr Bosworth Crk)	Grab	26-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	18-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	18-Aug-2023	0.000000070	0.000000066	N/D	0.000000040	N/D	0.000000711	N/D	N/D	0.000000720	0.000000183	N/A	0.000000296	N/A	0.000000151	0.000011303	0.000001124	0.000002638	0.000002728	0.000009931	0.000000030	0.000011811	0.000000765	N/A	N/A
	Grab	24-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000010	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	24-Sep-2023	0.000000123	0.000000068	0.000000033	0.000000039	N/D	0.000001262	N/D	N/D	0.000000664	0.000000061	N/A	0.000000119	N/A	0.000000247	0.000003488	0.000001225	0.000001166	0.000001479	0.000005430	N/D	0.000008556	0.000000853	N/A	N/A
	Grab	18-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000010	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	16-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	13-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	18-Jul-2024	0.000000041	0.000000043	N/D	0.000000032	N/D	0.000000605	N/D	N/D	0.000000543	N/D	N/A	N/D	N/A	0.000000130	0.000000344	0.000000363	0.000000289	0.000000897	0.000004594	0.000000030	0.000002425	0.000000373	N/A	N/A
	SPMD	16-Aug-2024	0.000000039	0.000000028	N/D	0.000000035	N/D	0.000000436	N/D	N/D	0.000000253	N/D	N/A	0.000000040	N/A	0.000000112	0.000001885	0.000000311	0.000000375	0.000001247	0.000005033	0.000000032	0.000003002	0.000000334	N/A	N/A
	SPMD	13-Sep-2024	0.000000046	0.000000028	N/D	0.000000029	N/D	0.000000473	N/D	N/D	0.000000176	0.000000014	N/A	0.000000018	N/A	0.000000092	0.000000455	0.000000233	0.000000161	0.000000521	0.000002221	0.000000020	0.000001934	0.000000277	N/A	N/A
	Grab	17-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	17-Jul-2025	0.000000019	N/A	N/A	0.000000021	N/D	0.000000208	N/A	N/A	0.000000272	N/D	N/A	N/D	N/A	N/A	0.000000402	0.000000126	0.000000160	0.000000560	0.000003261	0.000000007	0.000001529	0.000000114	N/D	N/A
	Grab	14-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	14-Aug-2025	0.000000018	N/A	N/A	N/D	N/D	0.000000262	N/A	N/A	0.000000448	N/D	N/A	0.000000021	N/A	N/A	0.000000297	0.000000154	0.000000218	0.000000886	0.000005204	N/D	0.000001682	0.000000159	N/D	N/A
	Grab	13-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	13-Sep-2025	0.000000019	N/A	N/A	N/D	N/D	0.000000230	N/A	N/A	0.000000807	N/D	N/A	0.000000046	N/A	N/A	0.000001499	0.000000321	0.000000514	0.000001138	0.000006435	N/D	0.000002561	0.000000234	N/D	N/A
AEMP-US-05 (Bosworth Creek)	Grab	19-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	16-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	12-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	19-Jul-2024	N/D	0.000000027	N/D	N/D	N/D	0.000000321	N/D	N/D	0.000000462	N/D	N/A	0.000000036	N/A	0.000000030	0.000000317	0.000000269	0.000000212	0.000000684	0.000003633	0.000000026	0.000002159	0.000000177	N/A	N/A
	SPMD	16-Aug-2024	0.000000008	0.000000007	N/D	N/D	N/D	0.000000188	N/D	N/D	0.000000288	0.000000042	N/A	0.000000023	N/A	0.000000038	0.000002161	0.000000324	0.000000358	0.000000983	0.000005450	0.000000021	0.000002587	0.000000172	N/A	N/A
	SPMD	12-Sep-2024	0.000000030	0.000000013	N/D	0.000000019	0.000000009	0.000000275	N/D	0.000000011	0.000000226	N/D	N/A	0.000000000	N/A	0.000000061	0.000000455	0.000000225	0.000000172	0.000000506	0.000002050	0.000000023	0.000001934	0.000000203	N/A	N/A
	Grab	17-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	17-Jul-2025	0.000000072	N/A	N/A	0.000000043	N/D	0.000000430	N/A	N/A	0.000000369	N/D	N/A	N/D	N/A	N/A	0.000000483	0.000000213	0.000000195	0.000000591	0.000003536		0.000002157	0.000000144	N/D	N/A
	Grab	14-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	14-Aug-2025	0.000000068	N/A	N/A	0.000000073	N/D	0.000000491	N/A	N/A	0.000000741	N/D	N/A	0.000000040	N/A	N/A	0.000000421	0.000000347	0.000000420	0.000001100	0.000007028	N/D	0.000002830	0.000000313	N/D	N/A
	Grab	13-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	13-Sep-2025	N/D	N/A	N/A	N/D	N/D	0.000000430	N/A	N/A	0.000000800	N/D	N/A	0.000000084	N/A	N/A	0.000001921	0.000000440	0.000000660	0.000001102	0.000005233	N/D	0.000003480	0.000000343	N/D	N/A
AEMP-BOSWORTH-DS																										
AEMP-DS-01 (Lwr Bosworth Crk)	Grab	10-Jun-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	24-Jul-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Sep-2020	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	06-Jun-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	18-Aug-2021	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	11-Jun-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	06-Aug-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	26-Sep-2022	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	Grab	26-Jul-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	18-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
(Duplicate)	Grab	18-Aug-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	18-Aug-2023	0.000000286	0.000000111	0.000000093	0.000000043	0.000000052	0.000001235	N/D	0.000000030	0.000001504	0.000000218	N/A	0.000000691	N/A	0.000000216	0.000014001	0.000005140	0.000003898	0.000004200	0.000010929	0.000000062	0.000018067	0.000003907	N/A	N/A
	Grab	25-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
(Duplicate)	Grab	25-Sep-2023	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	SPMD	25-Sep-2023	0.000000391	0.000000151	0.000000141	0.000000134	0.000000065	0.000001226	N/D	0.000000056	0.000001434	N/D	N/A	0.000000406	N/A	0.000000242	0.000003587	0.000004794	0.000001929	0.000002326	0.000006567	0.000000075	0.000009896	0.000004222	N/A	N/A
	Grab	18-Jul-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	16-Aug-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
	Grab	13-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020
(Duplicate)	Grab	13-Sep-2024	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	< 0.000020	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000050	< 0.00020

Table 12

Water Quality Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897-25200

Monitoring Station	Sample Type	Date (dd-mmm-yyyy)	Polycyclic aromatic hydrocarbons (PAHs) Carcinogenics								Polycyclic aromatic hydrocarbons (PAHs) Non-Carcinogenics															
			Benzo(a)Anthracene (mg/L)	Benzo(b,j)Fluoranthene (mg/L)	Benzo(k)Fluoranthene (mg/L)	Benzo(g,h,i)Perylene (mg/L)	Benzo(a)Pyrene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)Anthracene (mg/L)	Indeno(1,2,3-c,d)Pyrene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Acridine (mg/L)	Anthracene (mg/L)	Benzo(c)Phenanthrene (mg/L)	Benzo(e)Pyrene (mg/L)	Biphenyl (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Perylene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Retene (mg/L)	Quinoline (mg/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	**0.00004**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-BOS			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**
CCME CEQG Freshwater AL-BOSWORTH			**0.000018**	---	---	---	**0.000015**	---	---	---	**0.0058**	---	**0.0044**	**0.000012**	---	---	---	**0.00004**	**0.003**	---	**0.0011**	---	**0.0004**	**0.000025**	---	**0.0034**
	SPMD	18-Jul-2024	0.000000137	0.000000093	N/D	N/D	0.000000000	0.000000739	N/D	N/D	0.000000970	0.000000066	N/A	0.000000154	N/A	0.000000177	0.000000450	0.000002296	0.000000951	0.000001481	0.000003791	0.000000000	0.000003937	0.000002207	N/A	N/A
	SPMD	16-Aug-2024	0.000000159	0.000000062	N/D	0.000000024	0.000000029	0.000000698	N/D	0.000000016	0.000001112	0.000000170	N/A	0.000000460	N/A	0.000000119	0.000011746	0.000003011	0.000002723	0.000003579	0.000010528	0.000000034	0.000012304	0.000002263	N/A	N/A
	SPMD	13-Sep-2024	0.000000546	0.000000182	N/D	N/D	0.000000079	0.000001164	0.000000009	0.000000022	0.000000022	0.000000042	N/A	0.000000284	N/A	0.000000220	0.000000587	0.000006536	0.000000755	0.000000956	0.000002969	0.000002969	0.000004543	0.000005382	N/A	N/A
(Duplicate)	**SPMD**	13-Sep-2024	0.000000180	0.000000057	N/D	0.000000010	0.000000025	0.000000398	N/D	0.000000006	0.000000399	0.000000020	N/A	0.000000119	N/A	0.000000070	0.000000353	0.000002561	0.000000334	0.000000589	0.000001759	0.000000015	0.000002181	0.000002153	N/A	N/A
	Grab	19-Jul-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	19-Jul-2025	0.000000127	N/A	N/A	N/D	N/D	0.000001088	N/A	N/A	0.000000889	N/D	N/A	0.000000104	N/A	N/A	0.000001052	0.000001238	0.000001641	0.000007557	0.000004736	N/D	0.000009669	0.000001234	N/D	N/A
(Duplicate)	**SPMD**	19-Jul-2025	0.000000050	N/A	N/A	N/D	N/D	0.000000497	N/A	N/A	0.000000466	N/D	N/A	0.000000190	N/A	N/A	0.000000579	0.000000354	0.000000652	0.000003992	0.000003335	N/D	0.000003964	0.000000497	N/D	N/A
	Grab	14-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	14-Aug-2025	0.000000193	N/A	N/A	0.000000046	N/D	0.000001163	N/A	N/A	0.000001109	N/D	N/A	0.000000213	N/A	N/A	0.000000964	0.000001963	0.000001906	0.000009168	0.000005946	N/D	0.000010488	0.000001881	N/D	N/A
(Duplicate)	**SPMD**	14-Aug-2025	0.000000044	N/A	N/A	0.000000021	N/D	0.000000309	N/A	N/A	0.000000535	N/D	N/A	0.000000058	N/A	N/A	0.000000546	0.000000479	0.000000686	0.000004725	0.000004453	N/D	0.000003593	0.000000452	N/D	N/A
	Grab	13-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
(Duplicate)	Grab	13-Sep-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.000010	< 0.000050	< 0.000050	---	< 0.000010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	---	< 0.00020
	SPMD	13-Sep-2025	0.000000492	N/A	N/A	N/D	N/D	0.000002700	N/A	N/A	0.000003343	N/D	N/A	0.000000316	N/A	N/A	0.000003812	0.000005439	0.000003949	0.000014272	0.000010665	N/D	0.000019639	0.000005451	N/D	N/A
(Duplicate)	**SPMD**	13-Sep-2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates non-detect parameters above applied guideline/criteria.
4. Highlighting indicates parameters at applied guideline/criteria.
5. Benzo(a)Pyrene Total Potency Equivalent (ESRD)
   (Benzo(a)Pyrene*1) + (Benzo(a)Anthracene*0.1) + (Benzo(b,j)Fluoranthene*0.1) + (Benzo(k)Fluoranthene*0.1) + (Benzo(g,h,i)Perylene*0.01) + (Chrysene*0.01) + (Dibenzo(a,h)Anthracene*1) + (Indeno(1,2,3-c,d)Pyrene*0.1)
   Non-Detect Isomer values calculated as 0.5 x detection limit.
   Final result value rounded to 2 significant digits
6. Denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration.
   Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.
   August 2025.)
7. Denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
8. Denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life.
   http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)

Table 13

Surface Water Analytical Results:
Alkylated Polycyclic Aromatic Hydrocarbons

PROJECT No.: 417085-58987

Monitoring Station	Date (dd-mmm-yyyy)	Status	1-Methylnaphthalene (ug/L)	2-Methylnaphthalene (ug/L)	C1benzo(b)fluoranthene/benzoapyrene (ug/L)	C1-Substituted Acenaphthene (ug/L)	C1-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C1-Substituted Biphenyl (ug/L)	C1-Substituted Dibenzothiophene (ug/L)	C1-Substituted Fluoranthene/Pyrene (ug/L)	C1-Substituted Fluorene (ug/L)	C1-Substituted Naphthalene (ug/L)	C1-Substituted Phenanthrene/Anthracene (ug/L)	C2benzo(b)fluoranthene/benzoapyrene (ug/L)	C2-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C2-Substituted Biphenyl (ug/L)	C2-Substituted Dibenzothiophene (ug/L)	C2-Substituted Fluoranthene/Pyrene (ug/L)	C2-Substituted Fluorene (ug/L)	C2-Substituted Naphthalene (ug/L)	C2-Substituted Phenanthrene/Anthracene (ug/L)	C3-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C3-Substituted Dibenzothiophene (ug/L)	C3-Substituted Fluoranthene/Pyrene (ug/L)	C3-Substituted Fluorene (ug/L)	C3-Substituted Naphthalene (ug/L)	C3-Substituted Phenanthrene/Anthracene (ug/L)	C4-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C4-Substituted Dibenzothiophene (ug/L)	C4-Substituted Fluoranthene/Pyrene (ug/L)	C4-Substituted Naphthalene (ug/L)	C4-Substituted Phenanthrene/Anthracene (ug/L)	1,2-dimethylnaphthalene (ug/L)	2,6-Dimethylnaphthalene (ug/L)	2,3,5-trimethylnaphthalene (ug/L)	Dibenzothiophene (ug/L)	2-methylphenanthrene (ug/L)	1-Methylphenanthrene (ug/L)	3,6-dimethylphenanthrene (ug/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-BOS			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BOSWORTH UPSTEAM DATA LCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BOSWORTH UPSTEAM DATA UCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-BOSWORTH			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AEMP-BOSWORTH-US																																							
AEMP-US-04 (Upr Bosworth Crk)	26-Jul-2023	Grab	< 0.00010	< 0.00010	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	24-Sep-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Aug-2023	**SPMD**	0.0035	---	---	---	---	0.0014	0.0017	0.0025	0.0090	0.0067	---	---	---	0.0067	---	0.0057	0.0080	0.0100	---	0.0103	---	0.0071	---	0.0192	---	---	---	0.0110	0.0480	---	---	0.0011	0.0011	0.0034	0.0004	0.0020	0.0025	0.0006
	18-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	16-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	13-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	0.019	< 0.020	0.021	0.040	< 0.050	< 0.10	< 0.050	< 0.0085	0.021	0.081	0.078	< 0.10	0.072	< 0.0085	< 0.020	0.041	< 0.10	0.066	---	---	---	---	---	---	---
	18-Jul-2024	**SPMD**	0.0007	0.0009	---	---	---	---	0.0021	0.0019	0.0006	0.0028	0.0040	---	---	---	0.0105	---	0.0032	0.0028	0.0120	---	0.0149	---	0.0059	---	0.0394	---	---	---	0.0111	0.0318	0.0002	0.0004	0.0008	0.0004	0.0007	0.0011	0.0004
	16-Aug-2024	**SPMD**	0.0012	0.0012	---	---	---	---	0.0020	0.0010	0.0008	0.0042	0.0046	---	---	---	0.0090	---	0.0029	0.0043	0.0115	---	0.0122	---	0.0046	---	0.0137	---	---	---	0.0099	0.0300	0.0003	0.0006	0.0011	0.0002	0.0009	0.0013	0.0004
	13-Sep-2024	**SPMD**	0.0006	0.0005	---	---	---	---	0.0017	0.0017	0.0002	0.0145	0.0039	---	---	---	0.0119	---	0.0031	0.0034	0.0121	---	0.0179	---	0.0063	---	0.0151	---	---	---	0.0145	0.0368	0.0002	0.0005	0.0013	0.0002	0.0009	0.0011	0.0005
	17-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	17-Jul-2025	**SPMD**	0.0006	0.0006	---	---	---	---	0.0007	0.0003	0.0004	0.0011	0.0021	---	---	---	0.0019	---	0.0012	0.0020	0.0032	---	0.0017	---	0.0019	0.0037	0.0020	---	---	---	0.0039	0.0046	0.0002	0.0003	0.0008	0.0002	0.0005	0.0005	0.0002
	14-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	14-Aug-2025	**SPMD**	0.0007	0.0009	---	---	---	---	0.0005	0.0003	0.0003	0.0016	0.0021	---	---	---	0.0024	---	0.0013	0.0019	0.0040	---	0.0024	---	0.0024	0.0031	0.0038	---	---	---	0.0037	0.0073	0.0001	0.0003	0.0006	0.0002	0.0005	0.0006	0.0003
	13-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	13-Sep-2025	**SPMD**	0.0010	0.0011	---	---	---	---	0.0007	0.0005	0.0005	0.0021	0.0022	---	---	---	0.0024	---	0.0014	0.0024	0.0041	---	0.0022	---	0.0032	0.0038	0.0046	---	---	---	0.0039	0.0089	0.0002	0.0003	0.0008	0.0002	0.0005	0.0006	0.0002
AEMP-US-05 (Bosworth Creek)	19-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	16-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	12-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Jul-2024	**SPMD**	0.0006	0.0007	---	---	---	---	0.0005	0.0005	0.0001	0.0021	0.0022	---	---	---	0.0020	---	0.0007	0.0016	0.0035	---	0.0034	---	0.0015	---	0.0323	---	---	---	0.0022	0.0079	0.0001	0.0002	0.0003	0.0001	0.0004	0.0007	0.0001
	16-Aug-2024	**SPMD**	0.0010	0.0010	---	---	---	---	0.0007	0.0003	0.0002	0.0036	0.0027	---	---	---	0.0021	---	0.0010	0.0029	0.0045	---	0.0026	---	0.0013	---	0.0040	---	---	---	0.0031	0.0133	0.0002	0.0004	0.0004	0.0001	0.0004	0.0010	0.0001
	12-Sep-2024	**SPMD**	0.0005	0.0005	---	---	---	---	0.0008	0.0008	0.0005	0.0016	0.0028	---	---	---	0.0056	---	0.0017	0.0024	0.0068	---	0.0094	---	0.0035	---	0.0079	---	---	---	0.0070	0.0205	0.0002	0.0003	0.0007	0.0001	0.0006	0.0008	0.0003
	17-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	17-Jul-2025	**SPMD**	0.0006	0.0006	---	---	---	---	0.0008	0.0007	0.0004	0.0012	0.0034	---	---	---	0.0040	---	0.0018	0.0024	0.0061	---	0.0060	---	0.0035	0.0045	0.0118	---	---	---	0.0064	0.0292	0.0002	0.0003	0.0010	0.0002	0.0007	0.0009	0.0004
	14-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	14-Aug-2025	**SPMD**	0.0009	0.0011	---	---	---	---	0.0004	0.0005	0.0005	0.0020	0.0034	---	---	---	0.0041	---	0.0019	0.0107	0.0063	---	0.0060	---	0.0044	0.0042	0.0084	---	---	---	0.0051	0.0255	0.0098	0.0004	0.0009	0.0002	0.0007	0.0009	0.0004
	13-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	13-Sep-2025	**SPMD**	0.0011	0.0011	---	---	---	---	0.0009	0.0007	0.0008	0.0022	0.0038	---	---	---	0.0039	---	0.0022	0.0034	0.0069	---	0.0039	---	0.0052	0.0058	0.0105	---	---	---	0.0068	0.0206	0.0003	0.0004	0.0012	0.0002	0.0009	0.0011	0.0004
AEMP-BOSWORTH-DS																																							
AEMP-DS-01 (Lwr Bosworth Crk)	26-Jul-2023	Grab	< 0.00010	< 0.00010	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
(Duplicate)	18-Aug-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Aug-2023	**SPMD**	0.0046	---	---	---	---	0.0034	0.0035	0.0052	0.0129	0.0091	---	---	---	0.0118	---	0.0124	0.0134	0.0134	---	0.0113	---	0.0124	---	0.0155	---	---	---	0.0221	0.0572	---	0.0017	0.0019	0.0047	0.0007	0.0028	0.0033	0.0009
	25-Sep-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
(Duplicate)	25-Sep-2023	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	25-Sep-2023	**SPMD**	0.0024	---	---	---	---	0.0009	0.0012	0.0013	0.0055	0.0009	---	---	---	0.0060	---	0.0049	0.0082	0.0045	---	0.0062	---	0.0055	---	0.0063	---	---	---	0.0102	0.0156	---	0.0014	0.0012	0.0033	0.0008	0.0018	0.0003	0.0009
	18-Jul-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	16-Aug-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	13-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
(Duplicate)	13-Sep-2024	Grab	---	---	< 0.0075	< 0.10	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0075	< 0.0085	< 0.020	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.050	< 0.10	< 0.050	< 0.0085	< 0.020	< 0.020	< 0.10	< 0.050	---	---	---	---	---	---	---
	18-Jul-2024	**SPMD**	0.0013	0.0015	---	---	---	---	0.0022	0.0011	0.0006	0.0039	0.0018	---	---	---	---	---	0.0040	0.0061	---	---	0.0068	---	0.0047	---	0.0249	---	---	---	0.0111	0.0121	0.0009	0.0009	0.0017	0.0005	0.0007	0.0004	0.0004
	16-Aug-2024	**SPMD**	0.0039	0.0036	---	---	---	---	0.0024	0.0013	0.0006	0.0046	0.0029	---	---	---	0.0088	---	0.0050	0.0058	0.0064	---	0.0078	---	0.0053	---	0.0078	---	---	---	0.0136	0.0172	0.0012	0.0009	0.0029	0.0005	0.0017	0.0008	0.0005
	13-Sep-2024	**SPMD**	0.0011	0.0010	---	---	---	---	0.0038	0.0040	0.0011	0.0035	0.0038	---	---	---	0.0184	---	0.0094	0.0073	0.0119	---	0.0173	---	0.0108	---	0.0126	---	---	---	0.0265	0.0275	0.0009	0.0010	0.0016	0.0004	0.0010	0.0010	0.0007
	13-Sep-2024	**SPMD**	0.0006	0.0006	---	---	---	---	0.0031	0.0037	0.0008	0.0022	0.0031	---	---	---	0.0166	---	0.0081	0.0053	0.0105	---	0.0160	---	0.0094	---	0.0128	---	---	---	0.0287	0.0262	0.0005	0.0008	0.0007	0.0002	0.0004	0.0008	0.0003
	19-Jul-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	19-Jul-2025	**SPMD**	0.0078	0.0076	---	---	---	---	0.0171	0.0023	0.0083	0.0153	0.0275	---	---	---	0.0303	---	0.0194	0.0494	0.0367	---	0.0191	---	0.0220	0.0696	0.0302	---	---	---	0.0467	0.0449	0.0041	0.0096	0.0155	0.0042	0.0070	0.0061	0.0025
(Duplicate)	19-Jul-2025	**SPMD**	0.0044	0.0040	---	---	---	---	0.0062	0.0013	0.0028	0.0084	0.0100	---	---	---	0.0134	---	0.0077	0.0200	0.0168	---	0.0102	---	0.0029	0.0248	0.0147	---	---	---	0.0185	0.0260	0.0017	0.0039	0.0049	0.0018	0.0028	0.0023	0.0010
	14-Aug-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	14-Aug-2025	**SPMD**	0.0094	0.0092	---	---	---	---	0.0194	0.0018	0.0087	0.0186	0.0298	---	---	---	0.0319	---	0.0222	0.0622	0.0429	---	0.0200	---	0.0248	0.0796	0.0262	---	---	---	0.0559	0.0398	0.0045	0.0112	0.0169	0.0049	0.0075	0.0067	0.0026
(Duplicate)	14-Aug-2025	**SPMD**	0.0051	0.0047	---	---	---	---	0.0057	0.0006	0.0022	0.0098	0.0077	---	---	---	0.0087	---	0.0060	0.0210	0.0118	---	0.0060	---	0.0073	0.0203	0.0092	---	---	---	0.0144	0.0146	0.0017	0.0037	0.0044	0.0016	0.0022	0.0018	0.0007
	13-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
(Duplicate)	13-Sep-2025	Grab	< 0.00010	< 0.00010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	13-Sep-2025	**SPMD**	0.0143	0.0143	---	---	---	---	0.0347	0.0073	0.0162	0.0285	0.0549	---	---	---	0.0690	---	0.0452	0.1131	0.0903	---	0.0415	---	0.0585	0.1689	0.0719	---	---	---	0.1272	0.1149	0.0080	0.0203	0.0328	0.0082	0.0133	0.0128	0.0062

Table 13

Surface Water Analytical Results:
Alkylated Polycyclic Aromatic Hydrocarbons

PROJECT No.: 417085-58987

Monitoring Station	Date (dd-mmm-yyyy)	Status	1-Methylnaphthalene (ug/L)	2-Methylnaphthalene (ug/L)	C1benzo(b)fluoranthene/benzo(a)pyrene (ug/L)	C1-Substituted Acenaphthene (ug/L)	C1-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C1-Substituted Biphenyl (ug/L)	C1-Substituted Dibenzothiophene (ug/L)	C1-Substituted Fluoranthene/Pyrene (ug/L)	C1-Substituted Fluorene (ug/L)	C1-Substituted Naphthalene (ug/L)	C1-Substituted Phenanthrene/Anthracene (ug/L)	C2benzo(b)fluoranthene/benzo(a)pyrene (ug/L)	C2-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C2-Substituted Biphenyl (ug/L)	C2-Substituted Dibenzothiophene (ug/L)	C2-Substituted Fluoranthene/Pyrene (ug/L)	C2-Substituted Fluorene (ug/L)	C2-Substituted Naphthalene (ug/L)	C2-Substituted Phenanthrene/Anthracene (ug/L)	C3-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C3-Substituted Dibenzothiophene (ug/L)	C3-Substituted Fluoranthene/Pyrene (ug/L)	C3-Substituted Fluorene (ug/L)	C3-Substituted Naphthalene (ug/L)	C3-Substituted Phenanthrene/Anthracene (ug/L)	C4-Substituted Benzo[a]anthracene/Chrysene (ug/L)	C4-Substituted Dibenzothiophene (ug/L)	C4-Substituted Fluoranthene/Pyrene (ug/L)	C4-Substituted Naphthalene (ug/L)	C4-Substituted Phenanthrene/Anthracene (ug/L)	1,2-dimethylnaphthalene (ug/L)	2,6-Dimethylnaphthalene (ug/L)	2,3,5-trimethylnaphthalene (ug/L)	Dibenzothiophene (ug/L)	2-methylphenanthrene (ug/L)	1-Methylphenanthrene (ug/L)	3,6-dimethylphenanthrene (ug/L)
Canadian Drinking Water Quality Guidelines 2025 - MAC			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2024 Federal Environmental Quality Guidelines - Freshwater-BOS			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BOSWORTH UPSTEAM DATA LCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BOSWORTH UPSTEAM DATA UCL			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CCME CEQG Freshwater AL-BOSWORTH			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Benzo(a)Pyrene Total Potency Equivalent (ESRD)
   (Benzo(a)Pyrene*1) + (Benzo(a)Anthracene*0.1) + (Benzo(b,j)Fluoranthene*0.1) + (Benzo(k)Fluoranthene*0.1) + (Benzo(g,h,i)Perylene*0.01) + (Chrysene*0.01) + (Dibenzo(a,h)Anthracene*1) + (Indeno(1,2,3-c,d)Pyrene*0.1)
   Non-Detect Isomer values calculated as 0.5 x detection limit.
   Final result value rounded to 2 significant digits
7. Superscript [#1]denotes values exceeding
   (Health Canada. 2025. Guidelines for Canadian Drinking Water Quality. Summary Table. Maximum Acceptable Concentration.
   Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.
   August 2025.)
8. Superscript [#2]denotes values exceeding
   (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)
9. Superscript [#3]denotes values exceeding
   (CCME. 2014. Canadian Environmental Quality Guidelines Summary Table. Water Quality Guidelines for the Protection of Freshwater Aquatic Life.
   http://st-ts.ccme.ca/?chems=all&chapters=1 accessed Aug 22, 2014.)

Table 14
Physical Parameters of Fish collected from Bosworth Creek and the Mackenzie River in 2025

Project Number: 417085-59897

Collection Date	Species	Fish #	Sex	Lab Sample ID	Analysis Type[1]	Total Length[2]	Weight	Liver Weight	Hepatosomatic Index (HSI)	Gonad Weight	Gonadosomatic Index (GSI)	Fulton's Condition Factor	Comments/Pathology Notes
(d/m/yr)						*(mm)*	*(g)*	*(g)*		*(g)*			
AMEP-FS-03 (Bosworth Creek - Upper Reach)													
12-Sep-25	**SLSC**	**1**	F	AEMP-FS-03-32	Metals & Protein	80	3.406	0.070	2.1	0.060	1.8	0.67	
12-Sep-25	**SLSC**	**2**	F		PAHs	60	1.716	0.018	1.0	0.021	1.2	0.79	
12-Sep-25	**SLSC**	**3**	M	AEMP-FS-03-33	Metals & Protein	57	1.439	0.045	3.1	0.012	0.8	0.78	
12-Sep-25	**SLSC**	**4**	M	AEMP-FS-03-34	Metals & Protein	70	2.818	0.077	2.7	0.069	2.4	0.82	
12-Sep-25	**SLSC**	**5**	F	AEMP-FS-03-35	Metals & Protein	88	5.004	0.096	1.9	0.075	1.5	0.73	
12-Sep-25	**SLSC**	**6**	F		PAHs	58	1.388	0.014	1.0	0.014	1.0	0.71	
12-Sep-25	**SLSC**	**7**	M	AEMP-FS-03-36	Metals & Protein	75	4.111	0.048	1.2	0.098	2.4	0.97	
12-Sep-25	**SLSC**	**8**	F	AEMP-FS-03-37	---	70	2.601	0.038	1.5	0.056	2.2	0.76	
12-Sep-25	**SLSC**	**9**	F	AEMP-FS-03-38	---	67	2.718	0.053	1.9	0.051	1.9	0.90	
12-Sep-25	**SLSC**	**10**	F	AEMP-FS-03-39	---	66	2.305	0.040	1.7	0.024	1.0	0.80	
12-Sep-25	**SLSC**	**11**	F		PAHs	55	1.294	0.017	1.3	0.016	1.2	0.78	
12-Sep-25	**SLSC**	**12**	F		PAHs	59	1.599	0.019	1.2	0.02	1.3	0.78	
12-Sep-25	**SLSC**	**13**	M	AEMP-FS-03-40	Metals & Protein	64	2.192	0.028	1.3	0.039	1.8	0.84	
12-Sep-25	**SLSC**	**14**	F	AEMP-FS-03-41	---	60	1.579	0.027	1.7	0.030	1.9	0.73	
12-Sep-25	**SLSC**	**15**	U		PAHs	60	1.611	0.008	0.5	0.003	0.2	0.75	One lobe of gonad found
12-Sep-25	**SLSC**	**16**	U		PAHs	60	1.511	0.019	1.3	0	0.0	0.70	
13-Sep-25	**SLSC**	**17**	F	AEMP-FS-03-42	---	74	3.274	0.054	1.6	0.052	1.6	0.81	
13-Sep-25	**SLSC**	**18**	F	AEMP-FS-03-43	Metals & Protein	85	5.388	0.133	2.5	0.119	2.2	0.88	
13-Sep-25	**SLSC**	**19**	M	AEMP-FS-03-44	---	60	1.765	0.023	1.3	0.041	2.3	0.82	
13-Sep-25	**SLSC**	**20**	F	AEMP-FS-03-45	Metals & Protein	69	2.899	0.068	2.3	0.056	1.9	0.88	
13-Sep-25	**SLSC**	**21**	F	AEMP-FS-03-46	---	58	1.557	0.028	1.8	0.018	1.2	0.80	
13-Sep-25	**SLSC**	**22**	F	AEMP-FS-03-47	Metals & Protein	77	4.208	0.107	2.5	0.074	1.8	0.92	
13-Sep-25	**SLSC**	**23**	U		PAHs	52	1.232	0.012	1.0	0.005	0.4	0.88	
13-Sep-25	**SLSC**	**24**	F	AEMP-FS-03-48	Metals & Protein	70	2.593	0.059	2.3	0.045	1.7	0.76	
13-Sep-25	**SLSC**	**25**	M	AEMP-FS-03-49	---	60	1.866	0.021	1.1	0.032	1.7	0.86	
13-Sep-25	**SLSC**	**26**	F		PAHs	67	2.549	0.041	1.6	0.043	1.7	0.85	
13-Sep-25	**SLSC**	**27**	M		PAHs	55	1.430	0.011	0.8	0.022	1.5	0.86	
13-Sep-25	**SLSC**	**28**	M		PAHs	56	1.449	0.011	0.8	0.025	1.7	0.83	
13-Sep-25	**SLSC**	**29**	F		PAHs	57	1.595	0.034	2.1	0.019	1.2	0.86	
13-Sep-25	**SLSC**	**30**	F		PAHs	57	1.582	0.023	1.5	0.022	1.4	0.85	
13-Sep-25	**SLSC**	**31**	F		PAHs	59	1.727	0.032	1.9	0.026	1.5	0.84	
13-Sep-25	**SLSC**	**32**	F	AEMP-FS-03-50	Metals & Protein	64	2.059	0.056	2.7	0.029	1.4	0.79	
13-Sep-25	**SLSC**	**33**	M		PAHs	61	1.663	0.017	1.0	0.038	2.3	0.73	
13-Sep-25	**SLSC**	**34**	M	AEMP-FS-03-51	Metals & Protein	81	4.307	0.034	0.8	0.104	2.4	0.81	
13-Sep-25	**SLSC**	**35**	M	AEMP-FS-03-52	Metals & Protein	75	3.480	0.044	1.3	0.079	2.3	0.82	
13-Sep-25	**SLSC**	**36**	F	AEMP-FS-03-53	Metals & Protein	74	3.198	0.062	1.9	0.036	1.1	0.79	
13-Sep-25	**SLSC**	**37**	F		PAHs	75	3.215	0.073	2.3	0.037	1.2	0.76	

Table 14
Physical Parameters of Fish collected from Bosworth Creek and the Mackenzie River in 2025

Project Number: 417085-59897

Collection Date	Species	Fish #	Sex	Lab Sample ID	Analysis Type[1]	Total Length[2]	Weight	Liver Weight	Hepatosomatic Index (HSI)	Gonad Weight	Gonadosomatic Index (GSI)	Fulton's Condition Factor	Comments/Pathology Notes
(d/m/yr)						*(mm)*	*(g)*	*(g)*		*(g)*			
13-Sep-25	**SLSC**	**38**	M	AEMP-FS-03-54	Metals & Protein	85	5.787	0.090	1.6	0.193	3.3	0.94	
13-Sep-25	**SLSC**	**39**	U		PAHs	53	1.235	0.014	1.1	---	---	0.83	Parasitic worms present in body cavity (weight of worms measured 0.115 mg)
13-Sep-25	**SLSC**	**40**	M	AEMP-FS-03-55	Metals & Protein	70	2.700	0.029	1.1	0.065	2.4	0.79	
13-Sep-25	**SLSC**	**41**	F	AEMP-FS-03-56	Metals & Protein	82	5.067	0.135	2.7	0.084	1.7	0.92	
13-Sep-25	**SLSC**	**42**	M	AEMP-FS-03-57	Metals & Protein	80	4.949	0.076	1.5	0.129	2.6	0.97	
13-Sep-25	**SLSC**	**43**	F		PAHs	59	1.578	0.022	1.4	0.019	1.2	0.77	
13-Sep-25	**SLSC**	**44**	F		PAHs	60	1.895	0.030	1.6	0.033	1.7	0.88	
13-Sep-25	**SLSC**	**45**	F		PAHs	53	1.124	0.014	1.2	0.020	1.8	0.75	
13-Sep-25	**SLSC**	**46**	F		PAHs	51	1.090	0.014	1.3	0.017	1.6	0.82	
13-Sep-25	**SLSC**	**47**	F	AEMP-FS-03-58	Metals & Protein	81	4.820	0.176	3.7	0.101	2.1	0.91	
13-Sep-25	**SLSC**	**48**	M	AEMP-FS-03-59	Metals & Protein	57	1.685	0.027	1.6	0.000	0.0	0.91	
13-Sep-25	**SLSC**	**49**	M		PAHs	53	1.243	0.012	1.0	0.009	0.7	0.83	
13-Sep-25	**SLSC**	**50**	F		PAHs	65	2.421	0.039	1.6	0.037	1.5	0.88	
13-Sep-25	**SLSC**	**51**	M		PAHs	52	1.133	0.008	0.7	0.008	0.7	0.81	
13-Sep-25	**SLSC**	**52**	U		PAHs	50	0.922	0.004	0.4	---	---	0.74	
13-Sep-25	**SLSC**	**53**	M		PAHs	48	0.787	0.010	1.3	0.007	0.9	0.71	
13-Sep-25	**SLSC**	**54**	U		PAHs	51	0.999	0.008	0.8	---	---	0.75	
13-Sep-25	**SLSC**	**55**	M	AEMP-FS-03-60	---	57	1.512	0.021	1.4	0.010	0.7	0.82	
13-Sep-25	**SLSC**	**56**	F		PAHs	59	1.631	0.019	1.2	0.026	1.6	0.79	
Average						**64**	**2.373**	**0.041**	**1.6**	**0.043**	**1.5**	**0.82**	
AEMP-FS-02 (Bosworth Creek - Lower Reach)													
16-Sep-25	**SLSC**	**1**	F	AEMP-FS-02-25	Metals & Protein	70	3.249	0.067	2.1	0.033	1.0	0.95	
16-Sep-25	**SLSC**	**2**	F	AEMP-FS-02-26	---	69	2.807	0.044	1.6	0.046	1.6	0.85	
16-Sep-25	**SLSC**	**3**	M	AEMP-FS-02-27	Metals & Protein	69	2.926	0.041	1.4	0.066	2.3	0.89	
16-Sep-25	**SLSC**	**4**	F	AEMP-FS-02-28	Metals & Protein	75	3.497	0.103	2.9	0.056	1.6	0.83	
16-Sep-25	**SLSC**	**5**	M	AEMP-FS-02-29	---	66	2.297	0.023	1.0	0.057	2.5	0.80	
16-Sep-25	**SLSC**	**6**	M		PAHs	53	1.353	0.008	0.6	0.02	1.5	0.91	
16-Sep-25	**SLSC**	**7**	F	AEMP-FS-02-30	---	60	1.949	0.041	2.1	0.032	1.6	0.90	
16-Sep-25	**SLSC**	**8**	F	AEMP-FS-02-31	Metals & Protein	80	4.066	0.101	2.5	0.740	18.2	0.79	Noted large gonads during dissection suggesting the GSI value is most likely accurate. However removed from health analysis to avoid skewing data and is discussed separately
16-Sep-25	**SLSC**	**9**	F		PAHs	57	1.450	0.023	1.6	0.013	0.9	0.78	Immature based on GSI and field observations. not included in health analysis
16-Sep-25	**SLSC**	**10**	F		PAHs	53	1.287	0.026	2.0	0.006	0.5	0.86	Immature based on GSI and field observations. not included in health analysis
16-Sep-25	**SLSC**	**11**	F	AEMP-FS-02-32	Metals & Protein	70	2.681	0.06	2.2	0.115	4.3	0.78	
16-Sep-25	**SLSC**	**12**	U		PAHs	52	1.115	0.009	0.8	---	---	0.79	Immature based on GSI and field observations. not included in health analysis
16-Sep-25	**SLSC**	**13**	F	AEMP-FS-02-33	---	65	2.244	0.042	1.9	0.039	1.7	0.82	
16-Sep-25	**SLSC**	**14**	M	AEMP-FS-02-34	---	74	3.361	0.039	1.2	0.060	1.8	0.83	
16-Sep-25	**SLSC**	**15**	F	AEMP-FS-02-35	Metals & Protein	75	3.558	0.083	2.3	0.084	2.4	0.84	
16-Sep-25	**SLSC**	**16**	M	AEMP-FS-02-36	---	65	2.693	0.029	1.1	0.056	2.1	0.98	
16-Sep-25	**SLSC**	**17**	F		PAHs	57	1.463	0.024	1.6	0.026	1.8	0.79	
16-Sep-25	**SLSC**	**18**	M	AEMP-FS-02-37	Metals & Protein	60	1.998	0.047	2.4	0.032	1.6	0.93	
16-Sep-25	**SLSC**	**19**	M		PAHs	46	0.831	0.007	0.8	0.011	1.3	0.85	
16-Sep-25	**SLSC**	**20**	M	AEMP-FS-02-38	---	76	4.069	0.040	1.0	0.110	2.7	0.93	
16-Sep-25	**SLSC**	**21**	F	AEMP-FS-02-39	---	63	2.065	0.041	2.0	0.037	1.8	0.83	

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Project Number: 417085-59897

Collection Date	Species	Fish #	Sex	Lab Sample ID	Analysis Type[1]	Total Length[2]	Weight	Liver Weight	Hepatosomatic Index (HSI)	Gonad Weight	Gonadosomatic Index (GSI)	Fulton's Condition Factor	Comments/Pathology Notes
(d/m/yr)						*(mm)*	*(g)*	*(g)*		*(g)*			
16-Sep-25	**SLSC**	**22**	F		PAHs	57	1.515	0.022	1.5	0.011	0.7	0.82	
16-Sep-25	**SLSC**	**23**	F		PAHs	52	1.299	0.031	2.4	0.015	1.2	0.92	
16-Sep-25	**SLSC**	**24**	F		PAHs	56	1.486	0.020	1.3	0.017	1.1	0.85	
16-Sep-25	**SLSC**	**25**	M		PAHs	53	1.260	0.009	0.7	0.005	0.4	0.85	
16-Sep-25	**SLSC**	**26**	F	AEMP-FS-02-40	Metals & Protein	69	2.990	0.083	2.8	0.069	2.3	0.91	
16-Sep-25	**SLSC**	**27**	F	AEMP-FS-02-41	Metals & Protein	77	4.025	0.078	1.9	0.058	1.4	0.88	
16-Sep-25	**SLSC**	**28**	U		PAHs	60	1.774	0.028	1.6	0.000	0.0	0.82	
16-Sep-25	**SLSC**	**29**	F	AEMP-FS-02-42	---	64	2.226	0.043	1.9	0.040	1.8	0.85	
16-Sep-25	**SLSC**	**30**	M	AEMP-FS-02-43	Metals & Protein	68	3.303	0.059	1.8	0.063	1.9	1.05	
16-Sep-25	**SLSC**	**31**	M	AEMP-FS-02-44	Metals & Protein	86	5.991	0.125	2.1	0.186	3.1	0.94	
16-Sep-25	**SLSC**	**32**	U	AEMP-FS-02-45	---	89	6.020	0.086	1.4	---	---	0.85	Parasitic worms present in body cavity (weight of worms measured 0.469 mg)
16-Sep-25	**SLSC**	**33**	M	AEMP-FS-02-46	Metals & Protein	87	5.767	0.092	1.6	0.149	2.6	0.88	
16-Sep-25	**SLSC**	**34**	F		PAHs	52	1.272	0.022	1.7	0.018	1.4	0.90	
16-Sep-25	**SLSC**	**35**	F		PAHs	57	1.498	0.035	2.3	0.011	0.7	0.81	
16-Sep-25	**SLSC**	**36**	F		PAHs	50	1.139	0.018	1.6	0.011	1.0	0.91	
16-Sep-25	**SLSC**	**37**	M		PAHs	57	1.642	0.023	1.4	0.039	2.4	0.89	
16-Sep-25	**SLSC**	**38**	U		PAHs	60	2.105	0.022	1.0	---	---	0.97	Parasitic worms present in body cavity (weight of worms measured 0.359 mg)
16-Sep-25	**SLSC**	**39**	M		PAHs	53	1.231	0.016	1.3	0.006	0.5	0.83	
17-Sep-25	**SLSC**	**40**	F	AEMP-FS-02-47	Metals & Protein	74	3.608	0.139	3.9	0.061	1.7	0.89	
17-Sep-25	**SLSC**	**41**	M	AEMP-FS-02-48	Metals & Protein	75	3.773	0.057	1.5	0.088	2.3	0.89	
17-Sep-25	**SLSC**	**42**	F	AEMP-FS-02-49	Metals & Protein	77	4.057	0.141	3.5	0.100	2.5	0.89	
17-Sep-25	**SLSC**	**43**	M	AEMP-FS-02-50	Metals & Protein	88	5.953	0.100	1.7	0.141	2.4	0.87	Full stomach
17-Sep-25	**SLSC**	**44**	F	AEMP-FS-02-51	---	75	3.615	0.072	2.0	0.053	1.5	0.86	
17-Sep-25	**SLSC**	**45**	F	AEMP-FS-02-52	Metals & Protein	76	3.646	0.078	2.1	0.08	2.2	0.83	
17-Sep-25	**SLSC**	**46**	M	AEMP-FS-02-53	Metals & Protein	80	4.443	0.067	1.5	0.116	2.6	0.87	
17-Sep-25	**SLSC**	**47**	U		PAHs	77	4.235	0.037	0.9	---	---	0.93	Parasitic worms present in body cavity (weight of worms measured 0.361 mg)
17-Sep-25	**SLSC**	**48**	F		PAHs	69	3.140	0.077	2.5	0.08	2.5	0.96	
17-Sep-25	**SLSC**	**49**	F		PAHs	79	4.268	0.086	2.0	0.079	1.9	0.87	
17-Sep-25	**SLSC**	**50**	M	AEMP-FS-02-54	Metals & Protein	74	3.186	0.056	1.8	0.080	2.5	0.79	
17-Sep-25	**SLSC**	**51**	F		PAHs	74	3.360	0.054	1.6	0.044	1.3	0.83	
17-Sep-25	**SLSC**	**52**	F		PAHs	71	2.935	0.072	2.5	0.05	1.7	0.82	
17-Sep-25	**SLSC**	**53**	F		PAHs	66	2.613	0.053	2.0	0.049	1.9	0.91	
17-Sep-25	**SLSC**	**54**	F	AEMP-FS-02-55	---	64	2.117	0.041	1.9	0.037	1.7	0.81	Small cyst or tumor documented on liver
17-Sep-25	**SLSC**	**55**	F		PAHs	64	2.453	0.059	2.4	0.056	2.3	0.94	
17-Sep-25	**SLSC**	**56**	U		PAHs	67	2.522	0.023	0.9	0.003	0.1	0.84	
17-Sep-25	**SLSC**	**57**	F		PAHs	65	2.649	0.049	1.8	0.042	1.6	0.96	
17-Sep-25	**SLSC**	**58**	F		PAHs	65	2.267	0.043	1.9	0.048	2.1	0.83	
17-Sep-25	**SLSC**	**59**	M	AEMP-FS-02-56	Metals & Protein	64	2.392	0.049	2.0	0.060	2.5	0.91	
17-Sep-25	**SLSC**	**60**	M	AEMP-FS-02-57	---	67	2.624	0.036	1.4	0.048	1.8	0.87	
Average						**67**	**2.789**	**0.052**	**1.8**	**0.065**	**2.0**	**0.87**	

Table 14
Physical Parameters of Fish collected from Bosworth Creek and the Mackenzie River in 2025

Project Number: 417085-59897

Collection Date	Species	Fish #	Sex	Lab Sample ID	Analysis Type[1]	Total Length[2]	Weight	Liver Weight	Hepatosomatic Index (HSI)	Gonad Weight	Gonadosomatic Index (GSI)	Fulton's Condition Factor	Comments/Pathology Notes
(d/m/yr)						*(mm)*	*(g)*	*(g)*		*(g)*			
AEMP-FS-01 (Middle reach Bosworth Creek)													
14-Sep-25	**SLSC**	**1**	M		PAHs	55	1.378	0.01	0.7	0.007	0.5	0.83	
14-Sep-25	**SLSC**	**2**	M	AEMP-FS-01-31	---	64	2.282	0.019	0.8	0.046	2.0	0.87	
14-Sep-25	**SLSC**	**3**	M	AEMP-FS-01-32	Metals & Protein	70	3.025	0.056	1.9	0.081	2.7	0.88	
14-Sep-25	**SLSC**	**4**	F		PAHs	60	1.759	0.021	1.2	0.022	1.3	0.81	
14-Sep-25	**SLSC**	**5**	M		PAHs	60	1.633	0.019	1.2	0.003	0.2	0.76	
14-Sep-25	**SLSC**	**6**	F	AEMP-FS-01-33	Metals & Protein	66	2.616	0.061	2.3	0.036	1.4	0.91	
14-Sep-25	**SLSC**	**7**	M	AEMP-FS-01-34	Metals & Protein	69	3.030	0.053	1.7	0.083	2.7	0.92	
14-Sep-25	**SLSC**	**8**	F	AEMP-FS-01-35	Metals & Protein	86	5.699	0.180	3.2	0.086	1.5	0.90	Light liver coloration
14-Sep-25	**SLSC**	**9**	U	AEMP-FS-01-36	---	67	3.107	0.053	1.7	---	---	1.03	Parasitic worms present in body cavity (weight of worms measured 0.468 mg), no gonad developed possibly because of parasitism.
14-Sep-25	**SLSC**	**10**	M	AEMP-FS-01-37	---	72	2.982	0.029	1.0	0.099	3.3	0.80	
14-Sep-25	**SLSC**	**11**	F		PAHs	56	1.448	0.035	2.4	0.016	1.1	0.82	
14-Sep-25	**SLSC**	**12**	F		PAHs	56	1.544	0.027	1.7	0.021	1.4	0.88	
14-Sep-25	**SLSC**	**13**	F	AEMP-FS-01-38	Metals & Protein	78	4.046	0.131	3.2	0.072	1.8	0.85	
14-Sep-25	**SLSC**	**14**	M	AEMP-FS-01-39	Metals & Protein	80	5.023	0.106	2.1	0.144	2.9	0.98	Well fed and full stomach
14-Sep-25	**SLSC**	**15**	F	AEMP-FS-01-40	Metals & Protein	67	2.788	0.117	4.2	0.054	1.9	0.93	
14-Sep-25	**SLSC**	**16**	U		PAHs	67	2.860	0	1.4	---	---	0.95	Parasitic worms present in body cavity (weight of worms measured 0.438 mg)
14-Sep-25	**SLSC**	**17**	M	AEMP-FS-01-41	---	67	2.490	0	1.3	0.056	2.2	0.83	
14-Sep-25	**SLSC**	**18**	M	AEMP-FS-01-42	Metals & Protein	70	3.146	0.052	1.7	0.085	2.7	0.92	
14-Sep-25	**SLSC**	**19**	F	AEMP-FS-01-43	---	67	2.485	0.031	1.2	0.052	2.1	0.83	
14-Sep-25	**SLSC**	**20**	F	AEMP-FS-01-44	Metals & Protein	67	2.465	0.058	2.4	0.041	1.7	0.82	Black bile in gall bladder
14-Sep-25	**SLSC**	**21**	F		PAHs	56	1.421	0.015	1.1	0.016	1.1	0.81	
14-Sep-25	**SLSC**	**22**	F		PAHs	59	1.324	0.023	1.7	0.026	2.0	0.64	
14-Sep-25	**SLSC**	**23**	F		PAHs	60	1.702	0.011	0.6	0.020	1.2	0.79	
14-Sep-25	**SLSC**	**24**	M	AEMP-FS-01-45	Metals & Protein	83	5.328	0.080	1.5	0.158	3.0	0.93	
14-Sep-25	**SLSC**	**25**	F	AEMP-FS-01-46	Metals & Protein	70	3.136	0.100	3.2	0.067	2.1	0.91	
14-Sep-25	**SLSC**	**26**	F		PAHs	56	1.424	0.020	1.4	0.024	1.7	0.81	
14-Sep-25	**SLSC**	**27**	F	AEMP-FS-01-47	Metals & Protein	65	2.387	0.063	2.6	0.037	1.6	0.87	Milky substance in body cavity with enlarged size
14-Sep-25	**SLSC**	**28**	M	AEMP-FS-01-48	Metals & Protein	66	2.421	0.049	2.0	0.061	2.5	0.84	
14-Sep-25	**SLSC**	**29**	U		PAHs	71	3.584	0.033	0.9	---	---	1.00	Parasitic worms present in body cavity (weight of worms measured 0.559 mg)
14-Sep-25	**SLSC**	**30**	F		PAHs	57	1.409	0.017	1.2	0.015	1.1	0.76	
14-Sep-25	**SLSC**	**31**	U		PAHs	60	1.634	0.018	1.1	0.002	0.1	0.76	
14-Sep-25	**SLSC**	**32**	F	AEMP-FS-01-49	---	61	2.004	0.052	2.6	0.025	1.2	0.88	
14-Sep-25	**SLSC**	**33**	F		PAHs	61	2.054	0.032	1.6	0.028	1.4	0.90	
14-Sep-25	**SLSC**	**34**	F	AEMP-FS-01-51	Metals & Protein	72	3.640	0.102	2.8	0.061	1.7	0.98	
14-Sep-25	**SLSC**	**35**	F	AEMP-FS-01-50	---	56	1.504	0.058	3.9	0.019	1.3	0.86	
14-Sep-25	**SLSC**	**36**	U		PAHs	60	1.996	0.022	1.1	---	---	0.92	Parasitic worms present in body cavity (weight of worms measured 0.346 mg)
15-Sep-25	**SLSC**	**37**	M	AEMP-FS-01-52	Metals & Protein	80	4.491	0.065	1.4	0.128	2.9	0.88	
15-Sep-25	**SLSC**	**38**	F	AEMP-FS-01-53	Metals & Protein	79	4.038	0.087	2.2	0.082	2.0	0.82	
15-Sep-25	**SLSC**	**39**	M	AEMP-FS-01-54	Metals & Protein	80	4.348	0.059	1.4	0.117	2.7	0.85	
15-Sep-25	**SLSC**	**40**	M	AEMP-FS-01-55	Metals & Protein	84	5.515	0.141	2.6	0.122	2.2	0.93	
15-Sep-25	**SLSC**	**41**	F	AEMP-FS-01-56	---	70	2.701	0.057	2.1	0.061	2.3	0.79	

Table 14
Physical Parameters of Fish collected from Bosworth Creek and the Mackenzie River in 2025

Project Number: 417085-59897

Collection Date	Species	Fish #	Sex	Lab Sample ID	Analysis Type[1]	Total Length[2]	Weight	Liver Weight	Hepatosomatic Index (HSI)	Gonad Weight	Gonadosomatic Index (GSI)	Fulton's Condition Factor	Comments/Pathology Notes
(d/m/yr)						*(mm)*	*(g)*	*(g)*		*(g)*			
15-Sep-25	**SLSC**	**42**	F	AEMP-FS-01-57	Metals & Protein	67	2.864	0.078	2.7	0.047	1.6	0.95	
15-Sep-25	**SLSC**	**43**	M	AEMP-FS-01-58	---	61	1.553	0.030	1.9	0.045	2.9	0.68	
15-Sep-25	**SLSC**	**44**	M		PAHs	65	2.178	0.015	0.7	0.026	1.2	0.79	
15-Sep-25	**SLSC**	**45**	M		PAHs	66	2.246	0.023	1.0	0.041	1.8	0.78	
15-Sep-25	**SLSC**	**46**	U		PAHs	62	2.189	0.016	0.7	---	---	0.92	Parasitic worms present in body cavity (weight of worms measured 0.345 mg)
15-Sep-25	**SLSC**	**47**	F		PAHs	69	2.654	0.077	2.9	0.072	2.7	0.81	
15-Sep-25	**SLSC**	**48**	F		PAHs	62	1.876	0.024	1.3	0.005	0.3	0.79	
15-Sep-25	**SLSC**	**49**	M		PAHs	58	1.494	0.007	0.5	0.015	1.0	0.77	
15-Sep-25	**SLSC**	**50**	F		PAHs	60	1.886	0.042	2.2	0.012	0.6	0.87	
15-Sep-25	**SLSC**	**51**	F		PAHs	69	2.405	0.04	1.7	0.038	1.6	0.73	
15-Sep-25	**SLSC**	**52**	M	AEMP-FS-01-59	Metals & Protein	74	3.497	0.044	1.3	0.091	2.6	0.86	
15-Sep-25	**SLSC**	**53**	F		PAHs	60	1.918	0.056	2.9	0.032	1.7	0.89	
15-Sep-25	**SLSC**	**54**	F		PAHs	68	2.564	0.039	1.5	0.042	1.6	0.82	
15-Sep-25	**SLSC**	**55**	F		PAHs	64	1.981	0.031	1.6	0.022	1.1	0.76	
15-Sep-25	**SLSC**	**56**	F		PAHs	61	1.776	0.024	1.4	0.026	1.5	0.78	
15-Sep-25	**SLSC**	**57**	M		PAHs	64	2.156	0.026	1.2	0.04	1.9	0.82	
15-Sep-25	**SLSC**	**58**	F		PAHs	64	2.228	0.042	1.9	0.035	1.6	0.85	
15-Sep-25	**SLSC**	**59**	U		PAHs	59	1.672	0.026	1.6	0.006	0.4	0.81	
Average						**66**	**2.593**	**0.049**	**1.8**	**0.049**	**1.7**	**0.85**	
FGH (Mackenzie River near Fort Good Hope)													
10-Sep-25	**Inconnu**	**1**	M	FGH_1	PAHs, Metals & Protein	670	3620	27.5	0.8	51.5	1.4	1.20	small-bodied fish in stomach. Spent maturity
10-Sep-25	**Inconnu**	**2**	F	FGH_4	PAHs, Metals & Protein	780	5130	50.2	1.0	780.0	15.2	1.08	Gravid maturity
10-Sep-25	**Inconnu**	**3**	M	FGH_6	PAHs, Metals & Protein	680	3350	24.2	0.7	47.3	1.4	1.07	Spent maturity
Average						**710**	**4033**	**34.0**	**0.8**	**292.9**	**6.0**	**1.12**	
10-Sep-25	**LKWH**	**1**	F	FGH_2	PAHs, Metals & Protein	530	2960	57.8	2.0	605.0	20.4	1.99	Gravid maturity
10-Sep-25	**LKWH**	**2**	M	FGH_3	PAHs, Metals & Protein	545	1930	8.7	0.5	27.1	1.4	1.19	Spent maturity
10-Sep-25	**LKWH**	**3**	F	FGH_5	PAHs, Metals & Protein	528	2200	33.9	1.5	375.0	17.0	1.49	Gravid maturity
Average						**534**	**2363**	**33.5**	**1.3**	**335.7**	**13.0**	**1.56**	

Notes: 1. Superscript 1 - "---" indicates parameter not analysed. Protein analysis includes measurement of CYP1A protein and total protein content in the liver of individual fish. For small-bodied fish, metals were analyzed in whole body samples submitted individually to the laboratory, and polycyclic aromatic hydrocarbons (PAHs) were analyzed as whole body composite samples. For large-bodied fish, liver subsamples were submitted for protein analysis, and muslce tissue (without skin) subsamples were submitted for each individual fish for metals analysis, and subsamples from each species were composited and submitted for PAH analysis.

2. Superscript 2 - measurement represents fork length for large-bodied fish species.

3. Sample ID - Refers to the laboratory analysis identifier used for each sample during chemical analysis.

4. SLSC = slimy sculpin (*Cottus cognatus*), LKWH = Lake whitefish (*Coregonus clupeaformis*), Inconnu = Coney (*Stenodus leucichthyes*)

Table 15

Summary Statistics for Fish Health Metrics Measured in Bosworth Creek Slimy Sculpin in 2025

Project #: 417085-59897

Monitoring Station	Parameter	Units	Basic Analysis							
			Count	Min (units)	Median (units)	Max (units)	Range (units)	Average (units)	Standard Deviation (units)	Standard Error (units)
AEMP-FS-01										
Female	Length	mm	31	56	64	86	30	64.74	7.3	1.3
	Historical Range (2023-2024)		*57*	*48*	*61*	*93*	*45*	*65.1*	*10.0*	*1.3*
	Weight	g	31	1.324	2.228	5.699	4.375	2.383	0.961	0.173
	Historical Range (2023-2024)		*57*	*0.893*	*1.882*	*5.711*	*4.818*	*2.349*	*1.135*	*0.150*
	Liver Weight	g	31	0.011	0.042	0.18	0.169	0.056	0.039	0.007
	Historical Range (2023-2024)		*57*	*0.013*	*0.044*	*0.148*	*0.135*	*0.053*	*0.031*	*0.004*
	Gonad Weight	g	31	0.012	0.035	0.086	0.074	0.039	0.021	0.004
	Historical Range (2023-2024)		*57*	*0.005*	*0.032*	*0.100*	*0.095*	*0.037*	*0.023*	*0.003*
	Condition	---	31	0.64	0.83	0.98	0.33	0.84	0.07	0.01
	Historical Range (2023-2024)		*57*	*0.54*	*0.82*	*1.05*	*0.51*	*0.80*	*0.09*	*0.01*
	Hepatosomatic Index (HSI)	---	31	0.65	2.15	4.20	3.55	2.18	0.85	0.15
	Historical Range (2023-2024)		*57*	*0.9908*	*2.21*	*4.2123*	*3.22*	*2.23*	*0.69*	*0.09*
	Gonadosomatic Index (GSI)	---	31	0.64	1.57	2.71	2.08	1.57	0.42	0.08
	Historical Range (2023-2024)		*57*	*0.2403*	*1.72*	*2.4369*	*2.20*	*1.56*	*0.50*	*0.07*
	CYP1A Protein Content	pg/mg protein	10	13.78	18.85	24.75	10.97	19.12	4.50	1.42
	Historical Range (2023-2024)		*19*	*8.942*	*14.58*	*21.301*	*12.36*	*14.46*	*3.16*	*0.72*
	Total Protein Content	µg/mL	10	5356	5938	7101	1745	6160	574	182
	Historical Range (2023-2024)		*19*	*3707*	*6822*	*7995*	*4288*	*6383*	*1126*	*258*
Male	Length	mm	18	58	70	84	26	70.7	7.8	1.8
	Historical Range (2023-2024)		*30*	*48*	*62*	*90*	*42*	*64.4*	*9.5*	*1.7*
	Weight	g	18	1.494	3.003	5.515	4.021	3.178	1.260	0.297
	Historical Range (2023-2024)		*30*	*0.809*	*1.907*	*7.300*	*6.491*	*2.405*	*1.413*	*0.258*
	Liver Weight	g	18	0.007	0.047	0.141	0.134	0.049	0.034	0.008
	Historical Range (2023-2024)		*30*	*0.010*	*0.030*	*0.096*	*0.086*	*0.036*	*0.023*	*0.004*
	Gonad Weight	g	18	0.015	0.082	0.158	0.143	0.080	0.042	0.010
	Historical Range (2023-2024)		*30*	*0.002*	*0.036*	*0.115*	*0.113*	*0.039*	*0.024*	*0.004*
	Condition	---	18	0.68	0.86	0.98	0.30	0.85	0.07	0.02
	Historical Range (2023-2024)		*30*	*0.60*	*0.84*	*1.02*	*0.42*	*0.82*	*0.08*	*0.02*
	Hepatosomatic Index (HSI)	---	18	0.47	1.40	2.56	2.09	1.44	0.54	0.13
	Historical Range (2023-2024)		*30*	*0.81*	*1.46*	*2.44*	*1.62*	*1.48*	*0.41*	*0.07*
	Gonadosomatic Index (GSI)	---	18	1.00	2.64	3.32	2.32	2.40	0.62	0.15
	Historical Range (2023-2024)		*30*	*0.12*	*1.80*	*2.47*	*2.34*	*1.73*	*0.63*	*0.11*
	CYP1A Protein Content	pg/mg protein	10	16.68	20.77	25.64	8.96	21.01	3.14	0.99
	Historical Range (2023-2024)		*18*	*6.63*	*10.15*	*17.33*	*10.70*	*10.51*	*2.50*	*0.59*
	Total Protein Content	µg/mL	10	4651	5408	5905	1254	5387	416	132
	Historical Range (2023-2024)		*18*	*4671*	*7250*	*14638*	*9967*	*7800*	*2390*	*563*
AEMP-FS-02										
Female	Length	mm	30	50	69	80	30	67.4	8.3	1.5
	Historical Range (2023-2024)		*38*	*51*	*65*	*105*	*54*	*67.84*	*11.5*	*1.9*
	Weight	g	30	1.139	2.744	4.268	3.129	2.758	0.915	0.167
	Historical Range (2023-2024)		*38*	*1.091*	*2.193*	*10.181*	*9.090*	*2.890*	*1.779*	*0.289*
	Liver Weight	g	30	0.018	0.057	0.141	0.123	0.062	0.031	0.006
	Historical Range (2023-2024)		*38*	*0.015*	*0.060*	*0.293*	*0.278*	*0.077*	*0.060*	*0.010*
	Gonad Weight	g	30	0.011	0.049	0.74	0.729	0.074	0.128	0.023
	Historical Range (2023-2024)		*38*	*0.005*	*0.035*	*0.231*	*0.226*	*0.050*	*0.044*	*0.007*
	Condition	---	30	0.78	0.86	0.96	0.18	0.87	0.05	0.01
	Historical Range (2023-2024)		*38*	*0.71*	*0.82*	*1.22*	*0.32*	*0.84*	*0.09*	*0.02*
	Hepatosomatic Index (HSI)	---	30	1.35	2.02	3.85	2.51	2.17	0.55	0.10
	Historical Range (2023-2024)		*38*	*1.09*	*2.72*	*3.73*	*2.54*	*2.54*	*0.74*	*0.12*
	Gonadosomatic Index (GSI)	---	30	0.97	1.74	18.20	17.23	2.37	3.05	0.56
	Historical Range (2023-2024)		*38*	*0.36*	*1.53*	*2.88*	*2.52*	*1.56*	*0.50*	*0.08*
	CYP1A Protein Content	pg/mg protein	10	13.57	19.01	25.57	12.00	18.24	3.74	1.18
	Historical Range (2023-2024)		*20*	*12.19*	*15.98*	*27.55*	*15.36*	*16.43*	*3.51*	*0.78*
	Total Protein Content	µg/mL	10	5100	6225	7154	2054	6147	706	223
	Historical Range (2023-2024)		*20*	*4465*	*5784*	*8832*	*4367*	*5880*	*967*	*216*
Male	Length	mm	18	46	69	88	42	69.7	11.6	2.7
	Historical Range (2023-2024)		*35*	*50*	*65*	*99*	*31*	*67.0*	*10.6*	*1.8*

Table 15

Summary Statistics for Fish Health Metrics Measured in Bosworth Creek Slimy Sculpin in 2025

Project #: 417085-59897

Monitoring Station	Parameter	Units	Basic Analysis							
			Count	Min (units)	Median (units)	Max (units)	Range (units)	Average (units)	Standard Deviation (units)	Standard Error (units)
	Weight	g	18	0.831	3.056	5.991	5.160	3.256	1.526	0.360
	Historical Range (2023-2024)		*35*	*0.923*	*2.443*	*8.279*	*4.269*	*2.877*	*1.559*	*0.264*
	Liver Weight	g	18	0.007	0.044	0.125	0.118	0.050	0.031	0.007
	Historical Range (2023-2024)		*35*	*0.002*	*0.045*	*0.362*	*0.360*	*0.062*	*0.062*	*0.010*
	Gonad Weight	g	18	0.011	0.062	0.186	0.175	0.077	0.047	0.011
	Historical Range (2023-2024)		*34*	*0.005*	*0.048*	*0.178*	*0.173*	*0.059*	*0.039*	*0.007*
	Condition	---	18	0.77	0.89	1.05	0.28	0.89	0.06	0.01
	Historical Range (2023-2024)		*35*	*0.72*	*0.87*	*1.10*	*0.38*	*0.88*	*0.09*	*0.02*
	Hepatosomatic Index (HSI)	---	18	0.59	1.45	2.35	1.76	1.45	0.46	0.11
	Historical Range (2023-2024)		*35*	*0.22*	*1.94*	*4.37*	*2.41*	*1.91*	*0.75*	*0.13*
	Gonadosomatic Index (GSI)	---	18	1.32	2.35	3.11	1.78	2.21	0.47	0.11
	Historical Range (2023-2024)		*34*	*0.23*	*1.93*	*5.69*	*5.46*	*2.03*	*0.85*	*0.15*
	CYP1A Protein Content	pg/mg protein	10	10.33	17.88	27.62	17.29	19.52	5.65	1.79
	Historical Range (2023-2024)		*17*	*8.261*	*13.38*	*24.876*	*16.62*	*14.48*	*4.64*	*1.13*
	Total Protein Content	µg/mL	10	4596	5505	9510	4914	6092	1560	493
	Historical Range (2023-2024)		*17*	*4333*	*6529*	*10152*	*5819*	*6573*	*1655*	*401*
AEMP-FS-03										
Female	Length	mm	31	51	65	88	37	66.4	10.01	1.80
	Historical Range (2024)		*29*	*56*	*70*	*93*	*37*	*71.9*	*10.6*	*2.0*
	Weight	g	31	1.09	2.305	5.388	4.298	2.551	1.242	0.223
	Historical Range (2024)		*29*	*1.49*	*2.872*	*5.792*	*4.302*	*3.178*	*1.332*	*0.247*
	Liver Weight	g	31	0.014	0.039	0.176	0.162	0.052	0.040	0.007
	Historical Range (2024)		*29*	*0.021*	*0.068*	*0.152*	*0.131*	*0.071*	*0.037*	*0.007*
	Gonad Weight	g	31	0.014	0.033	0.119	0.105	0.041	0.026	0.005
	Historical Range (2024)		*29*	*0.02*	*0.044*	*0.122*	*0.102*	*0.054*	*0.029*	*0.005*
	Condition	---	31	0.67	0.80	0.92	0.26	0.81	0.07	0.01
	Historical Range (2024)		*29*	*0.6511*	*0.82*	*0.8994*	*0.25*	*0.81*	*0.06*	*0.01*
	Hepatosomatic Index (HSI)	---	31	1.01	1.74	3.65	2.64	1.84	0.59	0.11
	Historical Range (2024)		*29*	*1.12*	*2.20*	*3.11*	*1.99*	*2.17*	*0.51*	*0.10*
	Gonadosomatic Index (GSI)	---	31	1.01	1.56	2.21	1.20	1.55	0.33	0.06
	Historical Range (2024)		*29*	*0.8133*	*1.64*	*2.8723*	*2.06*	*1.67*	*0.43*	*0.08*
	CYP1A Protein Content	pg/mg protein	10	10.42	15.09	17.46	7.04	14.67	2.13	0.67
	Historical Range (2024)		10	13.02	15.78	18.14	5.12	15.70	1.83	0.58
	Total Protein Content	µg/mL	10	5541	6378	8858	3317	6699	1137	360
	Historical Range (2024)		*10*	*5355*	*6361*	*7254*	*1899*	*6426*	*642*	*203*
Male	Length	mm	17	48	61	85	37	65.4	10.8	2.6
	Historical Range (2024)		*15*	*55*	*60*	*85*	*30*	*63.3*	*8.5*	*2.2*
	Weight	g	17	0.787	1.866	5.787	5.000	2.585	1.443	0.350
	Historical Range (2024)		*15*	*1.125*	*1.626*	*5.113*	*3.988*	*2.186*	*1.162*	*0.300*
	Liver Weight	g	17	0.010	0.028	0.090	0.080	0.036	0.024	0.006
	Historical Range (2024)		*15*	*0.006*	*0.028*	*0.085*	*0.079*	*0.034*	*0.025*	*0.006*
	Gonad Weight	g	17	0	0.039	0.193	0.193	0.057	0.051	0.012
	Historical Range (2024)		*15*	*0.008*	*0.031*	*0.099*	*0.091*	*0.043*	*0.030*	*0.008*
	Condition	---	17	0.71	0.82	0.97	0.26	0.84	0.07	0.02
	Historical Range (2024)		*15*	*0.52*	*0.83*	*0.99*	*0.47*	*0.80*	*0.12*	*0.03*
	Hepatosomatic Index (HSI)	---	17	0.76	1.27	3.13	2.37	1.40	0.64	0.15
	Historical Range (2024)		*15*	*0.42*	*1.43*	*2.49*	*2.06*	*1.50*	*0.55*	*0.14*
	Gonadosomatic Index (GSI)	---	16	0.66	2.28	3.34	2.67	1.98	0.73	0.18
	Historical Range (2024)		*15*	*0.64*	*1.91*	*2.58*	*1.95*	*1.83*	*0.52*	*0.13*
	CYP1A Protein Content	pg/mg protein	10	10.15	12.51	22.25	12.10	13.56	3.67	1.16
	Historical Range (2024)		*8*	*9.04*	*11.53*	*15.39*	*6.36*	*12.13*	*2.18*	*0.77*
	Total Protein Content	µg/mL	10	4958	7161	8958	4000	7211	1290	408
	Historical Range (2024)		*8*	*6531*	*7535*	*8205*	*1674*	*7333*	*616*	*218*

Notes:

Table 16

Statistical Comparison Summary for Bosworth Creek Slimy Sculpin Health Metrics in 2025

Project #: 417085-59897

Parameter	Parametric (ANOVA/ANCOVA) Analysis								Linear Reggression Statistics								
	Degrees of Freedom (k-1)	Degrees of Freedom (n-1)	F-Statistic (Site Parameter)	Site Parameter Significance p-value	Percent Difference (%)	Power[1] 1-β	Transformation/Violoation	Pairwise Comparisons p-value	y-Intercept parameter (β_0)	Covariate Effect Parameter (β_1)	Covariate Significance (β_1) p-value	Site Effect Parameter (β_2)	Site Effect Significance (β_2) p-value	Covariate:Site Interaction Effect Parameter (β_3)	Site Interaction Significance p-value	r^2 Adjusted R-Square	Residual Standard Error
2025 One-way Analysis of Variance (ANOVA)																	
Female																	
Length	2	89	0.76	0.470	FS-02:FS-01 = 4.2 FS-02:FS-03 = 2.6 FS-03:FS-01 = 1.5	0.05	None	---	---	---	---	---	---	---	---	---	---
Weight	2	89	1.19	0.308	FS-02:FS-01 = 15.7 FS-02:FS-03 = 8.1 FS-03:FS-01 = 7.1	0.05	Log10	---	---	---	---	---	---	---	---	---	---
Condition	2	89	5.84	**0.004**	FS-02:FS-01 = 3.2 FS-02:FS-03 = 6.7 FS-03:FS-01 = -3.3	0.15	None	FS-02:FS-01 = 0.222 **FS-02:FS-03 = 0.003** FS-03:FS-01 = 0.190	---	---	---	---	---	---	---	---	---
Hepatosomatic Index (HSI)	2	89	2.52	0.086	FS-02:FS-01 = -0.6 FS-02:FS-03 = 17.8 FS-03:FS-01 = -15.6	0.07	Log10	---	---	---	---	---	---	---	---	---	---
Gonadosomatic Index (GSI)	2	88	2.64	0.077	**FS-02:FS-01 = 51.1** **FS-02:FS-03 = 53.3** FS-03:FS-01 =-1.4	0.07	Log10	---	---	---	---	---	---	---	---	---	---
CYP1A Protein Content	2	27	4.30	**0.024**	FS-02:FS-01 = -4.6 FS-02:FS-03 = 24.3 FS-03:FS-01 = -23.3	0.18	None	FS-02:FS-01 = 0.847 FS-02:FS-03 = 0.086 **FS-03:FS-01 = 0.026**	---	---	---	---	---	---	---	---	---
Total Protein Content	2	27	1.41	0.262	FS-02:FS-01 = -0.2 FS-02:FS-03 = -8.2 FS-03:FS-01 = 8.8	0.07	None	---	---	---	---	---	---	---	---	---	---
Male																	
Length	2	50	1.36	0.265	FS-02:FS-01 = -1.4 FS-02:FS-03 = 6.7 FS-03:FS-01 = -7.6	0.06	None	---	---	---	---	---	---	---	---	---	---
Weight	2	50	1.67	0.199	FS-02:FS-01 = 2.4 FS-02:FS-03 = 26.0 FS-03:FS-01 = -18.7	0.06	Log10	---	---	---	---	---	---	---	---	---	---
Condition	2	50	2.84	0.068	FS-02:FS-01 = 4.8 FS-02:FS-03 = 6.3 FS-03:FS-01 = -4.7	0.09	None	---	---	---	---	---	---	---	---	---	---
Hepatosomatic Index (HSI)	2	50	0.11	0.896	FS-02:FS-01 = 0.8 FS-02:FS-03 = 3.9 FS-03:FS-01 = -3.1	0.05	Log10	---	---	---	---	---	---	---	---	---	---
Gonadosomatic Index (GSI)	2	49	2.04	0.140	FS-02:FS-01 = -7.8 FS-02:FS-03 = 12.0 **FS-03:FS-01 = -35.5**	0.07	Square	---	---	---	---	---	---	---	---	---	---

Table 16

Statistical Comparison Summary for Bosworth Creek Slimy Sculpin Health Metrics in 2025

Project #: 417085-59897

Parameter	Parametric (ANOVA/ANCOVA) Analysis								Linear Reggression Statistics								
	Degrees of Freedom (k-1)	Degrees of Freedom (n-1)	F-Statistic (Site Parameter)	Site Parameter Significance p-value	Percent Difference (%)	Power[1] 1-β	Transformation/Violoation	Pairwise Comparisons p-value	y-Intercept parameter (β_0)	Covariate Effect Parameter (β_1)	Covariate Significance (β_1) p-value	Site Effect Parameter (β_2)	Site Effect Significance (β_2) p-value	Covariate:Site Interaction Effect Parameter (β_3)	Site Interaction Significance p-value	r^2 Adjusted R-Square	Residual Standard Error
CYP1A Protein Content	2	27	10.05	**0.001**	FS-02:FS-01 = -7.1 FS-02:FS-03 = 44 FS-03:FS-01 = -35.5	0.49	Log10	FS-02:FS-01 = 0.605 **FS-02:FS-03 = 0.007** **FS-03:FS-01 = 0.001**	---	---	---	---	---	---	---	---	---
Total Protein Content	2	27	6.34	**0.006**	FS-02:FS-01 = 13.1 FS-02:FS-03 = -15.5 FS-03:FS-01 = 33.9	0.30	Log10	FS-02:FS-01 = 0.430 FS-02:FS-03 = 0.080 **FS-03:FS-01 = 0.004**	---	---	---	---	---	---	---	---	---
2024 Analysis of Covariance (ANCOVA)																	
Female Body Weight (Length Covariate)	2	88	5.70	**0.005**	FS-02:FS-01 = 3.2 FS-02:FS-03 = 7.1 FS-03:FS-01 = -3.6	0.87	Log10	FS-02:FS-01 = 0.256 **FS-02:FS-03 = 0.003** FS-03:FS-01 = 0.177	-5.152112	3.041	**<2E-16**	FS-02 =0.014 FS-03 =-0.015	FS-02 = 0.114 FS-03 = 0.079	---	---	0.96	0.033
Liver Weight (Body Weight Covariate)	2	88	2.65	0.076	FS-02:FS-01 = -1.6 FS-02:FS-03 = 15.0 FS-03:FS-01 =-14.4	0.50	Log10	---	-1.860	1.468	**<2E-16**	FS-02 =-0.010 FS-03 =-0.065	FS-02 = 0.751 **FS-03 = 0.035**	---	---	0.82	0.119
Gonad Weight (Body Weight Covariate)	2	87	1.80	0.171	FS-02:FS-01 = 9.9 FS-02:FS-03 = 11.6 FS-03:FS-01 =-1.5	0.37	Log10	**---**	-1.917	1.278	**<2E-16**	FS-02 = 0.044 FS-03 =-0.004	FS-02 = 0.118 FS-03 = 0.889	---	---	0.81	0.108
Male Body Weight (Length Covariate)	2	49	2.71	0.077	FS-02:FS-01 = 7.1 FS-02:FS-03 = 4.9 FS-03:FS-01 = 2.0	0.57	Log10	---	-5.450	3.205	**<2E-16**	FS-02 = 0.023 FS-03 = 0.001	**FS-02 = 0.043** FS-03 = 0.916	---	---	0.98	0.033
Liver Weight (Body Weight Covariate)	2	47	0.07	0.935	FS-02:FS-01 = 5.9 FS-02:FS-03 = 5.3 FS-03:FS-01 = 0.5	0.06	Log10	---	-2.012	1.291	**7.06E-14**	FS-02 = 0.020 FS-03 = 0.014	FS-02 = 0.724 FS-03 = 0.812	---	---	**0.70**	0.162
Gonad Weight (Body Weight Covariate)	2	44	0.36	0.701	FS-02:FS-01 = -4.8 FS-02:FS-03 = -4.1 FS-03:FS-01 = -0.7	0.11	Log10	---	-1.808	1.362	**<2E-16**	FS-02 = -0.024 FS-03 = -0.003	FS-02 = 0.431 FS-03 = 0.930	---	---	0.89	0.087

Notes: 1. Superscript 1 - Effect size for ANOVA and ANCOVA power analysis is based on partial Eta for the site parameter.

2. Superscript 2 - Outlier with tumor growth on liver removed from statistical analysis

3. Superscript 3 - Assumptions of ANOVA violated based on formal test but meet general requirements based on robustness of ANOVA analysis and residual plot review, results confirmed by permutation analysis.

X 3. Yellow highlighting denotes p-values below the chosen cutoff of α=0.05 and denotes a significant difference for the associated comparison

X 4. Blue highlighting denotes percent difference values that exceed the associated critical effect size (CES) which includes: Condition = 10%, HSI/GSI = 25%

X 5. Green highlighting denotes p-values below the chosen cutoff of α = 0.05 for covariate regression analyses. Lower values indicate stronger relationship between covariates and improved site comparison confidence.

X 6. R-square equals the cutoff of 0.80 that is preferable for robust site comparisons for ANCOVA analysis (Environment Canada 2012)

X 7. R-square is below the cutoff of 0.80 that is preferred for robust site comparisons for ANCOVA analyses (Environment Canada 2012)

8. ANCOVA analysis with no significant terms are presented with site comparisons with no interaction term to show site differences

Table 17

Whole Body Tissue Residue Analytical Results (Dry Weight): Metals and Trace Elements

PROJECT No.: 417085-59897

Sampling Location	Sample Type	Date (dd-mmm-yyyy)	Fish Species	Sex	Sample Name	% Moisture (%)	Aluminum (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Lithium (mg/kg)	Magnesium (mg/kg)	Manganese (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Phosphorus (mg/kg)	Potassium (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Sodium (mg/kg)	Strontium (mg/kg)	Thallium (mg/kg)	Tin (mg/kg)	Titanium (mg/kg)	Uranium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
Federal Environmental Quality Guidelines [#1]						---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.7	---	---	---	---	---	---	---	---	---	---
BOSWORTH CREEK																																				
Females																																				
NW AEMP Upper Control Limit						---	30.372	---	---	1.2101	---	---	---	2.0616	---	2.511	---	---	---	---	---	---	0.0842	7.4712	---	---	7.3224	---	---	---	---	---	---	---	---	81.385
NW AEMP Lower Control Limit						---	1.6315	---	---	0.1791	---	---	---	0.4761	---	1.2154	---	---	---	---	---	---	0.0121	0.3033	---	---	3.1149	---	---	---	---	---	---	---	---	34.609
Experimental Sites																																				
AEMP-FS-02	23-Oct-2023		SLSC	Female	AEMP-02-FS-01	79.5	2.5	< 0.007	< 0.837	0.277	0.062	0.037	1534	0.577	0.073	**1.2**	25	0.01	0.021	1063	1.2	1.4	**0.012**	0.49	10284	13230	3.6	< 0.003	3823	2.9	0.031	0.461	0.851	< 0.003	0.052	53
	23-Oct-2023		SLSC	Female	AEMP-02-FS-04	78.6	2	< 0.007	0.298	0.333	< 0.207	< 0.1	1243	0.546	0.035	**1.2**	24	0.005	0.014	698	1.2	0.907	**0.012**	**0.178**	8217	17383	4.7	< 0.003	4616	1.8	0.02	0.621	0.851	< 0.003	< 0.113	50
	23-Oct-2023		SLSC	Female	AEMP-02-FS-07	78.8	3.3	< 0.007	< 0.837	0.43	< 0.207	< 0.1	1405	0.66	0.041	1.4	29	< 0.013	0.013	925	1.7	1.3	**0.012**	0.55	8611	12313	3.4	< 0.003	3140	2.1	0.041	0.744	1.1	< 0.003	0.046	39
	23-Oct-2023		SLSC	Female	AEMP-02-FS-08	77.0	3.8	< 0.007	< 0.837	0.637	0.117	0.052	1716	0.736	0.163	2	34	0.011	0.029	1000	3.8	0.869	0.024	1.1	8691	12272	**9.3**[#1]	0.004	3950	3.1	0.037	0.643	0.982	< 0.003	0.063	59
	23-Oct-2023		SLSC	Female	AEMP-02-FS-09	79.9	1.5	< 0.007	< 0.837	0.296	0.064	< 0.1	1466	0.599	0.047	**1.2**	29	< 0.013	0.013	1105	1.4	1.6	0.012	0.432	8156	11937	**2.7**	< 0.003	3821	2.4	0.032	0.447	0.982	< 0.003	0.043	51
	23-Oct-2023		SLSC	Female	AEMP-02-FS-18	77.4	3.8	< 0.007	< 0.837	0.563	0.074	0.052	1512	0.714	0.079	1.4	33	0.006	0.016	940	2.3	1.1	**0.012**	0.852	7831	12545	4	< 0.003	3812	2.8	0.032	1.1	0.859	< 0.003	0.045	41
	23-Oct-2023		SLSC	Female	AEMP-02-FS-19	78.2	2.5	< 0.007	< 0.837	0.267	< 0.207	< 0.1	1267	0.571	0.054	**1.1**	24	0.007	0.016	865	1.6	1	0.024	0.383	8412	14254	**3**	< 0.003	4050	1.6	0.046	0.41	0.859	< 0.003	0.035	40
	23-Oct-2023		SLSC	Female	AEMP-FS-02-22	78.0	14	< 0.007	< 0.837	**1.3**	0.17	0.084	1508	0.641	0.086	1.8	65	0.028	0.034	590	2.5	0.979	0.037	1.1	12096	19745	**8.4**[#1]	< 0.003	5988	3.3	0.025	1.1	1.4	< 0.003	0.075	64
	23-Oct-2023		SLSC	Female	AEMP-FS-02-25	76.3	5	< 0.007	< 0.837	0.267	0.074	< 0.1	1375	0.705	0.077	1.2	41	0.011	0.016	718	2	0.534	0.037	0.964	7639	11158	4.6	< 0.003	3455	1.8	0.026	0.772	0.859	< 0.003	0.049	47
	23-Oct-2023		SLSC	Female	AEMP-FS-02-26	76.9	3.9	< 0.007	< 0.837	0.326	0.074	0.042	1478	0.749	0.075	**1**	28	0.011	0.016	947	3.8	0.749	0.024	1.2	8117	12388	4.3	< 0.003	3071	2.2	0.04	0.894	0.737	< 0.003	0.041	38
	25-Sep-2024		SLSC	Female	AEMP-FS-02-2	74.1	3.6	< 0.003	0.28	0.295	< 0.114	< 0.049	1222	0.739	0.055	1.8	28	0.014	< 0.034	1094	1.6	0.935	0.024	0.488	8309	14179	4.2	< 0.001	3063	2.3	0.022	0.31	1	0.001	0.054	44
	25-Sep-2024		SLSC	Female	AEMP-FS-02-4	76.9	6	< 0.003	0.273	0.762	0.126	< 0.049	1449	1	0.099	2.4	56	0.018	< 0.034	1285	4.9	0.47	0.024	1.7	8457	13388	5.4	< 0.001	2643	3.1	0.024	0.151	1.4	< 0.001	0.095	51
	25-Sep-2024		SLSC	Female	AEMP-FS-02-7	80.2	11	0.019	0.339	0.449	0.157	< 0.049	1560	0.8	0.168	**2.6**	53	0.022	0.055	1259	1.8	0.836	0.024	1	9588	17852	4.1	< 0.001	3368	1.7	0.039	0.32	1.5	< 0.001	0.067	**112**
	25-Sep-2024		SLSC	Female	AEMP-FS-02-8	74.8	2.1	< 0.003	< 0.215	0.314	< 0.114	< 0.049	1249	0.693	0.049	1.5	25	0.011	< 0.034	1261	1.2	0.512	< 0.001	0.474	8422	13788	**3.1**	< 0.001	2595	1.9	0.031	0.102	1.1	< 0.001	< 0.049	**33**
	25-Sep-2024		SLSC	Female	AEMP-FS-02-10	76.3	6.6	< 0.003	0.219	0.851	0.157	< 0.049	1525	0.9	0.103	1.9	33	0.015	< 0.034	1384	1.8	0.47	**0.118**	1.3	8422	12581	**2.7**	< 0.001	2893	2.8	0.022	0.175	1.1	< 0.001	0.069	48
	25-Sep-2024		SLSC	Female	AEMP-FS-02-12	78.5	4	0.003	0.328	0.269	< 0.114	< 0.049	1427	0.852	0.067	1.4	40	0.011	< 0.034	1316	1.3	1	0.024	0.907	8853	15895	6.3	< 0.001	3570	2.6	0.022	0.234	1.4	< 0.001	0.059	55
	25-Sep-2024		SLSC	Female	AEMP-FS-02-13	78	5.9	< 0.003	0.273	0.314	< 0.114	< 0.049	1387	0.725	0.067	1.6	34	0.015	< 0.034	1193	1.9	0.909	0.024	0.663	8985	17066	4.3	< 0.001	3740	2.4	0.024	0.198	1.4	< 0.001	0.076	42
	25-Sep-2024		SLSC	Female	AEMP-FS-02-20	78.5	7.7	< 0.003	0.273	0.627	0.157	< 0.049	1356	0.815	0.088	1.4	42	0.035	0.046	1174	1.2	0.522	0.047	0.812	8185	14299	**6.7**[#1]	< 0.001	3634	2.4	0.047	0.485	1.4	< 0.001	0.076	53
	25-Sep-2024		SLSC	Female	AEMP-FS-02-21	74.7	5.9	< 0.003	0.328	0.358	0.157	< 0.049	1345	0.768	0.117	1.4	29	0.011	< 0.034	1186	1.6	0.418	0.047	0.866	7893	13830	3.8	< 0.001	2349	2.3	0.036	0.306	1.4	< 0.001	0.076	40
	25-Sep-2024		SLSC	Female	AEMP-FS-02-22	74.6	4.2	< 0.003	< 0.215	0.784	0.157	< 0.049	1378	0.872	0.067	1.9	54	0.026	< 0.034	1256	1.3	0.418	0.024	1.2	10594	20415	3.2	< 0.001	4006	2.8	0.027	0.253	1.9	< 0.001	0.109	56
	09-Oct-2025		SLSC	Female	AEMP-FS-02-25	71	6.2	0.005	< 0.355	0.318	< 0.115	< 0.042	1634	1.5	0.131	1.7	54	0.008	0.02	1423	2	0.492	< 0.029	3.6	12782	20386	4.6	< 0.001	3245	2.3	0.029	0.296	1.6	< 0.001	0.074	**30**
	09-Oct-2025		SLSC	Female	AEMP-FS-02-28	73.4	23	0.005	< 0.355	0.451	0.129	< 0.042	1840	**2.2**	0.266	2.3	111	0.011	0.024	1564	4.5	1	0.036	**8.9**	12185	17262	4.5	< 0.001	3330	2.5	0.054	0.353	2.2	< 0.001	0.196	49
	09-Oct-2025		SLSC	Female	AEMP-FS-02-31	76.3	28	0.008	< 0.355	0.769	0.14	< 0.042	1728	1.8	0.275	1.7	117	0.02	0.031	1454	3.9	1.3	0.048	5.8	12065	16866	5.7	< 0.001	3835	2.2	0.045	0.306	2.4	< 0.001	0.182	57
	09-Oct-2025		SLSC	Female	AEMP-FS-02-32	74	13	0.005	< 0.355	0.424	0.161	< 0.042	1810	1.7	0.192	1.9	87	0.011	0.031	1480	2.8	0.545	0.036	5.7	12176	19145	**9.3**[#1]	< 0.001	3551	2.7	0.027	0.28	2	< 0.001	0.132	41
	09-Oct-2025		SLSC	Female	AEMP-FS-02-35	74.9	23	< 0.003	< 0.355	0.583	0.124	< 0.042	1672	1.7	0.216	2.1	94	0.014	0.031	1355	3.4	0.755	0.048	5.9	12048	18383	3.2	< 0.001	3650	2.4	0.041	0.221	2.1	< 0.001	0.149	47
	09-Oct-2025		SLSC	Female	AEMP-FS-02-40	73.4	3.2	< 0.003	< 0.355	0.239	< 0.115	< 0.042	1632	1.1	0.083	2.1	44	0.003	0.018	1529	2.1	0.954	< 0.029	1.8	10248	13105	4.8	< 0.001	2436	2.3	0.027	0.192	1.1	< 0.001	0.055	54
	09-Oct-2025		SLSC	Female	AEMP-FS-02-41	75.3	7	< 0.003	< 0.355	0.431	0.138	< 0.042	1872	1	0.11	1.7	44	0.006	0.018	1589	2.6	1.3	< 0.029	1.9	11416	17408	4.2	< 0.001	3150	2.9	0.042	0.329	1.5	< 0.001	0.067	43
	09-Oct-2025		SLSC	Female	AEMP-FS-02-47	75.6	2.8	< 0.003	< 0.355	0.271	0.138	< 0.042	1686	0.914	0.088	1.8	35	0.003	0.018	1475	2.5	0.873	< 0.029	1.3	10594	18367	3.9	< 0.001	3147	2.2	0.037	0.226	1	< 0.001	0.067	38
	09-Oct-2025		SLSC	Female	AEMP-FS-02-49	73.3	9.5	< 0.003	< 0.355	0.446	0.152	< 0.042	1553	1.2	0.128	1.9	54	0.006	0.013	1376	2.4	0.655	0.043	3.4	9420	14965	**3.1**	< 0.001	2620	2.4	0.05	0.117	1	< 0.001	0.1	35
	09-Oct-2025		SLSC	Female	AEMP-FS-02-52	78.7	9.8	< 0.003	< 0.355	0.446	0.193	< 0.042	1609	1.1	0.119	1.4	64	0.009	0.027	1364	2.2	1.5	0.043	3.2	12440	20443	4.5	< 0.001	4192	2.5	0.047	0.148	1.7	< 0.001	0.123	77
Reference Sites																																				
AEMP-FS-01	23-Oct-2023		SLSC	Female	AEMP-01-FS-01	78.4	4.3	< 0.007	< 0.837	0.475	0.064	0.034	1569	0.64	0.07	1.5	36	0.012	0.017	1069	1.8	1.2	0.019	0.324	10452	17794	3.2	< 0.003	4650	2.5	0.017	0.546	1.2	< 0.003	0.043	55
	23-Oct-2023		SLSC	Female	AEMP-01-FS-02	77.8	2.7	< 0.007	< 0.837	0.29	< 0.207	< 0.1	1352	0.576	0.049	1.2	25	0.007	0.011	1106	2.4	1	0.009	0.233	8895	13548	3.3	< 0.003	3486	2.1	0.022	0.412	0.952	< 0.003	< 0.113	43
	23-Oct-2023		SLSC	Female	AEMP-01-FS-13	78.8	2.5	< 0.007	0.656	0.36	0.104	< 0.1	1524	0.623	0.043	1.2	27	0.005	0.021	1112	2	0.991	0.012	0.379	8878	15627	4.4	< 0.003	3881	2.3	0.042	0.234	0.958	< 0.003	0.042	39
	23-Oct-2023		SLSC	Female	AEMP-01-FS-14	74.6	6.8	< 0.007	< 0.837	0.693	0.104	0.037	1667	0.647	0.077	1.9	36	0.013	0.021	1122	5.9	0.946	0.024	0.535	8721	14752	5.4	< 0.003	3122	2.8	0.033	0.267	1	< 0.003	0.046	64
	23-Oct-2023		SLSC	Female	AEMP-01-FS-03	78.2	3.9	< 0.007	0.351	0.343	< 0.207	0.034	1561	0.758	0.112	1.5	32	0.014	0.017	1071	2	0.913	0.019	1	8979	12680	5.1	< 0.003	3827	2.2	0.024	0.836	1.2	< 0.003	0.043	41
	23-Oct-2023		SLSC	Female	AEMP-01-FS-05	78.0	4.3	< 0.007	< 0.837	0.29	0.064	< 0.1	1589	0.637	0.068	1.5	30	0.012	0.014	862	1.6	0.741	0.019	0.467	9394	14433	6.4	< 0.003	3516	2.3	0.038	0.692	1.1	< 0.003	< 0.113	50
	23-Oct-2023		SLSC	Female	AEMP-01-FS-06	77.3	2.2	< 0.007	< 0.837	0.435	0.064	< 0.1	1364	0.622	0.052	1.2	26	0.007	0.017	890	1.4	0.997	0.009	0.348	9830	17156	5.5	< 0.003	4093	1.9	0.017	0.312	1.2	< 0.003	< 0.113	56
	23-Oct-2023		SLSC	Female	AEMP-01-FS-08	77.2	1.8	< 0.007	< 0.837	0.211	0.064	< 0.1	1493	0.598	0.04	1.8	30	0.005	0.017	1097	1.9	0.724	0.009	0.238	10768	18865	4.5	< 0.003	3795	2.2	0.026	0.332	1	< 0.003	< 0.113	36
	23-Oct-2023		SLSC	Female	AEMP-01-FS-09	74.8	1.6	< 0.007	< 0.837	0.659	0.073	< 0.1	1650	0.74	0.057	1.7	38	0.007	0.014	1120	3.1	0.623	0.019	0.823	8286	10958	5.1	< 0.003	3209	3.4	0.027	0.847	1.1	< 0.003	< 0.113	34
	23-Oct-2023		SLSC	Female	AEMP-01-FS-10	78.5	1.6	< 0.007	< 0.837	0.237	0.092	< 0.1	1384	0.589	0.032	1.2	32	0.007	0.014	917	1.9	0.701	0.009	0.524	7234	12682	5.7	< 0.003	2930	1.7	0.023	0.309	0.952	< 0.003	< 0.113	47
	25-Sep-2024		SLSC	Female	AEMP-FS-01-5	76.4	2.7	0.004	0.269	0.391	< 0.114	< 0.049	1364	0.972	0.069	1.5	34	0.006	< 0.034	1326	1.5	0.806	0.019	1.2	8464	15267	3.7	< 0.001	2250	2.3	0.022	0.189	1.1	< 0.001	0.05	54
	25-Sep-2024		SLSC	Female	AEMP-FS-01-8	75.7	5.2	< 0.003	0.267	0.609	0.138	< 0.049	1680	1.2	0.082	1.5	37	0.014	< 0.034	1238	1.6	0.642	0.047	2.2	8543	14641	5.7	< 0.001	3549	3.2	0.018	0.673	1	< 0.001	0.059	46
	25-Sep-2024		SLSC	Female	AEMP-FS-01-10	77.2	17	< 0.003	< 0.215	0.554	0.152	< 0.049	1425	0.811	0.11	1.6	45	0.017	0.046	1256	2.4	0.388	0.071	0.914	8012	12276	4.7	< 0.001	2804	2.4	0.028	0.245	1.7	0.001	0.092	37
	25-Sep-2024		SLSC	Female	AEMP-FS-01-14	78.7	4.8	0.007	0.331	0.443	0.124	0.062	1519	0.742	0.094	1.5	34	0.014	0.05	1280	2.1	1.5	0.024	0.676	9683	15778	4.1	< 0.001	3795	2.2	0.028	0.509	1.8	0.002	0.094	60
	25-Sep-2024		SLSC	Female	AEMP-FS-01-15	78.7	5.6	< 0.003	< 0.215	0.351	< 0.114	< 0.049	1595	0.715	0.057	1.9	34	0.01	0.037	1272	2	0.905	0.024	0.826	7750	11911	4.2	< 0.001	2697	2.6	0.021	0.379	1.3	0.001	0.05	43
	25-Sep-2024		SLSC	Female	AEMP-FS-01-17	75.5	5.5	0.004	0.305	0.83	0.138	< 0.049	1546	1	0.114	1.9	40	0.027	< 0.034	1208	2.6	0.975	0.024	1.3	9217	15022	4.7	< 0.001	2972	3.3	0.02	0.397	1.6	0.001	0.08	57
	25-Sep-2024		SLSC	Female	AEMP-FS-01-19	79	7.8	0.014	0.382	0.848	0.2	0.124	1552	0.939	0.129	2.4	55	0.03	0.064	1304	2.8	1.2	0.047	1.3	10278	15381	4	0.016	3840	2.8	0.031	0.345	1.6	0.003	0.101	74
	25-Sep-2024		SLSC	Female	AEMP-FS-01-22	73.7	3.6	0.004	< 0.215	0.258	< 0.114	< 0.049	1407	1	0.065	1.7	34	0.01	< 0.034	1162	1.3	0.647	0.024	1.3	7754	12174	5	< 0.001	2284	2.3	0.018	0.311	1	< 0.001	0.059	37
	25-Sep-2024		SLSC	Female	AEMP-FS-01-29	78.3	18	0.006	0.356	0.683	0.138	< 0.049	1512	1.1	0.114	2.4	58	0.017	0.055	1319	2.3	0.925	0.047	1.4	11308	22015	4.9	< 0.001	3835	2.8	0.029	0.35	1.8	0.002	0.142	79
	25-Sep-2024		SLSC	Female	AEMP-FS-01-30	77.8	5.3	0.005	< 0.215	0.627	< 0.114	0.062	1609	0.763	0.078	2	44	0.015	< 0.034	1410	2.3	2.1	0.024	0.638	10414	14628	4	< 0.001	3617	2.7	0.031	0.226	1.6	0.001	0.088	72

Whole Body Tissue Residue Analytical Results (Dry Weight): Metals and Trace Elements

PROJECT No.: 417085-59897

Sampling Location	Sample Type	Date (dd-mmm-yyyy)	Fish Species	Sex	Sample Name	% Moisture (%)	Aluminum (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Lithium (mg/kg)	Magnesium (mg/kg)	Manganese (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Phosphorus (mg/kg)	Potassium (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Sodium (mg/kg)	Strontium (mg/kg)	Thallium (mg/kg)	Tin (mg/kg)	Titanium (mg/kg)	Uranium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
Federal Environmental Quality Guidelines [#1]						---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.7	---	---	---	---	---	---	---	---	---	---
		09-Oct-2025	SLSC	Female	AEMP-FS-01-33	73.70	57	0.01	0.461	1.1	0.148	< 0.042	2225	3.8	0.615	2.5	229	0.022	0.044	1538	4.4	0.798	0.077	18	11323	16323	8.1 [#1]	0.002	3087	3.7	0.049	0.363	3	< 0.001	0.356	44
		09-Oct-2025	SLSC	Female	AEMP-FS-01-46	75.1	96	0.01	< 0.355	1.7	0.258	< 0.042	1890	4.1	0.646	3	254	0.048	0.102	1354	5.4	0.469	0.204	17	13487	24772	6.1	0.004	5147	3	0.053	0.713	4.8	0.002	0.417	59
		09-Oct-2025	SLSC	Female	AEMP-FS-01-47	76.7	123	0.013	0.398	1.6	0.209	< 0.042	2441	5.5	0.932	3.5	351	0.054	0.084	1894	6.7	1	0.144	26	13292	19343	5.1	0.004	7100	5.9	0.03	0.427	4.8	0.002	0.586	113
		09-Oct-2025	SLSC	Female	AEMP-FS-01-51	75.3	19	0.005	< 0.355	0.557	0.124	< 0.042	2029	2	0.327	2	110	0.017	0.027	1413	3	0.687	0.036	7.6	12130	18225	6.5	< 0.001	4090	3.1	0.044	0.19	2.1	< 0.001	0.143	54
		09-Oct-2025	SLSC	Female	AEMP-FS-01-53	77.9	20	0.003	< 0.355	0.663	0.129	< 0.042	1822	1.4	0.165	2.2	96	0.025	0.039	1561	3.3	0.813	0.036	4.3	13974	22415	4.5	< 0.001	4414	2.9	0.049	0.431	2.3	< 0.001	0.119	62
		09-Oct-2025	SLSC	Female	AEMP-FS-01-57	78.3	17	0.005	< 0.355	0.557	0.129	< 0.042	1958	1.8	0.214	2.2	111	0.017	0.027	1569	3.1	1.1	0.066	6.5	12989	20116	7.7 [#1]	< 0.001	3788	3.2	0.047	0.22	1.8	< 0.001	0.145	47
		09-Oct-2025	SLSC	Female	AEMP-FS-01-35	76.70	18	0.006	< 0.355	0.709	0.143	< 0.042	1979	1.6	0.258	1.9	99	0.022	0.033	1437	2.9	0.528	0.067	6	13129	20147	4.9	< 0.001	4088	2.8	0.044	0.444	2	< 0.001	0.154	39
		09-Oct-2025	SLSC	Female	AEMP-FS-01-38	74.20	82	0.006	< 0.355	1.3	0.126	< 0.042	1954	2.3	0.292	2	168	0.031	0.096	1418	5	0.864	0.043	10	11409	16221	5.6	0.004	3250	2.9	0.036	0.177	5	0.002	0.277	42
		09-Oct-2025	SLSC	Female	AEMP-FS-01-40	75.10	31	0.004	< 0.355	0.6	0.154	< 0.042	2001	3.4	0.475	2.1	185	0.017	0.033	1498	4.7	0.534	0.038	17	11896	17140	5.3	< 0.001	2961	2.8	0.038	0.277	2.1	< 0.001	0.318	48
		09-Oct-2025	SLSC	Female	AEMP-FS-01-44	77.2	46	0.008	0.387	0.835	< 0.115	< 0.042	2030	4.2	0.2	2.6	278	0.028	0.035	1445	5.9	0.855	0.216	18	12542	18940	6	< 0.001	3419	3.7	0.052	0.42	3.8	< 0.001	0.211	48
AEMP-FS-03		25-Sep-2024	SLSC	Female	AEMP-FS-03-2	77.60	4.3	0.009	< 0.215	0.381	< 0.114	< 0.049	1403	0.814	0.087	1.5	46	0.015	< 0.034	1448	2	1.4	0.036	0.941	10239	15832	3.1	< 0.001	2799	1.7	0.026	0.448	1.6	< 0.001	0.099	51
		25-Sep-2024	SLSC	Female	AEMP-FS-03-17	79.2	3.7	0.007	< 0.215	0.763	0.218	< 0.049	1626	1.1	0.125	1.8	113	0.024	0.056	1481	2.8	2.7	0.038	2.1	10920	17016	4.5	< 0.001	3865	2.4	0.033	0.632	1.8	0.002	0.08	70
		25-Sep-2024	SLSC	Female	AEMP-FS-03-20	77.9	2.2	0.004	< 0.215	0.47	0.191	< 0.049	1475	0.638	0.048	1.5	23	0.012	0.038	1498	1.8	1.1	0.019	0.424	9856	16331	3.1	< 0.001	2553	2.1	0.03	0.174	1.3	0.001	0.06	36
		25-Sep-2024	SLSC	Female	AEMP-FS-03-26	77.7	9	0.011	0.33	1.4	0.218	< 0.049	1668	0.969	0.078	1.7	53	0.018	< 0.034	1655	2.7	1.4	0.057	1.9	10510	17220	3.6	< 0.001	3014	2.1	0.045	0.383	2.2	0.002	0.16	53
		25-Sep-2024	SLSC	Female	AEMP-FS-03-3	77.70	4.1	0.011	< 0.215	0.858	0.198	0.05	1725	0.869	0.108	1.6	44	0.029	0.064	1170	2.3	0.645	0.072	1.1	9027	15311	4.5	0.005	2899	2	0.021	0.525	2.5	0.003	0.151	33
		25-Sep-2024	SLSC	Female	AEMP-FS-03-4	77.30	2.8	< 0.003	< 0.215	0.286	< 0.114	< 0.049	1360	0.824	0.054	1.3	36	0.012	< 0.034	1486	2.2	1	0.014	0.753	9101	14428	3	< 0.001	2587	1.6	0.013	0.496	1.3	< 0.001	< 0.049	32
		25-Sep-2024	SLSC	Female	AEMP-FS-03-5	77.40	3.4	0.008	< 0.215	0.603	< 0.114	< 0.049	1424	0.827	0.049	1.5	45	0.02	< 0.034	1485	2	1.2	0.014	0.345	10494	14072	3.3	< 0.001	2531	2.2	0.018	0.294	1.4	< 0.001	< 0.049	58
		25-Sep-2024	SLSC	Female	AEMP-FS-03-6	77.30	1.4	< 0.003	< 0.215	0.161	0.119	< 0.049	1492	0.722	0.057	1.1	25	0.009	< 0.034	1519	2.3	0.968	0.014	0.513	9860	14717	3.3	< 0.001	2399	1.6	0.019	0.414	1.3	< 0.001	0.084	35
		25-Sep-2024	SLSC	Female	AEMP-FS-03-8	77.80	1.2	< 0.003	< 0.215	0.127	< 0.114	< 0.049	1252	0.525	0.034	0.883	17	0.003	< 0.034	810	1.5	0.427	0.014	0.257	7563	14861	3.8	< 0.001	2204	1.3	0.014	0.449	0.893	< 0.001	< 0.049	21
		25-Sep-2024	SLSC	Female	AEMP-FS-03-13	76.70	3.5	< 0.003	< 0.215	0.487	< 0.114	< 0.049	1668	1.1	0.063	1.3	54	0.006	< 0.034	1558	2	2	0.038	1.7	9948	15933	2.7	< 0.001	3065	3.1	0.033	0.433	1.1	< 0.001	0.066	47
		09-Oct-2025	SLSC	Female	AEMP-FS-03-32	76.7	4.7	< 0.003	< 0.355	0.287	< 0.115	< 0.042	1540	0.901	0.073	1.7	41	0.006	0.018	1231	2.3	0.831	< 0.029	1.5	10604	19725	4.8	< 0.001	3389	2.2	0.036	0.297	1.4	< 0.001	0.069	39
		09-Oct-2025	SLSC	Female	AEMP-FS-03-35	77	11	< 0.003	< 0.355	0.414	< 0.115	0.045	1603	1	0.137	2.3	77	0.009	0.018	1443	3	2.7	< 0.029	2.2	13014	17398	4.8	< 0.001	3897	2.6	0.044	0.223	1.8	< 0.001	0.105	98
		09-Oct-2025	SLSC	Female	AEMP-FS-03-43	77.6	4.1	< 0.003	< 0.355	0.223	< 0.115	< 0.042	1444	0.87	0.091	1.9	39	0.007	0.032	1255	2.6	0.904	< 0.029	1.3	11288	18867	4.6	< 0.001	4042	1.7	0.056	0.167	1.4	< 0.001	0.036	39
		09-Oct-2025	SLSC	Female	AEMP-FS-03-45	74.4	4	< 0.003	< 0.355	0.223	0.116	< 0.042	1534	1	0.072	2	39	0.005	0.02	1293	1.9	0.576	< 0.029	1.6	10120	16401	5.6	< 0.001	2843	2.6	0.024	0.165	0.972	< 0.001	0.052	44
		09-Oct-2025	SLSC	Female	AEMP-FS-03-47	74.4	3.9	< 0.003	< 0.355	0.251	< 0.115	< 0.042	1638	0.914	0.062	2.2	32	0.005	0.02	1416	2.3	0.713	< 0.029	0.858	11074	16788	3.5	< 0.001	2783	2.7	0.039	0.176	1.2	< 0.001	0.043	38
		09-Oct-2025	SLSC	Female	AEMP-FS-03-48	76.3	4.4	< 0.003	< 0.355	0.265	0.128	< 0.042	1532	0.835	0.085	1.8	37	0.005	0.02	1295	1.7	0.866	< 0.029	1.1	9844	14656	5	< 0.001	2832	2.5	0.027	0.125	1.3	< 0.001	0.038	45
		09-Oct-2025	SLSC	Female	AEMP-FS-03-50	76.1	5.3	< 0.003	< 0.355	0.307	< 0.115	< 0.042	1713	0.942	0.097	2.2	44	0.007	0.02	1361	2.6	0.522	< 0.029	1.6	10095	14180	4.8	< 0.001	2827	2.5	0.044	0.225	1.1	< 0.001	0.045	37
		09-Oct-2025	SLSC	Female	AEMP-FS-03-53	74.9	5	< 0.003	< 0.355	0.307	0.174	< 0.042	1504	0.984	0.134	1.3	46	0.012	0.028	1148	1.7	0.716	0.048	1.5	8988	16268	3.5	< 0.001	3504	2.2	0.032	0.295	1.1	< 0.001	0.062	42
		09-Oct-2025	SLSC	Female	AEMP-FS-03-56	76.1	3.7	< 0.003	< 0.355	0.279	0.174	< 0.042	1483	0.853	0.065	1.9	39	0.01	0.02	1416	2	0.824	< 0.029	1.4	9712	14014	3.3	< 0.001	2874	2.1	0.036	0.126	0.851	< 0.001	0.043	34
		09-Oct-2025	SLSC	Female	AEMP-FS-03-58	72.4	8.1	< 0.003	< 0.355	0.363	< 0.115	< 0.042	1459	0.895	0.067	2	45	0.01	0.02	1290	2	0.936	< 0.029	1.6	10423	16117	4.7	< 0.001	2959	2.3	0.033	0.212	1.1	< 0.001	0.061	38
Males																																				
NW AEMP Upper Control Limit						---	53.137	---	---	1.5121	---	---	---	2.6244	---	2.7665	---	---	---	---	---	---	0.0961	11.373	---	---	8.0749	---	---	---	---	---	---	---	---	91.5
NW AEMP Lower Control Limit						---	1.4627	---	---	0.1869	---	---	---	0.4424	---	1.2534	---	---	---	---	---	---	0.0131	0.3143	---	---	3.0971	---	---	---	---	---	---	---	---	37.361
Experimental Sites																																				
AEMP-FS-02		23-Oct-2023	SLSC	Male	AEMP-02-FS-02	77.6	5.1	0.003	< 0.837	0.444	0.062	0.037	1658	0.625	0.095	1.4	44	0.013	0.018	1091	1.4	0.749	0.035	0.412	8781	14789	4	0.004	3344	2.8	0.052	0.381	1.1	< 0.003	0.055	79
		23-Oct-2023	SLSC	Male	AEMP-02-FS-03	79.9	4.7	0.003	< 0.837	0.582	0.073	0.093	1677	0.708	0.141	1.5	51	0.015	0.018	833	2.9	0.914	0.047	1.1	10522	16810	7 [#1]	0.004	4722	3.3	0.058	1.2	1.1	< 0.003	0.07	82
		23-Oct-2023	SLSC	Male	AEMP-02-FS-05	79.6	3.6	< 0.007	< 0.837	0.36	0.078	< 0.1	1834	0.586	0.093	1.4	24	0.005	0.021	1177	1.7	0.669	0.024	0.345	8326	10779	5.5	< 0.003	2975	2.9	0.047	0.177	0.851	< 0.003	< 0.113	54
		23-Oct-2023	SLSC	Male	AEMP-02-FS-06	79	15	< 0.007	0.383	0.651	0.12	0.13	1992	0.76	0.272	2.7	54	0.018	0.027	1027	4.2	0.698	0.071	1.6	9403	14210	5.4	0.008	4254	5.2	0.035	1.5	1.2	< 0.003	0.1	85
		23-Oct-2023	SLSC	Male	AEMP-02-FS-10	78.2	3.8	< 0.007	0.325	0.459	0.117	0.104	1591	0.854	0.238	1.9	56	0.017	0.023	912	2.4	0.938	0.073	2.2	9346	15282	5.3	0.004	5047	3.1	0.062	1.1	1.1	< 0.003	0.081	82
		23-Oct-2023	SLSC	Male	AEMP-02-FS-11	78.5	3.7	0.005	0.31	0.444	0.117	< 0.1	1329	0.661	0.092	1.6	45	0.011	0.029	888	1.9	1.1	0.024	0.581	10013	17470	7.2 [#1]	< 0.003	5484	1.9	0.029	1.5	0.982	< 0.003	0.053	75
		23-Oct-2023	SLSC	Male	AEMP-02-FS-16	81.2	5.5	0.003	< 0.837	0.355	0.138	0.042	1571	0.596	0.06	2	43	0.011	0.026	735	1.2	1.1	0.024	0.247	10073	15197	7.9 [#1]	< 0.003	5361	2.5	0.022	1.1	1	< 0.003	0.052	84
		23-Oct-2023	SLSC	Male	AEMP-02-FS-20	79.3	3.1	< 0.007	< 0.837	0.385	0.127	0.042	1490	0.596	0.079	1.4	30	0.013	0.016	761	1.2	1	0.024	0.556	8063	13334	9.8 [#1]	< 0.003	4187	2.6	0.027	0.789	0.859	< 0.003	< 0.113	69
		23-Oct-2023	SLSC	Male	AEMP-FS-02-21	74.0	9.8	< 0.007	< 0.837	0.474	0.095	< 0.1	1455	0.733	0.081	1.5	41	0.008	0.026	840	2	0.76	0.024	1.2	8616	16001	4.7	< 0.003	4090	2.3	0.03	1.2	1.1	< 0.003	0.064	44
		23-Oct-2023	SLSC	Male	AEMP-FS-02-23	77.4	3.6	< 0.007	< 0.837	0.474	0.122	0.042	1347	0.623	0.077	1.8	52	0.006	0.016	585	1.1	1	0.037	0.679	8224	12549	5.9	< 0.003	4634	2.4	0.026	0.69	0.859	< 0.003	0.039	74
		25-Sep-2024	SLSC	Male	AEMP-FS-02-1	77.2	22	< 0.003	0.254	0.516	0.165	< 0.049	1476	1	0.123	2.4	56	0.02	< 0.034	1286	2.6	0.876	0.047	1.7	9155	13502	3.1	< 0.001	3020	2.4	0.027	0.304	1.8	0.002	0.117	61
		25-Sep-2024	SLSC	Male	AEMP-FS-02-3	77.4	6	< 0.003	0.246	0.448	0.157	< 0.049	1601	0.852	0.108	1.9	32	0.018	< 0.034	1545	1.4	0.522	0.071	0.744	9396	14869	6.8 [#1]	< 0.001	2963	3	0.04	0.224	1.1	< 0.001	0.095	62
		25-Sep-2024	SLSC	Male	AEMP-FS-02-5	77	5.1	< 0.003	0.219	0.538	0.22	< 0.049	1513	0.779	0.085	2.2	35	0.011	< 0.034	1503	1.7	0.522	0.095	0.623	10533	17530	6.1	< 0.001	3280	3.1	0.053	0.435	1.4	< 0.001	0.085	58
		25-Sep-2024	SLSC	Male	AEMP-FS-02-9	75.2	8.7	< 0.003	< 0.215	0.403	0.157	< 0.049	1336	0.951	0.094	2.1	42	0.011	< 0.034	1316	1.7	0.47	0.024	1.4	8625	13559	3.1	< 0.001	2417	2.7	0.034	0.111	1.1	< 0.001	0.066	46
		25-Sep-2024	SLSC	Male	AEMP-FS-02-11	76.4	1.7	< 0.003	0.219	0.179	< 0.114	< 0.049	1016	0.615	0.054	1.1	14	0.007	< 0.034	1183	1.5	0.564	0.024	0.379	9345	15579	4.8	< 0.001	3220	1.5	0.038	0.082	1.1	< 0.001	0.081	44
		25-Sep-2024	SLSC	Male	AEMP-FS-02-15	72.5	11	0.004	< 0.215	0.493	0.173	< 0.049	1406	0.979	0.117	1.8	40	0.022	< 0.034	1306	2	0.282	0.061	1.2	9631	17569	3.9	< 0.001	3235	2.2	0.025	0.148	1.7	0.001	0.114	56
		25-Sep-2024	SLSC	Male	AEMP-FS-02-16	75.8	8	< 0.003	< 0.215	0.493	0.126	< 0.049	1219	1	0.085	1.7	52	0.015	< 0.034	1158	1.6	0.481	0.024	1.5	11434	19713	4.9	< 0.001	3745	2.4	0.023	0.422	1.1	< 0.001	0.095	76
		25-Sep-2024	SLSC	Male	AEMP-FS-02-18	78.3	9	0.012	0.301	0.717	0.188	< 0.049	1558	0.744	0.135	2.1	45	0.022	< 0.034	1511	2.2	0.94	0.035	0.839	9878	14953	4.9	< 0.001	3510	3	0.033	0.218	1.9	0.003	0.116	71
		25-Sep-2024	SLSC	Male	AEMP-FS-02-23	78.8	3.7	< 0.003	0.277	0.358	< 0.114	0.066	1423	0.656	0.067	1.3	30	0.015	< 0.034	1308	1.5	0.548	0.024	0.623	8899	12284	3.7	< 0.001	2962	2.1	0.026	0.178	1.4	< 0.001	0.066	60
		25-Sep-2024	SLSC	Male	AEMP-FS-02-24	78.8	11	< 0.003	0.246	0.819	0.251	< 0.049	1192	0.786	0.076	1.4	63	0.037	0.073	1048	2	0.679	0.095	0.948	8166	13053	3.3	< 0.001	2787	2.6	0.021	0.189	4.1	< 0.001	0.185	58
		09-Oct-2025	SLSC	Male	AEMP-FS-02-27	75.4	27	0.007	< 0.355	0.557	0.14	< 0.042	1591	1.7	0.105	2.6	94	0.025	0.047	1431	4.6	0.492	0.096	6.5	13968	23712	4.7	< 0.001	3967	1.7	0.046	0.296	2.4	< 0.001	0.123	42
		09-Oct-2025	SLSC	Male	AEMP-FS-02-37	76.5	11	< 0.003	< 0.355	0.51	0.304	< 0.042	1975	1.2	0.162	1.9	72	0.012	0.036	1601	2.2	0.496	0.048	2.9	11633	20535	7.2 [#1]	< 0.001	3458	3.6	0.037	0.229	1.8	< 0.001	0.139	66

Table 17

Whole Body Tissue Residue Analytical Results (Dry Weight): Metals and Trace Elements

PROJECT No.: 417085-59897

Sampling Location	Sample Type	Date (dd-mmm-yyyy)	Fish Species	Sex	Sample Name	% Moisture (%)	Aluminum (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Lithium (mg/kg)	Magnesium (mg/kg)	Manganese (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Phosphorus (mg/kg)	Potassium (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Sodium (mg/kg)	Strontium (mg/kg)	Thallium (mg/kg)	Tin (mg/kg)	Titanium (mg/kg)	Uranium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
Federal Environmental Quality Guidelines [#1]						---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.7	---	---	---	---	---	---	---	---	---	---
		09-Oct-2025	SLSC	Male	AEMP-FS-02-43	75	12	0.003	< 0.355	0.51	0.124	< 0.042	1716	1.6	0.229	2.2	87	0.009	0.018	1343	3.2	0.507	0.043	6.1	9922	16694	5.3	< 0.001	3370	2.4	0.031	0.337	1.4	< 0.001	0.135	47
		09-Oct-2025	SLSC	Male	AEMP-FS-02-44	76.7	5.8	0.003	< 0.355	0.223	0.207	< 0.042	1654	1.2	0.154	1.8	64	0.009	0.022	1585	2.3	0.627	0.057	2.8	11687	17320	3.9	< 0.001	3887	2.3	0.045	0.176	1.3	< 0.001	0.097	50
		09-Oct-2025	SLSC	Male	AEMP-FS-02-46	77.4	3.4	0.004	< 0.355	0.287	< 0.115	< 0.042	1610	0.923	0.092	1.8	42	0.009	0.022	1407	2	1.1	0.043	1.5	10247	14152	5	< 0.001	2943	2.6	0.043	0.214	1.4	< 0.001	0.073	50
		09-Oct-2025	SLSC	Male	AEMP-FS-02-48	76.9	23	0.004	< 0.355	0.478	0.18	< 0.042	1721	1.2	0.232	2.1	85	0.008	0.036	1266	3	0.958	0.057	4.6	12296	21248	5.2	< 0.001	4442	2.3	0.042	0.319	2.1	< 0.001	0.143	71
		09-Oct-2025	SLSC	Male	AEMP-FS-02-50	77.6	13	< 0.003	< 0.355	0.765	0.152	< 0.042	1618	0.844	0.137	1.8	46	0.015	0.031	1635	3.3	0.609	0.057	1.4	10064	15325	4.3	< 0.001	3377	2.4	0.046	0.202	1.5	< 0.001	0.075	63
		09-Oct-2025	SLSC	Male	AEMP-FS-02-53	77.9	4.3	< 0.003	< 0.355	0.319	0.138	< 0.042	1738	1.1	0.145	1.7	48	0.006	0.022	1565	2.4	0.866	0.043	2.2	11860	18225	4.2	< 0.001	3971	2.6	0.041	0.188	1.4	< 0.001	0.075	51
		09-Oct-2025	SLSC	Male	AEMP-FS-02-54	77	16	< 0.003	< 0.355	0.383	0.166	< 0.042	1596	1	0.089	1.9	58	0.012	0.038	1362	1.8	0.986	0.057	2	11143	18263	4.8	< 0.001	3937	2.5	0.05	0.205	2.1	< 0.001	0.08	66
		09-Oct-2025	SLSC	Male	AEMP-FS-02-56	76.5	5.8	< 0.003	< 0.355	0.319	0.152	< 0.042	1552	1.3	0.164	1.7	64	0.003	0.022	1364	1.9	0.507	0.043	3.3	11481	20439	4.2	< 0.001	3668	2.1	0.031	0.193	1.4	< 0.001	0.105	46
Reference Sites																																				
AEMP-FS-01		23-Oct-2023	SLSC	Male	AEMP-01-FS-15	77.9	5.7	0.002	< 0.837	0.43	0.083	< 0.1	1578	0.732	0.071	1.4	38	0.01	0.018	1142	2.3	1.6	0.024	1.1	8965	14344	4.3	< 0.003	3571	2.5	0.041	0.949	0.958	< 0.003	0.051	83
		23-Oct-2023	SLSC	Male	AEMP-01-FS-16	72.8	10	0.005	0.308	0.721	0.094	0.111	1962	1.1	0.139	2.2	81	0.021	0.037	1036	2.7	0.914	0.047	2.6	9196	12510	10 [#1]	0.008	5119	5	0.024	2.9	1.4	< 0.003	0.091	91
		23-Oct-2023	SLSC	Male	AEMP-01-FS-17	78.9	3.1	0.003	< 0.837	0.444	0.166	0.056	1426	0.623	0.078	1.4	26	0.01	0.015	928	4.8	1.3	0.024	0.65	10078	14280	4.6	< 0.003	4203	2.5	0.041	0.535	0.958	< 0.003	0.037	61
		23-Oct-2023	SLSC	Male	AEMP-01-FS-18	78.5	108	< 0.007	< 0.837	3.2	0.178	0.037	1908	0.778	0.104	1.9	93	0.049	0.071	1015	6	0.64	0.035	1.6	8365	13262	8 [#1]	0.004	3774	4.8	0.047	0.48	2.1	0.003	0.156	43
		23-Oct-2023	SLSC	Male	AEMP-01-FS-19	75.4	43	< 0.007	< 0.837	2.6	0.146	0.148	1815	0.926	0.179	1.8	91	0.028	0.055	1041	6.7	0.495	0.035	2.6	9049	15505	6.8 [#1]	0.004	4314	3.8	0.041	0.341	2.1	0.002	0.147	91
		23-Oct-2023	SLSC	Male	AEMP-01-FS-20	77.7	6.6	< 0.007	< 0.837	0.333	0.062	0.056	1577	0.696	0.099	1.4	51	0.01	0.024	810	1.3	0.733	0.024	1.2	9075	15383	4.7	0.004	4574	2.4	0.036	0.698	0.958	< 0.003	0.052	60
		23-Oct-2023	SLSC	Male	AEMP-FS-01-21	79.2	8.7	< 0.007	< 0.837	0.388	0.062	0.056	1422	0.663	0.102	1.8	56	0.018	0.031	812	2.2	1.1	0.047	0.908	10208	16818	5.8	< 0.003	5623	2.5	0.04	0.642	1.3	< 0.003	0.055	73
		23-Oct-2023	SLSC	Male	AEMP-FS-01-22	78.3	5.2	< 0.007	< 0.837	0.499	0.083	0.037	1448	0.538	0.06	1.4	34	0.008	0.021	777	2.4	0.772	0.024	0.368	8268	14130	9.6 [#1]	< 0.003	3538	2.2	0.03	0.09	1	< 0.003	< 0.113	81
		23-Oct-2023	SLSC	Male	AEMP-01-FS-07	79.9	3.3	0.002	< 0.837	0.523	0.064	< 0.1	1485	0.589	0.051	1.5	25	0.005	0.023	1121	2.2	1	0.013	0.478	10913	17790	5.8	< 0.003	4235	2.6	0.027	1.1	1.1	< 0.003	0.036	59
		23-Oct-2023	SLSC	Male	AEMP-01-FS-11	79.2	2.2	< 0.007	< 0.837	0.194	< 0.207	< 0.1	1537	0.69	0.056	1	29	0.006	0.021	1238	1.9	1.4	0.012	0.858	8885	14142	4.1	< 0.003	3330	2.2	0.04	0.54	0.958	< 0.003	0.035	48
		25-Sep-2024	SLSC	Male	AEMP-FS-01-1	77	3.2	0.005	0.257	0.431	0.136	< 0.049	1573	1.6	0.175	1.6	61	0.012	< 0.034	1422	1.9	0.857	0.038	3.5	9501	15473	4	< 0.001	2959	2.6	0.028	0.341	1.3	0.001	0.11	58
		25-Sep-2024	SLSC	Male	AEMP-FS-01-3	80	3.7	0.007	0.245	0.509	0.136	0.058	1533	0.602	0.052	1.4	29	0.015	< 0.034	1195	1.5	0.806	0.019	0.448	9929	17413	4.7	< 0.001	3121	2.3	0.027	0.188	1.6	0.001	0.081	76
		25-Sep-2024	SLSC	Male	AEMP-FS-01-4	79.3	15	0.01	0.269	2	0.245	0.058	1905	0.965	0.156	2.1	70	0.033	< 0.034	1195	4	0.605	0.096	2.2	10611	16846	3.8	0.007	3245	3.2	0.047	0.184	1.8	0.003	0.224	102
		25-Sep-2024	SLSC	Male	AEMP-FS-01-6	78.1	3	0.005	0.281	0.391	0.123	0.058	1431	0.656	0.093	1.3	25	0.012	< 0.034	1062	1.5	0.362	0.019	0.554	8930	16252	6.2	< 0.001	2840	2.1	0.022	0.265	1.3	< 0.001	0.066	60
		25-Sep-2024	SLSC	Male	AEMP-FS-01-9	76.8	5.1	0.004	0.216	0.443	0.138	< 0.049	1471	0.963	0.09	1.8	31	0.017	< 0.034	1272	2.6	0.851	0.024	1.1	8846	14298	4	< 0.001	2738	2.2	0.022	0.46	1.6	< 0.001	0.084	40
		25-Sep-2024	SLSC	Male	AEMP-FS-01-18	77.2	5.9	0.003	0.28	0.424	0.138	< 0.049	1435	0.969	0.08	2.4	38	0.02	0.046	1234	2.5	0.647	0.047	1.6	9783	16775	4.8	< 0.001	3268	2.5	0.029	0.527	1.3	0.001	0.071	78
		25-Sep-2024	SLSC	Male	AEMP-FS-01-20	77.5	3.7	< 0.003	0.305	0.258	< 0.114	0.062	1314	0.814	0.102	1.6	30	0.017	< 0.034	984	1.1	0.398	0.047	1.1	10320	25732	6.3	< 0.001	4047	2.1	0.022	0.451	1.3	0.001	0.084	52
		25-Sep-2024	SLSC	Male	AEMP-FS-01-21	76.8	4.3	< 0.003	0.28	0.295	< 0.114	< 0.049	1470	1.1	0.11	1.5	37	0.012	< 0.034	1209	1.8	0.468	0.024	1.5	9303	15768	4.2	< 0.001	3302	2.5	0.021	0.238	1.3	0.001	0.067	51
		25-Sep-2024	SLSC	Male	AEMP-FS-01-25	75.7	25	0.004	0.305	0.361	0.199	< 0.049	1805	0.862	0.131	2.3	42	0.078	0.047	1228	1.9	0.507	0.083	1.2	8769	14125	4.7	< 0.001	3389	3.5	0.022	0.285	1.3	0.005	0.082	60
		25-Sep-2024	SLSC	Male	AEMP-FS-01-28	78.6	5.7	0.004	< 0.215	0.48	< 0.114	< 0.049	1219	0.666	0.061	1.7	29	0.017	< 0.034	1090	1.9	0.468	0.024	0.451	8559	15439	5.1	< 0.001	2916	2.2	0.016	0.251	1.3	< 0.001	0.063	39
		09-Oct-2025	SLSC	Male	AEMP-FS-01-32	80.80	114	0.01	< 0.355	1.7	0.143	0.067	2155	5	0.75	2.8	292	0.046	0.033	1228	6.3	0.6	0.096	25	13573	20431	6.5	0.004	4905	3	0.036	0.682	5.7	< 0.001	0.521	77
		09-Oct-2025	SLSC	Male	AEMP-FS-01-48	75.1	21	0.006	0.364	0.583	0.161	< 0.042	1897	2.2	0.17	2.9	124	0.025	0.033	1250	3.7	0.464	0.12	8.3	10939	17313	3.7	< 0.001	3316	3.4	0.036	0.241	2.1	< 0.001	0.119	49
		09-Oct-2025	SLSC	Male	AEMP-FS-01-52	77.7	53	0.004	< 0.355	0.888	0.129	< 0.042	1829	2.8	0.4	2.3	177	0.025	0.039	1492	3.9	0.536	0.084	13	12551	21807	4.4	< 0.001	3873	2.7	0.044	0.263	3.5	< 0.001	0.274	60
		09-Oct-2025	SLSC	Male	AEMP-FS-01-54	81	35	0.007	< 0.355	0.557	0.161	< 0.042	1698	3.8	0.538	2.4	222	0.017	0.035	1328	4.6	1	0.084	18	14166	22722	4.2	< 0.001	4405	2.6	0.05	0.565	2.7	< 0.001	0.379	110
		09-Oct-2025	SLSC	Male	AEMP-FS-01-55	78.5	39	0.006	< 0.355	0.703	< 0.115	< 0.042	1669	2.6	0.442	2.1	169	0.023	0.035	1200	3.2	0.844	0.084	12	10652	17498	3.4	< 0.001	5561	2.8	0.026	0.31	2.4	< 0.001	0.255	63
		09-Oct-2025	SLSC	Male	AEMP-FS-01-59	79.8	25	0.007	< 0.355	0.716	0.118	< 0.042	1830	2.2	0.325	2.2	143	0.027	0.047	1240	3.4	0.911	0.072	7.6	12728	21295	5.3	< 0.001	5172	3.2	0.047	0.429	1.6	< 0.001	0.219	74
		09-Oct-2025	SLSC	Male	AEMP-FS-01-34	77.80	36	0.004	< 0.355	0.614	0.143	< 0.042	1870	2.8	0.414	2.8	167	0.015	0.033	1414	4	0.586	< 0.029	12	11619	16626	9.7 [#1]	0.004	3313	2.7	0.038	0.317	2.6	< 0.001	0.248	58
		09-Oct-2025	SLSC	Male	AEMP-FS-01-39	77.10	19	< 0.003	< 0.355	0.709	< 0.115	< 0.042	2099	1.4	0.136	1.8	79	0.012	0.03	1792	3.2	0.723	0.038	4.6	12660	19943	4.3	< 0.001	3121	3.3	0.051	0.327	2	< 0.001	0.125	49
		09-Oct-2025	SLSC	Male	AEMP-FS-01-42	78.1	23	0.004	< 0.355	0.628	< 0.115	< 0.042	2110	2	0.286	1.9	115	0.015	0.03	1546	3.8	0.775	0.033	7.9	11385	16972	6.6	< 0.001	3745	3.4	0.045	0.237	2	< 0.001	0.179	57
		09-Oct-2025	SLSC	Male	AEMP-FS-01-45	77.8	58	0.008	0.41	0.875	< 0.115	< 0.042	1747	3.9	0.524	2.3	214	0.028	0.039	1435	5.1	0.71	0.078	17	11794	19242	5.6	< 0.001	4256	2.7	0.038	0.261	3.5	< 0.001	0.312	58
AEMP-FS-03		25-Sep-2024	SLSC	Male	AEMP-FS-03-1	81.60	5	0.009	0.262	2.6	0.218	0.05	1760	0.825	0.177	2.6	57	0.03	0.051	1662	3.3	0.799	0.115	2.6	12148	19154	3.8	0.005	6597	2.8	0.023	1.3	2.3	0.003	0.134	84
		25-Sep-2024	SLSC	Male	AEMP-FS-03-14	78.50	3.4	< 0.003	0.245	0.666	0.136	< 0.049	1695	0.818	0.082	1.4	40	0.015	< 0.034	1050	1.9	0.417	0.038	0.92	9208	15204	5.1	< 0.001	2955	2.6	0.025	0.325	1.1	0.001	0.079	44
		25-Sep-2024	SLSC	Male	AEMP-FS-03-15	78.60	4.2	0.003	0.22	0.705	0.136	< 0.049	1501	1.3	0.114	2.1	65	0.021	< 0.034	1453	2.8	0.582	0.019	2.3	8842	15715	6.6	< 0.001	2683	2.3	0.025	0.45	1.6	0.001	0.097	52
		25-Sep-2024	SLSC	Male	AEMP-FS-03-18	78.4	3.5	0.005	< 0.215	0.626	0.191	< 0.049	1507	0.717	0.06	1.8	34	0.012	< 0.034	1615	2.4	1.1	0.019	0.967	9029	15064	3.5	< 0.001	2914	2.3	0.03	0.193	1.6	0.003	0.077	56
		25-Sep-2024	SLSC	Male	AEMP-FS-03-21	75.9	3.9	0.005	0.257	0.352	0.136	< 0.049	1548	0.626	0.067	1.3	50	0.033	< 0.034	903	2	0.463	0.038	0.354	8071	14716	6	< 0.001	2995	2.9	0.02	0.302	1.1	< 0.001	< 0.049	55
		25-Sep-2024	SLSC	Male	AEMP-FS-03-27	77.5	8.6	0.009	0.249	0.587	0.15	< 0.049	1354	0.831	0.093	2.2	43	0.012	< 0.034	1260	2.2	0.458	0.057	1.1	11390	20482	4.5	< 0.001	3941	2.3	0.024	0.632	2	0.001	0.104	61
		25-Sep-2024	SLSC	Male	AEMP-FS-03-28	78.6	5.4	0.005	< 0.215	0.626	0.191	< 0.049	1627	0.984	0.112	2.7	50	0.012	< 0.034	1343	1.6	0.706	0.038	1.7	10279	18459	3.7	< 0.001	3354	2.9	0.024	0.69	1.6	0.002	0.112	70
		25-Sep-2024	SLSC	Male	AEMP-FS-03-29	78.1	4.6	< 0.003	0.281	0.509	0.136	< 0.049	1578	0.883	0.119	1.9	51	0.027	< 0.034	935	2.5	0.55	0.038	1.4	9264	17616	4.5	< 0.001	3284	2.7	0.021	0.369	1.1	0.001	0.081	80
		25-Sep-2024	SLSC	Male	AEMP-FS-03-10	78.40	0.744	< 0.003	< 0.215	0.159	< 0.114	< 0.049	1510	0.58	0.054	1.2	23	0.003	< 0.034	946	1.3	0.54	0.043	0.248	7634	11718	2.7	< 0.001	2671	1.7	0.017	0.274	1.1	< 0.001	< 0.049	29
		25-Sep-2024	SLSC	Male	AEMP-FS-03-11	77.40	3.8	< 0.003	< 0.215	0.587	< 0.114	< 0.049	1629	0.904	0.11	1.9	49	0.007	< 0.034	1065	2	0.467	0.038	1.5	11005	20902	7.8 [#1]	< 0.001	3393	2.6	0.027	0.495	1.3	< 0.001	0.066	48
		09-Oct-2025	SLSC	Male	AEMP-FS-03-33	74.1	5	< 0.003	< 0.355	0.319	< 0.115	< 0.042	1709	1.3	0.145	2	59	0.009	0.015	1260	2.2	0.549	< 0.029	3.3	8425	14666	5.3	< 0.001	3082	2.7	0.031	0.347	1.3	< 0.001	0.074	47
		09-Oct-2025	SLSC	Male	AEMP-FS-03-34	74	5	< 0.003	< 0.355	0.287	< 0.115	< 0.042	1533	1	0.148	1.6	37	0.006	0.013	1331	1.7	0.338	< 0.029	1.5	8861	13023	3.2	< 0.001	2615	2.1	0.052	0.121	1.1	< 0.001	0.053	37
		09-Oct-2025	SLSC	Male	AEMP-FS-03-36	75.9	18	0.003	< 0.355	0.418	0.174	< 0.042	1587	1.2	0.136	2.3	64	0.015	0.028	1485	3.1	1.1	0.036	3.1	11669	18083	6.8 [#1]	< 0.001	4162	3.1	0.043	0.276	2.1	0.002	0.096	64
		09-Oct-2025	SLSC	Male	AEMP-FS-03-40	77.6	3.3	< 0.003	< 0.355	0.279	0.128	< 0.042	1743	0.881	0.132	1.8	46	0.007	0.024	1302	2	0.789	< 0.029	1.2	11737	18339	7.5 [#1]	< 0.001	3908	2.8	0.046	0.278	1.5	< 0.001	0.041	64
		09-Oct-2025	SLSC	Male	AEMP-FS-03-51	78.7	9.5	< 0.003	< 0.355	0.363	0.128	0.063	1571	0.785	0.102	2	53	0.015	0.028	1196	3	0.703	0.036	0.983	10439	18300	3.2	< 0.001	3530	2.2	0.043	0.17	1.4	< 0.001	0.059	54
		09-Oct-2025	SLSC	Male	AEMP-FS-03-52	75.4	4.5	< 0.003	< 0.355	0.279	< 0.115	< 0.042	1522	0.778	0.104	1.6	37	0.01	0.016	1059	1.5	0.458	< 0.029	0.886	8068	14432	5.2	< 0.001	2923	2.2	0.043	0.225	0.912	< 0.001	0.034	47
		09-Oct-2025	SLSC	Male	AEMP-FS-03-54	77.7	6.2	< 0.003	< 0.355	0.307	0.163	< 0.042	1532	0.826	0.092	2.4	44	0.012	0.024	1388	2	0.834	< 0.029	1.1	10945	16257	4.3	< 0.001	3261	1.9	0.049	0.33	1.1	< 0.001	0.045	40
		09-Oct-2025	SLSC	Male	AEMP-FS-03-55	76.9	7.6	< 0.003	< 0.355	0.39	< 0.115	< 0.042	1584	0.897	0.088	1.6	43	0.012	0.02	1216	1.4	0.535	0.036	1.2	9830	16314	5.3	< 0.001	2984	2	0.043	0.262	1.1	< 0.001	0.05	53

Whole Body Tissue Residue Analytical Results (Dry Weight): Metals and Trace Elements

PROJECT No.: 417085-59897

Sampling Location	Sample Type	Date (dd-mmm-yyyy)	Fish Species	Sex	Sample Name	% Moisture (%)	Aluminum (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Lithium (mg/kg)	Magnesium (mg/kg)	Manganese (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Phosphorus (mg/kg)	Potassium (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Sodium (mg/kg)	Strontium (mg/kg)	Thallium (mg/kg)	Tin (mg/kg)	Titanium (mg/kg)	Uranium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
Federal Environmental Quality Guidelines [#1]						---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**6.7**	---	---	---	---	---	---	---	---	---
		09-Oct-2025	SLSC	Male	AEMP-FS-03-57	73	8.6	< 0.003	< 0.355	0.279	< 0.115	< 0.042	1413	1.1	0.157	1.8	53	0.009	0.016	1204	1.7	0.547	< 0.029	1.8	8667	14587	3.8	< 0.001	2725	2	0.028	0.229	1.2	< 0.001	0.057	46
		09-Oct-2025	SLSC	Male	AEMP-FS-03-59	69.7	28	< 0.003	< 0.355	0.558	0.232	< 0.042	1631	0.94	0.119	2	47	0.015	0.037	1232	2.7	0.516	< 0.029	1.5	10439	17122	**7.3 [#1]**	< 0.001	3272	3	0.041	0.278	1.8	< 0.001	0.068	60
MACKENZIE RIVER																																			
FGH-INCONNU		09-Oct-2025	Inconnu		FGH-1-INCONNU	76.7	1	< 0.003	< 0.355	0.028	< 0.115	< 0.042	789	0.682	0.012	0.848	13	0.002	0.051	1069	0.526	1.5	< 0.029	0.125	9134	13885	2.2	< 0.001	1203	0.352	0.061	0.064	0.729	< 0.001	< 0.017	11
		09-Oct-2025	Inconnu		FGH-4-INCONNU	77.7	1.8	< 0.003	< 0.355	0.028	< 0.115	< 0.042	429	0.691	0.018	0.804	16	0.002	0.032	568	0.239	2.2	< 0.029	0.194	8353	13206	1.6	< 0.001	1224	0.236	0.033	< 0.045	0.729	< 0.001	< 0.017	8
FGH-WHITEFISH		09-Oct-2025	Whitefish		FGH-2-WHITEFISH	78.2	1	< 0.003	< 0.355	0.028	< 0.115	< 0.042	546	0.619	0.02	0.513	20	0.002	0.047	1445	0.34	0.522	< 0.029	0.18	11107	11103	1	< 0.001	1140	0.431	0.015	0.069	0.608	< 0.001	< 0.017	12
		09-Oct-2025	Whitefish		FGH-3-WHITEFISH	78.4	1.2	< 0.003	0.377	0.056	< 0.115	< 0.042	453	0.654	0.023	0.712	19	0.002	0.02	1118	0.281	0.102	< 0.029	0.111	15024	24458	3	< 0.001	1402	0.806	0.005	0.084	0.608	< 0.001	< 0.017	12
		09-Oct-2025	Whitefish		FGH-5-WHITEFISH	74.1	0.251	< 0.003	< 0.355	0.028	< 0.115	< 0.042	277	0.539	< 0.004	0.422	5	< 0.002	< 0.007	767	0.151	0.312	< 0.029	0.055	9306	12501	0.493	< 0.001	964	0.197	0.003	< 0.045	0.486	< 0.001	< 0.017	6.2

NOTES:

0.0175

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.
6. Denotes values below (UPSTEAM DATA LCL)
7. Denotes values exceeding (UPSTEAM DATA UCL)
8. Superscript [#1] denotes values exceeding (ECCC. 2024. Federal Environmental Quality Guidelines - Summary Table. Water Quality Guidelines for the Protection of Freshwater. Accessed Nov 3, 2025)

Table 18

Summary Statistics for Metal Tissue Concentrations in Bosworth Creek Slimy Sculpin in 2025

Project #: 417085-59897

Monitoring Station	Parameter	Units	Time Period	Number of Samples	Number of Non-Detections	Percentage of Data Below Detection (%)	Min (units)	Tenth Percentile	Median (units)	Nintith Percentile	Max (units)	Interquartile Range (IQR)	Range (units)	Average (units)	Standard Deviation (units)	Standard Error (units)
				Basic Analysis												
AEMP-FS-01																
	Aluminum	mg/kg dw	2025	20	0	0	18.0	18.9	35.5	97.8	123.0	36.5	105.1	46.6	32.9	7.3
			Historical (2023 - 2024)	*31*			*1.7*	*2.2*	*5.5*	*57.0*	*123.0*	*14.8*	*121.3*	*20.0*	*30.2*	*5.4*
	Arsenic	mg/kg dw	2025	20	15	75	0.220	0.233	0.301	0.399	0.461	0.087	0.241	0.310	0.068	0.015
			Historical (2023 - 2024)	*22*	*11*	*50*	*0.177*	*0.191*	*0.288*	*0.397*	*0.837*	*0.127*	*0.660*	*0.305*	*0.112*	*0.024*
	Barium	mg/kg dw	2025	20	0	0	0.557	0.557	0.709	1.610	1.700	0.331	1.143	0.880	0.389	0.087
			Historical (2023 - 2024)	*31*			*0.248*	*0.290*	*0.557*	*1.100*	*1.700*	*0.326*	*1.453*	*0.636*	*0.366*	*0.066*
	Cadmium	mg/kg dw	2025	20	19	95	0.066	0.066	0.066	0.066	0.066	0.000	0.000	0.066	0.000	0.000
			Historical (2023 - 2024)	*31*	*24*	*77*	*0.025*	*0.026*	*0.037*	*0.058*	*0.124*	*0.014*	*0.099*	*0.042*	*0.018*	*0.003*
	Chromium	mg/kg dw	2025	20	0	0	1.400	1.580	2.700	4.280	5.500	1.825	4.100	2.940	1.205	0.270
			Historical (2023 - 2024)	*31*			*0.583*	*0.598*	*0.939*	*3.800*	*5.500*	*1.057*	*4.9*	*1.494*	*1.314*	*0.236*
	Copper	mg/kg dw	2025	20	0	0	1.90	1.90	2.25	2.91	3.50	0.58	1.61	2.38	0.44	0.10
			Historical (2023 - 2024)	*31*			*1.20*	*1.20*	*1.90*	*2.50*	*3.50*	*0.65*	*2.30*	*1.89*	*0.54*	*0.10*
	Mercury	mg/kg dw	2025	20	0	0	0.469	0.522	0.749	1.000	1.100	0.284	0.631	0.740	0.188	0.042
			Historical (2023 - 2024)	*31*			*0.499*	*0.534*	*0.855*	*1.200*	*2.100*	*0.300*	*1.602*	*0.882*	*0.325*	*0.058*
	Molybdenum	mg/kg dw	2025	20	1	5	0.032	0.036	0.075	0.150	0.216	0.049	0.184	0.082	0.054	0.012
			Historical (2023 - 2024)	*31*	*0*	*0*	*0.009*	*0.009*	*0.024*	*0.077*	*0.216*	*0.028*	*0.207*	*0.047*	*0.052*	*0.009*
	Nickel	mg/kg dw	2025	20	0	0	4.585	5.860	12.000	18.700	26.000	9.650	21.415	12.790	6.448	1.442
			Historical (2023 - 2024)	*31*			*0.281*	*0.348*	*1.200*	*17.000*	*26.000*	*5.721*	*25.719*	*4.755*	*7.011*	*1.259*
	Selenium	mg/kg dw	2025	20	0	0	3.69	4.15	5.45	7.74	9.70	2.03	6.02	5.68	1.56	0.35
			Historical (2023 - 2024)	*31*			*3.50*	*4.00*	*5.10*	*6.50*	*9.60*	*1.25*	*6.10*	*5.26*	*1.37*	*0.25*

Table 18

Summary Statistics for Metal Tissue Concentrations in Bosworth Creek Slimy Sculpin in 2025

Project #: 417085-59897

Monitoring Station	Parameter	Units	Time Period	Basic Analysis: Number of Samples	Number of Non-Detections	Percentage of Data Below Detection (%)	Min (units)	Tenth Percentile	Median (units)	Nintith Percentile	Max (units)	Interquartile Range (IQR)	Range (units)	Average (units)	Standard Deviation (units)	Standard Error (units)
	Uranium	mg/kg dw	2025	20	17	85	---	---	---	---	---	---	---	---	---	---
			Historical (2023 - 2024)	*31*	*21*	*68*	---	---	---	---	---	---	---	---	---	---
	Zinc	mg/kg dw	2025	20	0	0	41.9	43.8	57.5	80.3	113.0	14.3	71.2	60.6	20.0	4.5
			Historical (2023 - 2024)	*31*			*36.5*	*37.0*	*48.0*	*74.0*	*113.0*	*17.0*	*76.5*	*53.6*	*16.8*	*3.0*
AEMP-FS-02																
	Aluminum	mg/kg dw	2025	22	0	0	3.2	3.5	9.7	23.0	28.0	10.1	24.8	11.6	8.2	1.8
			Historical (2023 - 2024)	*27*			*2.2*	*2.5*	*5.9*	*17.6*	*28.0*	*6.1*	*25.9*	*7.8*	*6.9*	*1.3*
	Arsenic	mg/kg dw	2025	22	22	100	---	---	---	---	---	---	---	---	---	---
			Historical (2023 - 2024)	*7*	*1*	*14*	*0.204*	*0.211*	*0.273*	*0.328*	*0.837*	*0.067*	*0.633*	*0.274*	*0.050*	*0.019*
	Barium	mg/kg dw	2025	22	0	0	0.240	0.267	0.428	0.580	0.769	0.184	0.529	0.424	0.152	0.032
			Historical (2023 - 2024)	*27*			*0.267*	*0.268*	*0.430*	*0.775*	*1.300*	*0.268*	*1.033*	*0.472*	*0.239*	*0.046*
	Cadmium	mg/kg dw	2025	21	20	95	0.042	0.042	0.042	0.042	0.100	0.000	0.058	0.042	0.000	0.000
			Historical (2023 - 2024)	*21*	*16*	*76*	*0.025*	*0.026*	*0.036*	*0.052*	*0.100*	*0.012*	*0.075*	*0.038*	*0.013*	*0.003*
	Chromium	mg/kg dw	2025	22	0	0	0.754	0.851	1.200	1.700	2.200	0.575	1.446	1.261	0.386	0.082
			Historical (2023 - 2024)	*27*			*0.573*	*0.590*	*0.815*	*1.700*	*2.200*	*0.391*	*1.627*	*0.977*	*0.435*	*0.084*
	Copper	mg/kg dw	2025	22	0	0	1.21	1.43	1.80	2.19	2.60	0.35	1.39	1.83	0.35	0.07
			Historical (2023 - 2024)	*27*			*1.13*	*1.20*	*1.60*	*2.04*	*2.30*	*0.50*	*1.17*	*1.60*	*0.35*	*0.07*
	Mercury	mg/kg dw	2025	22	0	0	0.492	0.497	0.752	1.280	1.500	0.442	1.008	0.809	0.300	0.064
			Historical (2023 - 2024)	*27*			*0.434*	*0.483*	*0.907*	*1.340*	*1.600*	*0.450*	*1.166*	*0.900*	*0.340*	*0.065*
	Molybdenum	mg/kg dw	2025	22	4	18	0.024	0.026	0.043	0.057	0.096	0.012	0.072	0.044	0.016	0.003
			Historical (2023 - 2024)	*27*	*4*	*15*	*0.012*	*0.012*	*0.024*	*0.047*	*0.118*	*0.021*	*0.106*	*0.031*	*0.021*	*0.004*
	Nickel	mg/kg dw	2025	22	0	0	1.205	1.310	3.050	6.080	8.900	3.600	7.695	3.498	2.153	0.459
			Historical (2023 - 2024)	*27*			*0.398*	*0.467*	*1.200*	*5.740*	*8.900*	*1.718*	*8.502*	*2.063*	*2.168*	*0.417*
	Selenium	mg/kg dw	2025	22	0	0	3.24	3.90	4.55	5.66	9.30	0.75	6.07	4.80	1.31	0.28
			Historical (2023 - 2024)	*27*			*2.79*	*3.06*	*4.30*	*7.38*	*9.30*	*1.25*	*6.51*	*4.72*	*1.83*	*0.35*
	Uranium	mg/kg dw	2025	22	22	100	---	---	---	---	---	---	---	---	---	---
			Historical (2023 - 2024)	*30*	*28*	*93*	---	---	---	---	---	---	---	---	---	---
	Zinc	mg/kg dw	2025	22	0	0	35.2	38.0	48.0	66.0	77.0	14.0	41.9	50.4	12.1	2.6
			Historical (2023 - 2024)	*27*			*35.9*	*38.0*	*47.0*	*57.8*	*77.0*	*13.0*	*41.1*	*47.8*	*10.0*	*1.9*
AEMP-FS-03																
	Aluminum	mg/kg dw	2025	20	0	0	3.7	3.9	5.0	11.7	28.0	3.9	24.3	7.5	5.9	1.3
			Historical (2023)	*20*			*1.4*	*2.1*	*4.1*	*8.2*	*11.0*	*1.3*	*9.6*	*4.5*	*2.4*	*0.5*
	Arsenic	mg/kg dw	2025	20	20	100	---	---	---	---	---	---	---	---	---	---
			Historical (2023)	*20*	*13*	*65*	---	---	---	---	---	---	---	---	---	---

Table 18

Summary Statistics for Metal Tissue Concentrations in Bosworth Creek Slimy Sculpin in 2025

Project #: 417085-59897

Monitoring Station	Parameter	Units	Time Period	Basic Analysis													
				Number of Samples	Number of Non-Detections	Percentage of Data Below Detection (%)	Min (units)	Tenth Percentile	Median (units)	Nintith Percentile	Max (units)	Interquartile Range (IQR)	Range (units)	Average (units)	Standard Deviation (units)	Standard Error (units)
	Barium	mg/kg dw	2025	20	0	0	0.2230	0.2482	0.2970	0.4144	0.5580	0.0840	0.3350	0.3199	0.0794	0.0177
			Historical (2023)	*20*			*0.1593*	*0.2168*	*0.3070*	*0.7725*	*1.4000*	*0.2128*	*1.2407*	*0.4228*	*0.2973*	*0.0665*
	Cadmium	mg/kg dw	2025	20	18	90	0.003	0.003	0.010	0.030	0.063	0.013	0.060	0.015	0.015	0.003
			Historical (2023)	*20*	*18*	*90*	*0.030*	*0.031*	*0.037*	*0.044*	*0.050*	*0.007*	*0.020*	*0.037*	*0.005*	*0.001*
	Chromium	mg/kg dw	2025	20	0	0	0.785	0.822	0.908	1.110	1.300	0.134	0.515	0.945	0.132	0.030
			Historical (2023)	*20*			*0.632*	*0.714*	*0.883*	*1.010*	*1.100*	*0.147*	*0.468*	*0.879*	*0.140*	*0.031*
	Copper	mg/kg dw	2025	20	0	0	1.585	1.600	1.950	2.300	2.400	0.275	0.815	1.920	0.280	0.063
			Historical (2023)	*20*			*1.09*	*1.28*	*1.70*	*2.20*	*2.30*	*0.48*	*1.21*	*1.67*	*0.38*	*0.09*
	Mercury	mg/kg dw	2025	20	0	0	0.45	0.51	0.71	0.95	2.70	0.30	2.25	0.80	0.49	0.11
			Historical (2023)	*20*			*0.517*	*0.571*	*0.920*	*2.070*	*2.700*	*0.535*	*2.183*	*1.121*	*0.648*	*0.145*
	Molybdenum	mg/kg dw	2025	20	16	80	0.014	0.015	0.023	0.036	0.048	0.011	0.034	0.025	0.009	0.002
			Historical (2023)	*20*	*9*	*45*	*0.010*	*0.012*	*0.019*	*0.049*	*0.072*	*0.023*	*0.062*	*0.026*	*0.017*	*0.004*
	Nickel	mg/kg dw	2025	20	0	0	0.885	0.973	1.500	2.290	3.300	0.425	2.415	1.561	0.646	0.145
			Historical (2023)	*20*			*0.341*	*0.416*	*1.350*	*1.920*	*2.200*	*0.768*	*1.859*	*1.235*	*0.577*	*0.129*
	Selenium	mg/kg dw	2025	20	0	0	3.20	3.29	4.80	6.85	7.50	1.58	4.30	4.83	1.28	0.29
			Historical (2023)	*20*			*2.99*	*3.09*	*3.70*	*4.82*	*5.60*	*1.43*	*2.62*	*3.98*	*0.84*	*0.19*
	Uranium	mg/kg dw	2025	20	19	95	---	---	---	---	---	---	---	---	---	---
			Historical (2023)	*20*	*9*	*45*	---	---	---	---	---	---	---	---	---	---
	Zinc	mg/kg dw	2025	20	0	0	36.9	37.0	44.5	64.0	98.0	14.5	61.2	48.3	14.8	3.3
			Historical (2023)	*20*			*31.5*	*32.9*	*39.0*	*59.2*	*98.0*	*12.3*	*66.6*	*44.5*	*16.4*	*3.7*

Table 19

Whole Body Tissue Residue Analytical Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897

Sampling Location	Date (dd-mmm-yyyy)	% Moisture (%)	% Lipid (%)	Polycyclic aromatic hydrocarbons (PAHs)|Carcinogenic								Polycyclic aromatic hydrocarbons (PAHs)|Non-Carcinogenic											
				Benzo(a)Anthracene (ng/g)	Benzo(b)Fluoranthene (ng/g)	Benzo(j,k)Fluoranthene (ng/g)	Benzo(g,h,i)Perylene (ng/g)	Benzo(a)Pyrene (ng/g)	Chrysene (ng/g)	Dibenzo(a,h)Anthracene (ng/g)	Indeno(1,2,3-c,d)Pyrene (ng/g)	Acenaphthene (ng/g)	Acenaphthylene (ng/g)	Anthracene (ng/g)	Benzo(e)Pyrene (ng/g)	Dibenzothiophene (ng/g)	Fluoranthene (ng/g)	Fluorene (ng/g)	Naphthalene (ng/g)	Perylene (ng/g)	Phenanthrene (ng/g)	Pyrene (ng/g)	Retene (ng/g)
BOSWORTH CREEK																							
AEMP-FS-01	02-Oct-2023	74.8	3.74	< 0.0342	< 0.0436	< 0.0534	< 0.0355	< 0.0746	0.119	< 0.0398	< 0.0375	0.165	< 0.0209	< 0.0504	< 0.073	0.14	0.084	0.254	1.06	< 0.0714	0.882	0.111	2.29
	25-Sep-2024	72.0	5.04	< 0.0478	< 0.0549	< 0.0613	< 0.0597	< 0.0888	< 0.0499	< 0.0754	< 0.0579	0.169	0.055	0.075	< 0.0884	0.241	0.102	0.389	1.58	0.107	0.943	0.149	---
	15-Sep-2025	72.9	5.63	ND	ND	ND	0.046	ND	0.093	ND	ND	0.365	0.064	0.05	ND	0.147	0.212	0.334	2.87	ND	0.899	0.146	1.02
AEMP-FS-02	01-Oct-2023	74.3	3.65	0.048	< 0.0532	< 0.0639	0.075	< 0.087	0.271	< 0.0215	0.024	0.217	0.036	0.061	0.146	0.202	0.327	0.261	1.02	< 0.0853	1.21	0.322	1.97
	25-Sep-2024	73.6	5.53	< 0.0471	< 0.0504	< 0.0575	< 0.0641	< 0.0826	0.122	< 0.0274	< 0.0694	0.254	0.047	0.085	< 0.0822	0.164	0.169	0.389	1.36	0.127	1.01	0.144	---
	17-Sep-2025	71.4	4.91	ND	ND	ND	ND	ND	0.133	ND	ND	0.489	0.055	0.112	ND	0.392	0.358	0.407	2.15	ND	1.14	0.2	1.68
AEMP-FS-03	25-Sep-2024	72.7	4.66	< 0.023	< 0.0382	< 0.0421	0.025	< 0.0597	0.090	< 0.0266	< 0.0202	0.147	0.034	< 0.0289	0.080	0.073	0.094	0.200	1.58	< 0.0648	0.716	0.118	1.97
	12-Sep-2025	73.8	5.33	ND	ND	ND	ND	ND	0.098	ND	ND	0.257	0.065	0.064	ND	0.142	0.214	0.312	3.60	ND	0.805	0.213	0.658
MACKENZIE RIVER																							
FGH-INCONNU	10-Sep-2025	74.9	5.06	ND	ND	ND	ND	ND	0.152	ND	ND	0.073	0.088	ND	ND	0.097	0.196	0.319	1.00	ND	1.68	0.195	0.272
FGH-WHITEFISH	10-Sep-2025	68.8	10.3	ND	ND	ND	ND	ND	0.07	ND	ND	0.12	0.114	0.043	ND	0.125	0.191	0.428	1.27	ND	2.1	0.223	0.319

NOTES:

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5. Highlighting indicates parameters at applied guideline/criteria.

Table 20

Whole Body Tissue Residue Analytical Results: Alkylated Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897

Sampling Location	Date (dd-mmm-yyyy)	% Moisture (%)	% Lipid (%)	2-Methylanthracene (ng/g)	C1-Substituted Acenaphthene (ng/g)	7-Methylbenzo[a]Pyrene (ng/g)	1-Methylchrysene (ng/g)	5- & 6-Methylchrysene (ng/g)	C1-Substituted Benzo[a]anthracene/Chrysene (ng/g)	5,9-Dimethylchrysene (ng/g)	C2-Substituted Benzo[a]anthracene/Chrysene (ng/g)	C3-Substituted Benzo[a]anthracene/Chrysene (ng/g)	C4-Substituted Benzo[a]anthracene/Chrysene (ng/g)	C1-Substituted Benzofluoranthenes/Pyrenes (ng/g)	C2-Substituted Benzofluoranthenes/Pyrenes (ng/g)	2-Methylfluorene (ng/g)	C1-Substituted Fluorene (ng/g)	1,7-Dimethylfluorene (ng/g)	C2-Substituted Fluorene (ng/g)	C3-Substituted Fluorene (ng/g)
BOSWORTH CREEK																				
AEMP-FS-01	02-Oct-2023	74.8	3.74	< 0.0808	< 0.0318	< 0.0539	< 0.0503	< 0.0487	0.252	< 0.0989	0.451	< 0.0683	0.196	< 0.0539	< 0.0583	0.061	0.315	0.114	0.699	1.84
	25-Sep-2024	72.0	5.04	0.412	< 0.0352	< 0.11	< 0.0604	< 0.0654	< 0.0628	< 0.0717	< 0.0717	< 0.0623	< 0.0712	< 0.11	< 0.0546	< 0.0628	< 0.0628	0.144	< 0.0691	< 0.0802
	15-Sep-2025	72.9	5.63	ND	0.037	ND	0.043	ND	0.603	ND	0.514	ND	0.341	ND	ND	0.103	0.514	ND	0.561	4.94
AEMP-FS-02	01-Oct-2023	74.3	3.65	< 0.0882	< 0.0536	< 0.0815	0.084	0.055	0.554	< 0.0818	0.764	0.147	0.132	0.21	0.108	0.062	0.338	0.095	1.04	2.1
	25-Sep-2024	73.6	5.53	< 0.0524	< 0.0564	< 0.0498	< 0.0435	< 0.0471	0.121	< 0.0561	< 0.0561	< 0.0604	< 0.0881	< 0.0498	< 0.0803	0.057	0.516	< 0.0987	0.347	0.747
	17-Sep-2025	71.4	4.91	ND	0.051	ND	0.288	0.141	0.697	ND	ND	0.063	ND	ND	ND	0.156	0.721	0.161	1.4	1.35
AEMP-FS-03	25-Sep-2024	72.7	4.66	0.049	< 0.0548	< 0.0453	0.025	< 0.0229	0.100	< 0.0574	< 0.0574	< 0.0366	< 0.0406	< 0.0453	< 0.0534	< 0.0407	0.383	< 0.0387	0.170	0.197
	12-Sep-2025	73.8	5.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.153	0.648	ND	0.26	1.73
MACKENZIE RIVER																				
FGH-INCONNU	10-Sep-2025	74.9	5.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.138	0.689	0.053	0.362	0.635
FGH-WHITEFISH	10-Sep-2025	68.8	10.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.183	0.938	0.055	0.821	0.603

NOTES:

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Table 20

Whole Body Tissue Residue Analytical Results: Alkylated Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897

Sampling Location	Date (dd-mmm-yyyy)	3-Methylfluoranthene/Benzo[a]Fluorene (ng/g)	C1-Substituted Fluoranthene/Pyrene (ng/g)	C2-Substituted Fluoranthene/Pyrene (ng/g)	C3-Substituted Fluoranthene/Pyrene (ng/g)	C4-Substituted Fluoranthene/Pyrene (ng/g)	1-Methylnaphthalene (ng/g)	2-Methylnaphthalene (ng/g)	C1-Substituted Naphthalene (ng/g)	1,2-Dimethylnaphthalene (ng/g)	2,6-Dimethylnaphthalene (ng/g)	C2-Substituted Naphthalene (ng/g)	2,3,6-Trimethylnaphthalene (ng/g)	2,3,5-Trimethylnaphthalene (ng/g)	C3-Substituted Naphthalene (ng/g)	1,4,6,7-Tetramethylnaphthalene (ng/g)	C4-Substituted Naphthalene (ng/g)	1-Methylphenanthrene (ng/g)	2-Methylphenanthrene (ng/g)	3-Methylphenanthrene (ng/g)	9/4-Methylphenanthrene (ng/g)	C1-Substituted Phenanthrene/Anthracene (ng/g)	1,7-Dimethylphenanthrene (ng/g)	1,8-Dimethylphenanthrene (ng/g)
BOSWORTH CREEK																								
AEMP-FS-01	02-Oct-2023	< 0.0769	< 0.0769	0.344	0.33	0.087	0.559	0.67	1.23	0.184	0.418	2.57	0.685	0.551	2.16	0.314	1.17	0.188	0.16	0.134	0.289	0.424	0.238	< 0.121
	25-Sep-2024	< 0.0297	0.475	< 0.0557	< 0.0372	< 0.0533	0.903	1.40	2.31	0.241	0.525	3.07	0.854	0.894	3.36	0.417	1.73	0.772	0.141	0.159	0.315	0.300	0.381	< 0.0696
	15-Sep-2025	0.112	0.509	0.509	0.55	ND	1.24	1.99	3.23	0.238	0.533	3.34	0.776	0.549	2.85	0.331	2.1	0.174	0.167	0.138	0.328	0.807	0.438	0.101
AEMP-FS-02	01-Oct-2023	0.165	0.435	0.589	0.183	0.205	0.688	0.801	1.49	0.248	0.595	3.35	1.02	0.773	3.19	0.384	1.81	0.38	0.307	0.284	0.53	1.19	0.418	0.095
	25-Sep-2024	< 0.0547	< 0.0547	0.157	< 0.0452	< 0.0303	0.954	1.40	2.35	0.268	0.581	3.56	0.813	0.572	2.77	0.450	1.66	0.154	0.152	0.161	0.289	0.756	< 0.0854	< 0.0819
	17-Sep-2025	0.059	0.98	0.562	ND	ND	1.49	2.12	3.61	0.628	1.09	7.51	2.11	1.56	7.09	0.743	5.06	0.15	0.231	0.202	0.566	0.917	0.926	0.1
AEMP-FS-03	25-Sep-2024	< 0.03	< 0.03	< 0.0304	< 0.0229	< 0.0322	0.72	1.19	1.91	0.14	0.303	2.00	0.415	0.303	1.36	0.134	1.06	0.152	0.109	0.107	0.229	0.597	0.122	< 0.021
	12-Sep-2025	ND	0.042	ND	0.09	ND	1.19	2.08	3.27	0.195	0.481	2.91	0.402	0.351	2.01	0.127	1.01	0.151	0.105	0.099	0.202	0.452	0.178	ND
MACKENZIE RIVER																								
FGH-INCONNU	10-Sep-2025	0.081	0.223	0.035	ND	ND	0.557	0.53	1.09	0.142	0.205	2.1	0.772	0.519	3.46	0.264	1.88	0.309	0.15	0.158	0.771	1.24	0.042	0.024
FGH-WHITEFISH	10-Sep-2025	0.075	0.212	ND	ND	ND	0.736	0.633	1.37	0.23	0.326	2.68	0.798	0.705	3.9	0.222	1.69	0.328	0.158	0.208	0.563	1.1	0.07	ND

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4. Highlighting indicates non-detect parameters above applied guideline/criteria.
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Table 20

Whole Body Tissue Residue Analytical Results: Alkylated Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897

Sampling Location	Date (dd-mmm-yyyy)	2,6-Dimethylphenanthrene (ng/g)	3,6-Dimethylphenanthrene (ng/g)	C2-Substituted Phenanthrene/Anthracene (ng/g)	1,2,6-Trimethylphenanthrene (ng/g)	C3-Substituted Phenanthrene/Anthracene (ng/g)	C4-Substituted Phenanthrene/Anthracene (ng/g)	2- & 3-Methyldibenzothiophene (ng/g)	C1-Substituted Dibenzothiophene (ng/g)	2,4-Dimethyldibenzothiophene (ng/g)	4,6-Dimethyldibenzothiophene (ng/g)	C2-Substituted Dibenzothiophene (ng/g)	C3-Substituted Dibenzothiophene (ng/g)	C4-Substituted Dibenzothiophene (ng/g)
BOSWORTH CREEK														
AEMP-FS-01	02-Oct-2023	< 0.121	< 0.124	1.22	0.107	3.06	12.8	< 0.0601	0.23	< 0.118	0.15	0.828	0.953	0.594
	25-Sep-2024	< 0.0696	0.083	0.778	< 0.0747	< 0.0747	11.3	0.085	0.351	0.092	0.441	0.386	< 0.0868	0.339
	15-Sep-2025	ND	0.059	1.22	0.091	4.81	13	0.069	0.369	0.099	0.126	1.3	1.26	1.12
AEMP-FS-02	01-Oct-2023	0.077	0.157	2.23	< 0.107	2.49	13.4	0.224	0.617	0.125	0.294	1.7	1.6	0.832
	25-Sep-2024	< 0.0819	< 0.0788	1.46	< 0.0909	1.82	8.61	< 0.104	0.185	< 0.0887	0.148	0.518	< 0.0962	< 0.0498
	17-Sep-2025	0.076	0.103	3.06	0.098	17.9	28.8	0.221	0.523	0.391	0.305	3.88	3.36	2.56
AEMP-FS-03	25-Sep-2024	< 0.021	0.051	0.479	< 0.0293	0.462	3.01	< 0.0527	0.06	< 0.0775	< 0.0623	0.216	< 0.0592	< 0.0515
	12-Sep-2025	ND	ND	0.323	ND	3.73	9.15	0.052	0.257	ND	ND	0.961	ND	0.426
MACKENZIE RIVER														
FGH-INCONNU	10-Sep-2025	ND	0.108	0.423	ND	0.542	1.24	ND	0.197	ND	0.04	0.383	0.04	0.189
FGH-WHITEFISH	10-Sep-2025	ND	0.097	0.396	ND	0.846	1.51	0.052	0.179	0.044	0.052	0.484	0.056	0.212

NOTES:

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3. Highlighting indicates parameters above applied guideline/criteria.
4. Highlighting indicates non-detect parameters above applied guideline/criteria.
5. Highlighting indicates parameters at applied guideline/criteria.

Figures

Legend

Flow Direction

N

0 500 1,000

Metres

1:40,000

NAD 1983 UTM Zone 9N

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
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IMPERIAL OIL RESOURCES LIMITED
NORMAN WELLS
AQUATIC EFFECTS MONITORING PROGRAM

NORMAN WELLS OPERATING AREA MAP

Date:	Drawn by:	Edited by:	App'd by:	
	12-APR-26	SC	GY	AH

Project No.	FIG No	REV
417085-59897	1	E

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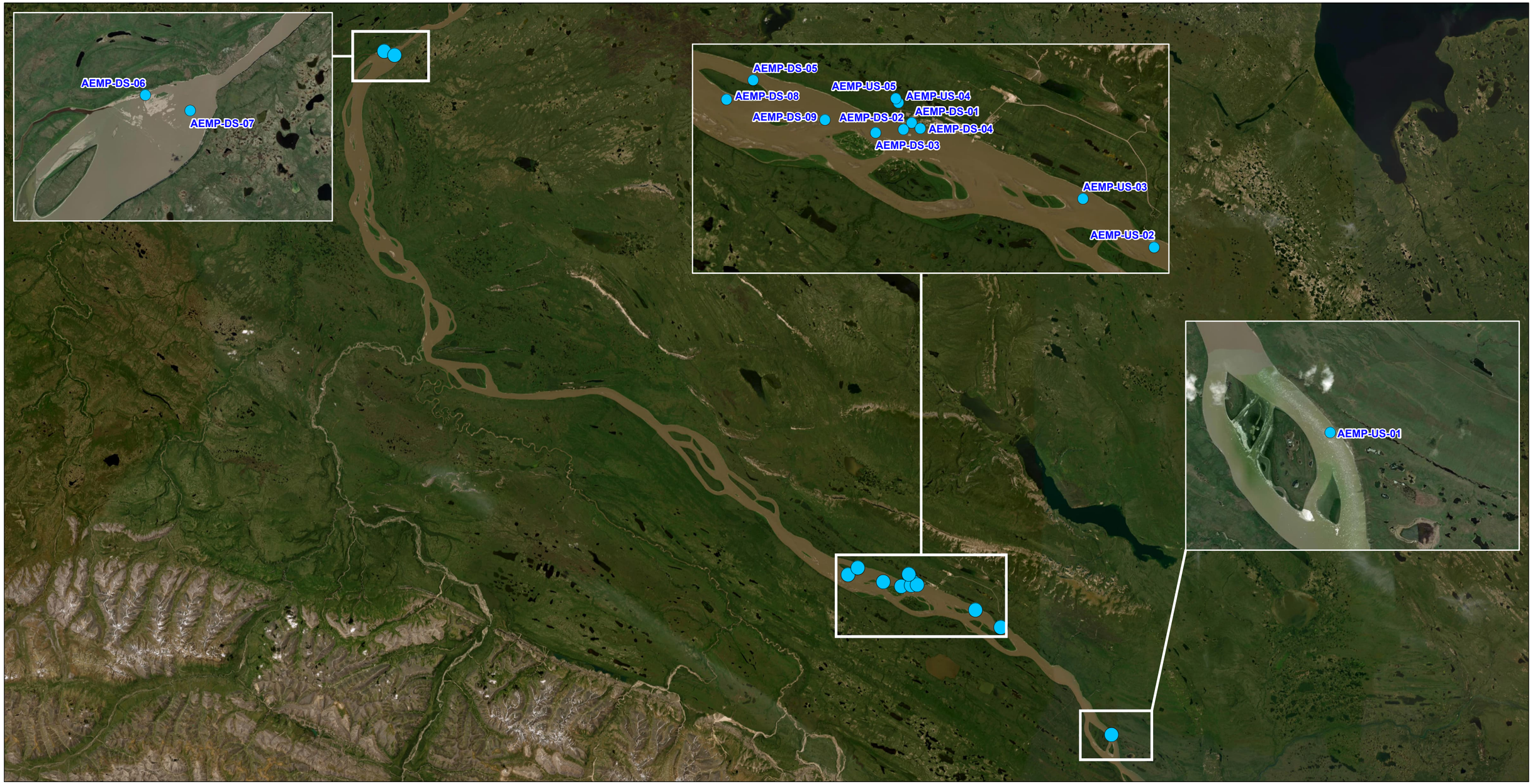
Worley Canada Services Ltd. assumes no liability to any other party for any representations contained in this drawing."

PLOT DATE & TIME: 4/29/2024 3:12:36 PM
SAVE DATE & TIME: 4/29/2024 2:01:08 PM
USER NAME: Kenneth.W.Ritchie
ISSUING OFFICE: BURNABY GIS

FILE LOCATION: N:\PROJECTS\ImperialOil\NormanWells\MXDs\417085-50325\SiteLocation.mxd



Water Sampling Location

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Kilometres
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NAD 1983 UTM Zone 9N

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IMPERIAL
NORMAN WELLS
AQUATIC EFFECTS MONITORING PROGRAM

AEMP WATER SAMPLING LOCATIONS

Date:	Drawn by:	Edited by:	App'd by:
04-APR-26	KR	KR	GY

Project No.
417085-59897-25200

REV
2
A

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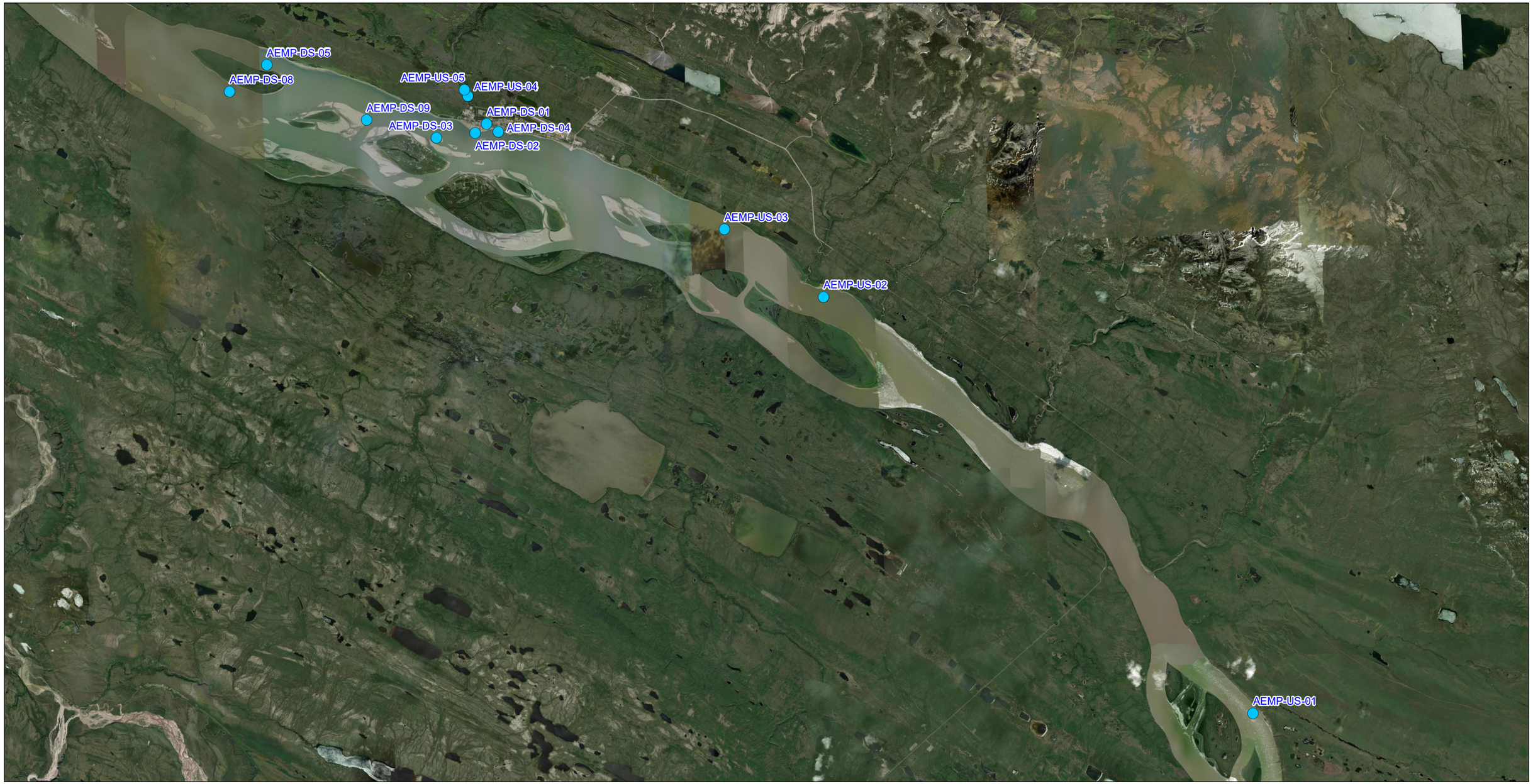
FILE LOCATION: N:\PROJECTS\ImperialOil\NormanWells\MXDs\417085-54419-24200\Water_Sampling_Locations.mxd

USER NAME: Kenneth.W.Ritchie
ISSUING OFFICE: VANCOUVER GIS

PLOT DATE & TIME: 3/12/2025 9:33:49 AM
SAVE DATE & TIME: 3/12/2025 9:29:53 AM

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Water Sampling Location

0 2 4
Kilometres
1:180,000
NAD 1983 UTM Zone 9N

N

IMPERIAL
NORMAN WELLS
AQUATIC EFFECTS MONITORING PROGRAM

NEAR FACILITY AEMP
WATER SAMPLING LOCATIONS

Date:	Drawn by:	Edited by:	App'd by:
04-APR-26	KR	KR	GY

Project No.
417085-59897-25200

3 | REV A

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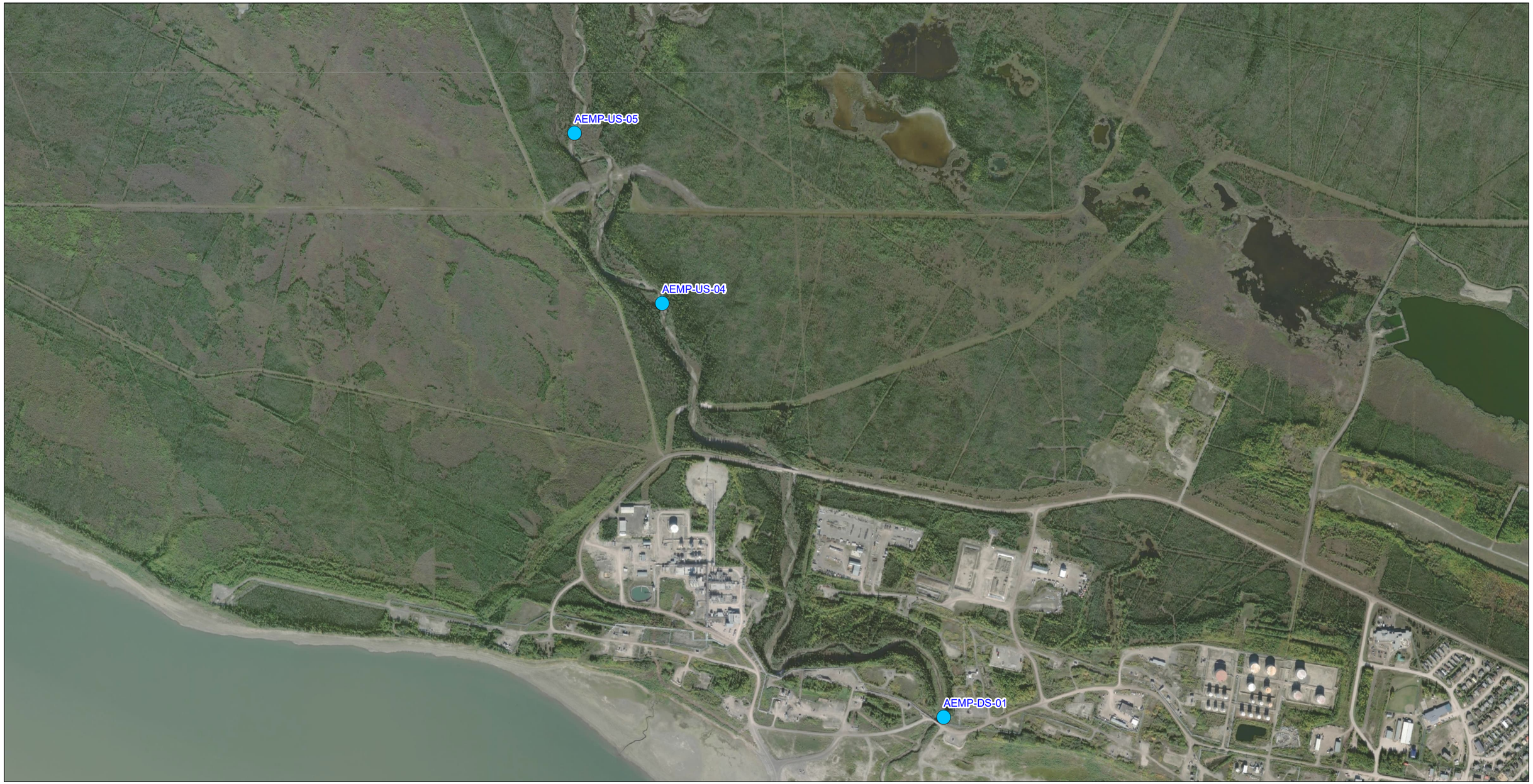
FILE LOCATION: N:\PROJECTS\ImperialOil\NormanWells\MXDs\417085-54419-24200\Near_Facility_Water_Sampling_Locations.mxd

USER NAME: Kenneth.W.Ritchie
ISSUING OFFICE: VANCOUVER GIS
PLOT DATE & TIME: 3/12/2025 9:36:08 AM
SAVE DATE & TIME: 4/4/2024 9:44:49 AM

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Water Sampling Location

0 250 500
Meters
1:12,000
NAD 1983 UTM Zone 9N

N

IMPERIAL
NORMAN WELLS
AQUATIC EFFECTS MONITORING PROGRAM

BOSWORTH CREEK AEMP
WATER SAMPLING LOCATIONS

Date: 04-APR-26	Drawn by: KR	Edited by: KR	App'd by: GY

Imperial

Project No. 417085-59897-25200

4 | REV A

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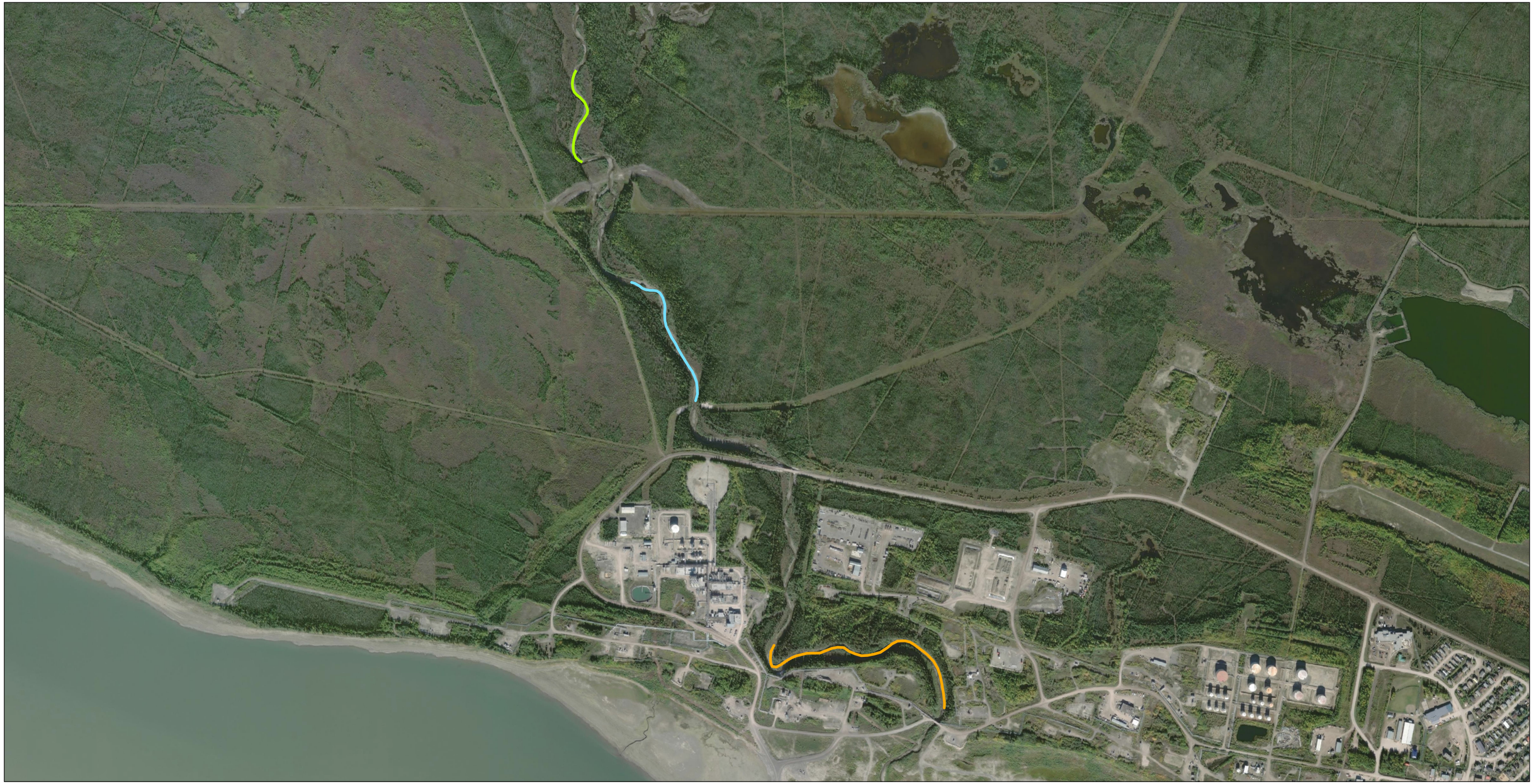
FILE LOCATION: N:\PROJECTS\ImperialOil\NormanWells\MXDs\417085-54419-24200Bosworth_Creek_Water_Sampling_Locations.mxd

USER NAME: Kenneth.W.Ritchie
PLOT DATE & TIME: 2/14/2025 12:35:38 PM
SAVE DATE & TIME: 2/14/2025 12:35:32 PM

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



AEMP-FS-01
AEMP-FS-02
AEMP-FS-03

0 250 500
Meters
1:12,000
NAD 1983 UTM Zone 9N

N

IMPERIAL
NORMAN WELLS
AQUATIC EFFECTS MONITORING PROGRAM

BOSWORTH CREEK FISH SAMPLING RANGE

Date: 04-APR-26	Drawn by: KR	Edited by: KR	App'd by: GY

Project No. 417085-59897-25200

REV 5 B

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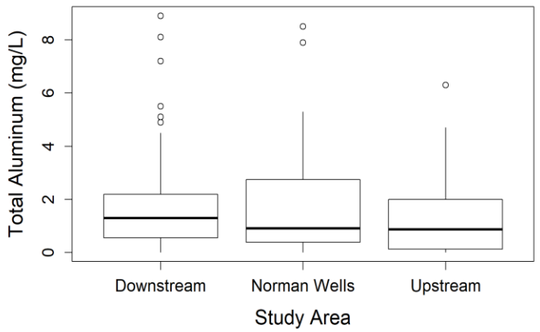
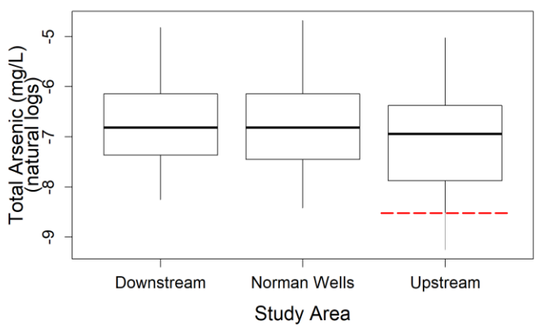
FILE LOCATION: N:\PROJECTS\Imperial\Oil\NormanWells\MXDs\417085-54419-24200\Bosworth_Creek_Fish_Sampling_Ranges.mxd

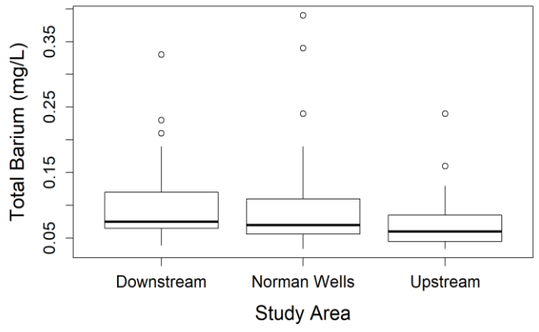
USER NAME: Kenneth.W.Ritchie
ISSUING OFFICE: VANCOOUVER GIS

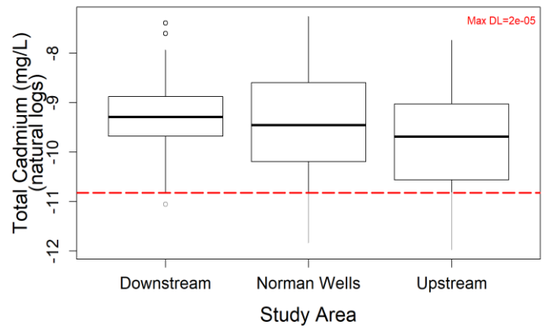
PLOT DATE & TIME: 4/2/2025 7:19:59 AM
SAVE DATE & TIME: 4/2/2025 7:19:28 AM

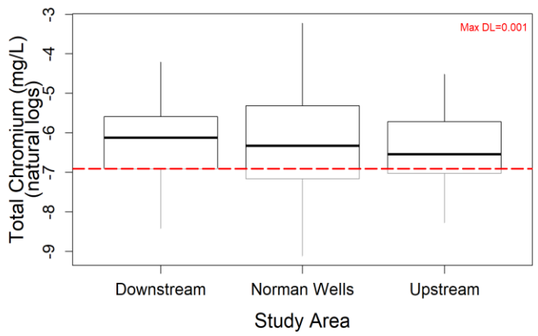
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

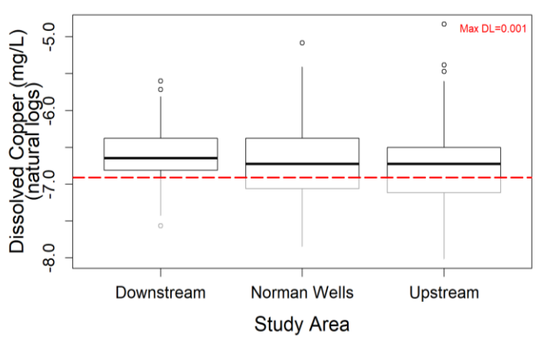


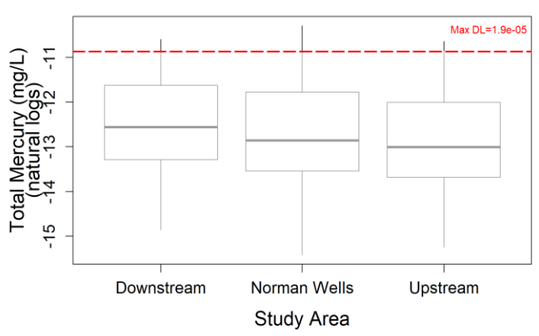


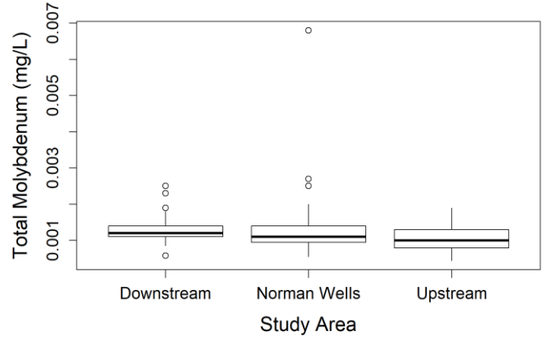


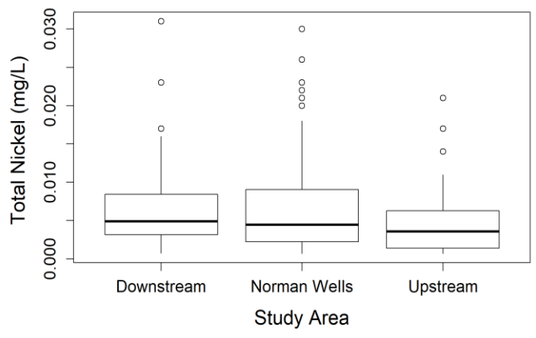


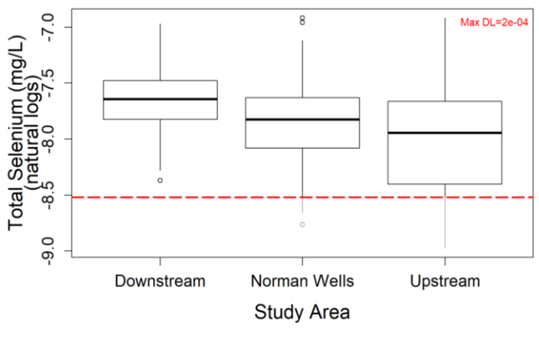


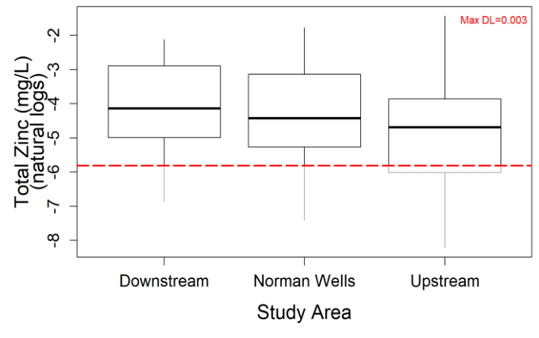












Denotes maximum detection limit for variable

Each boxplot represents:

- median (thick horizontal line)
- 25th and 75th percentile (lower and upper bounds of boxed area)
- range as 1.5* the interquartile range below the 25th percentile and above the 75th percentile
- outliers are shown as open circles

Grey sections of boxplots infer distributions below the censoring level

Sites in the Downstream study area include:

- AEMP-DS-05 (Radar North), AEMP-DS-06 (FGH - Bluefish), AEMP-DS-07 (FGH - Ramparts), AEMP-DS-08 (Radar South), AEMP-DS-09 (End of Facility)

Sites in the Norman Wells study area include:

- AEMP-DS-02 (Marine Dock), AEMP-DS-03 (Island 3), AEMP-DS-04 (Refinery)

Sites in the Upstream study area include:

- AEMP-US-01 (Midway), AEMP-US-02 (10 Mile), AEMP-US-03 (6 Mile Island)

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

BOXPLOTS OF CONCENTRATIONS MEASURED FOR METAL KEY INDICATOR PARAMTERS FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
31-Mar-25	GY	CM	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: 6a

REV: A

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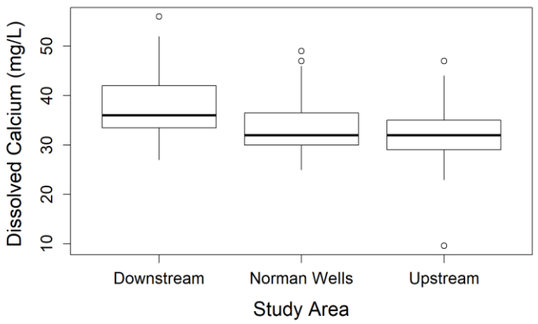
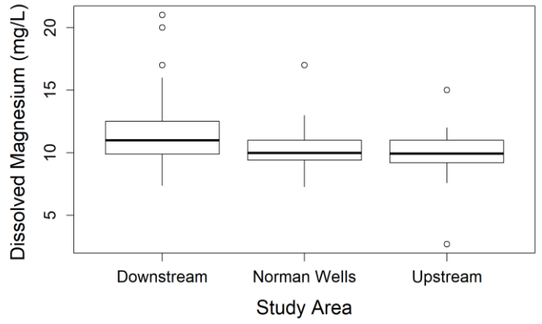
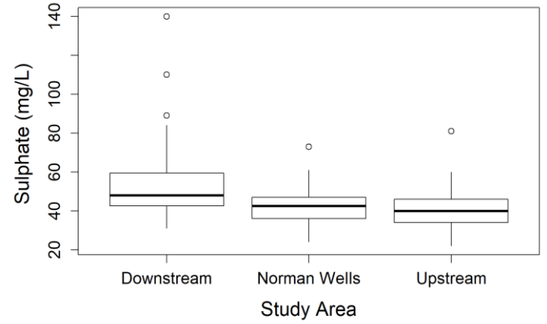
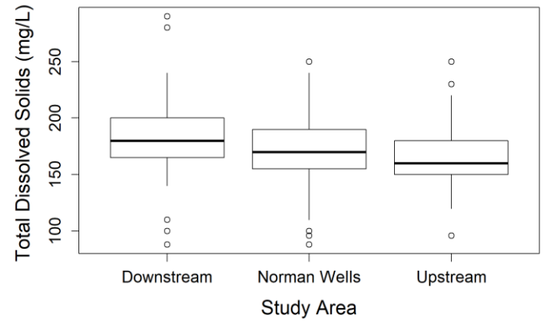
FILE LOCATION:

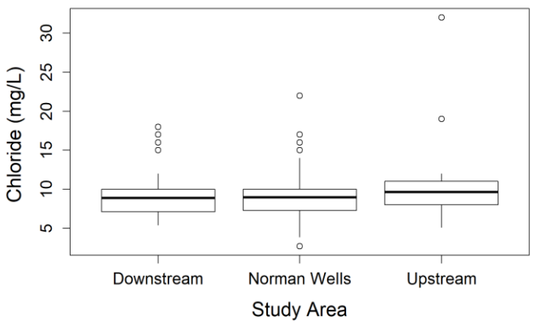
FILE DIRECTORY:

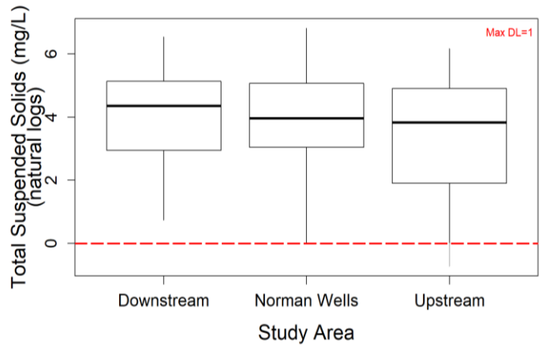












FILE LOCATION:

Denotes maximum detection limit for variable

Each boxplot represents:

- median (thick horizontal line)
- 25th and 75th percentile (lower and upper bounds of boxed area)
- range as 1.5* the interquartile range below the 25th percentile and above the 75th percentile
- outliers are shown as open circles

Grey sections of boxplots infer distributions below the censoring level

Sites in the Downstream study area include:

- AEMP-DS-05 (Radar North), AEMP-DS-06 (FGH - Bluefish), AEMP-DS-07 (FGH - Ramparts), AEMP-DS-08 (Radar South), AEMP-DS-09 (End of Facility)

Sites in the Norman Wells study area include:

- AEMP-DS-02 (Marine Dock), AEMP-DS-03 (Island 3), AEMP-DS-04 (Refinery)

Sites in the Upstream study area include:

- AEMP-US-01 (Midway), AEMP-US-02 (10 Mile), AEMP-US-03 (6 Mile Island)

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

BOXPLOTS OF CONCENTRATIONS MEASURED FOR GENERAL KEY INDICATOR PARAMETERS FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
31-Mar-25	GY	CM	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: 6b

REV: A

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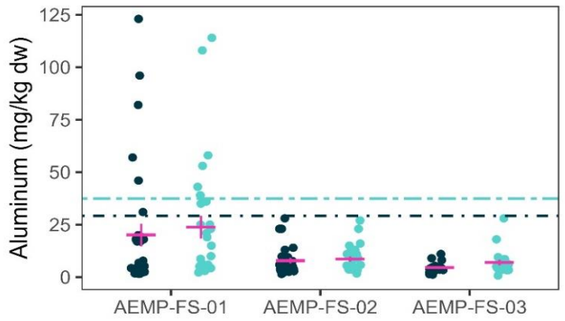
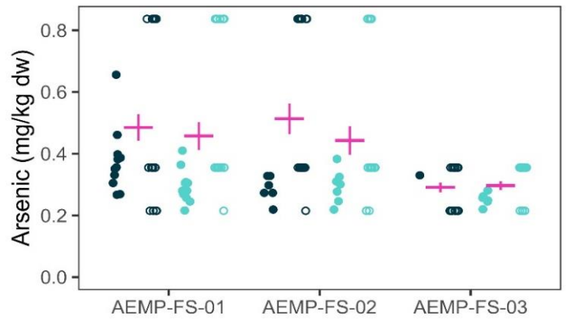
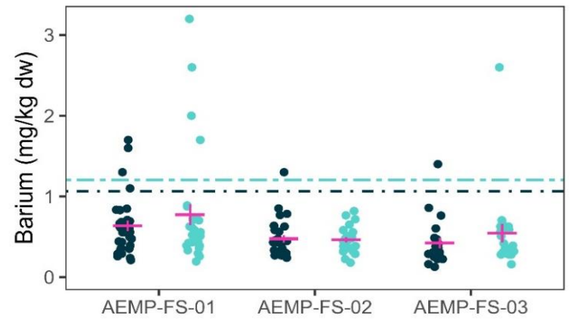
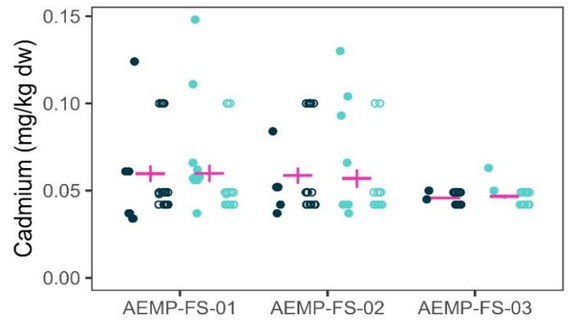
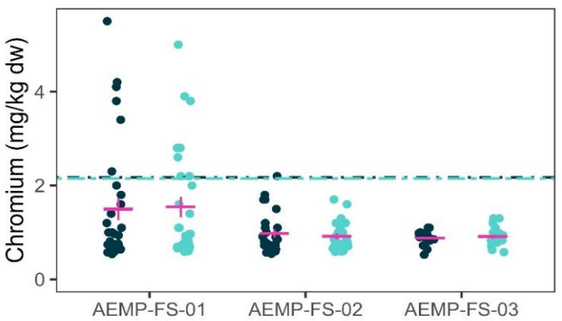
FILE DIRECTORY:

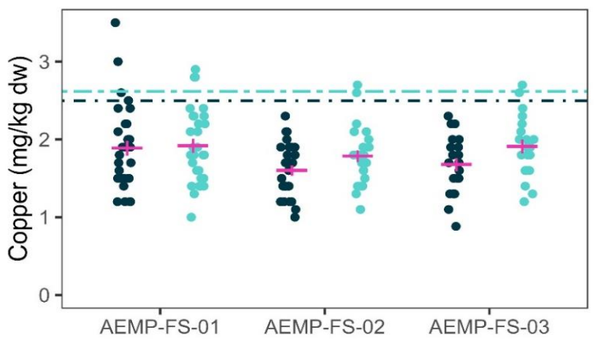


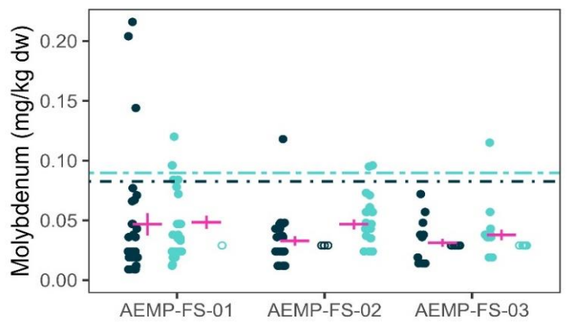


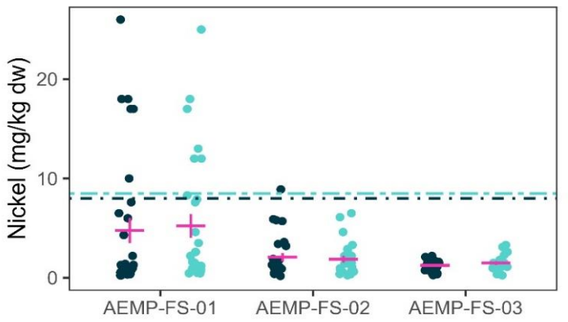


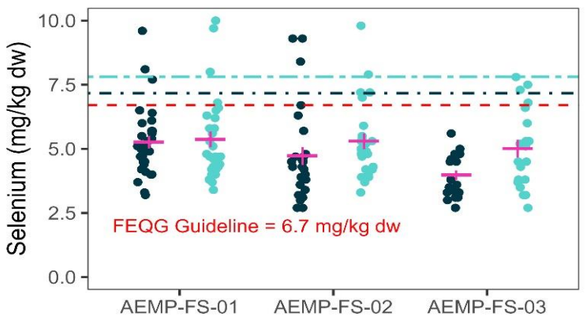


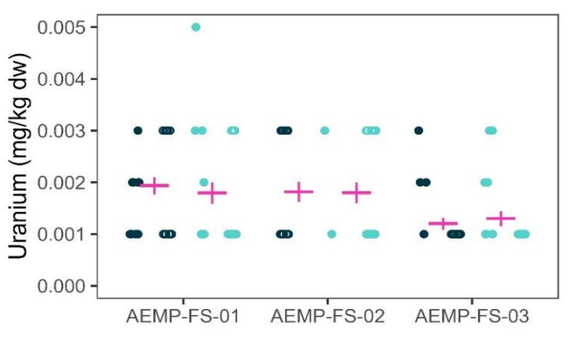


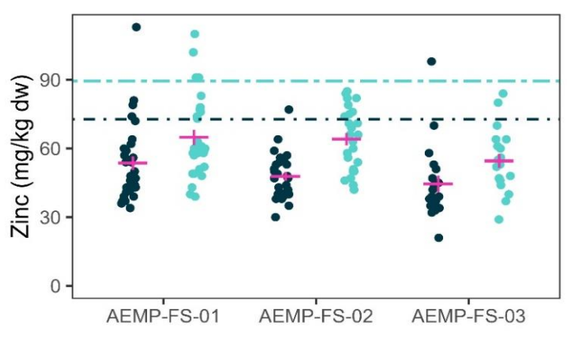












Site

Sex ● Female ● Male

● Above Detection ○ Non-Detect

Female UCL Male UCL

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

DRY WEIGHT METAL TISSUE CONCENTRATIONS (MG/KG DW) IN SLIMY SCULPIN COLLECTED FROM BOSWORTH CREEK (2023 to 2025)

Date:	Drawn by:	Edited by:	App'd by:
31-Mar-25	GY	CM	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: 7 REV: A

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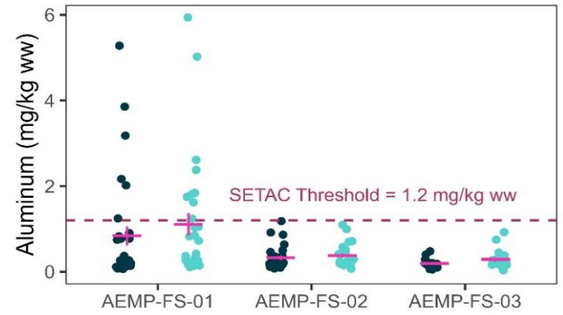
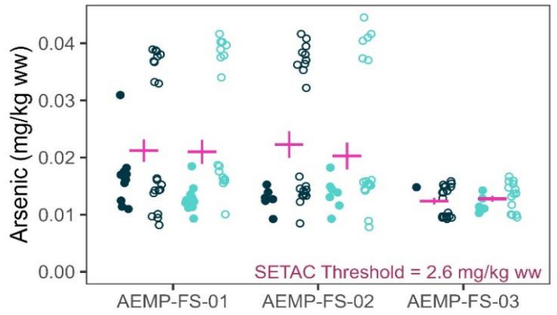
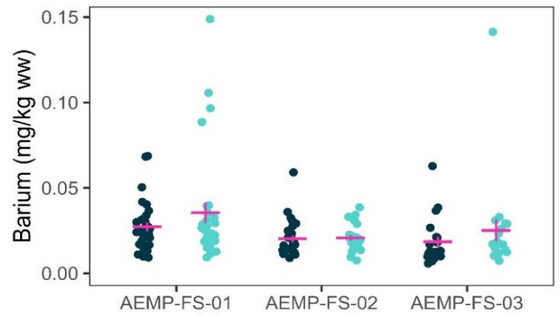
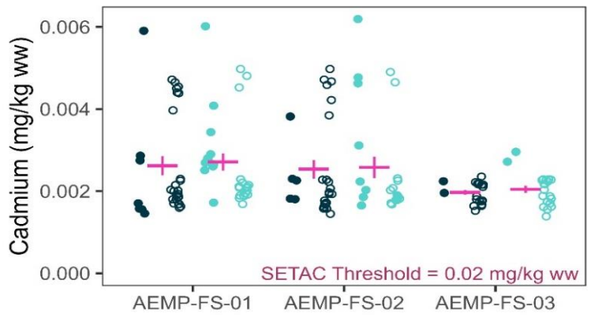
FILE LOCATION:

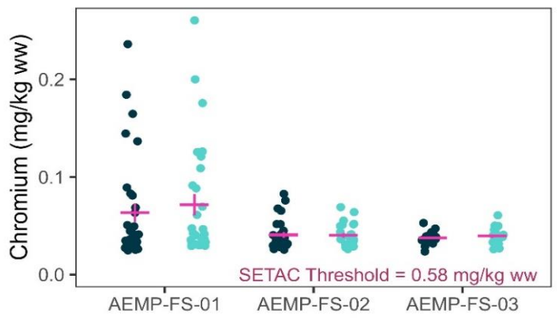
FILE DIRECTORY:

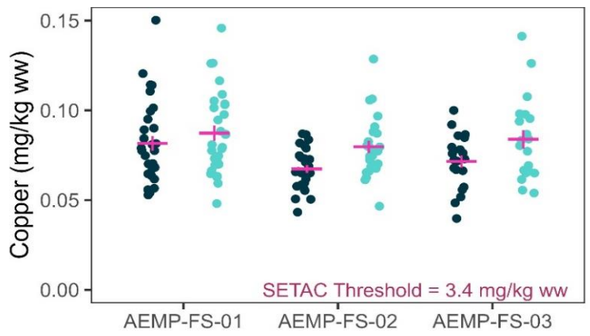


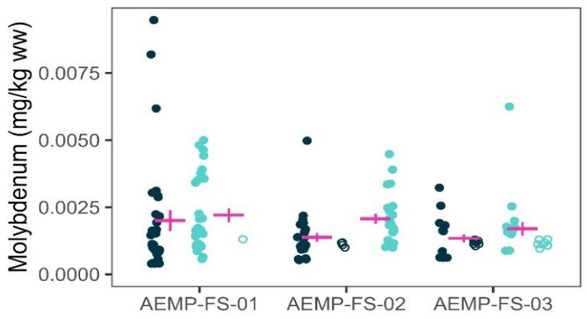


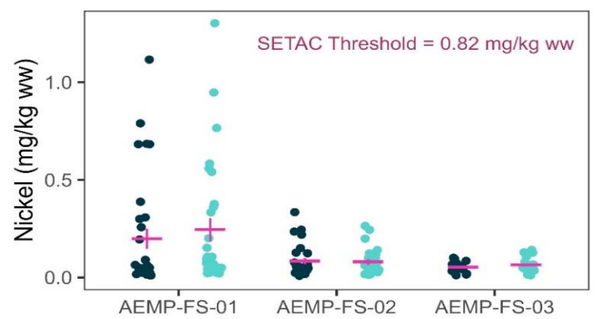


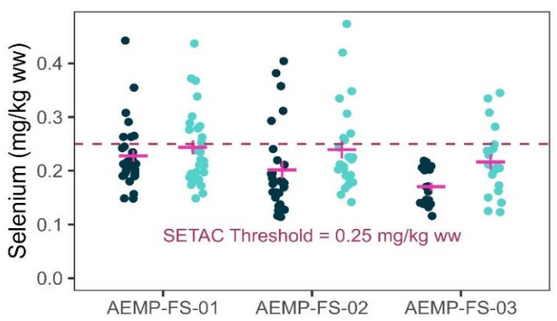


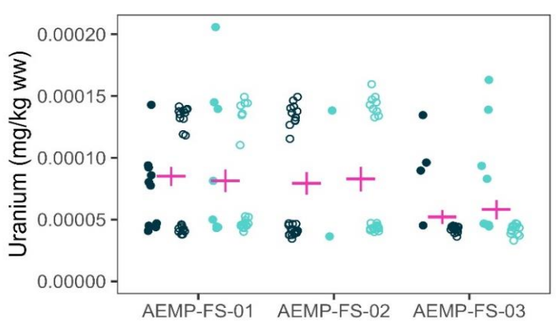


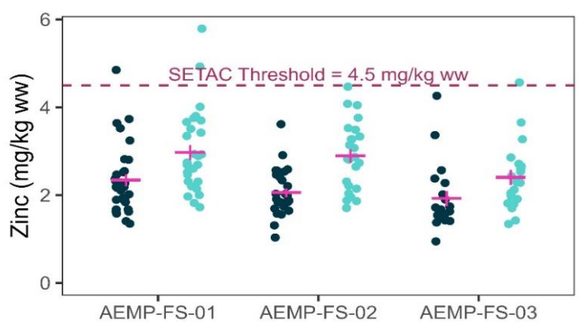












Site

Sex ● Female ● Male

● Above Detection ○ Non-Detect

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

WET WEIGHT METAL TISSUE CONCENTRATIONS (MG/KG WW) IN SLIMY SCULPIN COLLECTED FROM BOSWORTH CREEK (2023-2025)

Date: 31-Mar-25	Drawn by: GY	Edited by: CM	App'd by: AH

WorleyParsons Project No. 417085-59897-25200

FIG No. 8 | REV A

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Appendix A. Limitations of Liability, Scope of Report and Third-party Reliance

Limitation of Liability, Scope of Report, and Third-Party Reliance

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Appendix B. Surface Water Quality Assurance and Quality Control

Appendix B – Surface Water Quality Assurance/Quality Control

B.1 Field QA/QC Program

The surface water field grab sample and passive sampler QA/QC program for the AEMP consisted of seven field duplicate samples (four for grab samples and three for passive samplers). Two trip blank (grab samples) and four field blank samples (two grab sample and two passive sampler field blanks) were also submitted for analysis of petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs) and/or alkylated polycyclic aromatic hydrocarbons (aPAHs) as part of the 2025 field program.

Surface water SPMD QA/QC consisted of three field duplicates, two field blank samples, one trip blank sample and three time-zero degradation blank samples. Time zero samples were analyzed with each sample batch.

For the field duplicate samples, the QA/QC results were evaluated by calculating the relative percent difference (RPD) between the parent and duplicate sample results and comparison of the RPD to designated alert limits.

The RPD is calculated using the following formula:

$$\text{RPD \%} = \left(\frac{|x1 - x2|}{(x1 + x2)/2} \right) * 100$$

Where x_1 = original field sample
x_2 = blind field duplicate sample

Consistent with laboratory practices and to permit reliable calculations, an RPD is only considered to be statistically relevant when the original and duplicate sample concentrations are at least five times the reportable detection limit (RDL). These limits vary parameter to parameter and sample to sample and are indicated by the laboratory alongside the analytical results in the Certificates of Analysis (Appendix H).

The RPD alert limit for hydrocarbons and PAHs is 80%, the alert limit for all other parameters presented herein is 50% (Imperial 2004).

There are no minimum detection limits reported for the SPMD PAHs results. As such, RPDs are calculated for all samples; however, due to the very low masses detected and the uncertainty introduced in the concentration calculation, RPD alert limits have been set at 100%.

Most PHC sample results were below the laboratory detection limits so RPDs could not be calculated. The RPD for most other parameters for all duplicate samples met their alert limit criteria (Tables 3, 6 and 7). Total chromium and zinc, as well as both fractions of nickel each had one RPD value above the alert limit. Results for these variables may have lower repeatability in 2025, however, overall results are acceptable for these variables.

For grab sampling, the designated field and trip blank alert limits are >5X the reportable detection limit (RDL) for BTEX, PAH and aPAHs and 2X RDL for PHC F1 though F4. Blank results are compared to the alert limits and are presented in Tables B-1, and B-2. All results were below the RDLs therefore there were no exceedances of field or trip blank alert limits in the 2025 grab sampling program.

Trip blank, field blank, and day zero concentrations reported for semi-permeable membrane devices (SPMDs) have low concentrations detected for some PAHs and aPAHs. Although these are generally low concentrations there are some values that are close to the range of concentrations reported in SPMDs deployed into the Mackenzie River and Bosworth Creek. Blank correction of PAH data from SPMDs is currently not completed as part of the AEMP but it is recommended that future analyses consider blank-correcting concentrations in SPMDs.

B.2 Laboratory QA/QC Program

The laboratory QA/QC program consisted of one or more of the following analyses:

- Instrument and extraction surrogate recoveries for samples that were analyzed.
- The analysis of method blank, laboratory duplicate, matrix spike, and/or laboratory control samples for the sample analytical batches that were analyzed.

The laboratory QA/QC results are presented in the laboratory certificates of analysis and data quality checklists (Appendix H) and are summarized in Table B-3.

Nitrogen parameters, turbidity, and orthophosphate were often analyzed past method-specific hold times due to limitations in sample shipping, which may increase uncertainty in reported results. For nitrate and nitrite this could cause an approximately 10% reduction in concentration. Given that the concentrations for these parameters in the Mackenzie River and Bosworth Creek are well below applicable guidelines, it is unlikely that this potential bias to lower concentrations affects data interpretation in 2025. This also applies to a few other parameters, as summarized in Table B-3. Overall, this does not alter the interpretation of data presented herein. No data quality issues were noted that would impact the data presented.

No field or laboratory QA/QC issues were identified that would affect the overall conclusions presented in this report. Overall, the results reported are considered to be reliable.

References

Imperial Oil Resources Limited (2004). Laboratory Data QA/QC Standard Operating Procedure for Environmental Monitoring Programs (Internal company standard operating procedure, 2004).

Table B-1

Field and Trip Blank Results: Petroleum Hydrocarbons (PHCs)

PROJECT No.: 417085-59897

Sampling Location	Date (dd-mmm-yyyy)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	m&p-Xylene (mg/L)	o-Xylene (mg/L)	Xylenes (Total) (mg/L)	PHC F1 (C_6-C_{10}) (mg/L)	PHC F1 (C_6-C_{10}) - BTEX (mg/L)	PHC F2 (C_{10}-C_{16}) (mg/L)	PHC F3 (C_{16}-C_{34}) (mg/L)	PHC F4 (C_{34}-C_{50}) (mg/L)
UNSPECIFIED												
Surface Water Field Blank	12-Mar-2025	< 0.000040	< 0.000040	< 0.000040	< 0.00080	< 0.000040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	15-Aug-2025	< 0.000040	< 0.000040	< 0.000040	< 0.00080	< 0.000040	< 0.00089	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20
Surface Water Trip Blank	12-Mar-2025	< 0.000040	< 0.000040	< 0.000040	< 0.00080	< 0.000040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---
	12-Sep-2025	< 0.000040	< 0.000040	< 0.000040	< 0.00080	< 0.000040	< 0.00089	< 0.10	< 0.10	< 0.10	---	---

NOTES:

1. --- in detail data row(s) denotes parameter not analyzed.

Table B-2

Field and Trip Blank Results: Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897		Polycyclic aromatic hydrocarbons (PAHs)|Carcinogenic								Polycyclic aromatic hydrocarbons (PAHs)|Non-Carcinogenic													
Sampling Location	Date (dd-mmm-yyyy)	Benzo(a)Anthracene (mg/L)	Benzo(b,j)Fluoranthene (mg/L)	Benzo(k)Fluoranthene (mg/L)	Benzo(g,h,i)Perylene (mg/L)	Benzo(a)Pyrene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)Anthracene (mg/L)	Indeno(1,2,3-c,d)Pyrene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Acridine (mg/L)	Anthracene (mg/L)	Benzo(c)Phenanthrene (mg/L)	Benzo(e)Pyrene (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	Perylene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Quinoline (mg/L)
UNSPECIFIED																							
Surface Water Field Blank	15-Aug-2025	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000085	< 0.0000075	< 0.0000085	< 0.0000075	< 0.0000085	< 0.00010	< 0.00010	< 0.000040	< 0.00010	< 0.000050	< 0.000050	< 0.00010	< 0.000050	< 0.00010	< 0.00010	< 0.000050	< 0.000050	< 0.000020	< 0.000020

NOTES:

1. --- in detail data row(s) denotes parameter not analyzed.

Lab File Number	Lab Sample ID	Sample Name	Test Affected	Deviation	Root Cause	Interpretation
C564015V1	DPJ854	AEMP-US-03	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C564015V1	DPJ854	AEMP-US-03	PHALK	Duplicate RPD Above Control Limit	Non-Homogeneous	This may increase the uncertainty associated with these results
C564015V1	DPJ855	AEMP-US-05	COLOURT-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
560464V1	DPK096	AEMP-DS-09	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
5604097V1	DPK223	AEMP-US-01	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
5604097V1	DPK223	AEMP-US-01	ICPMSABL-D	Matrix Spike Recovery Above Control Limit	Matrix Interference	This may represent a high bias for the parameters in this test in this sample
5604097V1	DPK224	AEMP-US-02	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C564108V1	DPK256	AEMP-DS-01	NO2 (N) NOS (N) + NO3 (N) ORTHOPHOSPHATE	Past Hold Time		This may increase the uncertainty associated with these results
C564108V1	DPK257	AEMP-DUP-1	NO2 (N) NOS (N) + NO3 (N) ORTHOPHOSPHATE	Past Hold Time		This may increase the uncertainty associated with these results
C564116V1	DPK275	AEMP-DS-08	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results

C564116V1	DPK275	AEMP-DS-08	SIDE	Matrix Spike Recovery Below Control Limit	Matrix Interference	This may represent a low bias for the parameter
C564116V1	DPK276	AEMP-DS-03	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C565457V1	DP265	BIBG-10-1-4	NO23AC-W	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C565457V1	DP266	SNP-DUP2	NO23AC-W	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C565457V1	DP267	BI-13-3-4-5	NO23AC-W	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C571140V1	DRC487	AEMP-US-04	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571140V1	DRC488	AEMP-US-05	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571156V1	DRC548	AEMP-DS-04	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571156V1	DRC549	AEMP-DS-06	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571156V1	DRC550	AEMP-DS-07	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571386V1P	DRE187	AEMP-DS-02	NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C571386V1P	DRE187	AEMP-DS-02	COLOUR-W	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results

C571386V1P	DRE188	AEMP-DUP-2	NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C571386V1P	DRE188	AEMP-DUP-2	COLOUR-W	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C571386V2	DRE187	AEMP-DS-02	NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C571386V2	DRE187	AEMP-DS-02	COLOUR-W	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C571386V2	DRE188	AEMP-DUP-2	NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C571386V2	DRE188	AEMP-DUP-2	COLOUR-W	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C571439V1	DRE444	AEMP-DS-01	INORG	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C571439V1	DRE444	AEMP-DS-01	SPP	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C571439V1	DRE445	AEMP-DUP1	INORG	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C571439V1	DRE445	AEMP-DUP1	SPP	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C571470V1P	DRE566	AEMP-DS-03	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571470V1P	DRE567	AEMP-DS-08	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571470V1P	DRE568	AEMP-DS-09	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571470V2	DRE566	AEMP-DS-03	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised

C571470V2	DRE567	AEMP-DS-08	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571470V2	DRE568	AEMP-DS-09	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C571494V1P	DRE632	AEMP-US-01	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time	COC ISSUE	Hold time exceedance does not nexcessarily imply that results are compromised
C571494V1P	DRE633	AEMP-US-02	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time	COC ISSUE	Hold time exceedance does not nexcessarily imply that results are compromised
C571494V1P	DRE634	AEMP-US-03	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time	COC ISSUE	Hold time exceedance does not nexcessarily imply that results are compromised
C571494V2	DRE632	AEMP-US-01	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time	COC ISSUE	Hold time exceedance does not nexcessarily imply that results are compromised
C571494V2	DRE633	AEMP-US-02	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time	COC ISSUE	Hold time exceedance does not nexcessarily imply that results are compromised
C571494V2	DRE634	AEMP-US-03	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time	COC ISSUE	Hold time exceedance does not nexcessarily imply that results are compromised
C578222V1P	DSX723	AEMP-DS-04	ICPMSABL-T	Duplicate RPD Above Control Limit	Non-Homogeneous	This may increase the uncertainty associated with these results
C578222V1P	DSX724	AEMP-DS-01	PO4AC-W	Matrix Spike Recovery Below Control Limit	Matrix Interference	This may represent a low bias for the parameter

C578222V2	DSX723	AEMP-DS-04	ICPMSABL-T	Duplicate RPD Above Control Limit	Non-Homogeneous	This may increase the uncertainty associated with these results
C578222V2	DSX724	AEMP-DS-01	PO4AC-W	Matrix Spike Recovery Below Control Limit	Matrix Interference	This may represent a low bias for the parameter
C578222V2	DSX724	AEMP-DS-01	TDS	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C578222V2	DSX725	AEMP-DUP1	TDS	Past Hold Time	Re-Analysis Required	This may increase the uncertainty associated with these results
C578430V1	DSY919	AEMP-DS-06	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C578430V1	DSY920	AEMP-DS-07	TURB NO2 (N) NOS (N) + NO3 (N) TRUE COLOUR ORTHOPHOSPHATE	Past Hold Time		Hold time exceedance does not nexcessarily imply that results are compromised
C579777V1	DTH598	AEMP-DS-08	COLOUR-W NO23AC-W PO4AC-W	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C579777V1	DTH598	AEMP-DS-08	ICPAB-D	Matrix Spike Recovery Above Control Limit	Matrix Interference	This may represent a high bias for this parameter. However, since the results were non detect, there is no impact of data quality
C579777V1	DTH599	AEMP-DS-05	COLOUR-W NO23AC-W PO4AC-W	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C579777V1	DTH600	AEMP-DS-09	COLOUR-W NO23AC-W PO4AC-W	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C579777V1	DTH601	AEMP-DS-03	COLOUR-W NO23AC-W PO4AC-W	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C579805V1	DTH895	AEMP-US-03	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C579805V1	DTH896	AEMP-US-02	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results
C579805V1	DTH897	AEMP-US-01	COLOUR-W NO23AC-W PO4AC-W TURB	Past Hold Time	Lab Error	This may increase the uncertainty associated with these results

Appendix C. Small-bodied Fish Sampling Laboratory Certificates of Analysis

Enzyme and Protein Assay - Fish Cytochrome P450 1A1 (CYP1A1)

2025

Zhongzhi Chen

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Contract No. SA-417085-59897_PO7001057131

March 16, 2026

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Classification: Protected A

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Classification: Protected A

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Classification: Protected A

ACRONYMS

Acronym	Definition
AhR	Aryl hydrocarbon receptor
BCA	Bicinchoninic acid
CV	Coefficient of Variation
ELISA	Enzyme-linked immunosorbent assay
EROD	Ethoxyresorufin O-deethylase
SD	Standard deviation
βNF	β-naphthoflavone
µg/mL	Microgram per milliliter
pg/mL	Picogram per milliliter

1.0 INTRODUCTION

1.1 BACKGROUND

This is the third year of a five-year project, following the previous agreements (no. SA-417085-47621-23030_PO7001054860 and SA-417085-54419-24200_PO7001056503). The objective of this project was to quantify fish cytochrome P450 1A1 (CYP1A1) and total protein in a collection of slimy sculpins (*Cottus cognatus*) and large-bodied fish species liver samples.

Worley (Advisian) submitted 60 raw slimy sculpin fish liver samples for analysis at the end of September 2025. Large-bodied fish species liver samples (11 samples) were also provided to InnoTech for preliminary testing. Refer to Table 1 for a list of samples. Samples were stored at -80 ˚C until analyses could be completed.

While previous analysis indicated that samples under 25 mg are often too small to produce results, 2 samples weighed less than 25 mg (AEMP-FS-03-33 and AEMP-FS-03-59) were found. Both samples were analyzed with fewer technical replicates, and a total of 71 liver samples were analyzed. Triploid brook trout (*Salvelinus fontinalis*) liver samples (13 samples) were also provided to InnoTech for preliminary testing, method establishment, and verification in 2023/24 and continue to be used as internal controls.

Classification: Protected A

2.0 MATERIALS AND METHODS

2.1 FISH CYTOCHROME P450 1A1 (CYP1A1)

It was anticipated that fish liver subcellular fractions (mitochondrial homogenate supernatant (S-9 fraction) and microsomes) would produce higher enzyme activities compared to the current tissue homogenate preparation method (Shen et al., 2016). However, preliminary testing with triploid brook trout liver samples indicated the S-9 fraction and microsome (47,808 x g for 2.5 hours) protocol (Hodson et al., 1991) does not appear to generate considerably higher CYP1A1 activity than CUSABIO's tissue homogenate protocol. The enzyme activity of brook trout in the liver S9 fraction (130 – 151 n = 4) and microsomes (142 – 147 pg/mL, n = 4) was only slightly higher than that using CUSABIO's protocol (102 - 141 pg/mL, n = 5). Therefore, the CYP1A1 assay was conducted as per CUSABIO's instructions for tissue homogenates to maintain procedural consistency with previous years' analyses (CUSABIO, 2023). The fish cytochrome P450 1A1 (CYP1A1) enzyme-linked immunosorbent assay (ELISA) kits were procured and shipped to InnoTech Alberta, Vegreville, by Worley at the end of September 2025 (Appendix 1).

2.2 TOTAL PROTEIN

Samples were assayed for total protein using the Pierce™ BCA Protein Assay Kits from ThermoFisher (Catalog Number A55865, 500 mL), as per the manufacturer's instruction (ThermoFisher Scientific, 2023). The microplate version of the procedure (25 µL sample per microplate well) was used to accommodate the small sample biomass. A previous Pierce™ BCA (Bicinchoninic acid) Protein Assay kit purchased by InnoTech in late January 2025 was used. Additional details of this Protein Assay kit can be found in the previous year's report.

2.3 POSITIVE CONTROL

Nautilus Environmental (Nautilus) was contracted to conduct a 96-hour static-renewal exposure to β-naphthoflavone (βNF) and a methanol solvent control (0.1 mL/L; 0.01%) on rainbow trout (*Onchorhynchus mykiss*). A negative laboratory control was also conducted for best practice. Literature indicated that βNF has been used as an Aryl hydrocarbon receptor (AhR) agonist to elucidate its effect on Cyp1A1 expression in embryos of transgenic cytochrome P450 1A1 (cyp1a) reporter zebrafish (Kim et al., 2013). In addition, βNF, a model inducer, has been used as a positive control for ethoxyresorufin O-deethylase (EROD) assays of rainbow trout (Hodson et al., 1996). βNF is also selected due to the ease of sourcing and non-hazardous nature (b-Naphthoflavone = 98 6051-87-2 (sigmaaldrich.com)). A final concentration of 10 µg/L βNF in 100 µL/L methanol, from a stock solution of 100 µg βNF/mL methanol, was applied as per the literature (Hodson et al., 1996)(Burridge et al., 2011). More details were provided by Nautilus in Appendix 2. No reference toxicant data was provided.

2.4 DATA ANALYSIS

All results are presented as means of three technical replicates unless otherwise specified. Standard curves were generated using Curve Expert Professional 2.7.3. Standard deviation (SD) and coefficient of variation (CV) were calculated for QA/QC purposes. The reported values were normalized with the total protein level of each fish liver sample. No additional statistical analysis was performed. All raw data are provided as separate files (Appendix 3).

Classification: Protected A

3.0 RESULTS

Table 1 lists CYP1A1 level, total protein, and normalized values of fish liver samples.

Table 1. CYP1A1 level, total protein, and normalized values of fish liver samples (mean of three technical replications).

No.	Client Sample ID	CYP1A1 (pg/mL)	Total protein (BCA, µg/mL)	Normalized (pg/mg protein)
1	AEMP-FS-01-32	119	5231	23
2	AEMP-FS-01-33	136	5885	23
3	AEMP-FS-01-34	122	5642	22
4	AEMP-FS-01-35	97	5837	17
5	AEMP-FS-01-38	99	6740	15
6	AEMP-FS-01-39	97	5790	17
7	AEMP-FS-01-40	97	6891	14
8	AEMP-FS-01-42	125	4900	25
9	AEMP-FS-01-44	144	5981	24
10	AEMP-FS-01-45	113	5785	19
11	AEMP-FS-01-46	98	7101	14
12	AEMP-FS-01-47	112	5356	21
13	AEMP-FS-01-48	135	5253	26
14	AEMP-FS-01-51	100	6274	16
15	AEMP-FS-01-52	106	4651	23
16	AEMP-FS-01-53	140	5642	25
17	AEMP-FS-01-54	117	5905	20
18	AEMP-FS-01-55	90	5155	18
19	AEMP-FS-01-57	137	5894	23
20	AEMP-FS-01-59	102	5562	18
21	AEMP-FS-02-25	134	6716	20
22	AEMP-FS-02-27	126	4596	27
23	AEMP-FS-02-28	92	6813	14
24	AEMP-FS-02-31	92	6471	14
25	AEMP-FS-02-32	114	5574	20
26	AEMP-FS-02-35	130	6604	20
27	AEMP-FS-02-37	130	4718	28
28	AEMP-FS-02-40	101	7154	14
29	AEMP-FS-02-41	134	5229	26
30	AEMP-FS-02-43	143	5574	26
31	AEMP-FS-02-44	92	5306	17
32	AEMP-FS-02-46	98	9510	10
33	AEMP-FS-02-47	94	5100	18

Classification: Protected A

No.	Client Sample ID	CYP1A1 (pg/mL)	Total protein (BCA, µg/mL)	Normalized (pg/mg protein)
34	AEMP-FS-02-48	108	5867	18
35	AEMP-FS-02-49	97	5978	16
36	AEMP-FS-02-50	87	5436	16
37	AEMP-FS-02-52	118	5829	20
38	AEMP-FS-02-53	128	8098	16
39	AEMP-FS-02-54	128	6471	20
40	AEMP-FS-02-56	91	5344	17
41	AEMP-FS-03-32	91	6117	15
42	AEMP-FS-03-33	83[a]	7059	12
43	AEMP-FS-03-34	98	5798	17
44	AEMP-FS-03-35	92	8858	10
45	AEMP-FS-03-36	96	7555	13
46	AEMP-FS-03-40	110	4958	22
47	AEMP-FS-03-43	93	6937	13
48	AEMP-FS-03-45	97	5541	17
49	AEMP-FS-03-47	101	7133	14
50	AEMP-FS-03-48	96	6247	15
51	AEMP-FS-03-50	107	6509	16
52	AEMP-FS-03-51	94	6302	15
53	AEMP-FS-03-52	90	7025	13
54	AEMP-FS-03-53	86	5589	15
55	AEMP-FS-03-54	97	8958	11
56	AEMP-FS-03-55	89	7263	12
57	AEMP-FS-03-56	105	8327	13
58	AEMP-FS-03-57	93	8499	11
59	AEMP-FS-03-58	96	5736	17
60	AEMP-FS-03-59	88[b]	8692	10
61	CHBK1	177	5639	31
62	CHBK2	118	5931	20
63	CHBK3	185	6979	26
64	CHBK4	167	6253	27
65	CHBK5	145	5759	25
66	FGH1	80	3958	20
67	FGH2	93	4215	22
68	FGH3	65[c]	7037	9
69	FGH4	149	5759	26
70	FGH5	140	6074	23
71	FGH6	125	5537	23

[a] Two technical replicates, [b] One technical replicate, [c] Below detection limit (75 pg/mL)

Classification: Protected A

4.0 DISCUSSION AND CONCLUSIONS

A positive control (livers from rainbow trout exposed to the AhR agonist βNF) was prepared by Nautilus (96-hr exposure at 10 µg βNF/L). These βNF-exposed livers were intended to serve as a "high-CYP1A1" control, since βNF is known to induce CYP1A1 (e.g., via EROD activity in trout). Contrary to expectations, the βNF-treated trout did not show higher CYP1A1 levels than unexposed controls (Table 2). Total protein levels were comparable across all treatment groups, confirming that the tissue samples were of equivalent quality and that any induction of CYP1A1 was not masked by general protein loss (Table 3). This outcome was unexpected and suggests that the intended induction did not result in a detectable increase in CYP1A1 protein. Nautilus's exposure report confirms 100% survival and healthy fish (mean liver weight ~50 mg across all groups) (Appendix 2), indicating that the lack of response is unlikely to be due to toxicity. Sample degradation was also unlikely, given that the cold chain was maintained.

Table 2. CYP1A levels of laboratory control (dechlorinated municipal tap water), solvent control (100 µL/L methanol), and positive control (10 µg/L βNF in 100 µL/L methanol).

Treatment	CYP1A1 (pg/mL)	Standard deviation (SD, pg/mL)	Coefficient of variation (CV)	Biological replication (n)
laboratory control	93	1	1.2%	3
Solvent control	86	6	7.2%	3
Positive control	91	6	6.6%	6
Positive control (10x)	88	9	10.0%	3
Positive control (100x)	88	2	2.4%	3

Table 3. Total protein levels of laboratory control (dechlorinated municipal tap water), solvent control (100 µL/L methanol), and positive control (10 µg/L βNF in 100 µL/L methanol).

Treatment	Total protein (BCA, ug/mL)	Standard deviation (SD, ug/mL)	Coefficient of variation (CV)	Biological replication (n)
laboratory control	6,431	321	5.0%	2
Solvent control	6,253	241	3.9%	2
Positive control	6,796	317	4.7%	3

Several factors may explain the absent CYP1A1 elevation in the positive control:

- Species-Specific Induction: Fish CYP1A1 can vary among species, it is possible the liver CYP1A1 protein increase was not as high as anticipated if induction kinetics vary. Rainbow trout may require different exposure conditions or longer exposure times to significantly upregulate CYP1A1. The induction kinetics could be slower or lower in this species/life stage, meaning the 96-hour βNF exposure might not have led to a large increase in CYP1A1 protein.
- High-Dose Effects: While literature notes that some compounds paradoxically inhibit EROD at high concentrations (Brüschweiler et al., 1996), the βNF dose used (10 µg/L) is within a typical range, so significant AhR pathway inhibition is unlikely in this case.

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- Antibody Cross-Reactivity: While the kit claims "excellent specificity for fish CYP1A1", the ELISA's monoclonal antibody may have suboptimal affinity for rainbow trout CYP1A1 if the trout protein's epitope differs from the kit's standard. The kit's plate is pre-coated with an antibody specific to CYP1A1, and the assay uses biotinylated CYP1A1 competing with the sample antigen for binding. It should be noted that the ELISA kit uses a mouse monoclonal antibody to detect the CYP1A1 target (described at https://www.uniprot.org/uniprotkb/Q6JZS3/) and the analytical standard for the assay is a recombinant protein produced by Chinese hamster ovary (CHO) cells (Personal communication, Shaun Duan, Wuhan Huamei Biotech Co., Ltd., February 23, 2024). Thus, even if CYP1A1 was induced, the assay might under-detect it due to limited cross-reactivity.
- Assay Detection Limits: All measured CYP1A1 concentrations (~86–93 pg/mL in controls and βNF group) clustered near the kit's lower quantification limit (75 pg/mL). It's possible that any modest increase in the positive control could fall within normal variability and remain indistinguishable from control values.

In summary, the planned "high-CYP1A1" positive control did not produce a discernible rise in CYP1A1 protein levels. It is possible that CYP1A1 was, in fact, induced biologically, but only to a degree detectable by functional activity assays (e.g., EROD) and not by the immunoassay. This discrepancy highlights the need to verify CYP1A1 induction through alternative approaches in future studies.

Overall, CYP1A1 protein was successfully quantified in all fish liver samples; however, no significant elevation in CYP1A1 was observed in any sample presumed to be induced. Possible reasons include biological variability in CYP1A1 inducibility in the test species and/or technical limitations of the assay (e.g. antibody specificity or sensitivity constraints). An enzyme activity assay (EROD) may be necessary to determine whether CYP1A1 was functionally induced despite the low immunoassay readings.

5.0 RECOMMENDATIONS

Recommendations for future testing include:

- Validate CYP1A1 induction with an EROD assay: Implement a complementary ethoxyresorufin O-deethylase (EROD) enzyme activity assay on a subset of samples in the next project phase. The EROD assay directly measures CYP1A1-related enzyme activity and is widely used in fish toxicology. Running the traditional fluorometric EROD test (Hodson et al., 1991) on the positive control and select project samples will confirm whether CYP1A1 was functionally induced even if the ELISA did not detect a protein increase. This parallel testing will help establish correlations between ELISA and EROD results and improve confidence in the interpretation and comparison of historical data.
- Evaluate alternative ELISA kits: Consider testing one or more commercial ELISA kits with higher sensitivity or better cross-reactivity with rainbow trout CYP1A and/or EROD. For example, kits from several suppliers, such as BioVenic, Byabscience, SunLong, and YL Biotech (Ylbiont), offer different detection ranges (some extending to lower and higher quantification limits) and are designed for various fish species (see Appendices 4 and 5). An alternate kit could potentially detect CYP1A or EROD increases that the current CUSABIO kit missed. Any new kit should be validated on known samples (including a positive control) to ensure it provides the desired improvement before fully switching methods.
- Pursue a verified positive control sample: Given the difficulties in achieving an in-house positive control, continue efforts to obtain pre-induced (high CYP1A1) fish liver tissues from external sources. Outreach to academic or government labs (e.g., Environment and Climate Change Canada) is ongoing. If successful, testing such a tissue with our assay will verify whether the ELISA can detect a true high-CYP1A1 level, or if the assay's current lack of response was specific to our experimental conditions.
- Consider assay development options (longer-term): If commercial kits and activity assays do not resolve the issue, a longer-term approach is to explore developing a custom or in-house ELISA. This would involve sourcing high-affinity antibodies against trout CYP1A (See Appendix 6) and thorough validation with known standards. However, this approach is relatively resource-intensive and carries performance risks. It is not recommended unless simpler solutions (steps 1–3 above) prove inadequate.

Classification: Protected A

6.0 REFERENCES

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Classification: Protected A

APPENDIX 1: FISH CYTOCHROME P450 1A1(CYP1A1) ELISA KIT

Shipping Invoice provided by Cedarlane

Classification: Protected A

CEDARLANE®
Part of TCP Analytical Group

INVOICE # 1138235

Packing Slip #	1167210
Web Order #	2442357

Invoice For: Graham Young
Worley Consulting (70029)

Email: graham.young@worley.com

Phone: 403-968-1545

Order Date: 08 Sep 2025

Invoice Date: 22 Sep 2025

PO Number: VISA

Payment: Visa
xxxx-xxxx-xxxx-6328
Graham M Young - Exp: 06/2028

Billing:

Worley Consulting
49 Quarry Park Blvd
CALGARY, AB, CANADA, 403-968-1545
T2C 5H9

Shipping:

Worley Consulting
Hwy 16A and 75 St
Vegreville, AB, CANADA, 7806031897 Sean Coffey
T9C1T4

Qty	Description	Price	Total
1.00	**Fish Cytochrome P450 1A1(CYP1A1) ELISA kit** **Product Code:** CSB-EL006395FI-5 **Supplier: CUSABIO** **Size:** 5X96T	$4666.00	$4666.00
	. . . madeline.hernandez@cedarlanelabs.com 09/08/2025		
		Merchandise total	**$4666.00**
		Shipping (Freight Charge)	**$39.99**
		Subtotal (CAN)	**$4705.99**
		GOODS AND SERVICES TAX	**$235.30**
		Final total (CAN)	**$4941.29**

CLAIMS: Please report any discrepancies immediately. Authorized returns must be made within 30 days. Thank you.

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GST Number: 121904361RT0001

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Web Order # 2442357 **ORDER ACKNOWLEDGEMENT**

Sales Order # 1167210

Billing:

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49 Quarry Park Blvd
CALGARY
AB, CANADA
403-968-1545
T2C 5H9

Shipping:

Innotech Alberta
Hwy 16A and 75 St
Vegreville
AB, CANADA
7806031897 Sean Coffey
T9C1T4

Order Date	Purchase Order Number	Terms	Funds	Ship Via
9/8/2025	VISA	CREDIT CARD	CAN	FEDEX

Order Qty	Stock Code	Estimated Lead Time (business days)	Price	Unit Discount	Net Unit Price	Line Total
1.00	**CSB-EL006395FI-5** **Fish Cytochrome P450 1A1(CYP1A1) ELISA kit** **5X96T** . . . madeline.hernandez@cedarlanelabs.com 09/08/2025	7 - 9 days	4666.00	**0.00**	4666.00	4666.00

SubTotal	Shipping Charges		Service Fees	PST	GST	Total
4666.00	39.99		0.00	0.00	235.30	4941.29

CLAIMS: Please report any discrepancies immediately. Authorized returns must be made within 30 days. Thank you.

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MHERNANDEZ

APPENDIX 2: B-NAPHTHOFLAVONE (BNF) 96-HOUR RAINBOW TROUT EXPOSURE

Memo: β-naphthoflavone 96-hour Rainbow Trout Static Renewal Exposure provided by Nautilus

Classification: Protected A

January 22, 2026

Memo: β-naphthoflavone 96-Hour Rainbow Trout Static Renewal Exposure

To	Zhongzhi Chen, Ph.D., P.Biol, EP, E.I.T.	*From*	Kristin McKenzie, B.Sc. Leila Oosterbroek, P.Biol.
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INTRODUCTION

Nautilus Environmental Company Inc. (Nautilus) conducted a 96-hour static-renewal exposure using juvenile rainbow trout (*Oncorhynchus mykiss*) for InnoTech Alberta Inc (InnoTech). The study involved an acute exposure of juvenile rainbow trout to β-naphthoflavone (βNF) with removal of the livers in all organisms at test completion and subsequent submission to InnoTech.

This memo describes the methods and results of the exposure. Copies of raw laboratory data sheets are provided in Appendix A.

METHODS

The study design was adapted from methods outlined in the EPS 1/RM/13 Environment Canada protocol (2000). The methodology is summarized in Table 1 with additional details provided below.

The study was conducted as a static-renewal test with three treatments: laboratory control (dechlorinated municipal tap water), 100 µL methanol/L solvent control, and 10 µg βNF/L in 100 µL methanol/L treatment (10 µg βNF/L treatment). A stock solution of 100 µg βNF/mL methanol was prepared prior to test initiation and was used to create the 10 µg βNF/L treatment. To minimize βNF degradation, the stock solution was stored in the dark at 4 ± 2°C prior to and during testing.

The exposure was initiated on December 8, 2025. Fish were exposed to 40 L of continuously aerated treatment solution, with 80% daily renewal to minimize metabolic waste buildup and variance in exposure concentrations. New test solutions were prepared daily.

The exposure was terminated on December 12, 2025. Following euthanasia with a lethal dose of MS-222, fish were measured for fork length (to the nearest 0.1 cm) and wet weight (to the nearest 0.1 g). Livers were excised from each fish, placed individually in cryovials, weighed (to the nearest 0.01 mg), and stored at −80°C until shipment to InnoTech.

Table 1. Summary of test conditions: 96-hour rainbow trout (*Oncorhynchus mykiss*) exposure.

Test species	*Oncorhynchus mykiss*
Organism source	Fish Hatchery
Organism age	Juvenile (~ 5-6 g weight)
Test type	Static-Renewal
Test duration	96 hours
Test vessel	57-L glass aquariums
Test solution volume	40 L
Test treatments	Laboratory control, solvent control (100 µL methanol/L), and 10 µg βNF/L
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	Daily (80% renewal)
Test temperature	15 ± 2°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	Continuous
Test Measurements	Temperature, pH, conductivity, dissolved oxygen and temperature measured daily at each test replenishment in old and new test solutions; ammonia measured before each test replenishment in old test solutions; evaluated for survival daily
Test protocol	Adapted from Environment Canada (2000), EPS 1/RM/13, with 2007, 2016, & 2023 amendments
Statistical software	None
Test endpoints	Percent survival
Test acceptability criterion	Survival ≥ 90%

RESULTS

The results of the acute exposure are summarized in Table 2. No adverse effects on survival were observed for any treatment (Table 2).

Table 2. Results: Rainbow trout survival, average fork length, wet weight, and liver weight.

Treatment	96-hour Survival (%)	Fork length (cm)	Wet weight (g)	Liver weight (mg)
Laboratory Control	100.0	8.1	5.1	47.66
Solvent Control	100.0	8.1	5.1	50.18
10 µg/L βNF	100.0	7.9	4.8	53.21

Sincerely,

Kristin McKenzie, B.Sc.
Project Coordinator

Leila Oosterbroek, P.Biol.
Environmental Scientist

REFERENCES

Environment Canada. (2000). Biological test method: reference method for determining acute lethality of effluent to rainbow trout. EPS 1/RM/13, Second Edition, December 2000 (with May 2007, February 2016, and December 2023 amendments).

APPENDIX A – *Oncorhynchus mykiss* Exposure Data

NAUTILUS ENVIRONMENTAL

PJ2526-006 Trout

Method TRS-MOD | Client ALB305 | Reference PJ2526-006

Test Log

Day	Date	Time	Initial	Chem. Cart	Double Counted	Daily Data Review
0	2025/12/08	*1400	KO/KM	1	KO	CC
1	2025/12/09	1330	KO/DM	1	-	KM
2	2025/12/10	1330	KM/KO	1	-	DM
3	2025/12/11	1330	DM/KO	1	-	KM
4	2025/12/12		KM/KO/DM	1	-	

Test Chemistry and Biology

Sample Pre-Aeration KM

~~*Aeration rate adjusted to 6.5 +/- 1 mL/min/L (yes/no~~

Preaeration time	0 hours	0.5 hours	1 hour
DO(mg/L) of 100%	8.9	8.9	—LO
Temp (°C) of 100%	14		

DO in mg/L (70% - 100% saturation at test temp in 100%)**

6.2 mg/L - 8.9 mg/L at 14°C
6.1 mg/L - 8.8 mg/L at 15°C
6.0 mg/L - 8.6 mg/L at 16°C
**corrected for altitude

Day	pH (units) (range: **6.5-8.5**) New Solutions			pH (units) (range: **6.5-8.5**) Old Solutions		
	conc. (%)	Lab CTL	Solvent CTL	10 µg/L βNF	Lab CTL	Solvent CTL	10 µg/L βNF
0	7.9	8.0	8.0	-	-	-
1	8.2	8.3	8.3	8.2	8.2	8.2
2	8.0	8.4	8.4	8.2	8.3	8.3
3	8.2	8.2	8.2	8.1	8.1	8.1
4	-	-	-	8.2	8.3	8.3

Day	Conductivity (µS/cm)			Conductivity (µS/cm)		
0	479	480	480	-	-	-
1 (20)	~~471~~ 450	457	454	471	474	471
2	465	463	464	464	466	466
3	462	466	466	464	467	467
4	-	-	-	467	467	468

Day	Dissolved Oxygen (mg/L)			Dissolved Oxygen (mg/L)		
0	8.9	8.9	8.9	-	-	-
1	8.8	8.9	8.9	8.2	8.3	8.3
2	8.3	8.0	8.7	7.6	7.9	8.1
3	8.9	8.9	8.9	8.8	8.8	8.4
4	-	-	-	8.2	8.3	8.5

Day	Temperature (**14 - 16** (°C))			Temperature (**14 - 16** (°C))		
0	14	14	14	-	-	-
1	15	14	14	15	15	15
2	14	14	14	14	14	14
3	14	14	14	15	15	15
4	-	-	-	15	15	15

Test Organism Information

Batch	20250604TR
Source	Troutlodge
Tank #	10
Held at 15± 2°C for ≥14 days	Y / N
Valid risk analysis	Y
Percent stock mortality (7 days prior to test, must be <2%)	0.26
Test Volume (L)	40

Day	Number Alive (In brackets number stressed)			Unless otherwise noted, behavior is considered to be normal
	10	10	10	
0				
1	10	10	10	
2	10	10	10	
3	10	10	10	
4	10	10	10	

Reviewed By: LO Date Reviewed: 2025/12/22

NAUTILUS ENVIRONMENTAL

PJ2526-006 Trout

Method TRS-mod Client ALB 305 Reference PJ2526-006 Date: 2025/12/12

Lab Control

Fish	Organism Length (cm)	Organism Weight (g)	(Empty vial) Initial (mg)	(Vial + liver) Final (mg)
1	9.1	6.2	6610.35	6675.45
2	8.5	5.2	6652.83	6700.32
3	8.6	5.7	6607.69	6663.64
4	8.4	5.5	6621.43	6667.12
5	7.9	4.4	6563.60	6603.19
6	7.3	3.9	6657.07	6699.21
7	7.9	5.1	6624.02	6674.66
8	8.4	5.6	6537.82	6598.10
9	7.4	4.2	6585.68	6653.18
10	7.8	4.8	6609.00	6649.95

Loading Density (g/L): 1.27

Mean Length (cm): 8.1

Length Range (cm): 7.3-9.1

Mean Weight (g): 5.1

Weight Range: (g): 3.9-6.2

Balance:

Initial: 3

Final: 3

Balance Calibration Check:

	Initial	Final
first pan weighed:	Lab CTL1	–
weight of first pan:	6610.35	–
first pan after all other pans weighed:	6610.24	–

Solvant Control

% difference <5%: Yes/No ~~Yes/No~~ KO

Fish	Organism Length (cm)	Organism Weight (g)	(Empty vial) Initial (mg)	(Vial + liver) Final (mg)
1	8.5	6.1	6631.38	6695.68
2	9.6	7.7	6716.30	6787.84
3	8.3	5.2	6669.83	6709.33
4	7.6	4.2	6651.30	6696.01
5	7.7	4.4	6600.31	6644.12
6	7.5	4.0	6659.71	6697.72
7	8.1	5.1	6584.99	6634.40
8	8.0	4.9	6614.83	6665.59
9	7.6	4.1	6628.91	6679.50
10	8.3	5.2	6604.64	6653.84

Loading Density (g/L): 1.27

Mean Length (cm): 8.1

Length Range (cm): 7.5-9.6

Mean Weight (g): 5.1

Weight Range: (g): 4.0-7.7

10 µg/L βNF

Fish	Organism Length (cm)	Organism Weight (g)	(Empty vial) Initial (mg)	(Vial + liver) Final (mg)
1	7.4	3.8	6596.49	6636.40
2	7.8	4.3	6668.76	6711.97
3	8.3	5.1	6635.53	6699.93
4	7.9	4.9	6715.21	6772.57
5	8.1	5.2	6650.75	6708.92
6	7.9	5.3	6672.04	~~6729.24~~ KO 6729.24
7	8.5	6.2	6658.85	6720.40
8	7.5	4.3	6617.46	6663.36
9	7.9	5.0	6636.72	6695.95
10	7.8	4.3	6668.54	6717.74

Loading Density (g/L): 1.21

Mean Length (cm): 7.9

Length Range (cm): 7.4-8.5

Mean Weight (g): 4.8

Weight Range: (g): 3.8-6.2

Reviewed By: LO Date Reviewed: 2025/12/22

NAUTILUS ENVIRONMENTAL

Project Sheet

Client: ALB 305
Test #: PJ2526-006

Date: 2025/12/08-2025/12/12
Initials:

Daily ammonia readings (old chems) Total Ammonia LO

Lab Control day 1:	0.43 mg/L
Lab Control day 2:	0.30 mg/L
Lab Control day 3:	0.33 mg/L
Lab Control day 4:	0.29 mg/L

Solvent Control day 1:	0.49 mg/L
Solvent Control day 2:	0.28 mg/L
Solvent Control day 3:	0.33 mg/L
Solvent Control day 4:	0.28 mg/L

10 µg/L βNF day 1:	0.45 mg/L
10 µg/L βNF day 2:	0.31 mg/L
10 µg/L βNF day 3:	0.40 mg/L
10 µg/L βNF day 4:	0.32 mg/L

END OF MEMO

APPENDIX 3: RAW DATA

Classification: Protected A

10.0000	Concentration (ug/mL)	OD1	OD2	OD3	Average	Std	CV	Calculated Concentration (ug/mL)
A	2000	2.890	2.815	2.718	2.808	0.086	3.1%	1997
B	1500	2.056	2.079	2.622	2.252	0.320	14.2%	1510
C	1000	1.363	1.473	1.564	1.467	0.101	6.9%	924
D	750	1.201	1.307	1.489	1.332	0.146	10.9%	825
E	500	0.790	0.869	0.987	0.882	0.099	11.2%	499
F	250	0.456	0.492	0.556	0.501	0.051	10.1%	245
G	125	0.253	0.283	0.313	0.283	0.030	10.6%	122
I	0	0.005	-0.007	0.002	0.000	0.006	#########	3

Sample	Dilution	OD1	OD2	OD3	Average	Std	CV	Concentration (ug/mL)	Concentration X DF (ug/mL)
EDBKTR21	10	1.149	1.104	1.198	1.150	0.047	4.1%	692	6920
CHBK1	10	0.968	0.963	0.990	0.974	0.014	1.5%	564	5639
FGH3	10	1.163	1.198	1.138	1.166	0.030	2.6%	704	7037
CHBK3	10	1.144	1.149	1.182	1.158	0.021	1.8%	698	6979
FGH4	10	1.169	0.906	0.896	0.990	0.155	15.6%	576	5759
FGH5	10	1.125	1.004	0.973	1.034	0.080	7.8%	607	6074
FGH6	10	0.988	0.928	0.962	0.959	0.030	3.1%	554	5537
CHBK4	10	1.149	0.950	1.077	1.059	0.101	9.5%	625	6253
CHBK5	10	1.002	0.999	0.970	0.990	0.018	1.8%	576	5759
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	10				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Classification: Protected A

Standard	Concentration (ug/mL)	OD1	OD2	OD3	Average	Std	CV	Calculated Concentration (ug/mL)
A	2000	3.030	2.927	3.065	3.008	0.072	2.4%	1999
B	1500	2.464	2.482	2.434	2.460	0.024	1.0%	1505
C	1000	1.828	1.783	1.805	1.806	0.023	1.2%	969
D	750	1.614	1.523	1.525	1.554	0.052	3.3%	791
E	500	1.114	1.004	1.029	1.049	0.058	5.5%	484
F	250	0.573	0.572	0.561	0.569	0.007	1.2%	247
G	125	0.325	0.311	0.308	0.315	0.009	2.9%	134
I	0	0.001	-0.003	0.001	0.000	0.002	#########	-3

Sample	Dilution	OD1	OD2	OD3	Average	Std	CV	Concentration (ug/mL)	Concentration X DF (ug/mL)
EDBKTR21	10	1.428	1.363	1.374	1.389	0.035	2.5%	683	6826
FGH1	10	0.884	0.849	0.909	0.881	0.030	3.4%	396	3958
FGH2	10	0.892	0.932	0.969	0.931	0.039	4.1%	422	4215
CHBK2	10	1.263	1.248	1.214	1.242	0.025	2.0%	593	5931
AEMP-FS-01-35	10	1.234	1.219	1.224	1.226	0.008	0.6%	584	5837
AEMP-FS-01-38	10	1.409	1.347	1.368	1.375	0.032	2.3%	674	6740
AEMP-FS-01-39	10	1.220	1.229	1.204	1.218	0.013	1.0%	579	5790
AEMP-FS-01-40	10	1.401	1.421	1.374	1.399	0.024	1.7%	689	6891
AEMP-FS-01-46	10	1.444	1.444	1.407	1.432	0.021	1.5%	710	7101
AEMP-FS-01-51	10	1.314	1.291	1.292	1.299	0.013	1.0%	627	6274
AEMP-FS-01-55	10	1.114	1.099	1.106	1.107	0.008	0.7%	516	5155
AEMP-FS-02-28	10	1.402	1.377	1.380	1.387	0.014	1.0%	681	6813
AEMP-FS-02-31	10	1.330	1.328	1.336	1.332	0.004	0.3%	647	6471
AEMP-FS-02-40	10	1.421	1.459	1.440	1.440	0.019	1.3%	715	7154
AEMP-FS-02-44	10	1.118	1.135	1.147	1.134	0.015	1.3%	531	5306
AEMP-FS-02-46	10	1.773	1.790	1.781	1.782	0.009	0.5%	951	9510
AEMP-FS-02-47	10	1.095	1.107	1.087	1.097	0.010	0.9%	510	5100
AEMP-FS-02-49	10	1.165	1.348	1.236	1.250	0.092	7.4%	598	5978
AEMP-FS-02-50	10	1.146	1.130	1.193	1.157	0.033	2.8%	544	5436
AEMP-FS-03-35	10	1.476	1.788	1.810	1.692	0.187	11.0%	886	8858
AEMP-FS-03-43	10	1.389	1.405	1.424	1.406	0.018	1.2%	694	6937
AEMP-FS-03-47	10	1.406	1.414	1.490	1.437	0.046	3.2%	713	7133
AEMP-FS-03-54	10	1.979	1.583	1.554	1.706	0.237	13.9%	896	8958
AEMP-FS-03-56	10	1.645	1.599	1.603	1.616	0.025	1.6%	833	8327

Standard	Concentration (ug/mL)	OD1	OD2	OD3	Average	Std	CV	Calculated Concentration (ug/mL)
A	2000	3.286	3.092	3.277	3.218	0.110	3.4%	2000
B	1500	2.771	2.482	2.612	2.622	0.145	5.5%	1502
C	1000	1.921	1.806	1.969	1.899	0.084	4.4%	967
D	750	1.605	1.546	1.752	1.634	0.106	6.5%	798
E	500	1.070	1.034	1.059	1.054	0.018	1.7%	475
F	250	0.583	0.563	0.588	0.578	0.013	2.3%	250
G	125	0.319	0.325	0.330	0.325	0.006	1.7%	138
I	0	0.000	0.002	-0.002	0.000	0.002	#DIV/0!	-5

Sample	Dilution	OD1	OD2	OD3	Average	Std	CV	Concentration (ug/mL)	Concentration X DF (ug/mL)
AEMP-FS-03-58	10	1.296	1.218	1.219	1.244	0.045	3.6%	574	5736
EDBKTR21	10	1.011	1.021	0.963	0.998	0.031	3.1%	447	4468
AEMP-FS-01-32	10	1.204	1.161	1.081	1.149	0.062	5.4%	523	5231
AEMP-FS-01-33	10	1.327	1.278	1.211	1.272	0.058	4.6%	589	5885
AEMP-FS-01-34	10	1.229	1.233	1.218	1.227	0.008	0.6%	564	5642
AEMP-FS-01-42	10	1.108	1.096	1.049	1.084	0.031	2.9%	490	4900
AEMP-FS-01-44	10	1.316	1.272	1.281	1.290	0.023	1.8%	598	5981
AEMP-FS-01-45	10	1.270	1.225	1.265	1.253	0.025	2.0%	578	5785
AEMP-FS-01-47	10	1.233	1.099	1.186	1.173	0.068	5.8%	536	5356
AEMP-FS-01-48	10	1.129	1.157	1.173	1.153	0.022	1.9%	525	5253
AEMP-FS-01-52	10	1.089	1.014	1.002	1.035	0.047	4.6%	465	4651
AEMP-FS-01-53	10	1.251	1.240	1.189	1.227	0.033	2.7%	564	5642
AEMP-FS-01-54	10	1.290	1.298	1.239	1.276	0.032	2.5%	591	5905
AEMP-FS-01-57	10	1.292	1.272	1.257	1.274	0.018	1.4%	589	5894
AEMP-FS-01-59	10	1.216	1.211	1.208	1.212	0.004	0.3%	556	5562
AEMP-FS-02-25	10	1.411	1.459	1.394	1.421	0.034	2.4%	672	6716
AEMP-FS-02-27	10	0.997	0.992	1.083	1.024	0.051	5.0%	460	4596
AEMP-FS-02-32	10	1.137	1.199	1.306	1.214	0.085	7.0%	557	5574
AEMP-FS-02-35	10	1.251	1.249	1.705	1.402	0.263	18.7%	660	6604
AEMP-FS-02-37	10	1.009	1.066	1.070	1.048	0.034	3.3%	472	4718
AEMP-FS-02-41	10	1.086	1.128	1.231	1.148	0.075	6.5%	523	5229
AEMP-FS-02-43	10	1.157	1.176	1.309	1.214	0.083	6.8%	557	5574
AEMP-FS-02-48	10	1.263	1.209	1.334	1.269	0.063	4.9%	587	5867
AEMP-FS-02-52	10	1.287	1.185	1.313	1.262	0.068	5.4%	583	5829

Classification: Protected A

Standard	Concentration (ug/mL)	OD1	OD2	OD3	Average	Std	CV	Calculated Concentration (ug/mL)
A	2000	2.574	2.953	2.547	2.691	0.227	8.4%	1998
B	1500	2.503	2.125	2.261	2.296	0.191	8.3%	1510
C	1000	1.815	1.526	1.606	1.649	0.149	9.0%	966
D	750	1.507	1.385	1.268	1.387	0.120	8.6%	787
E	500	1.115	0.809	0.858	0.927	0.164	17.7%	492
F	250	0.564	0.470	0.496	0.510	0.049	9.5%	243
G	125	0.332	0.271	0.310	0.304	0.031	10.2%	132
I	0	0.000	0.003	-0.003	0.000	0.003	###############	-1

Sample	Dilution	OD1	OD2	OD3	Average	Std	CV	Concentration (ug/mL)	Concentration X DF (ug/mL)
AEMP-FS-02-53	10	1.360	1.560	1.345	1.422	0.120	8.4%	810	8098
AEMP-FS-02-54	10	1.180	1.177	1.160	1.172	0.011	0.9%	647	6471
EDBKTR21	10	0.921	0.899	0.850	0.890	0.036	4.1%	469	4691
AEMP-FS-02-56	10	0.991	0.991	1.002	0.995	0.006	0.6%	534	5344
AEMP-FS-03-32	10	1.177	1.082	1.092	1.117	0.052	4.7%	612	6117
AEMP-FS-03-33	10	1.283	1.223	1.285	1.264	0.035	2.8%	706	7059
AEMP-FS-03-34	10	1.095	1.058	1.047	1.067	0.025	2.4%	580	5798
AEMP-FS-03-36	10	1.384	1.321	1.314	1.340	0.039	2.9%	756	7555
AEMP-FS-03-40	10	0.905	0.891	1.003	0.933	0.061	6.5%	496	4958
AEMP-FS-03-45	10	1.025	1.037	1.016	1.026	0.011	1.0%	554	5541
AEMP-FS-03-48	10	1.103	1.160	1.149	1.137	0.030	2.7%	625	6247
AEMP-FS-03-50	10	1.198	1.160	1.177	1.178	0.019	1.6%	651	6509
AEMP-FS-03-51	10	1.142	1.168	1.128	1.146	0.020	1.8%	630	6302
AEMP-FS-03-52	10	1.296	1.224	1.255	1.258	0.036	2.9%	702	7025
AEMP-FS-03-53	10	1.038	0.996	1.067	1.034	0.036	3.5%	559	5589
AEMP-FS-03-55	10	1.321	1.289	1.275	1.295	0.024	1.8%	726	7263
AEMP-FS-03-57	10	1.240	1.319	1.266	1.275	0.040	3.2%	713	7133
AEMP-FS-03-59	10	1.295	1.317	1.257	1.290	0.030	2.4%	723	7228
AEMP-FS-02-50-R	10	1.079	1.107	1.041	1.076	0.033	3.1%	585	5855
AEMP-FS-01-47-R	10	0.891	0.897	0.853	0.880	0.024	2.7%	463	4632
FGH4-R	10	0.814	0.826	0.853	0.831	0.020	2.4%	433	4328
AEMP-FS-02-35-R	10	1.190	1.224	1.281	1.232	0.046	3.7%	685	6852
					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Standard	Concentration (ug/mL)	OD1	OD2	OD3	Average	Std	CV	Calculated Concentration (ug/mL)
A	2000	3.323	2.841	2.739	2.967	0.312	10.5%	2001
B	1500	2.179	2.181	2.186	2.182	0.004	0.2%	1498
C	1000	1.471	1.458	1.599	1.509	0.078	5.2%	948
D	750	1.316	1.356	1.402	1.358	0.043	3.2%	826
E	500	0.851	0.876	0.929	0.885	0.040	4.5%	479
F	250	0.467	0.485	0.529	0.493	0.032	6.5%	238
G	125	0.259	0.270	0.311	0.280	0.027	9.8%	126
I	0	-0.002	0.004	-0.001	0.000	0.003	##########	0

Sample	Dilution	OD1	OD2	OD3	Average	Std	CV	Concentration (ug/mL)	Concentration X DF (ug/mL)
EDBKTR21	10	1.261	1.319	1.285	1.288	0.029	2.3%	772	7717
Lab Control-1	10	1.183	1.146	1.118	1.149	0.033	2.8%	666	6658
Lab Control-2	10	1.087	1.097	1.078	1.087	0.010	0.9%	620	6204
Solvent Control-1	10	1.122	1.110	1.120	1.117	0.006	0.6%	642	6424
Solvent Control-2	10	1.073	1.079	1.060	1.070	0.010	0.9%	608	6083
Positive Control-1	10	1.147	1.174	1.194	1.171	0.024	2.0%	683	6827
Positive Control-1x10	10	1.119	1.119	1.122	1.120	0.002	0.2%	644	6443
Positive Control-1x100	100	0.215	0.203	0.212	0.210	0.006	3.0%	92	9246
Positive Control-2	10	1.158	1.266	1.198	1.207	0.055	4.5%	710	7096
Positive Control-2x10	10	1.151	1.102	1.094	1.115	0.031	2.8%	641	6411
Positive Control-2x100	100	0.203	0.214	0.228	0.215	0.013	5.8%	95	9482
Positive Control-3	10	1.095	1.184	1.090	1.123	0.053	4.7%	647	6465
Positive Control-3x10	10	1.134	1.171	1.133	1.146	0.022	1.9%	664	6636
Positive Control-3x100	100	0.217	0.247	0.264	0.242	0.024	9.8%	108	10799
FGH-1	10	1.012	1.021	1.080	1.037	0.037	3.6%	585	5845
FGH-2	10	0.900	0.986	0.955	0.947	0.044	4.6%	521	5207
FGH-3	10	1.249	1.076	1.198	1.174	0.089	7.6%	685	6847
AEMP-FS-03-35	10	1.493	1.540	1.598	1.543	0.053	3.4%	976	9755
AEMP-FS-03-54	10	1.679	1.569	1.681	1.643	0.064	3.9%	1057	10571

	Concentration (pg/mL)	OD1	OD2	OD3	Average	Std	CV	Concentration (pg/mL)-calculated	Note
S0	0	3.165	3.187	3.216	3.190	0.026	0.8%	11	
S1	75	2.868	2.795	2.878	2.847	0.045	1.6%	48	
S2	150	1.781	1.735	1.705	1.741	0.038	2.2%	171	
S3	300	0.634	0.627	0.655	0.639	0.015	2.3%	321	
S4	600	0.239	0.245	0.265	0.250	0.014	5.4%	565	
S5	1200	0.118	0.135	0.140	0.131	0.012	8.8%	1204	
EDBKTR21		1.852	1.856	1.936	1.882	0.047	2.5%	155	
CHBK1		1.661	1.606	1.783	1.684	0.091	5.4%	177	
CHBK3		1.671	1.597	1.591	1.620	0.045	2.8%	185	
FGH5		1.974	2.032	2.026	2.011	0.032	1.6%	140	
CHBK4		1.668	1.951	1.712	1.777	0.152	8.6%	167	
FGH3		2.566	2.647	2.867	2.694	0.156	5.8%	65	
FGH4		1.830	1.963	2.005	1.933	0.091	4.7%	149	
FGH6		2.113	2.194	2.138	2.149	0.041	1.9%	125	
CHBK5		1.864	1.869	2.172	1.969	0.176	9.0%	145	

	Concentration (pg/mL)	OD1	OD2	OD3	Average	Std	CV	Concentration (pg/mL)-calculated	Note
S0	0	3.192	3.206	3.227	3.209	0.018	0.5%	64	
S1	75	2.816	2.926	2.845	2.863	0.057	2.0%	70	
S2	150	1.414	1.525	1.349	1.430	0.089	6.2%	127	
S3	300	0.595	0.621	0.547	0.588	0.038	6.4%	274	
S4	600	0.251	0.247	0.218	0.239	0.018	7.5%	615	
S5	1200	0.130	0.120	0.110	0.120	0.010	8.3%	1194	
EDBKTR21		2.086	1.990	1.895	1.991	0.096	4.8%	96	
FGH1		2.504	2.535	2.369	2.470	0.088	3.6%	80	
FGH2		2.080	2.066	1.993	2.047	0.047	2.3%	93	
CHBK2		1.570	1.563	1.544	1.559	0.013	0.9%	118	
AEMP-FS-01-35		1.860	1.981	2.002	1.948	0.077	3.9%	97	
AEMP-FS-01-38		1.910	1.919	1.940	1.923	0.015	0.8%	99	
AEMP-FS-01-39		1.937	1.970	1.998	1.969	0.031	1.6%	97	
AEMP-FS-01-40		1.922	2.024	1.940	1.962	0.054	2.8%	97	
AEMP-FS-01-46		1.937	1.911	1.970	1.940	0.030	1.5%	98	
AEMP-FS-01-51		1.743	1.941	1.974	1.886	0.125	6.6%	100	
AEMP-FS-01-55		2.192	2.087	2.107	2.129	0.056	2.6%	90	
AEMP-FS-02-28		2.038	2.041	2.138	2.073	0.057	2.7%	92	
AEMP-FS-02-31		2.054	2.077	2.090	2.074	0.018	0.9%	92	
AEMP-FS-02-40		1.856	1.879	1.852	1.863	0.015	0.8%	101	
AEMP-FS-02-44		2.078	2.035	2.120	2.078	0.043	2.0%	92	
AEMP-FS-02-46		1.896	1.931	1.961	1.930	0.033	1.7%	98	
AEMP-FS-02-47		2.039	2.034	2.052	2.042	0.009	0.5%	94	
AEMP-FS-02-49		2.058	1.838	2.005	1.967	0.115	5.8%	97	
AEMP-FS-02-50		2.223	2.213	2.243	2.227	0.015	0.7%	87	
AEMP-FS-03-35		2.058	2.020	2.150	2.076	0.067	3.2%	92	
AEMP-FS-03-43		2.206	1.882	2.124	2.071	0.168	8.1%	93	
AEMP-FS-03-47		1.896	1.751	1.977	1.875	0.115	6.1%	101	
AEMP-FS-03-54		1.957	1.949	1.985	1.964	0.019	1.0%	97	
AEMP-FS-03-56		1.788	1.768	1.828	1.795	0.031	1.7%	105	
AEMP-FS-03-58		1.960	1.993	1.983	1.979	0.017	0.9%	96	

Classification: Protected A

	Concentration (pg/mL)	OD1	OD2	OD3	Average	Std	CV	Concentration (pg/mL)-calculated	Note
S0	0	3.209	3.148	3.226	3.194	0.041	1.3%	6	
S1	75	2.824	2.817	2.839	2.826	0.011	0.4%	45	
S2	150	1.389	1.414	1.550	1.451	0.087	6.0%	197	
S3	300	0.686	0.643	0.642	0.657	0.025	3.8%	310	
S4	600	0.254	0.241	0.262	0.252	0.011	4.2%	556	
S5	1200	0.142	0.126	0.126	0.131	0.009	7.1%	1211	
EDBKTR21	118	2.241	2.165	2.066	2.157	0.088	4.1%	118	
AEMP-FS-01-32	119	2.159	2.184	2.106	2.149	0.040	1.9%	119	
AEMP-FS-01-33	136	2.049	1.943	1.996	1.996	0.053	2.7%	136	
AEMP-FS-01-34	122	2.179	2.030	2.152	2.120	0.079	3.7%	122	
AEMP-FS-01-42	125	2.105	2.063	2.120	2.096	0.030	1.4%	125	
AEMP-FS-01-44	144	1.879	1.967	1.925	1.923	0.044	2.3%	144	
AEMP-FS-01-45	113	2.295	2.101	2.227	2.207	0.098	4.5%	113	
AEMP-FS-01-47	112	2.186	2.197	2.241	2.208	0.029	1.3%	112	
AEMP-FS-01-48	135	2.115	1.902	2.001	2.006	0.107	5.3%	135	
AEMP-FS-01-52	106	2.080	2.428	2.305	2.271	0.176	7.8%	106	
AEMP-FS-01-53	140	1.877	1.915	2.092	1.961	0.115	5.9%	140	
AEMP-FS-01-54	117	2.158	2.307	2.022	2.162	0.143	6.6%	117	
AEMP-FS-01-57	137	1.976	2.025	1.956	1.985	0.036	1.8%	137	
AEMP-FS-01-59	102	2.308	2.426	2.175	2.303	0.126	5.5%	102	
AEMP-FS-02-25	134	1.996	2.097	1.948	2.013	0.076	3.8%	134	
AEMP-FS-02-27	126	2.070	2.058	2.131	2.086	0.039	1.9%	126	
AEMP-FS-02-32	114	2.127	2.181	2.275	2.194	0.075	3.4%	114	
AEMP-FS-02-35	130	2.024	2.198	1.928	2.050	0.137	6.7%	130	
AEMP-FS-02-37	130	2.090	2.081	1.966	2.045	0.069	3.4%	130	
AEMP-FS-02-41	134	2.000	1.976	2.069	2.015	0.048	2.4%	134	
AEMP-FS-02-43	143	1.937	1.916	1.952	1.935	0.018	0.9%	143	
AEMP-FS-02-48	108	2.220	2.300	2.232	2.250	0.043	1.9%	108	
AEMP-FS-02-52	118	2.030	2.234	2.212	2.158	0.112	5.2%	118	
AEMP-FS-02-53	128	2.049	2.111	2.048	2.069	0.036	1.7%	128	
AEMP-FS-02-54	128	2.036	2.204	1.955	2.065	0.127	6.2%	128	

	Concentration (pg/mL)	OD1	OD2	OD3	Average	Std	CV	Concentration (pg/mL)-calculated	Note
S0	0	3.187	3.242	3.191	3.207	0.031	1.0%	53	
S1	75	2.541	2.686	2.760	2.662	0.111	4.2%	63	
S2	150	1.477	1.456	1.468	1.467	0.011	0.7%	112	
S3	300	0.581	0.523	0.515	0.540	0.036	6.7%	289	
S4	600	0.260	0.230	0.234	0.241	0.016	6.7%	620	
S5	1200	0.117	0.125	0.122	0.121	0.004	3.3%	1191	
EDBKTR21		1.958	1.979	2.077	2.005	0.064	3.2%	83	
Lab Control-1		1.883	1.758	1.781	1.807	0.067	3.7%	92	
Lab Control-2		1.804	1.740	1.740	1.761	0.037	2.1%	94	
Solvent Control-1		1.699	1.848	1.856	1.801	0.088	4.9%	92	
Solvent Control-2		1.986	2.048	2.253	2.096	0.140	6.7%	80	
Positive Control-1		2.000	1.806	1.723	1.843	0.142	7.7%	90	
Positive Control-1x10		1.992	1.910	2.000	1.967	0.050	2.5%	84	10 times dilution
Positive Control-1x100		1.913	1.809	2.034	1.919	0.113	5.9%	86	100 times dilution
Positive Control-2		1.935	2.190	2.137	2.087	0.135	6.4%	80	
Positive Control-2x10		1.718	1.534	1.813	1.688	0.142	8.4%	98	10 times dilution
Positive Control-2x100		1.789	1.944	2.004	1.912	0.111	5.8%	87	100 times dilution
Positive Control-3		1.693	1.848	2.024	1.855	0.166	8.9%	89	
Positive Control-3x10		2.024	2.149	1.993	2.055	0.083	4.0%	81	10 times dilution
Positive Control-3x100		1.885	1.842	1.772	1.833	0.057	3.1%	90	100 times dilution
FGH-1		2.166	2.143	2.351	2.220	0.114	5.1%	75	
FGH-2		1.878	1.782	1.961	1.874	0.090	4.8%	88	
FGH-3		2.507	2.653	2.357	2.506	0.148	5.9%	67	

	Concentration (pg/mL)	OD1	OD2	OD3	Average	Std	CV	Concentration (pg/mL)-calculated	Note
S0	0	3.128	2.950	3.080	3.052	0.092	3.0%	45	
S1	75	2.560	2.629	2.559	2.582	0.040	1.6%	58	
S2	150	1.231	1.267	1.106	1.201	0.085	7.0%	147	
S3	300	0.679	0.655	0.640	0.658	0.020	3.0%	261	
S4	600	0.248	0.214	0.210	0.224	0.021	9.3%	632	
S5	1200	0.093	0.100	0.097	0.096	0.004	3.6%	1188	
Lab Control-6		1.858	1.703	1.895	1.818	0.102	5.6%	92	
Solvent Control-6		1.933	1.907	1.855	1.898	0.040	2.1%	88	
Positive Control-6		1.835	1.702	1.767	1.768	0.067	3.8%	95	
Positive Control-7		1.810	1.904	1.666	1.793	0.120	6.7%	94	
Positive Control-8		1.823	1.763	1.716	1.767	0.054	3.0%	96	

	Concentration (pg/mL)	OD1	OD2	OD3	Average	Std	CV	Concentration (pg/mL)-calculated	Note
S0	0	3.154	3.151	3.208	3.171	0.032	1.0%	55	
S1	75	2.770	2.761	2.769	2.767	0.005	0.2%	62	
S2	150	1.371	1.402	1.302	1.358	0.051	3.8%	121	
S3	300	0.428	0.587	0.516	0.510	0.080	15.6%	294	
S4	600	0.226	0.232	0.228	0.229	0.003	1.3%	613	
S5	1200	0.116	0.106	0.113	0.112	0.005	4.6%	1200	
EDBKTR21		1.751	1.754	1.876	1.794	0.071	4.0%	93	
AEMP-FS-02-56		1.879	1.860	1.821	1.853	0.030	1.6%	91	
AEMP-FS-03-32		1.920	1.825	1.810	1.852	0.060	3.2%	91	
AEMP-FS-03-33		2.070	2.027		2.049	0.030	1.5%	83	2 replicates
AEMP-FS-03-34		1.640	1.680	1.775	1.698	0.069	4.1%	98	
AEMP-FS-03-36		1.828	1.605	1.800	1.744	0.121	7.0%	96	
AEMP-FS-03-40		1.542	1.384	1.572	1.499	0.101	6.7%	110	
AEMP-FS-03-45		1.688	1.727	1.770	1.728	0.041	2.4%	97	
AEMP-FS-03-48		1.623	1.794	1.792	1.736	0.098	5.7%	96	
AEMP-FS-03-50		1.645	1.548	1.461	1.551	0.092	5.9%	107	
AEMP-FS-03-51		1.730	1.700	1.892	1.774	0.103	5.8%	94	
AEMP-FS-03-52		1.859	1.775	1.999	1.878	0.113	6.0%	90	
AEMP-FS-03-53		1.827	2.096	1.977	1.967	0.135	6.9%	86	
AEMP-FS-03-55		1.861	1.887	1.892	1.880	0.017	0.9%	89	
AEMP-FS-03-57		1.858	1.645	1.906	1.803	0.139	7.7%	93	
AEMP-FS-03-59		1.908			1.908	#DIV/0!	#DIV/0!	88	1 replicate
AEMP-FS-01-47-R		2.276	2.091	2.367	2.245	0.141	6.3%	76	
AEMP-FS-02-50-R		1.810	2.007	2.085	1.967	0.142	7.2%	86	

APPENDIX 4: ALTERNATIVE CYP1A ELISA KITS

Fish Cytochrome P450 1A1 (CYP1A1) ELISA Kit-Competitive User Manual provided by BioVenic

Fish CYP1A (CYP1A) ELISA kit Manual provided by BYabscience

Fish Cytochrome P450 1A1 (CYP1A1) ELISA Kit User's Manual provided by SunLong Biotech Co. Ltd.

Fish Cytochrome P450 1A1(CYP1A1) ELISA Kit User Information provided by YLbiont

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User Manual

Fish Cytochrome P450 1A1 (CYP1A1) ELISA Kit-Competitive

Cat. No.: EK3F508

Lot No.: F18F2

Size: 96T

⚠ **Please read the manual carefully before use. Wear appropriate protective eyewear, clothing, and gloves during the assay. For research use only.**

Product Overview

This product is designed for the quantitative determination of Fish Cytochrome P450 1A1 (CYP1A1) in samples using a competitive ELISA method. For research use only.

Product Information

Assay Type	Competitive	**Assay Range**	80-1200 pg/mL
Storage	Stored at 2-8℃ for 6 months.	**Assay Time**	Around 120 min.
Specificity	Specifically recognize Fish Cytochrome P450 1A1 (CYP1A1).		
Sample Requirement	Serum, plasma, and other biological fluids; 50 µL.		
Target Information	Cytochrome P450 (CYP) enzymes are membrane-bound proteins containing heme that are essential for detoxifying foreign compounds (xenobiotics), as well as participating in cellular metabolism and maintaining homeostasis. In fish, increased activity of the cytochrome P4501A (CYP1A) enzyme system is a frequently used biomarker indicating exposure to aromatic hydrocarbons. The expression level of CYP1A1 is widely used as an environmental biomarker for assessing the sensitivity of fish to toxic carcinogens (e.g., polycyclic aromatic hydrocarbons PAHs, polychlorinated biphenyls PCBs, *etc.*).		
Target Synonyms	Cytochrome P450 1A1; CYP1A1		

Experimental Principle

The CYP1A1 content was determined using a competitive Enzyme-Linked Immunosorbent Assay (ELISA). Initially, microwell plates were coated with anti-CYP1A1 antibodies to prepare a solid-phase antibody. Then, the samples to be tested, biotinylated CYP1A1, and Horseradish Peroxidase (HRP)-conjugated avidin were added. This process facilitates the formation of a coated antibody–biotinylated CYP1A1–avidin (HRP) complex. The amount of bound labeled CYP1A1 is inversely proportional to the concentration of CYP1A1 present in the sample. Following color development, the absorbance (OD value) was measured using a microplate reader. The CYP1A1 concentration in the samples was then calculated by fitting a concentration-absorbance curve via computer software or manual plotting.

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Kit Components

No.	Item	Quantity	No.	Item	Quantity
1	Wash Buffer (20× concentrate)	15 mL	8	Standard S0 (0 pg/mL)	1 mL
2	HRP-avidin	6 mL		Standard S1 (75 pg/mL)	1 mL
3	Assay Plate	96 wells		Standard S2 (150 pg/mL)	1 mL
4	Substrate A	7 mL		Standard S3 (300 pg/mL)	1 mL
5	Substrate B	7 mL		Standard S4 (600 pg/mL)	1 mL
6	Stop Solution	7 mL		Standard S5 (1200 pg/mL)	1 mL
7	Conjugate (Biotin-labeled)	6 mL	9	Plate Sealer	4

⚠ Reagents and equipment required but not provided:

Standard microplate reader; High-speed centrifuge; Thermostatic incubator; Clean test tubes and microcentrifuge tubes; Volumetric flasks; Set of adjustable pipettes and tips; Multi-channel pipette; Distilled/Deionized water.

Sample Requirements

Serum: Allow whole blood to clot for 2 hours at room temperature or overnight at 4°C. Centrifuge at 1000g for 15 minutes. Collect the supernatant for immediate testing or aliquot and store at -20°C/-80°C. Avoid repeated freeze-thaw cycles.

Plasma: Use EDTA or Heparin as an anticoagulant. Centrifuge at 1000g for 15 mins at 2-8°C within 30 mins of collection. Collect supernatant and store as directed above.

Tissue Lysate: Rinse 100mg of tissue in 1X PBS. Mince and homogenize in 1ml 1X PBS. Freeze at -20°C overnight. Perform two freeze-thaw cycles to break membranes, then centrifuge at 5000g for 5 mins at 2–8°C. Collect supernatant.

Note: Hemolyzed samples will affect results; do not use them.

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Reagent Preparation

Wash Buffer (Working Solution): Dilute the 20× concentrate 1:20 with deionized water. (*e.g.*, mix 15 mL concentrate into 285 mL water). Prepare just before use. If salt crystals form in the concentrate, warm in a water bath to dissolve.

Assay Procedure

1. Preparation: Bring all reagents to room temperature (18-25°C) and allow them to equilibrate for at least 30 minutes. Prepare reagents according to the previously described methods.
2. Loading Samples: Set Blank, Standard, and Sample wells.

   Blank wells: Do not add any solution.

   All other wells: Add 50 µL of Standard or Sample to each.
3. Incubation 1: Add 50 µL Conjugate to each well (except Blank). Mix well, cover with sealer, and incubate at 37°C for 1 hour.
4. Washing: Discard liquid. Fill wells with Wash Buffer, let sit for 10s, and decant. Repeat 3 times. Pat the plate dry on absorbent paper. (Or use an automated washer).
5. Incubation 2: Add 50 µL HRP-avidin to each well (except Blank). Mix, seal, and incubate at 37°C for 30 minutes.
6. Washing: Repeat the washing procedure (Step 4).
7. Color Development: Add 50 µL Substrate A and 50µl Substrate B to each well. Mix and incubate at 37°C in the dark for 15 minutes. Add 50 µL Stop Solution to each well.
8. Measurement: Measure Optical Density (OD) at 450nm within 10 minutes of stopping the reaction.

Key Operating Points

Standard Curve: Always run a standard curve with every assay. Duplicates are highly recommended.

Pipetting: Use disposable tips to avoid cross-contamination. Add samples to the bottom of the well without touching the walls.

Washing: This is critical. Insufficient washing leads to high background/false positives.

Color Control: Stop the reaction when the first 3–4 standard wells show a clear blue gradient and the last wells show little color. The blue will turn yellow immediately upon adding Stop Solution.

Calculation of Results

Subtract the Blank well OD from the Standard and Sample ODs. Use the average if duplicates were used.

Plotting: Create a standard curve with concentration on the Y-axis (log scale) and OD value on the X-axis (log scale).

Software: Use professional curve-fitting software to calculate the regression equation.

Calculation: Substitute the sample OD into the equation to find the concentration, then multiply by the dilution factor for the final actual concentration. If the samples were diluted, multiply the concentration obtained from the standard curve by the dilution factor to determine the actual concentration.

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Storage Conditions and Shelf Life

The kit should be stored protected from light at 2-8°C. The shelf life is six months. Please use the kit within the expiration date printed on the box.

Notes

➢ **Experimental Notes**

1. It is recommended to perform double-well detection for standards and samples during the experiment.
2. The washing process is very critical. Insufficient washing will lead to accuracy errors and falsely elevated OD values. Concentrated Wash Buffer taken out of the refrigerator may have crystals. Dissolve the crystals completely in a water bath before preparing the Wash Buffer.
3. All reagents must be brought to room temperature before detection. After the strip is opened, the remaining strips must be sealed and placed back for use.
4. Please wear a lab coat and latex gloves during the experiment for protection.
5. The components of different batches of kits cannot be mixed.
6. The EP tubes, plate sealers and tips used in the experiment are all for single use.
7. Wastes from the experiments should be disposed of in accordance with local regulations.
8. Each sample addition should use a pipette, and its accuracy should be calibrated frequently to avoid experimental errors. It is best to control the time for each sample addition within 5 minutes. If there are many specimens, it is recommended to use a multi-channel pipette for sample addition.

➢ **Disclaimer**

1. If the tested sample type is not included in the sample types listed in the instructions, it is recommended to conduct a preliminary experiment to verify its effectiveness, and pay attention to reserving the sample.
2. Tissue homogenate or cell lysate prepared with chemical lysis solution may cause ELISA experimental results deviation due to the introduction of some chemicals.
3. Because there are many interfering factors in cell culture supernatant samples, such as cell state, cell number, sampling time, *etc*., there may be a situation where the target cannot be detected.
4. It is recommended to use fresh samples. Long storage time may cause protein degradation or denaturation, resulting in experimental results deviation. It is not yet possible to conduct comprehensive identification and analysis of all raw materials. The final experimental results and the effectiveness of the reagent are closely related to the operator, temperature, *etc.* Please be sure to prepare enough samples for backup.

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For scientific research only
Not be used for clinical diagnosis

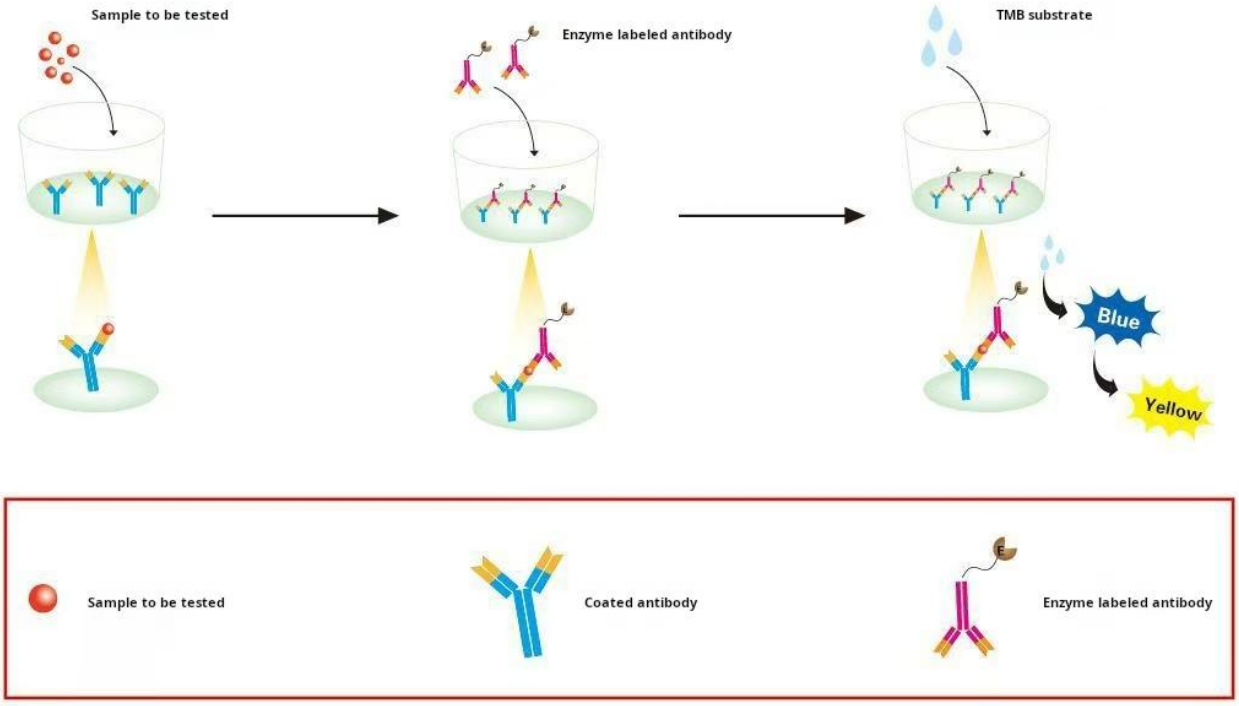
Fish CYP1A（CYP1A）ELISA kit Manual

Product number: BY-901133L
Specification: 48T/96T
Detection range: 1 ng/mL – 32 ng/mL.
Sensitivity: Minimum detected dose is less than 0.1 ng/mL.
Precision: In-batch variation coefficient CV% is less than 10%; interbatch variation coefficient CV% is less than 15%.
Recovery rate: The recovery rate is between 85% and 115%.
Specificity: This kit recognizes natural and recombinant Fish CYP1A（CYP1A） without crossing with structural analogs. Stability: Storage at 2℃-8℃, valid for 6 months.
Usage: Used to detect the concentration of Fish CYP1A（CYP1A） in samples such as serum, plasma, cell culture supernatant and tissue.

Experimental principle

This kit uses double antibody sandwich enzyme-linked immunosorbent assay (ELISA). To the microporous enzyme plate precoated with anti-Fish CYP1A（CYP1A）antibody (solid phase antibody), Fish CYP1A（CYP1A） calibrator and sample to be tested were added, and then HRP-labeled anti-Fish CYP1A（CYP1A） antibody (enzyme-labeled antibody) was added. After incubation and thorough washing, the unbound components were removed, and a sandwich complex of solid-phase antibody-antigen-enzyme-labeled antibody was formed on the solid phase surface of the microplate. Substrates A and B are added, and the substrate is catalyzed by HRP, and the substrate is produced, which is finally converted to yellow under the action of the stop solution (acid solution). The absorbance (OD value) was measured at a wavelength of 450 nm on the microplate reader, and the absorbance (OD value) was positively correlated with the concentration of CYP1A（CYP1A） in the sample to be tested. Fitting the calibrator curve, the concentration of CYP1A（CYP1A） in the sample can be calculated.

Experimental schematic



Kit components and storage Unopened kits are kept at 2-8 degrees and expired kits must not be used.

Components	48 hole configuration	96 hole configuration	Store after opening
Pre-coated enzyme plate	48T	96T	2-8°C14 days
Standard	0.3mL*6 tube	0.3mL*6 tube	2-8°C14 days
Sample dilution	3 ml	6 ml	2-8°C180 days
HRP-labeled antibodies	5 ml	10 ml	2-8°C14 days
Color-producing substrate A	3 ml	6 ml	2-8°C180 days
Color-producing substrate B	3 ml	6 ml	2-8°C180 days
Termination fluid	3 ml	6 ml	2-8°C180 days
20× washing solution	15 ml	25 ml	2-8°C180 days
Seal membrane	2 photos	2 photos	
manual	1 serving	1 serving	
Self-sealed bag	1	1	

The concentrations of calibrators are: 32、16、8、4、2、1 ng/mL in turn.

Note:

1: Before use, please check whether the label and quantity of the reagent in the kit are consistent with the table.
2: If the components of the kit need to be used again, please make sure that they are not contaminated after the last use. 3: The enzyme label plate has not been used for a single time. Remember to seal it and store it at 2-8℃.

Self-provided testing equipment required for testing (not provided, but can be assisted in purchasing)

1) Microplate reader that can detect absorbance of 450 nm
2) Pipet and gun tip, sample filling tank
3) 37℃ constant temperature box or water bath pot
4) Test tubes, centrifuge tubes, measuring cylinders, etc. for preparing reagents
5) Distilled water or deionized water
6) Vortex oscillator, microplate oscillator

Notes

1) It is for scientific research only and shall not be used for clinical diagnosis.
2) Used within the validity period marked by the kit, expired products shall not be used.
3) Do not mix with other manufacturers' kits or components, use the sample diluent that is equipped with the kit.
4) If the sample value is higher than the highest standard concentration value, please dilute the sample appropriately before re-measurement.
5) The heterophilic antibodies such as human anti-mouse in the sample to be tested will interfere with the detection results. Please excrete this factor before testing.
6) The test results obtained by other methods are not directly comparable to the test results of this kit.
7) Please wear experimental clothes and latex gloves to protect yourself during the test. Especially when testing blood or other body fluid samples, please follow the National Biological Laboratory Safety Protection Regulations.
8) Incubate strictly in accordance with the prescribed time and temperature to ensure accurate results. All reagents must reach room temperature 20-25°C before use. Refrigerate immediately after use.
9) Incorrect washing of the board can lead to inaccurate results. Make sure to suck the liquid in the pores as much as possible before adding the substrate. Do not let the micropores dry out during incubation.
10) Eliminate residual liquid and finger prints on the bottom of the plate, otherwise it will affect the OD value.
11) The substrate color-producing liquid should be colorless or very light.
12) Avoid cross-contamination of reagents and specimens to avoid causing erroneous results.
13) Avoid direct exposure of strong light during storage and incubation.
14) The microplate reader used for detection needs to be installed with a filter that can detect wavelengths of 450±10nm, with an optical density range between 0-3.5. It is recommended to warm up 15 minutes in advance when using it.
15) The EP tube and suction head used in the test are both used once and are strictly prohibited from being mixed.

Sample preparation and preservation

The following are just general guidelines for sample collection and preservation. During the collection and storage of all samples, sodium azide must not be used as a preservative. If the sample is not analyzed immediately, it should be aliquoted and frozen and avoid repeated freeze-thawing.
Cell culture supernatant - centrifuge to remove the precipitate, analyze immediately or aliquot it and store it frozen at -20°C.
Serum - Collect blood with a clean test tube, coagulate at room temperature for 30 minutes, centrifuge 2000×g for 20 minutes, and collect serum. Immediately analyze or aliquot it and store it frozen at -20°C.

Plasma - Use heparin, citrate or EDTA to anticoagulate, and centrifuge at 2-8°C for 2000×g for 20 minutes within 30 minutes after blood drawing. To eliminate the effects of platelets, it is recommended to further centrifuge at 2-8°C for 10,000×g for 10 minutes. Immediately analyze or aliquot it and cryopreserve at -20°C.
Cell Lysate - For adherent cells, remove the culture medium and wash it with PBS, saline or serum-free culture medium. Add an appropriate amount of lysate and blow it with a gun for a few times to make the lysate and the cells fully contact. Usually after 10 seconds, the cells are lysed. For suspended cells, collect the cells by centrifugation and wash them with PBS, saline or serum-free culture medium. Add an appropriate amount of lysate, blow the cells with a gun, and flick them with your fingers to fully lyse the cells. After sufficient cleavage, centrifuge at 10000-14000×g for 3-5 minutes and remove the supernatant. Immediately analyze or aliquot it and cryopreserve at -20°C.
Tissue homogenate - Rinse the tissue with pre-cooled PBS (0.01M, pH=7.4) to remove residual blood (the lysed red blood cells in the homogenate will affect the measurement results), and cut the tissue after weighing. The sheared tissue and the corresponding volume of PBS (usually at a weight-volume ratio of 1:9, for example, 1g of tissue sample corresponds to 9mL of PBS. The specific volume can be adjusted appropriately according to experimental needs and recorded. It is recommended to add protease inhibitors to PBS) to a glass homogenizer and grind them thoroughly on ice. To further lyse tissue cells, the homogenate can be sonicated or repeatedly freeze-thawed. Finally, the homogenate was centrifuged at 5000×g for 5~10 minutes, and the supernatant was taken for testing.
Urine – collect with a sterile tube and centrifuge at 2000×g for 20 minutes. Collect the supernatant carefully. If precipitation forms, centrifuge again.

Reagent preparation

1. Before use, all components must be re-warmed for at least 60 minutes to ensure full re-warming to room temperature.
2. Concentrated washing liquid: The concentrated washing liquid taken out of the refrigerator will produce crystallization, which is a normal phenomenon. The crystallization is completely dissolved by heating in a water bath. The concentrated washing liquid and distilled water are diluted at 1:20, that is, 1 part of the concentrated washing liquid, and 19 parts of the distilled water are added. 3. Substrate: substrate liquids A and B, mix thoroughly at 1:1 volume before use, and use within 15 minutes after mixing.

Operating procedures:

All reagents and components are first restored to room temperature, and are recommended to make compound holes.

1. Prepare the working liquid of various components of the kit according to the method described in the previous instructions.
2. Remove the required slats from the aluminum foil bag, and seal the remaining slats with a self-sealing bag and put them back into the refrigerator.
3. Set up standard product wells, 0-value wells, blank wells and sample wells. Add 50μL of standard products of different concentrations to each standard product wells, add 50μL of

sample dilution for 0-value wells, and do not add blank wells, add 50μL of sample to be tested.
4. In addition to the blank wells, standard wells, 0 value wells and sample wells, add 100 μL of horseradish peroxidase (HRP) labeled detection antibody.
5. Cover the reaction plate with a sealing film, incubate at 37°C water bath or constant temperature box away from light for 60 minutes.
6. Remove the sealing membrane, discard the liquid, pat dry on the absorbent paper, fill each hole with washing liquid, let stand for 20S, shake off the washing liquid, pat dry on the absorbent paper, and repeat this 5 times. If you use an automatic plate washing machine, please follow the plate washing machine operating procedure and add a program of soaking for 30 seconds to improve the detection accuracy. After washing the plate, pat the reaction plate thoroughly on clean paper that does not remove shaved content before adding substrate. (Tip: To obtain ideal experimental results, the residual liquid must be completely removed. After washing the plate, please perform the next step immediately and do not let the microplate dry.) 7. Mix substrate A and B well in a 1:1 volume, and add 100μL of substrate mixture to all wells. Cover the reaction plate with a sealing film, incubate at 37°C water bath or a constant temperature box for 15 minutes away from light.
8. Add 50μL of the stop solution to all wells and read the absorbance (OD value) of each well on a 450nm wavelength microplate reader.

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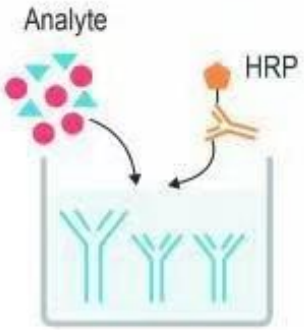
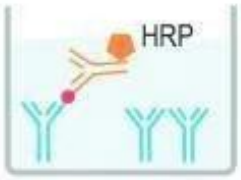
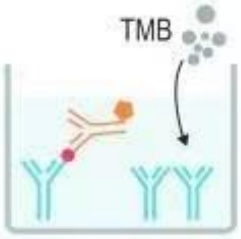
Operation flow chart



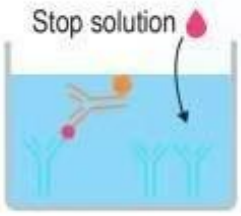
1. After adding 50uL standard working fluid or sample to the corresponding plate hole, add 100ulHRP enzyme-labeled antibody working fluid to each hole immediately, and incubate at 37°C for 60 minutes



2. Discard the liquid in the plate and wash the Plate 5 times



3. Add 50ul of substrate A solution and 50ul of substrate B solution to each hole

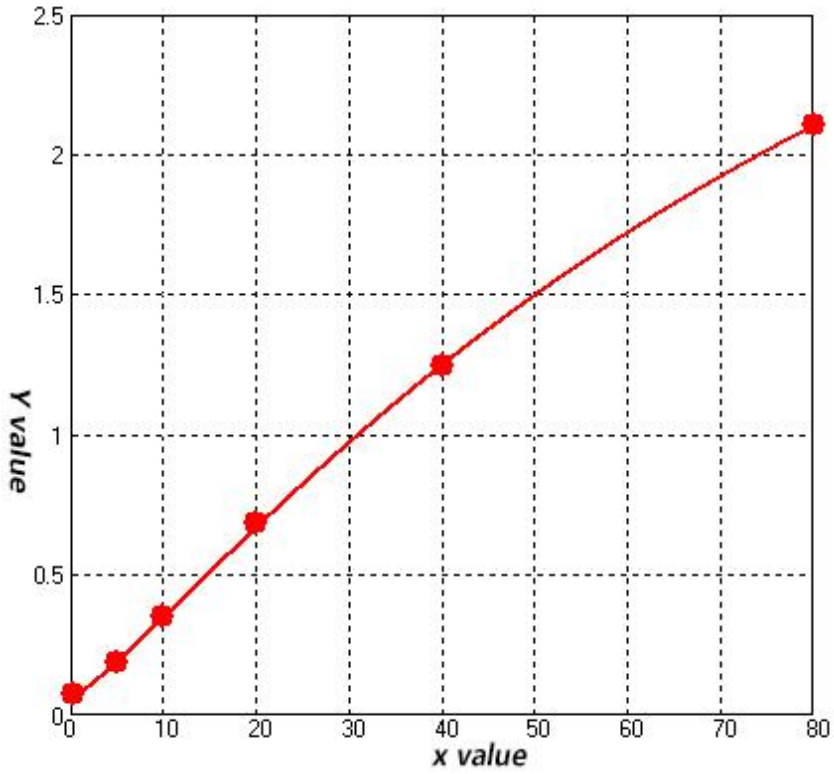


4. Add 50uL termination liquid to each hole

5. Immediately read at 450nm wavelength and process data

Result calculation

1. Use the concentration of the standard substance as the abscissa and the corresponding absorbance (OD value) as the ordinate. Use computer software and four-parameter Logistic curve fitting (4-pl) to create a standard curve equation. Through the absorbance (OD value) of the sample value), use the equation to calculate the concentration value of the sample. [Calculate using ELISA Calc software. It is recommended to use four-parameter fitting for the standard curve, but it is not the only fitting method]
2. If the sample is diluted, the concentration value measured by the above method must be multiplied by the dilution factor to determine the final value of the sample. concentration. Note: Experimenters need to establish a standard curve based on their own experiments. For each test, a standard curve must be established for each enzyme plate. The following curves are for reference only!
3.



(Schematic diagram , for reference only)

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Problem Analysis

If the experimental results are not good, please take pictures of the color development results in time, save the experimental data, keep the used strips and unused reagents, and then contact our company's technical support to solve the problem for you.

Fast Questions and Answers

Problem description	Possible reasons	Corresponding countermeasures
standard curve gradient difference	Incorrect liquid aspiration or addition	Check pipettes and tips
	Equilibration time is too short	Ensure sufficient balancing time
	Incomplete washing	Ensure the washing time and number of washes and the amount of liquid added to each hole
Very weak or colorless	Incubation time too short	Ensure adequate incubation time
	The experimental temperature is incorrect	Use recommended experimental temperatures
	Insufficient reagent volume or missing addition	Check the liquid aspiration and addition process to ensure that all reagents are added in sufficient order and in sufficient quantities.
	Incorrect dilution	
	Enzyme label inactivation or substrate failure	Mix enzyme conjugate and substrate and check by rapid color development
Reading value is low	Microplate reader settings are incorrect	Check the wavelength and filter settings on the microplate reader
		Turn on the microplate reader and preheat it in advance
Large coefficient of variation	Adding fluid incorrectly	Check the filling situation
High background value	The working concentration of the detection antibody is too high	Use the recommended dilution factor

	Incomplete washing of enzyme plate	Ensure that each step of cleaning is complete; if using an automatic plate washer, please check whether all outlets are blocked; whether the washing solution provided in the kit is used
	The lotion is contaminated	Prepare fresh lotion
Low sensitivity	Improper storage of ELISA kits	Store relevant reagents according to instructions
	Not terminated before reading	Stop solution should be added to each well before OD reading

Statement

1. Due to the current conditions and scientific and technological level, it is not possible to conduct comprehensive identification and analysis of all raw materials. This product may have certain quality and technical risks.
2. This kit removes/reduces some endogenous interfering factors in biological samples during the development process. Not all possible influencing factors have been removed.
3. The final experimental results are closely related to factors such as the effectiveness of the reagents, the relevant operations of the experimenter, and the experimental environment at the time. Our company is only responsible for the kit itself and is not responsible for the sample consumption caused by the use of the kit. Please use The user should fully consider the possible usage of the sample and reserve sufficient samples before use.
4. In order to achieve good experimental results, please only use the reagents provided in our company's kits, do not mix products from other manufacturers, and operate in strict accordance with the instructions.
5. Due to incorrect reagent preparation and microplate reader parameter settings during the operation, abnormal results may result. Please read the instructions carefully and adjust the instrument before the experiment.
6. Even if operated by the same personnel, different results may be obtained in two independent experiments. In order to ensure the reproducibility of the results, it is necessary to control every step of the experimental process.
7. The kits will undergo strict quality inspection before shipment. However, due to factors such as transportation conditions, differences in experimental equipment, etc., user test results may be inconsistent with factory data.
8. This kit has not been compared with similar kits from other manufacturers or products that detect the same target substance using different methods, so inconsistent test results cannot be ruled out.
9. The kit is for research use only. If it is used for clinical diagnosis or any other purpose, our company will not be responsible for any problems arising therefrom, nor will we assume any legal liability.

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Fish Cytochrome P450 1A1 (CYP1A1)elisa Kit

User's Manual

Catalogue Number: SL0112FI 48 or 96 Tests

For Research Use Only

Store all reagents between 2-8℃

Validity Period: Six (6) months

For use with serum, plasma, culture media, or any biological fluids.

Read the Materials Safety Data Sheet (MSDS) and follow all handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Materials Safety Data Sheets (MSDS) are available at https://www.sunlongbiotech.com/article.php?id=1762

For Research Use Only.

Not for Therapeutic or Diagnostic Applications.

Please follow the kit instructions to perform the procedure.

Fish Cytochrome P450 1A1 (CYP1A1)elisa Kit

FOR RESEARCH USE ONLY

Product Information

Intended Use

Enzyme immunoassay for the quantitative detection of Fish CYP1A1 antigen in serum, plasma, culture media, or any biological fluid.

Principle

The quantitative detection of Fish CYP1A1 antigen is based on the ELISA (Enzyme-Linked Immunosorbent Assay) technique. The microplate wells are pre-coated with an antibody specific to Fish CYP1A1. After incubation, the corresponding antigen in the sample or standards will bind to the immobilized antibody. After washing the microplate wells to remove all unbound sample material, horseradish peroxidase (HRP) labeled antibody conjugate is added, which binds to the antigen, forming antibody-antigen-enzyme-labeled antibody complex upon incubation. In a second wash step, all unbound material is removed. The immune complex formed by the bound conjugate is visualized by adding Tetramethylbenzidine (TMB) substrate, which gives a blue color reaction in wells containing the complex. A stop solution containing acid terminates the reaction, producing a yellow end-point coloration proportional to the amount of specific antigen present in the sample. Absorbance is measured at 450 nm using an ELISA microwell plate reader. Analysis is completed by comparing the OD values of samples to the standard curve.

Reagent and Materials provided with the kit

	Materials provided with the kit	96T	48T	Storage
1	Instructions for Use	1	1	R.T.
2	Adhesive films/membrane	2	2	R.T.
3	Sealed bags	1	1	R.T.
4	Microplate	1	1	2-8℃

5	Standard: 5400pg/ml	0.5ml×1 bottle	0.5ml×1 bottle	2-8℃
6	Standard diluent	1.5ml×1 bottle	1.5ml×1 bottle	2-8℃
7	HRP-Conjugate Reagent	6ml×1 bottle	3ml×1 bottle	2-8℃
8	Sample Diluent	6ml×1 bottle	3ml×1 bottle	2-8℃
9	Chromogen Solution A	6ml×1 bottle	3ml×1 bottle	2-8℃
10	Chromogen Solution B	6ml×1 bottle	3ml×1 bottle	2-8℃
11	Stop Solution	6ml×1 bottle	3ml×1 bottle	2-8℃
12	Wash Solution Concentrate	20ml (30X*) ×1bottle	20ml (20X*) ×1bottle	2-8℃

*X denotes the product is concentrated 30 or 20 times for 96 and 48 tests, respectively

For potential hazardous substances please check the safety data sheet.

The kit allows the performance of 96 or 48 reactions, including blank and standard wells.

Materials required but not provided

1. ELISA Microtiter plate reader, equipped for the measurement of absorbance at 450 nm
2. Incubator at 37℃
3. Manual or automatic equipment for rinsing Microtiter plates
4. Pipettes to deliver volumes between 10 and 1000 µl
5. Vortex tube mixer
6. Distilled/Deionized water
7. Graduated measuring cylinder
8. Wash bottle
9. Paper towels/absorbent paper
10. Timer
11. Disposable tubes

Storage

Store the kit at 2 - 8°C. The opened reagents are stable up to the expiry date stated on the kit when stored at 2 - 8°C. Return the unused plate strips to the aluminum foil bag immediately, squeeze out air and seal tightly. Keep the desiccant inside and store at 2-8℃ refrigerated. Use up within 1 month, max 3 months. Discard directly if mold, condensation or uneven liquid adhesion on well walls is found.

Sample preparation

1. **Serum**

Collect whole blood into a non-anticoagulated (plain, red-top) tube. Allow the blood to clot undisturbed at room temperature for 10–20 minutes. Then centrifuge at 2,000–3,000 rpm for 20 minutes to separate the serum by removing the clot. If precipitates form during storage, centrifuge the sample again before use

2. **Plasma**

Collect whole blood into tubes containing anticoagulants such as EDTA or citrate. After incubating at room temperature for 10–20 minutes, centrifuge at 2,000–3,000 rpm for 20 minutes. Carefully collect the plasma supernatant. If precipitates form during storage, centrifuge the sample again before use.

3. **Urine**

Collect urine in sterile tubes. Centrifuge at 2,000–3,000 rpm for 20 minutes and carefully collect the clear supernatant. If precipitates appear during storage, centrifuge the sample again. Prepare **cerebrospinal and pleuroperitoneal fluids** following the same procedure as for urine.

4. **Cell samples**

Collect culture supernatant aseptically and centrifuge at 2,000–3,000 rpm for 20 minutes. Carefully collect the clarified supernatant. To detect intracellular components, dilute cells to 1×10^6/mL with Phosphate Buffered Saline (PBS) pH 7.2–7.4 and lyse by repeated freezing and thawing. Centrifuge the lysate under the same conditions and collect the supernatant. If precipitates appear during storage, centrifuge again before use.

5. **Tissue samples**

Tissue samples are cut, weighed, frozen in liquid nitrogen, and stored at -80℃ until use. Homogenize the tissue in PBS (pH 7.4) on ice or at 4℃. Centrifuge at 2,000–3,000 rpm for 20 minutes and carefully collect the supernatant. Aliquot the supernatant for ELISA and future analysis.

Note that for processing methods for uncommon ELISA samples, visit https://www.sunlongbiotech.com/article.php?id=1735

Notes:

1. Perform sample preparation and ELISA assay promptly after collection. Extract samples following relevant protocols. If immediate testing is not possible, store samples at -20°C. Avoid repeated freeze-thaw cycles to preserve sample integrity

2. Our kits are not compatible with samples containing Sodium Azide (NaN_3), as it inhibits the activity of horseradish peroxidase (HRP), compromising assay performance.

3. It is very important to bring all reagents and samples to room temperature and mix them before starting the procedure

Preparation of reagents

Wash Solution Concentrate should be brought to room temperature and should be diluted before starting the test procedure. If crystals have formed in the Wash Solution Concentrate, warm at 30 – 40℃ until they have completely dissolved.

Wash Solution (1X)

1. Pour the entire contents (20 mL) of the Wash Solution Concentrate (20X for 48 tests or 30X for 96 tests) into a clean 1,000 mL graduated cylinder. Bring to final volume to 400mL for 48 test or 600 mL for 96 tests with distilled or deionized water.

2. Mix gently to avoid foaming.

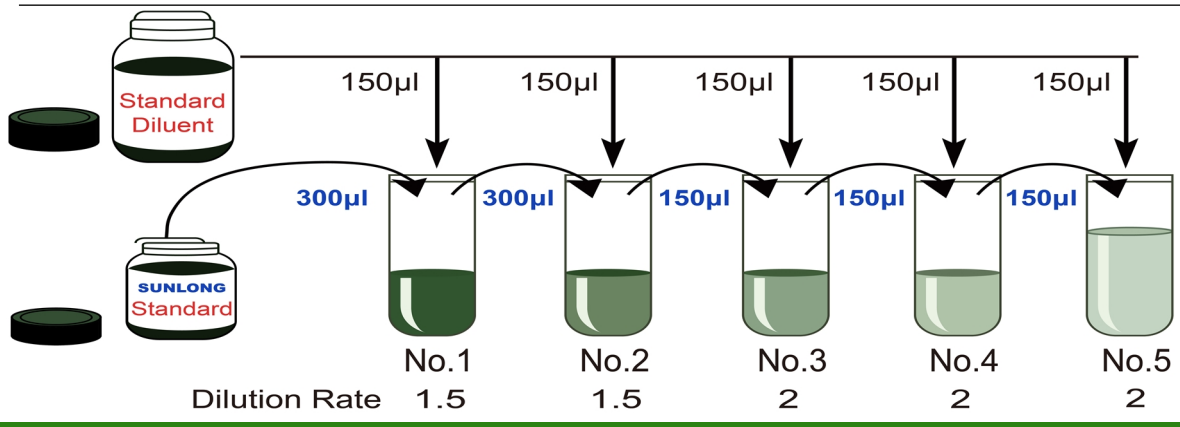
3. Transfer to a clean wash bottle and store at 2–25°C.

Please note that Wash Solution (1X) is stable for 30 days.

Standard Dilution

Prepare 5 tubes containing 150µl each in small tubes first with the Standard Diluent as shown below. Mix each tube thoroughly before the next transfer.

Concentrations	Description	Dilutions
5400pg/ml	Stock	
3600pg/ml	Standard No.1	300µl Stock + 150µl Standard diluents
2400pg/ml	Standard No.2	300µl Standard No.1 + 150µl Standard diluents
1200pg/ml	Standard No.3	150µl Standard No.2 + 150µl Standard diluent
600pg/ml	Standard No.4	150µl Standard No.3 + 150µl Standard diluent
300pg/ml	Standard No.5	150µl Standard No.4 + 150µl Standard diluent



Pipette the 50ul from each tube to two microplate wells, with a total of ten wells of duplicated standards.

Procedure

1. **Preparation of Microplate.** Label the microplate wells sequentially with the corresponding sample numbers. Include ten wells for the five duplicated standards and one empty well as a blank control (well A1). Do not introduce samples or HRP Conjugate reagent into the blank well (well A1); however, continue to perform all subsequent steps as per the standard protocol. Remove any unused microplate strips from the holder and store them sealed in the provided foil bag with desiccant at 2–8°C.
2. **Pipetting the standards and samples.** Add 50 µL of reconstituted standards to their respective wells. For sample wells, add 40 µL of sample diluent followed by 10 µL of sample. Carefully dispense samples to the bottom of the wells without touching the walls. Mix gently by shaking to ensure proper mixing.
3. **Incubation.** Incubate the Microplate 30 minutes at 37°C after sealing with an Adhesive film/membrane.
4. **Plate Washing.** Wash the strips five (5) times with 400 µL of 1X Wash Solution per well. Soak strips for 30 seconds in between washes. When using an automated plate washer, be sure to recalibrate it so that the tips do not touch the bottom of the wells. Also, take caution when manually dispensing and aspirating into and out of the wells/ Remove residual Wash Buffer by tapping the plate upside down on paper towels without letting the wells dry out.

Note: Washing is important! Insufficient washing results in poor precision and false results.

5. **Conjugate Addition.** Add 50 µL HRP-Conjugate reagent to each well except the blank control well (well A1).

6. **Conjugate Incubation.** Incubate the Microplate 30 minutes at 37°C after sealing with an Adhesive film/membrane as in Step 3.

7. **Plate Washing.** Wash the strips five (5) times with 400 µL of 1X Wash Solution per well. Soak strips for 30 seconds in between washes. Remove residual Wash Buffer by tapping the plate upside down on paper towels without letting the wells dry out, as in Step 5. Do not touch the bottom of the wells either during manual or automated washing.

Note: Washing is important! Insufficient washing results in poor precision and false results.

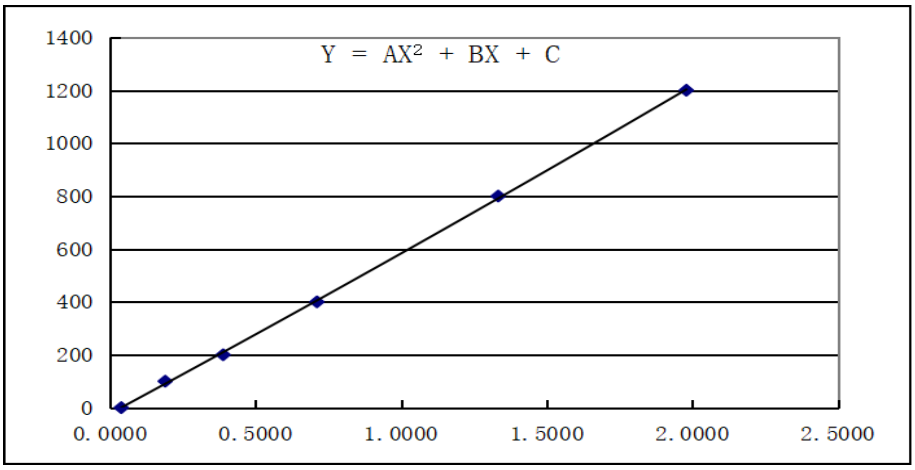
8. **Substrate Addition and Incubation.** Add 50 µL Chromogen Solution A and 50 µL Chromogen Solution B to each well, mix with gentle shaking, and incubate at 37℃ for 15 minutes. This should be done while avoiding a light source.
9. **Stop Reaction**. Add 50 µL of Stop Solution to each well to terminate the enzymatic reaction. Upon addition, the color will change from blue to yellow, indicating the reaction has been successfully stopped
10. **Measurement.** Remove any drops of water and fingerprints on the bottom of the plate and confirm there are no bubbles on the surface of the liquid. Measure the optical density (O.D.) at 450 nm using a microtiter plate reader. Set the O.D. value of the blank control well to zero. Complete all readings within 15 minutes after adding the stop solution to ensure accurate results.

Note that due to technical reasons, if the ELISA Microtiter plate reader cannot be adjusted to zero using the Blank, subtract the Blank absorbance value from all other absorbance values measured to obtain reliable results

Evaluation of the result

1. Calculate the average absorbance values for each set of duplicate standards and samples. Duplicates should be within 20% of the mean value.
2. Create a standard curve by plotting the mean absorbance for each Fish CYP1A1 concentration. Draw a best fit curve through the points of the graph (a 5-parameter curve fit is recommended)
3. To determine the concentration of the sample, a horizontal line is extended from this mean absorbance value to intersect the standard curve. The point of intersection corresponds to the concentration of the analyte in the sample by extrapolation or interpolation from the standard curve.

Standard Curve Analysis (Second-Order Polynomial Regression)



This diagram is for reference only, Specific calculation methods and steps refer to: https://www.sunlongbiotech.com/article.php?id=36

Precision

Intra-assay Precision (Precision within an assay): 3 samples with low, middle, and high levels of Fish CYP1A1 were tested 20 times on one plate, respectively.

Inter-assay Precision (Precision between assays): 3 samples with low, middle, and high-level Fish CYP1A1 were tested on 3 different plates, 8 replicates in each plate.

CV(%) = SD/mean X 100

Intra-Assay: CV<10%

Inter-Assay: CV<12%

Assay range

45pg/ml-4000pg/ml

Sensitivity

8.9pg/ml

Precautions

1. Store the kit at 2-8°C upon receipt. Before use, bring the kit to room temperature. Remove any unused strips from the Fish CYP1A1 Antibody-coated plate, reseal them in the provided zip-lock foil bag with desiccant, and keep at 2-8°C.

2. Precipitates may form in the concentrated wash buffer. Warm the buffer to dissolve precipitates; this will not affect assay performance.

3. Utilize an accurate pipette to minimize experimental errors. Samples must be added to the microplate within five minutes. When processing a large quantity of samples, employing a multichannel pipette is advised for efficiency.

4. Include a standard curve in every assay, with replicate wells recommended to enhance reliability. If a sample's optical density (OD) exceeds that of the highest standard, the sample should be diluted (by a factor of n) before reassessment. When calculating the original CYP1A1 concentration, multiply by the total dilution factor (n × 5).

5. To prevent cross-contamination, use adhesive film/membrane only once.

6. Protect the substrate from exposure to light to maintain its stability and reactivity.

7. All procedures must strictly follow the manufacturer's instructions. Results should be obtained using a microtiter plate reader according to protocol specifications.

8. Treat all samples, wash buffer, and waste as potentially infectious.

9. Do not mix reagent from different kit lots.

Storage and Validity

1. Storage: 2-8℃.
2. Valid Duration: 6 months

Troubleshooting

Possible Case	Solution
Poor Standard Curve	
• Improper standard curve preparation	• Ensure accurate operation of the dilution
• Incomplete washing and aspiration	• Adequate washing and adequate aspiration
• Inaccurate Pipetting	• Check and Calibrate pipettes

High Background	
• Improper washing	• Increase the duration of soaking before aspiration
• Contaminated Substrate	• Replace Substrate. Use a clean substrate and avoid cross-contamination by replacing the Adhesive film/membrane
• Non-specific binding of the antibody	• Replace with another purified antibody or blocking buffer
• The plate is not sealed completely	Follow the instructions strictly
• Incorrect incubation temperature	• Incubate at 37℃
• Substrate exposed to light before use	• Keep the substrate in a dark place
• Contaminated wash buffer	• Use a clean buffer and a sterile filter

Weak Signal	
• Improper washing	• Increase the duration of soaking before aspiration
• Incorrect incubation temperature	• Incubate at 37℃
• Not enough antibody were used	• Increase the concentration of the antibody
• Reagents are contaminated	• Use new reagents
• Pipettes are not clean	• A clean pipette should be used

No Signal	
• Reagents are contaminated • Sample prepared incorrectly	• Use new reagents • Make sure samples are diluted accordingly
• Not enough antibody were used • Wash buffer contains sodium azide • HRP was not added	• Increase the concentration of antibody • Use a new wash buffer without sodium azide • Add HRP according to the instructions
Poor Precision	
• Imprecise/ inaccurate pipetting • Incomplete washing of the wells	• Check and calibrate pipettes • Ensure wells are thoroughly washed by filling each well with wash buffer and completely removing all residual antibody solutions before proceeding to the next wash step

Catalog No: YLA0036FI

96 Test

Fish Cytochrome P450 1A1(CYP1A1)ELISA Kit

FOR RESEARCH USE ONLY; NOT FOR THERAPEUTIC OR DIAGNOSTIC APPLICATIONS!
PLEASE READ THROUGH ENTIRE procedure BEFORE BEGINNING!

INTENDED USE

The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of CYP1A1 in Fish serum 、plasma、tissue homogenates and other biological fluids.

REAGENTS AND MATERIALS PROVIDED

Reagents	Quantity	Reagents	Quantity
Coated ELISA plate	12-Well * 8Tubes	Washing concentrate (30X)	20ml
Standard dilution	3ml	Instruction	1
Chromogen solution A	6ml	Seal plate membrane	2
Chromogen solution B	6ml	Hermetic bag	1
Streptavidin-HRP	6ml	Stop solution	6ml
Standard solution(128ng/ml)	0.5ml	Anti CYP1A1 antibodies labeled with biotin	1ml

MATERIALS REQUIRED BUT NOT SUPPLIED

1. An incubator which can provide stable incubation conditions up to 37°C±0.5°C. .
2. Microplate reader with 450 ± 10nm filter.
3. Precision pipettes and Disposable pipette tips.
4. Distilled water.
5. Deionized or distilled water.
6. Absorbent paper.

STORAGE OF THE KITS

1. For unopened kit: All the reagents should be kept according to the labels on vials. The TMB Substrate Wash Buffer (30 × concentrate) and Stop Solution should be stored at 4°C upon receipt while the others should be at -20°C.
2. For opened kit: When the kit is opened, the remaining reagents still need to be stored according to the above storage condition.

Note： It is highly recommended to use the remaining reagents within 1 month provided this is within the expiration date of the kit. For the expiration date of the kit, please refer to the label on the kit box. All components are stable until this expiration date.

IMPORTANT NOTES

1. Before opening the kit kept at the temperature of 2-8℃, it takes at least 30 minutes to increase naturally to room temperature. After breaking the seal of ELISA coated-plate, some of the stripes used should be kept in hermetic bag.

2.When adding samples, sample injector must be used for each time and should also be frequently checked for its precision to avoid individual error.

3. The instruction must be strictly followed while the reading of ELISA reader must be set as the standard of determining the experiment result.

4.Pipette tips and seal plate membrane in hand should not be used more than once in order to avoid cross contamination.

5.All samples, washing concentration and wastes of every kind should be disposed as infective agent.

6.Other reagents not needed must be packed or covered. Reagents of different batches must not be mixed and should be used before their respective validity dates.

7. Substrate B is sensitive to light and therefore should not be exposed to light for too long.

SWASHING METHODC

Manually washing method: Washing by hand: Shake off the liquids in the wells of the ELISA plate; Lay several bibulous papers on the test bed and pat hard the ELISA plate several times downward; then inject at least 0.35ml of diluted washing concentration for 1-2 minutes' soaking. Repeat this process as needed.

Automatic washing method: Washing by automatic plate washer: If there is an automatic plate

washer, it should only be used in the test when you are quite familiar with its functions.

SAMPLE COLLECTION AND STORAGE

- Samples containing NaN3 must not be tested as it inhibits the activity of Horse Radish Peroxidase (HRP).
- After collecting the sample, extraction should be immediately carried out in accordance with related documents. After extraction, experiment should be conducted immediately as well. Otherwise, keep the sample at -20℃. Avoid repeated freeze-thaw cycles.
- Serum: Allow the serum to clot for 10-20 minutes at room temperature. Centrifuge (at 2000-3000 RPM) for 20 minutes. Collect the supernatants carefully. When sediments occurred during storage, centrifugation should be performed again.
- Blood plasma: In accordance with the requirements of sample collection, EDTA or sodium citrate should be used as anti coagulation. Add EDTA or sodium citrate and mix them for 10-20 minutes. Centrifuge (at 2000-3000 RPM) for approximately 20 minutes. Collect the supernatants carefully. When sediments occurred during storage, centrifugation should be performed again.
- Urine: Collect by sterile tube. Centrifuge (at 2000-3000 RPM) for approximately 20 minutes. Collect the supernatants carefully. When sediments occurred during storage, centrifugation should be performed again. When collecting pleuroperitoneal fluid and cerebrospinal fluid, please follow the procedures above-mentioned.
- Cell culture supernatant: Collect by sterile tubes when examining secrete components. Centrifuge (at 2000-3000 RPM) for approximately 20 minutes. Collect the supernatants carefully. When examining the components within the cell, use PBS (PH 7.2-7.4) to dilute cell suspension to the cell concentration of approximately 1 million/ml. Damage cells through repeated freeze-thaw cycles to let out the inside components. Centrifuge (at 2000-3000 RPM) for approximately 20 minutes. Collect the supernatants carefully. When sediments occurred during storage, centrifugation should be performed again.
- Tissue sample: Incise sample and weigh up. Add a certain amount of PBS (PH 7.4). Freeze with liquid nitrogen immediately for later use. Thaw the sample and keep it at 2-8℃. Add a certain amount of PBS (PH 7.4) and then homogenize the sample thoroughly by hand or homogenizer. Centrifuge (at 2000-3000 RPM) for approximately 20 minutes. Collect the supernatants carefully. Aliquot and keep one for examination and freeze the others for later use.

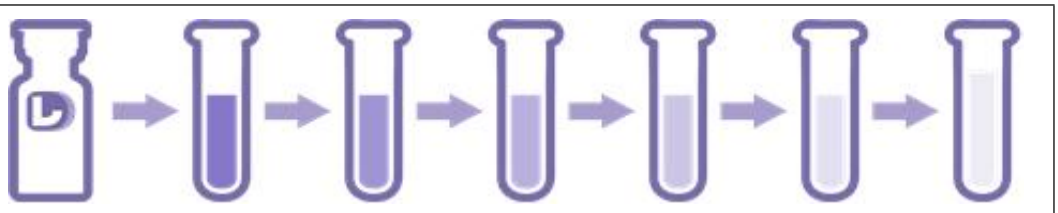
Note:

1. Samples to be used within 5 days may be stored at 4°C, otherwise samples must be stored at -20°C (≤1 month) or -80°C (≤2 months) to avoid loss of bioactivity and contamination.
2. Sample hemolysis will influence the result, so hemolytic specimen can not be detected.
3. When performing the assay, bring samples to room temperature.

ASSAY PROCEDURE

1.Dilution of standard solutions: (This kit has a standard of original concentration, which could be diluted in small tubes by user independently following the instruction.):

64ng/ml	Standard No.5	120μl Original Standard + 120μl Standard diluents
32ng/ml	Standard No.4	120μl Standard No.5 + 120μl Standard diluents
16ng/ml	Standard No.3	120μl Standard No.4 + 120μl Standard diluent
8ng/ml	Standard No.2	120μl Standard No.3 + 120μl Standard diluent
4ng/ml	Standard No.1	120μl Standard No.2 + 120μl Standard diluent

Stock standard						
Tube	**standard**	**S5**	**S4**	**S3**	**S2**	**S1**
ng/ml	128	64	32	16	8	4

2.The number of stripes needed is determined by that of samples to be tested added by that of standards. It is suggested that each standard solution and each blank well should be arranged with three or more wells as much as possible.

3.Sample injection: 1) Blank well: Add only Chromogen solution A and B, and stop solution.

2) Standard solution well: Add 50μl standard and streptavidin-HRP 50μl. 3) Sample well to be tested: Add 40μl sample and then 10μl CYP1A1 antibodies, 50μl streptavidin-HRP. Then cover it with seal plate membrane. Shake gently to mix them up. Incubate at 37℃ for 60 minutes.

4.Preparation of washing solution: Dilute the washing concentration (30X) with distilled water for later use.

5.Washing: Remove the seal plate membrane carefully, drain the liquid and shake off the remaining liquid. Fill each well with washing solution. Drain the liquid after 30 seconds' standing. Then repeat this procedure five times and blot the plate.

6. Color development: Add 50μl chromogen solution A firstly to each well and then add 50μl chromogen solution B to each well as well. Shake gently to mix them up. Incubate for 10 minutes at 37℃ away from light for color development.

7.Stop: Add 50μl Stop Solution to each well to stop the reaction (the blue color changes into yellow immediately at that moment).

8.Assay: Take blank well as zero, measure the absorbance (OD) of each well one by one under 450nm wavelength, which should be carried out within the 10 minutes after having added the stop solution.

9.According to standards' concentrations and the corresponding OD values, calculate the linear regression equation of the standard curve. Then according to the OD value of samples, calculate the concentration of the corresponding sample. Special software could be employed to calculate as well.

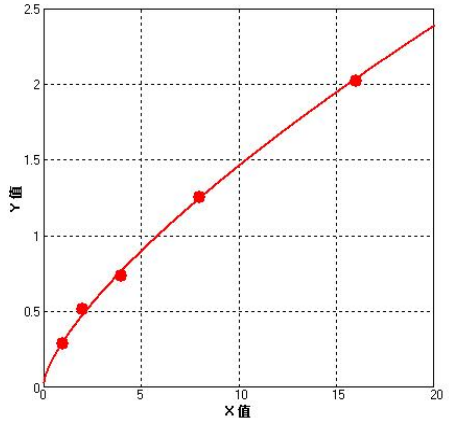
TEST PRINCIPLE

This kit uses enzyme-linked immune sorbent assay (ELISA) based on the Biotin double antibody sandwich technology to assay the Fish Cytochrome P450 1A1 (CYP1A1). Add 8-Hydroxy-desoxyguanosine(CYP1A1)to the wells, which are pre-coated with 8-Hydroxy-desoxyguanosine(CYP1A1)monoclonal antibody and then incubate. After that, add anti CYP1A1 antibodies labeled with biotin to unite with streptavidin-HRP, which forms immune complex. Remove unbound enzymes after incubation and washing. Add substrate A and B. Then the solution will turn blue and change into yellow with the effect of acid. The shades of solution and the concentration of Fish Cytochrome P450 1A1 (CYP1A1) are positively correlated.

CALCULATION OF RESULTS

Make concentration of standards the abscissa and OD value the ordinate. Draw the standard curve on the coordinate paper. According to the OD value of the sample, locate its

corresponding concentration (which is the concentration of the sample); or calculate the linear regression equation of standard curve according to the concentration of the standard and the OD value. Then substitute with the OD value of the sample to calculate its concentration.



Note： **THE CHART IS FOR REFERENCE ONLY AND THE ACTUAL PERFORMANCE DON'T HAVE TO BE THE SAME AS THE CHART**

SPECIFICITY

This assay has high sensitivity and excellent specificity for detection of CYP1A1.

No significant cross-reactivity or interference between CYP1A1 and analogues was observed.

Note： Limited by current skills and knowledge, it is impossible for us to complete the cross-reactivity detection between CYP1A1 and all the analogues, therefore, cross reaction may still exist.

PRECISION

Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level CYP1A1 were tested 20 times on one plate, respectively.

Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level CYP1A1 were tested on 3 different plates, 8 replicates in each plate.

CV(%) = SD/meanX100

Intra-Assay: CV<8%

Inter-Assay: CV<10%

STABILITY

The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less

than 5% within the expiration date under appropriate storage condition.

Note: To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.

ASSAY PROCEDURE SUMMARY

1. Prepare all reagents, samples and standards;
2. Add prepared samples, standards and ELISA solutions. Let them react for 60 minutes at 37 ℃.
3. Wash the plate five times. Add Chromogen solution A and B. Incubate for 10 minutes at 37 ℃; for color development.
4. Add stop solution
5. Read the OD value within 10minutes.
6. Calculate.

ASSAY RANGE： 0.5ng/ml→100ng/ml

SENSITIVITY： 0.23ng/ml

IMPORTANT NOTE

1. Limited by the current condition and scientific technology, we can't completely conduct the comprehensive identification and analysis on the raw material provided by suppliers. So there might be some qualitative and technical risks to use the kit.
2. The final experimental results will be closely related to validity of the products, operation skills of the end users and the experimental environments. Please make sure that sufficient samples are available.
3. Kits from different batches may be a little different in detection range, sensitivity and color developing time. Please perform the experiment exactly according to the instruction attached in kit while electronic ones from our website is only for information.
4. Do not mix or substitute reagents from one kit lot to another. Use only the reagents supplied by manufacturer.
5. Protect all reagents from strong light during storage and incubation. All the bottle caps of

reagents should be covered tightly to prevent the evaporation and contamination of microorganism.

6. There may be some foggy substance in the wells when the plate is opened at the first time. It will not have any effect on the final assay results. Do not remove microtiter plate from the storage bag until needed.
7. Wrong operations during the reagents preparation and loading, as well as incorrect parameter setting for the plate reader may lead to incorrect results. A microplate plate reader with a bandwidth of 10nm or less and an optical density range of 0-3 O.D. or greater at 450 ± 10nm wavelength is acceptable for use in absorbance measurement. Please read the instruction carefully and adjust the instrument prior to the experiment.
8. Even the same operator might get different results in two separate experiments. In order to get better reproducible results, the operation of every step in the assay should be controlled. Furthermore, a preliminary experiment before assay for each batch is recommended.
9. Each kit has been strictly passed Q.C test. However, results from end users might be inconsistent with our in-house data due to some unexpected transportation conditions or different lab equipments. Intra-assay variance among kits from different batches might arise from above factors, too.
10. Kits from different manufacturers with the same item might produce different results, since we haven't compared our products with other manufacturers.
11. Valid period: 12 months.
12. The instruction manual also suits for the kit of 48T, but all reagents of 48T kit are reduced by half.

PRECAUTION

The Stop Solution suggested for use with this kit is an acid solution. Wear eye, hand, face, and clothing protection when using this material

APPENDIX 5: ALTERNATIVE EROD ELISA KITS

Fish Ethoxyresorufin-O-deethylase ELISA Kit User Instruction provided by BT LAB (Bioassay Technology Laboratory)

Fish 7-ethoxy-3-isophenoxazolone-deethylase (EROD) Quantitative Detection Kit User Information provided by BYabscience

Fish Ethoxyresorufin-O-deethylase ELISA Kit User Information provided by MyBiosource.com

Fish Ethoxyresorufin-O-deethylase (EROD)ELISA Kit User's Manual provided by SunLong Biotech Co. Ltd.

BT LAB
Bioassay Technology Laboratory

Optimize Your Research

Fish Ethoxyresorufin-O-deethylase ELISA Kit

USER INSTRUCTION

Cat.No E0042FI

Standard Curve Range: 0.1-40ng/ml

Sensitivity: 0.055ng/ml

Size: 96 wells / 48 wells

Storage: Store the reagents at 2-8°C. For over 6-month storage refer to the expiration date keep it at -20°C. Avoid repeated thaw cycles. If individual reagents are opened it is recommended that the kit be used within 1 month.

***This product is for research use only, not for use in diagnosis procedures. It's highly recommended to read this instruction entirely before use.**

Precision

Intra-Assay Precision (Precision within an assay) Three samples of known concentration were tested on one plate to assess intra-assay precision.

Inter-Assay Precision (Precision between assays) Three samples of known concentration were tested in separate assays to assess inter-assay precision.

CV(%) = SD/mean x 100

Intra-Assay: CV<8%

Inter-Assay: CV<10%

Intended Use

This sandwich kit is for the accurate quantitative detection of Fish Ethoxyresorufin-O-deethylase (also known as EROD) in serum, plasma, cell culture supernates, Ascites, tissue homogenates or other biological fluids.

Assay Principle

This kit is an Enzyme-Linked Immunosorbent Assay (ELISA). The plate has been pre-coated with Fish EROD antibody. EROD present in the sample is added and binds to antibodies coated on the wells. And then biotinylated Fish EROD Antibody is added and binds to EROD in the sample. Then Streptavidin-HRP is added and binds to the Biotinylated EROD antibody. After incubation

unbound Streptavidin-HRP is washed away during a washing step. Substrate solution is then added and color develops in proportion to the amount of Fish EROD. The reaction is terminated by addition of acidic stop solution and absorbance is measured at 450 nm.

Reagent Provided

Components	Quantity (96T)	Quantity (48T)
Standard Solution (48ng/ml)	0.5ml x1	0.5ml x1
Pre-coated ELISA Plate	12 * 8 well strips x1	12 * 4 well strips x1
Standard Diluent	3ml x1	3ml x1
Streptavidin-HRP	6ml x1	3ml x1
Stop Solution	6ml x1	3ml x1
Substrate Solution A	6ml x1	3ml x1
Substrate Solution B	6ml x1	3ml x1
Wash Buffer Concentrate (25x)	20ml x1	20ml x1
Biotinylated Fish EROD Antibody	1ml x1	1ml x1
User Instruction	1	1
Plate Sealer	2 pics	2 pics
Zipper bag	1 pic	1 pic

Material Required But Not Supplied

- 37°C±0.5°C incubator
- Absorbent paper
- Precision pipettes and disposable pipette tips
- Clean tubes
- Deionized or distilled water
- Microplate reader with 450 ± 10nm wavelength filter

Precautions

- Prior to use, the kit and sample should be warmed naturally to room temperature 30 minutes.
- This instruction must be strictly followed in the experiment.
- Once the desired number of strips has been removed, immediately reseal the bag to protect the remain from deterioration. Cover all reagents when not in use.
- Make sure pipetting order and rate of addition from well-to-well when pipetting reagents.
- Pipette tips and plate sealer in hand should be clean and disposable to avoid cross-contamination.

- Avoid using the reagents from different batches together.
- Substrate solution B is sensitive to light, don't expose substrate solution B to light for a long time.
- Stop solution contains acid. Please wear eye, hand and skin protection when using this material. Avoid contact of skin or mucous membranes with kit reagent.
- The kit should not be used beyond the expiration date.

Specimen Collection

Serum Allow serum to clot for 10-20 minutes at room temperature. Centrifuge at 2000-3000 RPM for 20 minutes. Collect the supernatant without sediment.

Plasma Collect plasma using EDTA or heparin as an anticoagulant.After mix 10-20 minutes, centrifuge samples for 20 minutes at 2000-3000 RPM. Collect the supernatant without sediment.

Urine/Ascites/ Cerebrospinal fluid Collect by sterile tube. Centrifuge at 2000-3000 RPM for 20 minutes. Collect the supernatant without sediment.

Cell culture supernatant Collect by sterile tubes. When detecting secrete components, centrifuge at 2000-3000 RPM for 20 minutes. Collect the supernatants. When detecting the components in the cell, use PBS (pH 7.2-7.4) to dilute cell suspension , the cell concentration of approximately 1 million/ml. Damage cells through repeated freeze-thaw cycles to let out the inside components. Centrifuge at 2000-3000 RPM for 20 minutes. Collect the supernatant without sediment.

Tissue Rinse tissues in ice-cold PBS (pH 7.4) to remove excess blood thoroughly and weigh before homogenization. Mince tissues and homogenize them in PBS (tissue weight (g): PBS (mL) volume=1:9) with a glass homogenizer on ice. To further break down the cells, you can sonicate the suspension with an ultrasonic cell disrupter or subject it to freeze-thaw cycles. The homogenates are then centrifuged for 5 minutes at 5000×g to get the supernatant.

Note

- Sample concentrations should be predicted before being used in the assay. If the sample concentration is not within the range of the standard curve, users must **contact us** to determine the optimal sample for their particular experiments.
- Samples to be used within 5 days should be stored at 2-8°C. Samples should be aliquoted or must be stored at -20°C within 1 month or -80°C within 6 months. Avoid repeated freeze thaw cycles.
- Samples should be brought to room temperature before starting the assay.
- Centrifuge to collect sample before use.
- Samples containing NaN3 can't be tested as it inhibits the activity of Horse Radish Peroxidase (HRP).

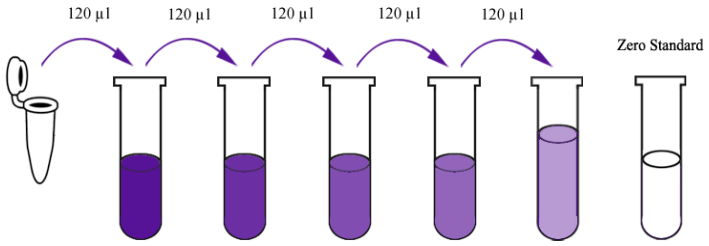
- Collect the supernatants carefully. When sediments occurred during storage, centrifugation should be performed again.
- Hemolysis can greatly impact the validity of test results. Take care to minimize hemolysis.

Sample can't be diluted with this kit. Owing to the the material we use to prepare the kit, the sample matrix interference may falsely depress the specificity and accuracy of the assay.

Reagent Preparation

- All reagents should be brought to room temperature before use.
- **Standard** Reconstitute the 120µl of the standard (48ng/ml) with 120µl of standard diluent to generate a 24ng/ml standard stock solution. Allow the standard to sit for 15 mins with gentle agitation prior to making dilutions. Prepare duplicate standard points by serially diluting the standard stock solution (24ng/ml) 1:2 with standard diluent to produce 12ng/ml, 6ng/ml, 3ng/ml and 1.5ng/ml solutions. Standard diluent serves as the zero standard(0 ng/ml). Any remaining solution should be frozen at -20°C and used within one month. Dilution of standard solutions suggested are as follows:

24ng/ml	Standard No.5	120µl Original Standard + 120µl Standard Diluent
12ng/ml	Standard No.4	120µl Standard No.5 + 120µl Standard Diluent
6ng/ml	Standard No.3	120µl Standard No.4 + 120µl Standard Diluent
3ng/ml	Standard No.2	120µl Standard No.3 + 120µl Standard Diluent
1.5ng/ml	Standard No.1	120µl Standard No.2 + 120µl Standard Diluent



Standard Concentration	Standard No.5	Standard No.4	Standard No.3	Standard No.2	Standard No.1
48ng/ml	24ng/ml	12ng/ml	6ng/ml	3ng/ml	1.5ng/ml

- **Wash Buffer** Dilute 20ml of Wash Buffer Concentrate 25x into deionized or distilled water to yield 500 ml of 1x Wash Buffer. If crystals have formed in the concentrate, mix gently until the crystals have completely dissolved.

Assay Procedure

1. Prepare all reagents, standard solutions and samples as instructed. Bring all reagents to room temperature before use. The assay is performed at room temperature.
2. Determine the number of strips required for the assay. Insert the strips in the frames for use. The unused strips should be stored at 2-8°C.
3. Add 50µl standard to standard well. **Note**: Don't add biotinylated antibody to standard well because the standard solution contains biotinylated antibody.
4. Add 40µl sample to sample wells and then add 10µl anti-EROD antibody to sample wells, then add 50µl streptavidin-HRP to sample wells and standard wells (Not blank control well). Mix well. Cover the plate with a sealer. Incubate 60 minutes at 37°C.
5. Remove the sealer and wash the plate 5 times with wash buffer. Soak wells with 300ul wash buffer for 30 seconds to 1 minute for each wash. For automated washing, aspirate or decant each well and wash 5 times with wash buffer. Blot the plate onto paper towels or other absorbent material.
6. Add 50µl substrate solution A to each well and then add 50µl substrate solution B to each well. Incubate plate covered with a new sealer for 10 minutes at 37°C in the dark.
7. Add 50µl Stop Solution to each well, the blue color will change into yellow immediately.
8. Determine the optical density (OD value) of each well immediately using a microplate reader set to 450 nm within 10 minutes after adding the stop solution.

Summary

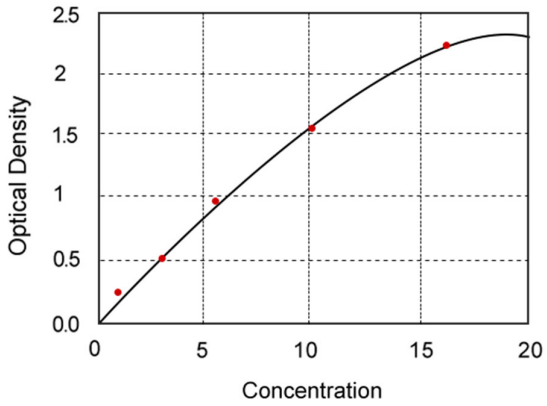
1. Prepare all reagents, samples and standards.
2. Add sample and ELISA reagent into each well. Incubate for 1 hour at 37°C.
3. Wash the plate 5 times.
4. Add substrate solution A and B. Incubate for 10 minutes at 37°C.
5. Add stop solution and color develops.
6. Read the OD value within 10 minutes.

Calculation of Result

Construct a standard curve by plotting the average OD for each standard on the vertical (Y) axis against the concentration on the horizontal (X) axis and draw a best fit curve through the points on the graph. These calculations can be best performed with computer-based curve-fitting software and the best fit line can be determined by regression analysis.

Typical Data

This standard curve is only for demonstration purposes. A standard curve should be generated with each assay.



Troubleshooting

Possible Case	Solution
High Background	
• Improper washing	• Increasing duration of soaking steps
• Substrate was contaminated	• Replace. Substrate should be clean and avoid crossed contamination by using the sealer
• Non-specific binding of antibody	• Replace another purified antibody or blocking buffer
• Plate are not be sealing incompletely	• Make sure to follow the instruction strictly
• Incorrect incubation temperature	• Incubate at room temperature
• Substrate exposed to light prior to use	• Keep substrate in a dark place
• Contaminated wash buffer	• Use a clean buffers and sterile filter
Weak Signal	
• Improper washing	• Increasing duration of soaking steps
• Incorrect incubation temperature	• Incubate at room temperature
• Antibody are not enough	• Increase the concentration of the antibody
• Reagent are contaminated	• Use new one
• Pipette are not clean	• Pipette should be clean
No Signal	
• Reagent are contaminated	• Use new one
• Sample prepared incorrectly	• Make sure the sample workable/dilution
• Antibody are not enough	• Increase the antibody concentration
• Wash buffer contains sodium azide	• Use a new wash buffer and avoid sodium azide in it
• HRP was not added	• Add HRP according to the instruction
Poor Precision	
• Imprecise/ inaccurate pipetting	• Check/ calibrate pipettes
• Incomplete washing of the wells	Make sure wells are washed adequately by filling the wells with wash buffer and all residual antibody solutions crossed well before washing.

If you have any question on the order please contact us via: order@bt-laboratory.com.
Technical assistance please contact us via: support@bt-laboratory.com
More product visit *www.bt-laboratory.com*

BYabscience
博 研 生 物

For scientific research only
Not be used for clinical diagnosis

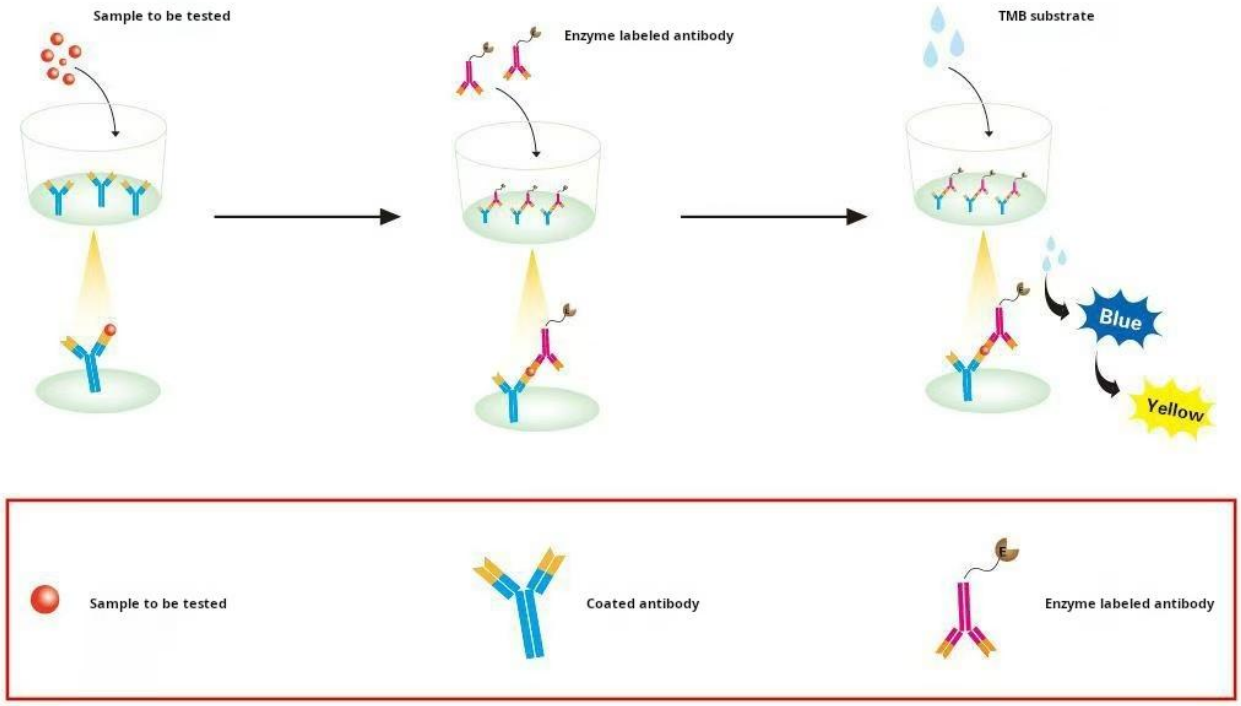
Fish 7-ethoxy-3-isophenoxazolone-deethylase (EROD) Quantitative Detection Kit

Product number: BY-EF990955
Specification: 48T/96T
Detection range: 1.25 ng/mL – 40 ng/mL.
Sensitivity: Minimum detected dose is less than 0.1 ng/mL.
Precision: In-batch variation coefficient CV% is less than 10%; interbatch variation coefficient CV% is less than 15%.
Recovery rate: The recovery rate is between 85% and 115%.
Specificity: This kit recognizes natural and recombinant Fish 7-ethoxy-3-isophenoxazolone-deethylase (EROD) without crossing with structural analogs. Stability: Storage at 2℃-8℃, valid for 6 months.
Usage: Used to detect the concentration of Fish 7-ethoxy-3-isophenoxazolone-deethylase (EROD) in samples such as serum, plasma, cell culture supernatant and tissue.

Experimental principle

This kit uses double antibody sandwich enzyme-linked immunosorbent assay (ELISA). To the microporous enzyme plate precoated with anti-Fish 7-ethoxy-3-isophenoxazolone-deethylase (EROD) antibody (solid phase antibody), Fish 7-ethoxy-3-isophenoxazolone-deethylase (EROD) calibrator and sample to be tested were added, and then HRP-labeled anti-Fish 7-ethoxy-3-isophenoxazolone-deethylase (EROD) antibody (enzyme-labeled antibody) was added. After incubation and thorough washing, the unbound components were removed, and a sandwich complex of solid-phase antibody-antigen-enzyme-labeled antibody was formed on the solid phase surface of the microplate. Substrates A and B are added, and the substrate is catalyzed by HRP, and the substrate is produced, which is finally converted to yellow under the action of the stop solution (acid solution). The absorbance (OD value) was measured at a wavelength of 450 nm on the microplate reader, and the absorbance (OD value) was positively correlated with the concentration of 7-ethoxy-3-isophenoxazolone-deethylase (EROD) in the sample to be tested. Fitting the calibrator curve, the concentration of 7-ethoxy-3-isophenoxazolone-deethylase (EROD) in the sample can be calculated.

Experimental schematic



Kit components and storage Unopened kits are kept at 2-8 degrees and expired kits must not be used.

Components	48 hole configuration	96 hole configuration	Store after opening
Pre-coated enzyme plate	48T	96T	2-8°C14 days
Standard	0.3mL*6 tube	0.3mL*6 tube	2-8°C14 days
Sample dilution	3 ml	6 ml	2-8°C180 days
HRP-labeled antibodies	5 ml	10 ml	2-8°C14 days
Color-producing substrate A	3 ml	6 ml	2-8°C180 days
Color-producing substrate B	3 ml	6 ml	2-8°C180 days
Termination fluid	3 ml	6 ml	2-8°C180 days
20× washing solution	15 ml	25 ml	2-8°C180 days
Seal membrane	2 photos	2 photos	
manual	1 serving	1 serving	
Self-sealed bag	1	1	

The concentrations of calibrators are: 40、20、10、5、2.5、1.25 ng/mL in turn.

Note:

1: Before use, please check whether the label and quantity of the reagent in the kit are consistent with the table.
2: If the components of the kit need to be used again, please make sure that they are not contaminated after the last use. 3: The enzyme label plate has not been used for a single time. Remember to seal it and store it at 2-8℃.

Self-provided testing equipment required for testing (not provided, but can be assisted in purchasing)

1) Microplate reader that can detect absorbance of 450 nm
2) Pipet and gun tip, sample filling tank
3) 37℃ constant temperature box or water bath pot
4) Test tubes, centrifuge tubes, measuring cylinders, etc. for preparing reagents
5) Distilled water or deionized water
6) Vortex oscillator, microplate oscillator

Notes

1) It is for scientific research only and shall not be used for clinical diagnosis.
2) Used within the validity period marked by the kit, expired products shall not be used.
3) Do not mix with other manufacturers' kits or components, use the sample diluent that is equipped with the kit.
4) If the sample value is higher than the highest standard concentration value, please dilute the sample appropriately before re-measurement.
5) The heterophilic antibodies such as human anti-mouse in the sample to be tested will interfere with the detection results. Please excrete this factor before testing.
6) The test results obtained by other methods are not directly comparable to the test results of this kit.
7) Please wear experimental clothes and latex gloves to protect yourself during the test. Especially when testing blood or other body fluid samples, please follow the National Biological Laboratory Safety Protection Regulations.
8) Incubate strictly in accordance with the prescribed time and temperature to ensure accurate results. All reagents must reach room temperature 20-25°C before use. Refrigerate immediately after use.
9) Incorrect washing of the board can lead to inaccurate results. Make sure to suck the liquid in the pores as much as possible before adding the substrate. Do not let the micropores dry out during incubation.
10) Eliminate residual liquid and finger prints on the bottom of the plate, otherwise it will affect the OD value.
11) The substrate color-producing liquid should be colorless or very light.
12) Avoid cross-contamination of reagents and specimens to avoid causing erroneous results.
13) Avoid direct exposure of strong light during storage and incubation.
14) The microplate reader used for detection needs to be installed with a filter that can detect wavelengths of 450±10nm, with an optical density range between 0-3.5. It is recommended to warm up 15 minutes in advance when using it.
15) The EP tube and suction head used in the test are both used once and are strictly prohibited from being mixed.

Sample preparation and preservation

The following are just general guidelines for sample collection and preservation. During the collection and storage of all samples, sodium azide must not be used as a preservative. If the sample is not analyzed immediately, it should be aliquoted and frozen and avoid repeated freeze-thawing.
Cell culture supernatant - centrifuge to remove the precipitate, analyze immediately or aliquot it and store it frozen at -20°C.
Serum - Collect blood with a clean test tube, coagulate at room temperature for 30 minutes, centrifuge 2000×g for 20 minutes, and collect serum. Immediately analyze or aliquot it and store it frozen at -20°C.

Plasma - Use heparin, citrate or EDTA to anticoagulate, and centrifuge at 2-8°C for 2000×g for 20 minutes within 30 minutes after blood drawing. To eliminate the effects of platelets, it is recommended to further centrifuge at 2-8°C for 10,000×g for 10 minutes. Immediately analyze or aliquot it and cryopreserve at -20°C.
Cell Lysate - For adherent cells, remove the culture medium and wash it with PBS, saline or serum-free culture medium. Add an appropriate amount of lysate and blow it with a gun for a few times to make the lysate and the cells fully contact. Usually after 10 seconds, the cells are lysed. For suspended cells, collect the cells by centrifugation and wash them with PBS, saline or serum-free culture medium. Add an appropriate amount of lysate, blow the cells with a gun, and flick them with your fingers to fully lyse the cells. After sufficient cleavage, centrifuge at 10000-14000×g for 3-5 minutes and remove the supernatant. Immediately analyze or aliquot it and cryopreserve at -20°C.
Tissue homogenate - Rinse the tissue with pre-cooled PBS (0.01M, pH=7.4) to remove residual blood (the lysed red blood cells in the homogenate will affect the measurement results), and cut the tissue after weighing. The sheared tissue and the corresponding volume of PBS (usually at a weight-volume ratio of 1:9, for example, 1g of tissue sample corresponds to 9mL of PBS. The specific volume can be adjusted appropriately according to experimental needs and recorded. It is recommended to add protease inhibitors to PBS) to a glass homogenizer and grind them thoroughly on ice. To further lyse tissue cells, the homogenate can be sonicated or repeatedly freeze-thawed. Finally, the homogenate was centrifuged at 5000×g for 5~10 minutes, and the supernatant was taken for testing.
Urine – collect with a sterile tube and centrifuge at 2000×g for 20 minutes. Collect the supernatant carefully. If precipitation forms, centrifuge again.

Reagent preparation

1. Before use, all components must be re-warmed for at least 60 minutes to ensure full re-warming to room temperature.
2. Concentrated washing liquid: The concentrated washing liquid taken out of the refrigerator will produce crystallization, which is a normal phenomenon. The crystallization is completely dissolved by heating in a water bath. The concentrated washing liquid and distilled water are diluted at 1:20, that is, 1 part of the concentrated washing liquid, and 19 parts of the distilled water are added. 3. Substrate: substrate liquids A and B, mix thoroughly at 1:1 volume before use, and use within 15 minutes after mixing.

Operating procedures:

All reagents and components are first restored to room temperature, and are recommended to make compound holes.

1. Prepare the working liquid of various components of the kit according to the method described in the previous instructions.
2. Remove the required slats from the aluminum foil bag, and seal the remaining slats with a self-sealing bag and put them back into the refrigerator.
3. Set up standard product wells, 0-value wells, blank wells and sample wells. Add 50μL of standard products of different concentrations to each standard product wells, add 50μL of

sample dilution for 0-value wells, and do not add blank wells, add 50μL of sample to be tested.
4. In addition to the blank wells, standard wells, 0 value wells and sample wells, add 100 μL of horseradish peroxidase (HRP) labeled detection antibody.
5. Cover the reaction plate with a sealing film, incubate at 37°C water bath or constant temperature box away from light for 60 minutes.
6. Remove the sealing membrane, discard the liquid, pat dry on the absorbent paper, fill each hole with washing liquid, let stand for 20S, shake off the washing liquid, pat dry on the absorbent paper, and repeat this 5 times. If you use an automatic plate washing machine, please follow the plate washing machine operating procedure and add a program of soaking for 30 seconds to improve the detection accuracy. After washing the plate, pat the reaction plate thoroughly on clean paper that does not remove shaved content before adding substrate. (Tip: To obtain ideal experimental results, the residual liquid must be completely removed. After washing the plate, please perform the next step immediately and do not let the microplate dry.) 7. Mix substrate A and B well in a 1:1 volume, and add 100μL of substrate mixture to all wells. Cover the reaction plate with a sealing film, incubate at 37°C water bath or a constant temperature box for 15 minutes away from light.
8. Add 50μL of the stop solution to all wells and read the absorbance (OD value) of each well on a 450nm wavelength microplate reader.

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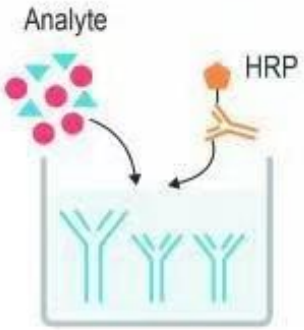
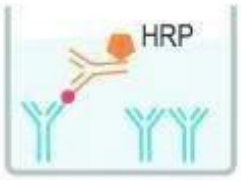
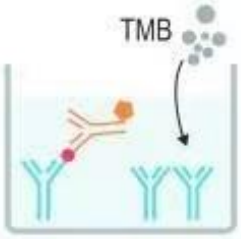
Operation flow chart



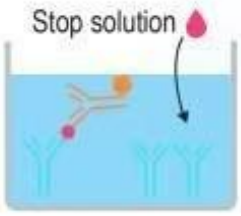
1. After adding 50uL standard working fluid or sample to the corresponding plate hole, add 100ulHRP enzyme-labeled antibody working fluid to each hole immediately, and incubate at 37°C for 60 minutes



2. Discard the liquid in the plate and wash the Plate 5 times



3. Add 50ul of substrate A solution and 50ul of substrate B solution to each hole

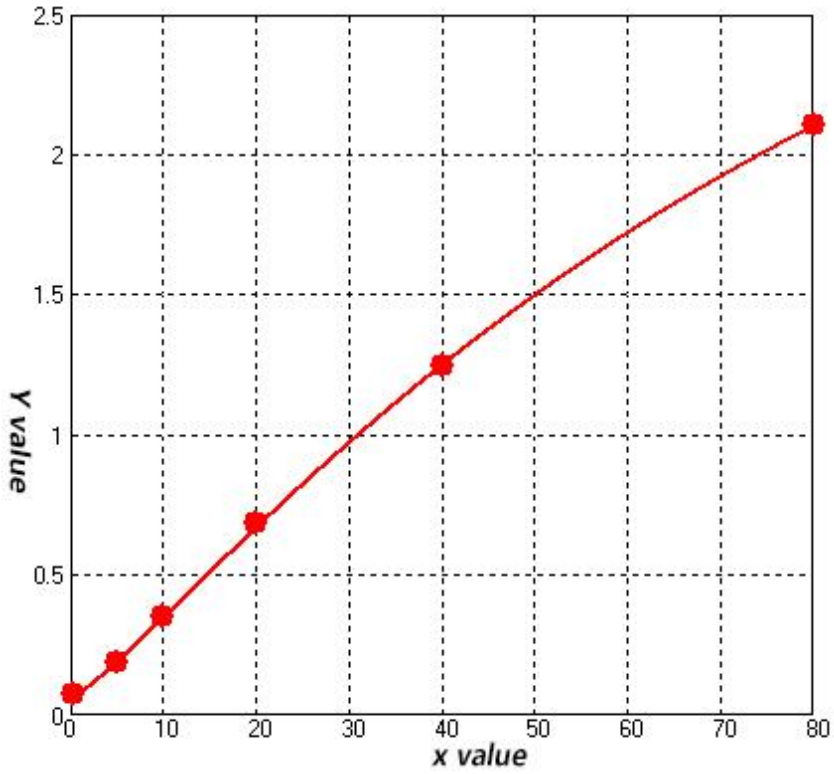


4. Add 50uL termination liquid to each hole

5. Immediately read at 450nm wavelength and process data

Result calculation

1. Use the concentration of the standard substance as the abscissa and the corresponding absorbance (OD value) as the ordinate. Use computer software and four-parameter Logistic curve fitting (4-pl) to create a standard curve equation. Through the absorbance (OD value) of the sample value), use the equation to calculate the concentration value of the sample. [Calculate using ELISA Calc software. It is recommended to use four-parameter fitting for the standard curve, but it is not the only fitting method]
2. If the sample is diluted, the concentration value measured by the above method must be multiplied by the dilution factor to determine the final value of the sample. concentration. Note: Experimenters need to establish a standard curve based on their own experiments. For each test, a standard curve must be established for each enzyme plate. The following curves are for reference only!
3.



(Schematic diagram , for reference only)

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Problem Analysis

If the experimental results are not good, please take pictures of the color development results in time, save the experimental data, keep the used strips and unused reagents, and then contact our company's technical support to solve the problem for you.

Fast Questions and Answers

Problem description	Possible reasons	Corresponding countermeasures
standard curve gradient difference	Incorrect liquid aspiration or addition	Check pipettes and tips
	Equilibration time is too short	Ensure sufficient balancing time
	Incomplete washing	Ensure the washing time and number of washes and the amount of liquid added to each hole
Very weak or colorless	Incubation time too short	Ensure adequate incubation time
	The experimental temperature is incorrect	Use recommended experimental temperatures
	Insufficient reagent volume or missing addition	Check the liquid aspiration and addition process to ensure that all reagents are added in sufficient order and in sufficient quantities.
	Incorrect dilution	
	Enzyme label inactivation or substrate failure	Mix enzyme conjugate and substrate and check by rapid color development
Reading value is low	Microplate reader settings are incorrect	Check the wavelength and filter settings on the microplate reader
		Turn on the microplate reader and preheat it in advance
Large coefficient of variation	Adding fluid incorrectly	Check the filling situation
High background value	The working concentration of the detection antibody is too high	Use the recommended dilution factor

	Incomplete washing of enzyme plate	Ensure that each step of cleaning is complete; if using an automatic plate washer, please check whether all outlets are blocked; whether the washing solution provided in the kit is used
	The lotion is contaminated	Prepare fresh lotion
Low sensitivity	Improper storage of ELISA kits	Store relevant reagents according to instructions
	Not terminated before reading	Stop solution should be added to each well before OD reading

Statement

1. Due to the current conditions and scientific and technological level, it is not possible to conduct comprehensive identification and analysis of all raw materials. This product may have certain quality and technical risks.
2. This kit removes/reduces some endogenous interfering factors in biological samples during the development process. Not all possible influencing factors have been removed.
3. The final experimental results are closely related to factors such as the effectiveness of the reagents, the relevant operations of the experimenter, and the experimental environment at the time. Our company is only responsible for the kit itself and is not responsible for the sample consumption caused by the use of the kit. Please use The user should fully consider the possible usage of the sample and reserve sufficient samples before use.
4. In order to achieve good experimental results, please only use the reagents provided in our company's kits, do not mix products from other manufacturers, and operate in strict accordance with the instructions.
5. Due to incorrect reagent preparation and microplate reader parameter settings during the operation, abnormal results may result. Please read the instructions carefully and adjust the instrument before the experiment.
6. Even if operated by the same personnel, different results may be obtained in two independent experiments. In order to ensure the reproducibility of the results, it is necessary to control every step of the experimental process.
7. The kits will undergo strict quality inspection before shipment. However, due to factors such as transportation conditions, differences in experimental equipment, etc., user test results may be inconsistent with factory data.
8. This kit has not been compared with similar kits from other manufacturers or products that detect the same target substance using different methods, so inconsistent test results cannot be ruled out.
9. The kit is for research use only. If it is used for clinical diagnosis or any other purpose, our company will not be responsible for any problems arising therefrom, nor will we assume any legal liability.

Fish Ethoxyresorufin-O-deethylase ELISA Kit

Cat.No MBS1601687

Standard Curve Range: 0.1-40ng/ml

Sensitivity: 0.055ng/ml

Size: 96 wells / 48 wells

Storage: Store the reagents at 2-8°C. If individual reagents are opened it is recommended that the kit be used within 1 month.

***This product is for research use only, not for use in diagnosis procedures. It's highly recommend to read this instruction entirely before use.**

Precision

Intra-Assay Precision (Precision within an assay) Three samples of known concentration were tested on one plate to assess intra-assay precision.

Inter-Assay Precision (Precision between assays) Three samples of known concentration were tested in separate assays to assess inter-assay precision.

CV(%) = SD/mean x 100

Intra-Assay: CV<8%

Inter-Assay: CV<10%

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Intended Use

This sandwich kit is for the accurate quantitative detection of Fish Ethoxyresorufin-O-deethylase (also known as EROD) in serum, plasma, cell culture supernates, Ascites, tissue homogenates or other biological fluids.

Assay Principle

This kit is an Enzyme-Linked Immunosorbent Assay (ELISA). The plate has been pre-coated with Fish EROD antibody. EROD present in the sample is added and binds to antibodies coated on the wells. And then biotinylated Fish EROD Antibody is added and binds to EROD in the sample. Then Streptavidin-HRP is added and binds to the Biotinylated EROD antibody. After incubation unbound Streptavidin-HRP is washed away during a washing step. Substrate solution is then added and color develops in proportion to the amount of Fish EROD. The reaction is terminated by addition of acidic stop solution and absorbance is measured at 450 nm.

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Reagent Provided

Components	Quantity (96T)	Quantity (48T)
Standard Solution (48ng/ml)	0.5ml x1	0.5ml x1
Pre-coated ELISA Plate	12 * 8 well strips x1	12 * 4 well strips x1
Standard Diluent	3ml x1	3ml x1
Streptavidin-HRP	6ml x1	3ml x1
Stop Solution	6ml x1	3ml x1
Substrate Solution A	6ml x1	3ml x1
Substrate Solution B	6ml x1	3ml x1
Wash Buffer Concentrate (25x)	20ml x1	20ml x1
Biotinylated Fish EROD Antibody	1ml x1	1ml x1
User Instruction	1	1
Plate Sealer	2 pics	2 pics
Zipper bag	1 pic	1 pic

Material Required But Not Supplied

- 37°C±0.5°C incubator
- Absorbent paper
- Precision pipettes and disposable pipette tips
- Clean tubes
- Deionized or distilled water
- Microplate reader with 450 ± 10nm wavelength filter

Precautions

- Prior to use, the kit and sample should be warmed naturally to room temperature 30 minutes.
- This instruction must be strictly followed in the experiment.
- Once the desired number of strips has been removed, immediately reseal the bag to protect the remain from deterioration. Cover all reagents when not in use.
- Make sure pipetting order and rate of addition from well-to-well when pipetting reagents.
- Pipette tips and plate sealer in hand should be clean and disposable to avoid cross-contamination.
- Avoid using the reagents from different batches together.
- Substrate solution B is sensitive to light, don't expose substrate solution B to light for a long time.
- Stop solution contains acid. Please wear eye, hand and skin protection when using this material. Avoid contact of skin or mucous membranes with kit reagent.
- The kit should not be used beyond the expiration date.

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Specimen Collection

Serum Allow serum to clot for 10-20 minutes at room temperature. Centrifuge at 2000-3000 RPM for 20 minutes. Collect the supernatant without sediment.

Plasma Collect plasma using EDTA or heparin as an anticoagulant.After mix 10-20 minutes, centrifuge samples for 20 minutes at 2000-3000 RPM. Collect the supernatant without sediment.

Urine/Ascites/ Cerebrospinal fluid Collect by sterile tube. Centrifuge at 2000-3000 RPM for 20 minutes. Collect the supernatant without sediment.

Cell culture supernatant Collect by sterile tubes. When detecting secrete components, centrifuge at 2000-3000 RPM for 20 minutes. Collect the supernatants. When detecting the components in the cell, use PBS (pH 7.2-7.4) to dilute cell suspension , the cell concentration of approximately 1 million/ml. Damage cells through repeated freeze-thaw cycles to let out the inside components. Centrifuge at 2000-3000 RPM for 20 minutes. Collect the supernatant without sediment.

Tissue Rinse tissues in ice-cold PBS (pH 7.4) to remove excess blood thoroughly and weigh before homogenization. Mince tissues and homogenize them in PBS (tissue weight (g): PBS (mL) volume=1:9) with a glass homogenizer on ice. To further break down the cells, you can sonicate the suspension with an ultrasonic cell disrupter or subject it to freeze-thaw cycles. The homogenates are then centrifuged for 5 minutes at 5000×g to get the supernatant.

Note

- Sample concentrations should be predicted before being used in the assay. If the sample concentration is not within the range of the standard curve, users must **contact us** to determine the optimal sample for their particular experiments.
- Samples to be used within 5 days should be stored at 2-8°C. Samples should be aliquoted or must be stored at -20°C within 1 month or -80°C within 6 months. Avoid repeated freeze thaw cycles.
- Samples should be brought to room temperature before starting the assay.
- Centrifuge to collect sample before use.
- Samples containing NaN3 can't be tested as it inhibits the activity of Horse Radish Peroxidase (HRP).
- Collect the supernatants carefully. When sediments occurred during storage, centrifugation should be performed again.
- Hemolysis can greatly impact the validity of test results. Take care to minimize hemolysis.

Sample can't be diluted with this kit. Owing to the material we use to prepare the kit, the sample matrix interference may falsely depress the specificity and accuracy of the assay.

Reagent Preparation

- All reagents should be brought to room temperature before use.
- **Standard** Reconstitute the 120µl of the standard (48ng/ml) with 120µl of standard diluent to

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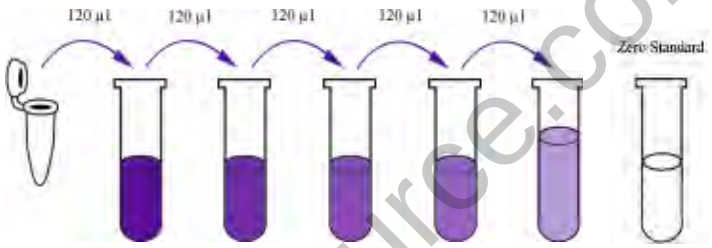
generate a 24ng/ml standard stock solution. Allow the standard to sit for 15 mins with gentle agitation prior to making dilutions. Prepare duplicate standard points by serially diluting the standard stock solution (24ng/ml) 1:2 with standard diluent to produce12ng/ml, 6ng/ml, 3ng/ml and1.5ng/ml solutions. Standard diluent serves as the zero standard(0 ng/ml). Any remaining solution should be frozen at -20°C and used within one month. Dilution of standard solutions suggested are as follows:

24ng/ml	Standard No.5	120µl Original Standard + 120µl Standard Diluent
12ng/ml	Standard No.4	120µl Standard No.5 + 120µl Standard Diluent
6ng/ml	Standard No.3	120µl Standard No.4 + 120µl Standard Diluent
3ng/ml	Standard No.2	120µl Standard No.3 + 120µl Standard Diluent
1.5ng/ml	Standard No.1	120µl Standard No.2 + 120µl Standard Diluent



Standard Concentration	Standard No.5	Standard No.4	Standard No.3	Standard No.2	Standard No.1
48ng/ml	24ng/ml	12ng/ml	6ng/ml	3ng/ml	1.5ng/ml

- **Wash Buffer** Dilute 20ml of Wash Buffer Concentrate 25x into deionized or distilled water to yield 500 ml of 1x Wash Buffer. If crystals have formed in the concentrate, mix gently until the crystals have completely dissolved.

Assay Procedure

1. Prepare all reagents, standard solutions and samples as instructed. Bring all reagents to room temperature before use. The assay is performed at room temperature.
2. Determine the number of strips required for the assay. Insert the strips in the frames for use. The unused strips should be stored at 2-8°C.
3. Add 50µl standard to standard well. **Note**: Don't add antibody to standard well because the standard solution contains biotinylated antibody.
4. Add 40µl sample to sample wells and then add 10µl anti-EROD antibody to sample wells, then add 50µl streptavidin-HRP to sample wells and standard wells (Not blank control well). Mix well. Cover the plate with a sealer. Incubate 60 minutes at 37°C.

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5. Remove the sealer and wash the plate 5 times with wash buffer. Soak wells with at least 0.35 ml wash buffer for 30 seconds to 1 minute for each wash. For automated washing, aspirate or decant each well and wash 5 times with wash buffer. Blot the plate onto paper towels or other absorbent material.
6. Add 50µl substrate solution A to each well and then add 50µl substrate solution B to each well. Incubate plate covered with a new sealer for 10 minutes at 37°C in the dark.
7. Add 50µl Stop Solution to each well, the blue color will change into yellow immediately.
8. Determine the optical density (OD value) of each well immediately using a microplate reader set to 450 nm within 10 minuets after adding the stop solution.

Summary

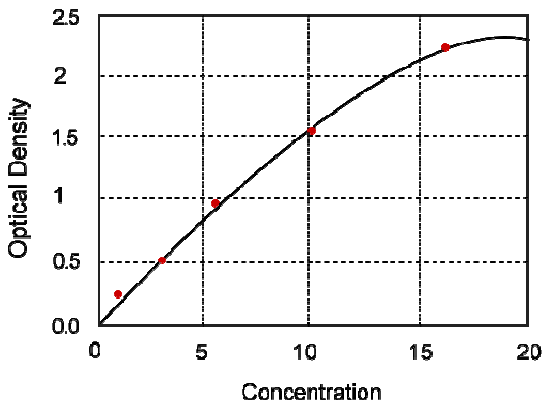
1. Prepare all reagents, samples and standards.
2. Add sample and ELISA reagent into each well. Incubate for 1 hour at 37°C.
3. Wash the plate 5 times.
4. Add substrate solution A and B. Incubate for 10 minutes at 37°C.
5. Add stop solution and color develops.
6. Read the OD value within 10 minutes.

Calculation of Result

Construct a standard curve by plotting the average OD for each standard on the vertical (Y) axis against the concentration on the horizontal (X) axis and draw a best fit curve through the points on the graph. These calculations can be best performed with computer-based curve-fitting software and the best fit line can be determined by regression analysis.

Typical Data

This standard curve is only for demonstration purposes. A standard curve should be generated with each assay.



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Troubleshooting

Possible Case	Solution
High Background	
• Improper washing • Substrate was contaminated • Non-specific binding of antibody • Plate are not be sealing incompletely • Incorrect incubation temperature • Substrate exposed to light prior to use • Contaminated wash buffer	• Increasing duration of soaking steps • Replace. Substrate should be clean and avoid crossed contamination by using the sealer • Replace another purified antibody or blocking buffer • Make sure to follow the instruction strictly • Incubate at room temperature • Keep substrate in a dark place • Use a clean buffers and sterile filter
Weak Signal	
• Improper washing • Incorrect incubation temperature • Antibody are not enough • Reagent are contaminated • Pipette are not clean	• Increasing duration of soaking steps • Incubate at room temperature • Increase the concentration of the antibody • Use new one • Pipette should be clean
No Signal	
• Reagent are contaminated • Sample prepared incorrectly • Antibody are not enough • Wash buffer contains sodium azide • HRP was not added	• Use new one • Make sure the sample workable/dilution • Increase the antibody concentration • Use a new wash buffer and avoid sodium azide in it • Add HRP according to the instruction
Poor Precision	
• Imprecise/ inaccurate pipetting • Incomplete washing of the wells	• Check/ calibrate pipettes Make sure wells are washed adequately by filling the wells with wash buffer and all residual antibody solutions crossed well before washing.

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SunLong Biotech Co., Ltd

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E-mail:sales@sunlongbiotech.com

www.sunlongbiotech.com

Fish Ethoxyresorufin-O-deethylase (EROD)ELISA Kit

User's Manual

Catalogue Number: SLD0132FI 48 or 96 Tests

For Research Use Only

Store all reagents between 2-8℃

Validity Period: Six (6) months

For use with serum, plasma, culture media, or any biological fluids.

Read the Materials Safety Data Sheet (MSDS) and follow all handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Materials Safety Data Sheets (MSDS) are available at https://www.sunlongbiotech.com/article.php?id=1762

For Research Use Only.

Not for Therapeutic or Diagnostic Applications.

Please follow the kit instructions to perform the procedure.

Fish Ethoxyresorufin-O-deethylase (EROD)ELISA Kit

FOR RESEARCH USE ONLY

Product Information

Intended Use

Enzyme immunoassay for the quantitative detection of Fish EROD antigen in serum, plasma, culture media, or any biological fluid.

Principle

The quantitative detection of Fish EROD antigen is based on the ELISA (Enzyme-Linked Immunosorbent Assay) technique. The microplate wells are pre-coated with an antibody specific to Fish EROD. After incubation, the corresponding antigen in the sample or standards will bind to the immobilized antibody. After washing the microplate wells to remove all unbound sample material, horseradish peroxidase (HRP) labeled antibody conjugate is added, which binds to the antigen, forming antibody-antigen-enzyme-labeled antibody complex upon incubation. In a second wash step, all unbound material is removed. The immune complex formed by the bound conjugate is visualized by adding Tetramethylbenzidine (TMB) substrate, which gives a blue color reaction in wells containing the complex. A stop solution containing acid terminates the reaction, producing a yellow end-point coloration proportional to the amount of specific antigen present in the sample. Absorbance is measured at 450 nm using an ELISA microwell plate reader. Analysis is completed by comparing the OD values of samples to the standard curve.

Reagent and Materials provided with the kit

	Materials provided with the kit	96T	48T	Storage
1	Instructions for Use	1	1	R.T.
2	Adhesive films/membrane	2	2	R.T.
3	Sealed bags	1	1	R.T.
4	Microplate	1	1	2-8℃

5	Standard: 900pg/ml	0.5ml×1 bottle	0.5ml×1 bottle	2-8℃
6	Standard diluent	1.5ml×1 bottle	1.5ml×1 bottle	2-8℃
7	HRP-Conjugate Reagent	6ml×1 bottle	3ml×1 bottle	2-8℃
8	Sample Diluent	6ml×1 bottle	3ml×1 bottle	2-8℃
9	Chromogen Solution A	6ml×1 bottle	3ml×1 bottle	2-8℃
10	Chromogen Solution B	6ml×1 bottle	3ml×1 bottle	2-8℃
11	Stop Solution	6ml×1 bottle	3ml×1 bottle	2-8℃
12	Wash Solution Concentrate	20ml (30X*) ×1bottle	20ml (20X*) ×1bottle	2-8℃

*X denotes the product is concentrated 30 or 20 times for 96 and 48 tests, respectively

For potential hazardous substances please check the safety data sheet.

The kit allows the performance of 96 or 48 reactions, including blank and standard wells.

Materials required but not provided

1. ELISA Microtiter plate reader, equipped for the measurement of absorbance at 450 nm
2. Incubator at 37℃
3. Manual or automatic equipment for rinsing Microtiter plates
4. Pipettes to deliver volumes between 10 and 1000 µl
5. Vortex tube mixer
6. Distilled/Deionized water
7. Graduated measuring cylinder
8. Wash bottle
9. Paper towels/absorbent paper
10. Timer
11. Disposable tubes

Storage

Store the kit at 2 - 8°C. The opened reagents are stable up to the expiry date stated on the kit when stored at 2 - 8°C. Return the unused plate strips to the aluminum foil bag immediately, squeeze out air and seal tightly. Keep the desiccant inside and store at 2-8℃ refrigerated. Use up within 1 month, max 3 months. Discard directly if mold, condensation or uneven liquid adhesion on well walls is found.

Sample preparation

1. **Serum**

Collect whole blood into a non-anticoagulated (plain, red-top) tube. Allow the blood to clot undisturbed at room temperature for 10–20 minutes. Then centrifuge at 2,000–3,000 rpm for 20 minutes to separate the serum by removing the clot. If precipitates form during storage, centrifuge the sample again before use

2. **Plasma**

Collect whole blood into tubes containing anticoagulants such as EDTA or citrate. After incubating at room temperature for 10–20 minutes, centrifuge at 2,000–3,000 rpm for 20 minutes. Carefully collect the plasma supernatant. If precipitates form during storage, centrifuge the sample again before use.

3. **Urine**

Collect urine in sterile tubes. Centrifuge at 2,000–3,000 rpm for 20 minutes and carefully collect the clear supernatant. If precipitates appear during storage, centrifuge the sample again. Prepare **cerebrospinal and pleuroperitoneal fluids** following the same procedure as for urine.

4. **Cell samples**

Collect culture supernatant aseptically and centrifuge at 2,000–3,000 rpm for 20 minutes. Carefully collect the clarified supernatant. To detect intracellular components, dilute cells to 1×10^6/mL with Phosphate Buffered Saline (PBS) pH 7.2–7.4 and lyse by repeated freezing and thawing. Centrifuge the lysate under the same conditions and collect the supernatant. If precipitates appear during storage, centrifuge again before use.

5. **Tissue samples**

Tissue samples are cut, weighed, frozen in liquid nitrogen, and stored at -80℃ until use. Homogenize the tissue in PBS (pH 7.4) on ice or at 4℃. Centrifuge at 2,000–3,000 rpm for 20 minutes and carefully collect the supernatant. Aliquot the supernatant for ELISA and future analysis.

Note that for processing methods for uncommon ELISA samples, visit https://www.sunlongbiotech.com/article.php?id=1735

Notes:

1. Perform sample preparation and ELISA assay promptly after collection. Extract samples following relevant protocols. If immediate testing is not possible, store samples at -20°C. Avoid repeated freeze-thaw cycles to preserve sample integrity

2. Our kits are not compatible with samples containing Sodium Azide (NaN_3), as it inhibits the activity of horseradish peroxidase (HRP), compromising assay performance.

3. It is very important to bring all reagents and samples to room temperature and mix them before starting the procedure

Preparation of reagents

Wash Solution Concentrate should be brought to room temperature and should be diluted before starting the test procedure. If crystals have formed in the Wash Solution Concentrate, warm at 30 – 40°C until they have completely dissolved.

Wash Solution (1X)

1. Pour the entire contents (20 mL) of the Wash Solution Concentrate (20X for 48 tests or 30X for 96 tests) into a clean 1,000 mL graduated cylinder. Bring to final volume to 400mL for 48 test or 600 mL for 96 tests with distilled or deionized water.

2. Mix gently to avoid foaming.

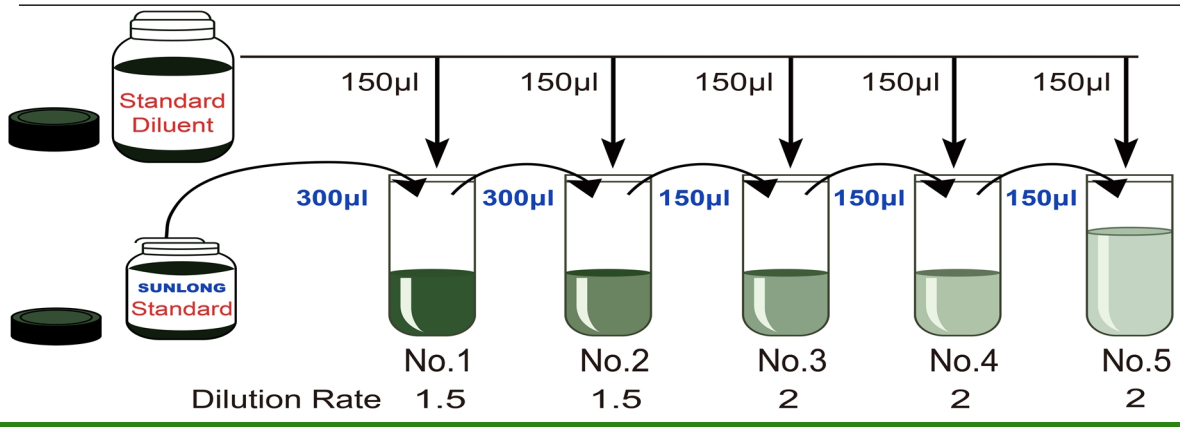
3. Transfer to a clean wash bottle and store at 2–25°C.

Please note that Wash Solution (1X) is stable for 30 days.

Standard Dilution

Prepare 5 tubes containing 150µl each in small tubes first with the Standard Diluent as shown below. Mix each tube thoroughly before the next transfer.

Concentrations	Description	Dilutions
900pg/ml	Stock	
600pg/ml	Standard No.1	300µl Stock + 150µl Standard diluents
400pg/ml	Standard No.2	300µl Standard No.1 + 150µl Standard diluents
200pg/ml	Standard No.3	150µl Standard No.2 + 150µl Standard diluent
100pg/ml	Standard No.4	150µl Standard No.3 + 150µl Standard diluent
50pg/ml	Standard No.5	150µl Standard No.4 + 150µl Standard diluent



Pipette the 50ul from each tube to two microplate wells, with a total of ten wells of duplicated standards.

Procedure

1. **Preparation of Microplate.** Label the microplate wells sequentially with the corresponding sample numbers. Include ten wells for the five duplicated standards and one empty well as a blank control (well A1). Do not introduce samples or HRP Conjugate reagent into the blank well (well A1); however, continue to perform all subsequent steps as per the standard protocol. Remove any unused microplate strips from the holder and store them sealed in the provided foil bag with desiccant at 2–8°C.
2. **Pipetting the standards and samples.** Add 50 µL of reconstituted standards to their respective wells. For sample wells, add 40 µL of sample diluent followed by 10 µL of sample. Carefully dispense samples to the bottom of the wells without touching the walls. Mix gently by shaking to ensure proper mixing.
3. **Incubation.** Incubate the Microplate 30 minutes at 37°C after sealing with an Adhesive film/membrane.
4. **Plate Washing.** Wash the strips five (5) times with 400 µL of 1X Wash Solution per well. Soak strips for 30 seconds in between washes. When using an automated plate washer, be sure to recalibrate it so that the tips do not touch the bottom of the wells. Also, take caution when manually dispensing and aspirating into and out of the wells/ Remove residual Wash Buffer by tapping the plate upside down on paper towels without letting the wells dry out.

Note: Washing is important! Insufficient washing results in poor precision and false results.

5. **Conjugate Addition.** Add 50 µL HRP-Conjugate reagent to each well except the blank control well (well A1).

6. **Conjugate Incubation.** Incubate the Microplate 30 minutes at 37°C after sealing with an Adhesive film/membrane as in Step 3.

7. **Plate Washing.** Wash the strips five (5) times with 400 µL of 1X Wash Solution per well. Soak strips for 30 seconds in between washes. Remove residual Wash Buffer by tapping the plate upside down on paper towels without letting the wells dry out, as in Step 5. Do not touch the bottom of the wells either during manual or automated washing.

Note: Washing is important! Insufficient washing results in poor precision and false results.

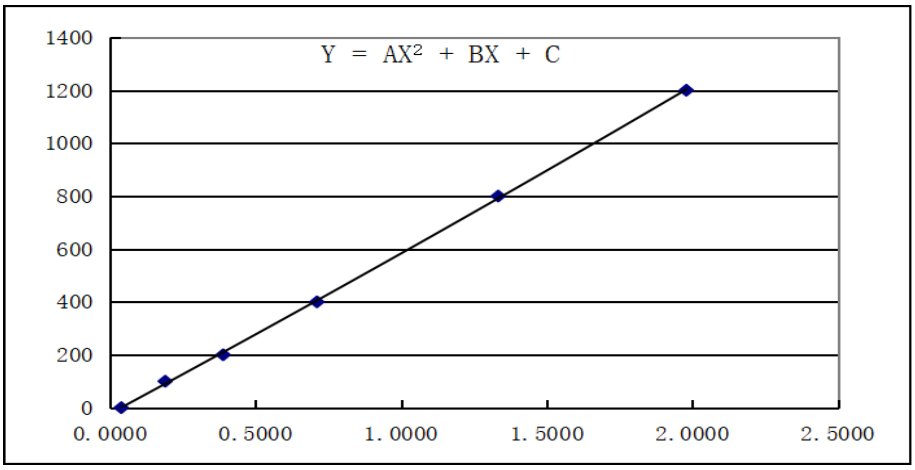
8. **Substrate Addition and Incubation.** Add 50 µL Chromogen Solution A and 50 µL Chromogen Solution B to each well, mix with gentle shaking, and incubate at 37℃ for 15 minutes. This should be done while avoiding a light source.
9. **Stop Reaction**. Add 50 µL of Stop Solution to each well to terminate the enzymatic reaction. Upon addition, the color will change from blue to yellow, indicating the reaction has been successfully stopped
10. **Measurement.** Remove any drops of water and fingerprints on the bottom of the plate and confirm there are no bubbles on the surface of the liquid. Measure the optical density (O.D.) at 450 nm using a microtiter plate reader. Set the O.D. value of the blank control well to zero. Complete all readings within 15 minutes after adding the stop solution to ensure accurate results.

Note that due to technical reasons, if the ELISA Microtiter plate reader cannot be adjusted to zero using the Blank, subtract the Blank absorbance value from all other absorbance values measured to obtain reliable results

Evaluation of the result

1. Calculate the average absorbance values for each set of duplicate standards and samples. Duplicates should be within 20% of the mean value.
2. Create a standard curve by plotting the mean absorbance for each Fish EROD concentration. Draw a best fit curve through the points of the graph (a 5-parameter curve fit is recommended)
3. To determine the concentration of the sample, a horizontal line is extended from this mean absorbance value to intersect the standard curve. The point of intersection corresponds to the concentration of the analyte in the sample by extrapolation or interpolation from the standard curve.

Standard Curve Analysis (Second-Order Polynomial Regression)



This diagram is for reference only, Specific calculation methods and steps refer to: https://www.sunlongbiotech.com/article.php?id=36

Precision

Intra-assay Precision (Precision within an assay): 3 samples with low, middle, and high levels of Fish EROD were tested 20 times on one plate, respectively.

Inter-assay Precision (Precision between assays): 3 samples with low, middle, and high-level Fish EROD were tested on 3 different plates, 8 replicates in each plate.

CV(%) = SD/mean X 100

Intra-Assay: CV<10%

Inter-Assay: CV<12%

Assay range

18pg/ml-850pg/ml

Sensitivity

5pg/ml

Precautions

1. Store the kit at 2-8°C upon receipt. Before use, bring the kit to room temperature. Remove any unused strips from the Fish EROD Antibody-coated plate, reseal them in the provided zip-lock foil bag with desiccant, and keep at 2-8°C.

2. Precipitates may form in the concentrated wash buffer. Warm the buffer to dissolve precipitates; this will not affect assay performance.

3. Utilize an accurate pipette to minimize experimental errors. Samples must be added to the microplate within five minutes. When processing a large quantity of samples, employing a multichannel pipette is advised for efficiency.

4. Include a standard curve in every assay, with replicate wells recommended to enhance reliability. If a sample's optical density (OD) exceeds that of the highest standard, the sample should be diluted (by a factor of n) before reassessment. When calculating the original EROD concentration, multiply by the total dilution factor (n × 5).

5. To prevent cross-contamination, use adhesive film/membrane only once.

6. Protect the substrate from exposure to light to maintain its stability and reactivity.

7. All procedures must strictly follow the manufacturer's instructions. Results should be obtained using a microtiter plate reader according to protocol specifications.

8. Treat all samples, wash buffer, and waste as potentially infectious.

9. Do not mix reagent from different kit lots.

Storage and Validity

1. Storage: 2-8℃.
2. Valid Duration: 6 months

Troubleshooting

Possible Case	Solution
Poor Standard Curve	
• Improper standard curve preparation	• Ensure accurate operation of the dilution
• Incomplete washing and aspiration	• Adequate washing and adequate aspiration
• Inaccurate Pipetting	• Check and Calibrate pipettes

High Background	
• Improper washing	• Increase the duration of soaking before aspiration
• Contaminated Substrate	• Replace Substrate. Use a clean substrate and avoid cross-contamination by replacing the Adhesive film/membrane
• Non-specific binding of the antibody	• Replace with another purified antibody or blocking buffer
• The plate is not sealed completely	Follow the instructions strictly
• Incorrect incubation temperature	• Incubate at 37℃
• Substrate exposed to light before use	• Keep the substrate in a dark place
• Contaminated wash buffer	• Use a clean buffer and a sterile filter

Weak Signal	
• Improper washing	• Increase the duration of soaking before aspiration
• Incorrect incubation temperature	• Incubate at 37℃
• Not enough antibody were used	• Increase the concentration of the antibody
• Reagents are contaminated	• Use new reagents
• Pipettes are not clean	• A clean pipette should be used

No Signal	
• Reagents are contaminated • Sample prepared incorrectly	• Use new reagents • Make sure samples are diluted accordingly
• Not enough antibody were used • Wash buffer contains sodium azide • HRP was not added	• Increase the concentration of antibody • Use a new wash buffer without sodium azide • Add HRP according to the instructions
Poor Precision	
• Imprecise/ inaccurate pipetting • Incomplete washing of the wells	• Check and calibrate pipettes • Ensure wells are thoroughly washed by filling each well with wash buffer and completely removing all residual antibody solutions before proceeding to the next wash step

APPENDIX 6: MONOCLONAL ANTIBODY

Product Description of Mouse Anti-fish CYP1A Peptide, Monoclonal Antibody, C10-7 provided by Biosense Laboratories

Classification: Protected A

biosense™ LABORATORIES

Prod. no. C02401101
Product Description

Mouse anti-fish CYP1A peptide Monoclonal antibody, C10-7

General description

This product consists of affinity-purified mouse monoclonal antibodies against peptide 277-294 of rainbow trout cytochrome P450 1A (CYP1A).
Immunogen source: A synthetic peptide corresponding to amino acid sequence 277-294 of rainbow trout (*Oncorhynchus mykiss*) CYP1A, coupled to the carrier protein keyhole limpet hemocyanin (KLH).
Subclass/isotype: IgG_3-kappa.

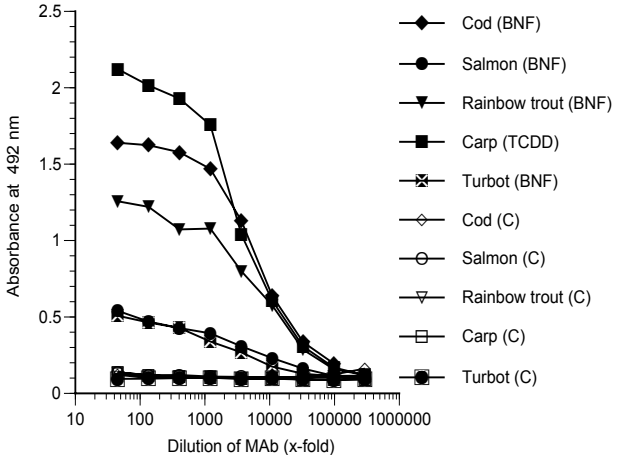
Specificity

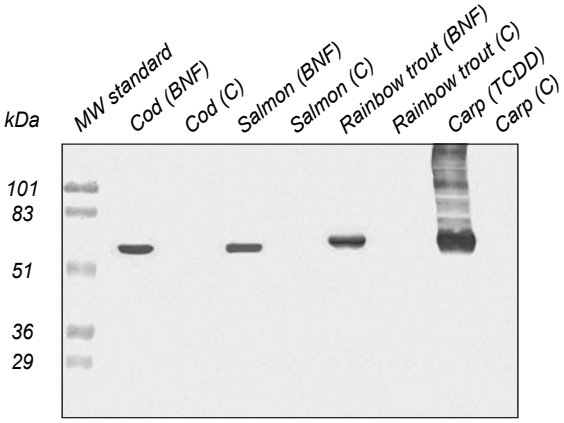
The monoclonal antibody C10-7 cross-reacts with CYP1A in liver samples from a variety of fish species, including rainbow trout (*Oncorhynchus mykiss*), Atlantic salmon (*Salmo salar*), carp (*Cyprinus carpio*), turbot (*Scophthalmus maximus*) and Atlantic cod (*Gadus morhua*). The degree of cross-reactivity differs between species and with the methods employed.

Applications

The monoclonal antibody C10-7 works well in both ELISA and western blot for a number of species. The antibody also works well in immunohistochemistry. Since assay conditions vary, the optimum dilution should be determined for each particular application. *Note*: The antibody is dissolved in a buffer containing BSA, and is therefore not recommended to use for coating.

Normal dilution range:
ELISA: 1:300 - 1:1000
Western blot: 1:50 - 1:500





ELISA

Coating: Liver microsomes (10 µg protein/ml) from β-naphtoflavone treated (BNF) , tetrachloro-dibenzo-p-dioxin treated (TCDD) or control (C) fish.
Primary antibody: C10-7

Western blot

Samples: Liver microsomes (10 µg protein/well) from β-naphtoflavone treated (BNF), tetrachlorodibenzo-p-dioxin treated (TCDD) or control (C) fish.
Primary antibody: C10-7 diluted 1:3000

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Appendix D. Small-bodied Fish Sampling Quality Assurance and Quality Control

Appendix D – Fish Tissue Quality Assurance/Quality Control

The quality assurance and quality control (QA/QC) program for fish tissue results in 2025 follows the methods outlined in the Aquatic Effects Monitoring Program (AEMP) Version 5 design. The quality control criteria for various quality analyses are summarized in Table D-A.

Table D-A: Quality Control Elements and Acceptance Criteria for Fish Tissue Analysis

QC Element	Metric	Typical Acceptance / Alert Considerations
Duplicate	Meets relative percent different (RPD) alert limits.	Polycyclic Aromatic Hydrocarbons (PAHs) = >50%. Metals (excluding aluminum, barium, lead, mercury, molybdenum, potassium, silver, sodium, strontium, and tin) = >30%. aluminum, barium, lead, mercury, molybdenum, potassium, silver, sodium, strontium, and tin = >40%.
Method Blank	Indicates potential cross-contamination from analytical equipment.	Should be non-detect. Any detection warrants scrutiny of all associated samples. Compare results against >5× MDL.
Matrix Spike	Checks for potential bias and accurate concentration results.	Percent recoveries of the spiked concentration should be within: • 50-140% for PAHs. • 70 to 130% for metals.
Reference Materials	Confirms results are reliable given the accuracy and reproducibility of previously measured reference concentrations.	Must be within reference range while accounting for ±25% variability between laboratories. Laboratory bias must be within 0.5 and 1.5 to determine if concentrations are potential biased high or low.

The RPD is calculated using the following formula:

$$\text{RPD } \% = \left(\frac{|x1-x2|}{(x1+x2)/_2}\right) * 100$$

Where x_1 = original field sample
x_2 = duplicate sample

D.1 Metals QA/QC Program

The QA/QC program for tissue metals analysis during the 2025 AEMP consisted of seven laboratory duplicate samples and four analyses of the DORM-5, NIST-1566b, and NIST-2976 certified reference materials (CRM). Results from these quality control analyses are provided in the certificate of analysis in Appendix H of the summary report and have been summarized in Table D.1.

The RPDs exceeded quality criteria in at least one duplicate for antimony, lead, and uranium. However, the concentrations for each of these metals was below five times the detection limit. Therefore, these elevated RPDs are most likely caused by reduced accuracy as concentrations approach the detection limit. Nickel was the only metal that exceeded the quality criteria for RPD in one duplicate analysis in 2025. The RPD for this analysis was equal to the quality alert limit (30.8%) and the average RPD of the remaining five duplicates was 11.3%. Overall, metal tissue results are acceptable based on the duplicate analyses.

The CRM analyses provide an indication of overall data accuracy and identifies potential biases in the 2025 results. All concentrations reported for the CRM are within the certified range and laboratory biases ranged from 0.9 to 1.2. These results indicate that metal concentrations in 2025 are consistent with other analytical laboratories and there are no potential biases that could influence interpretation.

D.2 Polycyclic Aromatic Hydrocarbon QA/QC Program

Th QA/QC program for polycyclic aromatic hydrocarbon (PAH) tissue analysis (including alkylated PAHs) consisted of one method blank and one matrix spike. The method blank tests for sources of potential contamination during analyses while matrix spike results are used to identify potential biases or precision concerns.

Three parent PAHs (including naphthalene, phenanthrene, and pyrene; Table D.2) exceeded the alert limit for detections in the method blank, while six alkylated PAHs (aPAHs) exceeded the alert limit (Table D.3). In addition, one parent and three aPAHs were detected in the method blank but were less than 5 times the detection limit. Most concentrations measured in fish tissue samples were well above detection limits but C2-substituted fluorenes had concentrations similar to that measured in the method blank. Concentrations for PAHs/aPAHs that had detections in the method blank could be potentially biased high but overall data quality is acceptable. Potential overestimation of concentrations provides more conservative data interpretations therefore detections in the method blank do not affect overall interpretation. Lab blank correction of tissue

data is recommended for PAH analyses during future monitoring years to account for the potential biases from low-level detections of PAHs/aPAHs during laboratory analysis.

Matrix spike recoveries in 2025 were all within quality alert limits for PAHs and aPAHs. The average recovery for parent PAHs is 102%, while average recovery for aPAHs is 110% in 2025. This indicates that data is fit-for-purpose and potential uncertainty provides a more conservative interpretation of results.

D.3 Protein QA/QC Program

The QA/QC program for the measurement of CYP1A protein in liver tissue is described in detail in Appendix C of the 2025 AEMP summary report. Each sample was analyzed in triplicate unless liver tissue volume was limited (<25 mg). The AEMP-FS-03-33 and AMP-FS-03-59 samples did not meet this volume and were measured in duplicate because of limited volume. The coefficient of variation (CV) for each sample was reported and these did not exceed 10% for any sample in 2025. For context, the CV between analysis typically corresponds to one half the RPD between duplicate/triplicate analyses, therefore, all RPDs would be below 20%.

Liver tissue from Chrystina Lake in central Alberta were submitted for analysis in addition to the slimy sculpin, inconnu, and whitefish samples analyzed in 2025. These samples were collected as part of a separate monitoring program at a lake with known historical polychlorinated biphenyl (PCB) contamination to characterize cross-reactivity of the analysis with an additional species. The CYP1A concentrations from these samples tended to be slightly higher than slimy sculpin from Bosworth Creek and similar concentrations measured in large-bodied fish analyzed in 2025.

A positive control experiment was included in the 2025 AEMP to provide further validation for the enzyme-linked immunosorbent assay (ELISA) protocol used during the AEMP. This was included in 2025 because no positive controls had been included in the QA/QC program since the program started in 2023. The results for this positive control did not result in the production of increased CYP1A in rainbow trout that were exposed to a water bath with a known CYP1A inducer. Potential reasons that a response was not observed in the positive control are discussed in detail in the Innotech certificate of analysis. The more widely utilized ethoxyresorufin *O*-deethylase (EROD) assay can potentially be influenced by inhibitors and is not available at any commercial laboratories. Given the potential uncertainties with the positive control exposure, the AEMP will continue with the CYP1A ELISA approach and potential options for using the EROD assay to validate results further will be explored.

The CYP1A protein concentrations in liver tissues tend to be close to the detection limit of the ELISA. Despite this the results are reproducible across triplicate analyses, provide enough resolution to compare among sites, and tend to align with PAH tissue residue concentrations. Based on these observations the CYP1A protein analysis meets the objectives of the AEMP.

PROJECT No.: 417085-59897

Quality Control review of Whole Body Tissue Residue Analytical Results: Metals and Trace Elements

Sampling Location	Parameter Description	Date (dd-mmm-yyyy)	Aluminum #1 (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium #1 (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead #1 (mg/kg)	Lithium (mg/kg)	Magnesium (mg/kg)	Manganese (mg/kg)	Mercury #1 (mg/kg)	Molybdenum #1 (mg/kg)	Nickel (mg/kg)	Phosphorus (mg/kg)	Potassium #1 (mg/kg)	Selenium (mg/kg)	Silver #1 (mg/kg)	Sodium #1 (mg/kg)	Strontium #1 (mg/kg)	Thallium (mg/kg)	Tin #1 (mg/kg)	Titanium (mg/kg)	Uranium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
BOSWORTH CREEK SLIMY SCULPIN																																
Sample Duplicate Relative Percent Difference (RPD)																																
AEMP-FS-01-38 (Upstream)		29 Oct 2025	82	**0.006**	< 0.355	1.3	0.126	< 0.042	1954	2.3	0.292	2	168	0.031	0.096	1418	5	0.864	0.043	10	11409	16221	5.6	0.004	3250	2.9	0.036	0.177	5	0.002	0.277	42
(Duplicate)		29 Oct 2025	89	**0.004**	<0.355	1.3	0.121	<0.042	1941	2.7	0.344	2.1	183	0.027	0.092	1381	5.8	0.89	0.038	12	10801	14847	5.6	0.004	3070	3	0.036	0.181	5.5	0.002	0.292	41
RPD(%)			8.2%	40.0%	---	0.0%	4.0%	---	0.7%	16.0%	16.4%	4.9%	8.5%	13.8%	4.3%	2.6%	14.8%	3.0%	12.3%	18.2%	5.5%	8.8%	0.0%	0.0%	5.7%	3.4%	0.0%	2.2%	9.5%	0.0%	5.3%	2.4%
AEMP-FS-01-42 (Upstream)		29 Oct 2025	23	0.004	< 0.355	0.628	< 0.115	< 0.042	2110	2	0.286	1.9	115	0.015	0.03	1546	3.8	0.775	0.033	7.9	11385	16972	6.6	< 0.001	3745	3.4	0.045	0.237	2	< 0.001	0.179	57
(Duplicate)		29 Oct 2025	20	0.003	<0.355	0.546	<0.115	<0.042	2012	1.9	0.294	1.7	117	0.015	0.03	1476	3.5	0.7	0.038	7.2	11569	17845	6.1	<0.001	3509	3.2	0.043	0.18	2	<0.001	0.158	54
RPD(%)			14.0%	28.6%	---	14.0%	---	---	4.8%	5.1%	2.8%	11.1%	1.7%	0.0%	0.0%	4.6%	8.2%	10.2%	14.1%	9.3%	1.6%	5.0%	7.9%	---	6.5%	6.1%	4.5%	27.3%	0.0%	---	12.5%	5.4%
AEMP-FS-02-25 (Downstream)		29 Oct 2025	6.2	**0.005**	< 0.355	0.318	< 0.115	< 0.042	1634	1.5	0.131	1.7	54	0.008	0.02	1423	2	0.492	< 0.029	3.6	12782	20386	4.6	< 0.001	3245	2.3	0.029	0.296	1.6	< 0.001	0.074	30
(Duplicate)		29 Oct 2025	7	**0.003**	<0.355	0.318	<0.115	<0.042	1758	1.4	0.135	1.7	58	0.008	0.016	1483	2.1	0.514	<0.029	4	13020	19098	4.8	<0.001	3179	2.4	0.028	0.306	1.7	<0.001	0.08	34
RPD(%)			12.1%	50.0%	---	0.0%	---	---	7.3%	6.9%	3.0%	0.0%	7.1%	0.0%	22.2%	4.1%	4.9%	4.4%	---	10.5%	1.8%	6.5%	4.3%	---	2.1%	4.3%	3.5%	3.3%	6.1%	---	7.8%	12.5%
AEMP-FS-02-46 (Downstream)		29 Oct 2025	3.4	0.004	< 0.355	0.287	< 0.115	< 0.042	1610	0.923	0.092	1.8	42	**0.009**	0.022	1407	2	1.1	0.043	1.5	10247	14152	5	< 0.001	2943	2.6	0.043	0.214	1.4	< 0.001	0.073	50
(Duplicate)		29 Oct 2025	2.4	0.004	<0.355	0.223	<0.115	<0.042	1464	0.851	0.089	2	43	**0.006**	0.022	1329	1.8	0.972	0.057	1.1	10871	16695	4.6	<0.001	3545	2.1	0.045	0.224	1.3	<0.001	0.062	56
RPD(%)			34.5%	0.0%	---	25.1%	---	---	9.5%	8.1%	3.3%	10.5%	2.4%	40.0%	0.0%	5.7%	10.5%	12.4%	28.0%	30.8%	5.9%	16.5%	8.3%	---	18.6%	21.3%	4.5%	4.6%	7.4%	---	16.3%	11.3%
AEMP-FS-03-36 (Upstream)		29 Oct 2025	18	**0.003**	< 0.355	0.418	0.174	< 0.042	1587	1.2	0.136	2.3	64	0.015	0.028	1485	3.1	1.1	0.036	3.1	11669	18083	6.8	< 0.001	4162	3.1	0.043	0.276	2.1	**0.002**	0.096	64
(Duplicate)		29 Oct 2025	17	**0.007**	<0.355	0.418	0.151	<0.042	1672	1.2	0.122	2.3	63	0.012	0.028	1488	2.9	1	0.036	2.8	11873	18701	6.7	<0.001	4300	2.9	0.044	0.329	1.8	**0.003**	0.084	62
RPD(%)			5.7%	80.0%	---	0.0%	14.2%	---	5.2%	0.0%	10.9%	0.0%	1.6%	22.2%	0.0%	0.2%	6.7%	9.5%	0.0%	10.2%	1.7%	3.4%	1.5%	---	3.3%	6.7%	2.3%	17.5%	15.4%	40.0%	13.3%	3.2%
AEMP-FS-03-43 (Upstream)		29 Oct 2025	4.1	< 0.003	< 0.355	0.223	< 0.115	< 0.042	1444	0.87	0.091	1.9	39	0.007	0.032	1255	2.6	0.904	< 0.029	1.3	11288	18867	4.6	< 0.001	4042	1.7	0.056	0.167	1.4	< 0.001	0.036	39
(Duplicate)		29 Oct 2025	3.7	<0.003	<0.355	0.167	<0.115	<0.042	1390	0.864	0.088	1.9	37	0.007	0.032	1271	2.5	0.872	<0.029	1.2	11236	15150	4.8	<0.001	3663	1.7	0.056	0.131	1.2	<0.001	0.032	37
RPD(%)			10.3%	---	---	28.7%	---	---	3.8%	0.7%	3.4%	0.0%	5.3%	0.0%	0.0%	1.3%	3.9%	3.6%	---	8.0%	0.5%	21.9%	4.3%	---	9.8%	0.0%	0.0%	24.2%	15.4%	---	11.8%	5.3%
FGH-1		29 Oct 2025	1	<0.003	<0.355	0.028	<0.115	<0.042	789	0.682	0.012	0.848	13	0.002	0.051	1069	0.526	1.5	<0.029	0.125	9134	13885	2.2	<0.001	1203	0.352	0.061	0.064	0.729	<0.001	<0.017	11
(Duplicate)		29 Oct 2025	1.2	<0.003	<0.355	0.028	<0.115	<0.042	711	0.688	0.012	0.808	13	0.002	0.051	798	0.484	1.6	<0.029	0.111	11335	18126	2.3	<0.001	1308	0.302	0.058	0.06	0.851	<0.001	<0.017	10
RPD(%)			18.2%	---	---	0.0%	---	---	10.4%	0.9%	0.0%	4.8%	0.0%	0.0%	0.0%	29.0%	8.3%	6.5%	---	11.9%	21.5%	26.5%	4.4%	---	8.4%	15.3%	5.0%	6.5%	15.4%	---	---	9.5%
Certified Reference Materials (CRM)																																
Sample Group 1	Mean Conc. (mg/kg)	29 Oct 2025	196	0.011	15	8.9	4.6	0.151	2264	0.609	0.08	3.9	123	0.065	0.413	1117	1.2	0.349	0.129	0.528	7125	13406	2.7	0.161	10690	11	-	0.08	12	0.017	0.374	32
	Percent Accuracy		99	102	111	103	103	102	113	118	126	117	109	113	106	108	111	110	96	120	114	116	112	120	116	114	-	103	96	102	108	111
	Precision RPD (%)		10.0	15.0	5.7	5.3	1.8	11.0	9.5	4.9	11.0	6.5	4.3	7.8	4.3	6.2	3.8	2.7	18.0	5.3	4.0	4.2	2.6	3.4	4.1	7.5	-	13.0	17.0	8.1	4.4	3.4
Sample Group 2	Mean Conc. (mg/kg)	29 Oct 2025	191	0.01	14	8.4	4.6	0.152	2002	0.574	0.071	3.7	127	0.064	0.418	1120	1.1	0.341	0.149	0.5	6321	12694	2.3	0.157	10071	10	-	0.075	11	0.019	0.37	29
	Percent Accuracy		97	87	102	98	102	103	100	112	112	113	112	110	107	109	108	108	111	114	102	109	95	116	110	105	-	98	93	114	107	102
	Precision RPD (%)		3.8	5.7	6.6	4.9	2.7	14.0	5.1	6.1	2.9	4.1	2.5	10.0	5.0	3.0	4.8	4.8	19.0	6.0	4.3	5.1	8.4	8.4	3.6	5.7	-	18.0	7.8	14.0	4.9	3.0
Sample Group 3	Mean Conc. (mg/kg)	29 Oct 2025	204	0.009	12	9	5	0.15	1955	0.517	0.067	3.4	108	0.053	0.378	1005	1	0.344	0.134	0.44	5869	11589	2.3	0.121	9092	9.2	-	0.062	12	0.014	0.339	27
	Percent Accuracy		104	84	90	105	111	102	97	100	107	104	96	91	97	98	96	109	100	100	94	100	98	90	99	94	-	81	95	86	98	96
	Precision RPD (%)		7.0	18.0	5.9	3.9	1.7	10.0	7.8	5.3	6.7	2.4	6.1	4.2	3.1	7.8	8.3	6.5	11.0	9.4	4.8	4.5	7.2	7.5	5.6	7.0	-	17.0	9.8	0.0	5.8	5.5
Sample Group 4	Mean Conc. (mg/kg)	29 Oct 2025	203	0.009	12	8.5	5.1	0.168	2068	0.55	0.074	3.4	108	0.062	0.397	992	1	0.344	0.13	0.471	5724	11469	2.2	0.145	9237	9.9	-	0.067	12	0.015	0.316	27
	Percent Accuracy		103	86	87	99	113	113	103	107	118	102	95	106	102	96	96	109	97	107	92	99	90	108	100	101	-	87	96	94	91	95
	Precision RPD (%)		3.1	14.0	4.7	3.6	2.8	19.0	3.1	2.7	3.4	3.2	4.7	5.2	7.6	2.3	4.4	5.6	12.0	6.9	4.5	4.4	7.7	9.4	3.2	7.2	-	18.0	11.0	5.8	3.9	4.0
Certified Reference Value			197.2	0.011	13.3	8.6	4.5	0.148	2010	0.515	0.063	3.3	113	0.058	0.391	1030	1.06	0.316	0.134	0.44	6230	11600	2.4	0.135	9200	9.87	---	0.077	12.24	0.0163	0.347	28.7
Certified Reference Range			256.36	0.0154	17.29	12.04	6.3	0.1924	2613	0.6695	0.0819	4.29	146.9	0.0754	0.5083	1339	1.378	0.4108	0.1742	0.572	8099	15080	3.12	0.189	11960	12.831	---	0.1078	17.136	0.02119	0.4511	37.31
			138.04	0.0066	9.31	5.16	2.7	0.1036	1407	0.3605	0.0441	2.31	79.1	0.0406	0.2737	721	0.742	0.2212	0.0938	0.308	4361	8120	1.68	0.081	6440	6.909	---	0.0462	7.344	0.01141	0.2429	20.09
Average Laboratory Bias			1.0	0.9	1.0	1.0	1.1	1.0	1.0	1.1	1.2	1.1	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.1	1.0	---	0.9	1.0	1.0	1.0	1.0

NOTES:

1. --- in guideline row(s) denotes no criteria for that parameter.
2. --- in detail data row(s) denotes parameter not analyzed.
3. Shading indicates that reported values result in quality control metrics greater than or equal to the applicable quality control criteria.
4. **Bold** text indicates that concentrations used to calculate relative percent difference (RPD) values greater than or equal to quality criteria are lower than five times the RDL. Reduced presion for these analyses are most likely related to low concentrations for the associated metal.

X 5. Highlighting indicates that RPD is greater than or equal to quality control criteria.

6. Quality control limits are adopted from the Guidance Manual for Environmental Site Characterization in support of Environmental and Human Health Risk Assessment: Volume 4 Analytical Methods. Published by the Canadian Council of Ministers of the Environment in 2016.
7. The quality control criteria for RPDs between duplicate analyses is 30% for metal analyses unless noted otherwise.
8. Superscript #1 denotes that the quality criteria for RPDs between duplicate analyses for the assoicated metal is 40%.
9. Certified reference material (CRM) used for most metals measured is DORM-5, however reference values for boron, titanium, antimony, barium, and aluminum are based on analysis of the NIST-1566b CRM.
10. Certified reference ranges for most metals measured are based on quality control limit of 70%-130% of the reference value, however, boron, titanium, silver, tin, antimony, and barium reference ranges are based on quality control limits of 60%-140%.
11. Laboratory Bias is calculated as the mean concentration reported among CRM sample groups divided by the certified reference value. Values above 1 indicate potential overestimation bias while values below 1 indicate potential underestimation bias.

Quality Control review of Whole Body Tissue Residue Analytical Results: Parent Polycyclic Aromatic Hydrocarbons (PAHs)

PROJECT No.: 417085-59897

Sampling Location	Parameter Description	Date (dd-mmm-yyyy)	Polycyclic aromatic hydrocarbons (PAHs)|Carcinogenic								Polycyclic aromatic hydrocarbons (PAHs)|Non-Carcinogenic											
			Benzo(a)Anthracene (ng/g)	Benzo(b)Fluoranthene (ng/g)	Benzo(j,k)Fluoranthene (ng/g)	Benzo(g,h,i)Perylene (ng/g)	Benzo(a)Pyrene (ng/g)	Chrysene (ng/g)	Dibenzo(a,h)Anthracene (ng/g)	Indeno(1,2,3-c,d)Pyrene (ng/g)	Acenaphthene (ng/g)	Acenaphthylene (ng/g)	Anthracene (ng/g)	Benzo(e)Pyrene (ng/g)	Dibenzothiophene (ng/g)	Fluoranthene (ng/g)	Fluorene (ng/g)	Naphthalene (ng/g)	Perylene (ng/g)	Phenanthrene (ng/g)	Pyrene (ng/g)	Retene (ng/g)
QUALITY ASSURANCE/QUALITY CONTROL																						
Lab Blank	Measured Conc.	23-Sep-2025	< 0.0166	< 0.0374	< 0.0428	< 0.0208	< 0.0615	< 0.0171	< 0.0332	< 0.0234	< 0.0216	< 0.0212	< 0.0171	< 0.0615	< 0.0279	**0.051**	< 0.012	**0.3960**	< 0.0615	**0.099**	**0.071**	< 0.0864
	Detection Limit		0.0166	0.0374	0.0428	0.0208	0.0615	0.0171	0.0332	0.0234	0.0216	0.0212	0.0171	0.0615	0.0279	0.0107	0.012	0.0262	0.0615	0.0165	0.0103	0.0864
Matrix Spike	Percent Recovery	31-Oct-2025	98.1	98	102	101	101	102	104	103	106	98	101	115	100	99.8	85	105	102	99.1	98.8	121

NOTES:

1. --- in detail data row(s) denotes parameter not analyzed.
2. **Bold** text indicates a concentration is measured in the method blank but is below quality control criteria.
3. Shading indicates that reported values result in quality control metrics greater than or equal to the applicable quality control criteria.
4. Quality control limits are adopted from the Guidance Manual for Environmental Site Characterization in support of Environmental and Human Health Risk Assessment:
   Volume 4 Analytical Methods. Published by the Canadian Council of Ministers of the Environment in 2016.
   - Quality control limits for lab blank is five times the reportable detection limit (RDL)
   - Quality control criteria for matrix spike is between 50% and 140% recovery from the spiked concentration
5. Highlighting indicates parameters at applied guideline/criteria.

PROJECT No.: 417085-59897

Quality Control review of Whole Body Tissue Residue Analytical Results: Alkylated Polycyclic Aromatic Hydrocarbons (PAHs)

Sampling Location	Sample Type	Date (dd-mmm-yyyy)	2-Methylanthracene (ng/g)	C1-Substituted Acenaphthene (ng/g)	7-Methylbenzo[a]Pyrene (ng/g)	1-Methylchrysene (ng/g)	5- & 6-Methylchrysene (ng/g)	C1-Substituted Benzo[a]anthracene/Chrysene (ng/g)	5,9-Dimethylchrysene (ng/g)	C2-Substituted Benzo[a]anthracene/Chrysene (ng/g)	C3-Substituted Benzo[a]anthracene/Chrysene (ng/g)	C4-Substituted Benzo[a]anthracene/Chrysene (ng/g)	C1-Substituted Benzofluoranthenes/Pyrenes (ng/g)	C2-Substituted Benzofluoranthenes/Pyrenes (ng/g)	2-Methylfluorene (ng/g)	C1-Substituted Fluorene (ng/g)	1,7-Dimethylfluorene (ng/g)	C2-Substituted Fluorene (ng/g)	C3-Substituted Fluorene (ng/g)	3-Methylfluoranthene/Benzo[a]Fluorene (ng/g)	C1-Substituted Fluoranthene/Pyrene (ng/g)
QUALITY ASSURANCE/QUALITY CONTROL																					
Lab Blank	Measured Conc.	23-Sep-2025	< 0.0336	< 0.0173	< 0.0715	< 0.0202	< 0.0214	< 0.0208	< 0.0373	< 0.0373	< 0.0519	< 0.0381	< 0.0715	< 0.064	< 0.0159	< 0.127	**0.098**	**0.308**	< 0.0316	< 0.0218	**0.031**
	Detection Limit		0.0336	0.0173	0.0715	0.0202	0.0214	0.0208	0.0373	0.0373	0.0519	0.0381	0.0715	0.064	0.0159	0.127	0.0333	0.0333	0.0316	0.0218	0.0218
Matrix Spike	Percent Recovery	31-Oct-2025	105	---	105	104	112	---	111	---	---	---	---	---	99.3	---	114	---	---	104	---

NOTES:

1. --- in detail data row(s) denotes parameter not analyzed.
2. **Bold** text indicates a concentration is measured in the method blank but is below quality control criteria.
3. Shading indicates that reported values result in quality control metrics greater than or equal to the applicable quality control criteria.
4. Quality control limits are adopted from the Guidance Manual for Environmental Site Characterization in support of Environmental and Human Health Risk Assessment:
   Volume 4 Analytical Methods. Published by the Canadian Council of Ministers of the Environment in 2016.
   - Quality control limits for lab blank is five times the reportable detection limit (RDL)
   - Quality control criteria for matrix spike is between 50% and 140% recovery from the spiked concentration
5. Highlighting indicates parameters at applied guideline/criteria.

PROJECT No.: 417085-59897

Quality Control review of Whole Body Tissue Residue Analytical Results: Alkylated Polycyclic Aromatic Hydrocarbons (PAHs)

Sampling Location	Sample Type	Date (dd-mmm-yyyy)	C2-Substituted Fluoranthene/Pyrene (ng/g)	C3-Substituted Fluoranthene/Pyrene (ng/g)	C4-Substituted Fluoranthene/Pyrene (ng/g)	1-Methylnaphthalene (ng/g)	2-Methylnaphthalene (ng/g)	C1-Substituted Naphthalene (ng/g)	1,2-Dimethylnaphthalene (ng/g)	2,6-Dimethylnaphthalene (ng/g)	C2-Substituted Naphthalene (ng/g)	2,3,6-Trimethylnaphthalene (ng/g)	2,3,5-Trimethylnaphthalene (ng/g)	C3-Substituted Naphthalene (ng/g)	1,4,6,7-Tetramethylnaphthalene (ng/g)	C4-Substituted Naphthalene (ng/g)	1-Methylphenanthrene (ng/g)	2-Methylphenanthrene (ng/g)	3-Methylphenanthrene (ng/g)	9/4-Methylphenanthrene (ng/g)	C1-Substituted Phenanthrene/Anthracene (ng/g)	1,7-Dimethylphenanthrene (ng/g)	1,8-Dimethylphenanthrene (ng/g)
QUALITY ASSURANCE/QUALITY CONTROL																							
Lab Blank	Measured Conc.	23-Sep-2025	< 0.0157	< 0.0111	< 0.0157	**0.147**	**0.239**	**0.386**	< 0.0479	**0.0800**	**0.402**	< 0.0354	< 0.0335	**0.2500**	< 0.0431	< 0.0431	< 0.0299	< 0.03	< 0.0311	< 0.0311	< 0.0299	**0.083**	< 0.0159
	Detection Limit		0.0157	0.0111	0.0157	0.035	0.032	0.032	0.0479	0.0368	0.0479	0.0354	0.0335	0.0344	0.0431	0.0431	0.0299	0.0300	0.0311	0.0311	0.0299	0.0168	0.0159
Matrix Spike	Percent Recovery	31-Oct-2025	---	---	---	105	103	---	102	100	---	117	115	---	133	---	114	113	---	---	---	119	---

NOTES:

1. --- in detail data row(s) denotes parameter not analyzed.
2. **Bold** text indicates a concentration is measured in the method blank but is below quality control criteria.
3. Shading indicates that reported values result in quality control metrics greater than or equal to the applicable quality control criteria.
4. Quality control limits are adopted from the Guidance Manual for Environmental Site Characterization in support of Environmental and Human Health Risk Assessment:
   Volume 4 Analytical Methods. Published by the Canadian Council of Ministers of the Environment in 2016.
   - Quality control limits for lab blank is five times the reportable detection limit (RDL)
   - Quality control criteria for matrix spike is between 50% and 140% recovery from the spiked concentration
5. Highlighting indicates parameters at applied guideline/criteria.

PROJECT No.: 417085-59897

Quality Control review of Whole Body Tissue Residue Analytical Results: Alkylated Polycyclic Aromatic Hydrocarbons (PAHs)

Sampling Location	Sample Type	Date (dd-mmm-yyyy)	2,6-Dimethylphenanthrene (ng/g)	3,6-Dimethylphenanthrene (ng/g)	C2-Substituted Phenanthrene/Anthracene (ng/g)	1,2,6-Trimethylphenanthrene (ng/g)	C3-Substituted Phenanthrene/Anthracene (ng/g)	C4-Substituted Phenanthrene/Anthracene (ng/g)	2- & 3-Methyldibenzothiophene (ng/g)	C1-Substituted Dibenzothiophene (ng/g)	2,4-Dimethyldibenzothiophene (ng/g)	4,6-Dimethyldibenzothiophene (ng/g)	C2-Substituted Dibenzothiophene (ng/g)	C3-Substituted Dibenzothiophene (ng/g)	C4-Substituted Dibenzothiophene (ng/g)
QUALITY ASSURANCE/QUALITY CONTROL															
Lab Blank	Measured Conc.	23-Sep-2025	< 0.0159	< 0.0152	**0.159**	< 0.0169	< 0.0169	< 0.0864	< 0.0308	< 0.0308	< 0.0332	< 0.0268	< 0.0332	< 0.0332	< 0.0391
	Detection Limit		0.0159	0.0152	0.0159	0.0169	0.0169	0.0864	0.0308	0.0308	0.0332	0.0268	0.0332	0.0332	0.0391
Matrix Spike	Percent Recovery	31-Oct-2025	112	113	---	---	---	---	97.2	---	124	---	---	---	---

NOTES:

1. --- in detail data row(s) denotes parameter not analyzed.
2. **Bold** text indicates a concentration is measured in the method blank but is below quality control criteria.
3. Shading indicates that reported values result in quality control metrics greater than or equal to the applicable quality control criteria.
4. Quality control limits are adopted from the Guidance Manual for Environmental Site Characterization in support of Environmental and Human Health Risk Assessment:
   Volume 4 Analytical Methods. Published by the Canadian Council of Ministers of the Environment in 2016.
   - Quality control limits for lab blank is five times the reportable detection limit (RDL)
   - Quality control criteria for matrix spike is between 50% and 140% recovery from the spiked concentration
5. Highlighting indicates parameters at applied guideline/criteria.

Appendix E. Upstream Control Limit Development

Appendix E - Establishing the Upstream / Background Dataset

Upstream background concentrations of KIPs will be compiled from all upstream locations into one upstream range set on a per waterbody basis (i.e., one set for the Mackenzie River and one set for Bosworth Creek). As the AEMP is intended to detect changes in water quality between upstream and downstream locations, rather than to determine overall environmental health; comparison to a background (i.e., upstream) dataset is better suited to detecting change as opposed to comparison to a fixed water quality objective.

Due to season changes in water quality, particularly concentrations of suspended solids, data will be checked for relationship to flow and, where such a relationship is found, will be flow-corrected to allow for comparison across seasons. Where no relationship to flow is noted, data can be pooled without flow correction.

Background data will be added to and updated every two years (i.e., every eight additional data points per location).

Baseline data will be defined as a minimum of eight data points extending from well installation to a statistically significant change in trend or to the current reporting period (once the minimum eight points is reached; USEPA 2009). Previously collected data will be used for existing sampling locations.

E.1 Calculation of Background Control Limits

The Background dataset will be used to calculate the Background Control Limits for each KIP. Background Control Limits will be calculated using the tolerance interval approach as described in Helsel (2012), provided that the data meets the following conditions:

- The data set includes at least eight data points.
- Greater than or equal to 40 percent of data are detectable.
- The Background source data set does not include:
  - An increasing trend (determined via the Akritas-Theil-Sen [ATS] Slope with Kendall's tau).
  - A decreasing trend (determined via ATS Slope with Kendall's tau).
  - Verified outliers (removed prior to defining baseline data sets).

The equations used to determine the UCL and LCL are as follows:

Equation 1: Upper and Lower Control Limit Calculation

$$UCL = \ Upper\ 95\%\ confidence\ limit\ of\ Q(90)$$

$$LCL = \ Lower\ 95\%\ confidence\ limit\ of\ Q(10)$$

Where:

$Q(90) = 90th\ percentile\ of\ measured\ data$

$Q(10) = \ 10th\ percentile\ of\ measured\ data$

$UCL = Upper\ Control\ Limit$

$LCL = Lower\ Control\ Limit$

E.1.1 Managing Data During Background Establishment

During Background data establishment, the following scenarios may occur that will require consideration in how the data is used:

- Data Below the Detection Limits:
  - In cases where less than 40 percent of the baseline data set are detectable, the UCL will be set to five or two times the typical RDL (as applicable) and the LCL will not be calculated (not applicable).
- Outliers:
  - An outlier is defined as a value originating from a different statistical population than the rest of the sample. Outliers will be identified using Tukey's Box Plot Method which is suitable for non-normally distributed data (USEPA 2009).
  - A valid reason for removing an outlier is required before it could be removed from the data set (USEPA 2009). The following are defined as valid reasons for outlier identification and removal from the dataset:
    - Anomalous concentrations recorded due to poor sampling conditions such as limited water below ice or disturbance of substrate during sampling procedure.
    - An error in transcription, dilution or analytical procedure, etc. that could be identified, but the error could not be corrected.
    - The value was part of a group of parameters with one-time detections that were not replicated in subsequent follow-up verification sampling or any other sampling event.
    - Values for multiple parameters in a field duplicate sample were atypical relative to the parent sample and were not confirmed by subsequent monitoring results.
    - The value was a one-time detection that was more than one order of magnitude greater than the reportable detection limit.

- One parameter reported over multiple samples from different sampling locations in one sampling event was high biased or low biased.
- The data quality of anomalous KIP concentrations could not be verified due to historically incomplete files.

- Trends in Data:
  - Data for inclusion in the Baseline dataset will be analyzed for trends using the ATS slope with Kendall's tau. Data showing statistically significant trends may be rejected or removed from the background dataset.

Trends in upstream data will be assessed on a per location basis to determine if they are indicative of wider environmental changes that should be accounted for in the Background data or if they are location specific. As upstream locations are not site-influenced, trends in upstream data would not be attributable to site related activities. Due to the lack of potential site influence, data may be added to the Background dataset before a trend is observable (data added every two years); if trends are identified after further sampling events, then its data may be removed from the dataset.

Appendix F. Water Quality Trend Charts

Table F-1
Temporal Trend Statistical Analysis (2017-2025) - Chloride

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-04 (Refinery)	30	0	1	1.00	0.0000	0	5	9	14	-133	-0.16	0.02
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	-18	0.18	-1.6780	-17	7.1	10	18	-29	-1.27	0.03
AEMP-DS-01 (Bosworth Creek)	27	0	162	0.001	2.1071	8	14	25	38	-15	-0.06	0.77

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-02 (Marine Dock)	31	0	106	0.07	0.2006	2	3.9	9.9	15	9	0.009	0.89
AEMP-US-02 (10 Mile Island)	25	0	70	0.11	0.2848	3	5.1	8.6	12	-54	-0.125	0.22
AEMP-DS-05 (Radar North)	25	0	36	0.41	0.1667	2	5.4	8.4	12	-84	-0.217	0.05
AEMP-DS-03 (Island 3)	29	0	44	0.42	0.1816	2	2.7	8.5	22	-100	-0.216	0.06
AEMP-US-05 (Bosworth Creek)	6	0	-5	0.45	-9.7856	-28	26	34.5	39	---	---	---
AEMP-US-01 (Tulita/Midway Island)	12	0	10	0.51	0.0000	0	9.3	11	32	4	5.53E-06	0.84
AEMP-US-03 (6 Mile Island)	9	0	-7	0.53	-0.7337	-8	7.4	8.7	12	---	---	---
AEMP-DS-09 (Goose Island)	8	0	-6	0.54	-1.9936	-23	5.7	8.7	18	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	3	0.61	1.4416	19	5.8	7.4	9.1	---	---	---
AEMP-US-04 (Bosworth Creek)	9	0	2	0.92	1.7159	5	26	33	40	---	---	---
AEMP-DS-08 (Radar South)	6	0	1	1.00	1.0035	12	6.6	8.15	10	---	---	---

Table F-2
Temporal Trend Statistical Analysis (2017-2025) - Sulphate

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-03 (Island 3)	29	0	164	0.002	2.2877	5	32	48	61	130	1.20	0.02
AEMP-DS-04 (Refinery)	30	0	122	0.03	0.9272	3	27	37	47	173	0.94	0.002
AEMP-DS-01 (Bosworth Creek)	27	0	162	0.001	5.0000	3	110	160	190	5	0.12	0.93

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-05 (Radar North)	25	0	84	0.05	1.5917	4	31	40	60	56	0.49	0.20
AEMP-DS-08 (Radar South)	6	0	-9	0.07	-0.9983	-2	47	47	49	---	---	---
AEMP-US-03 (6 Mile Island)	9	0	13	0.20	2.1845	5	28	44	45	---	---	---
AEMP-US-01 (Tulita/Midway Island)	12	0	19	0.22	2.7683	8	22	36	43	20	1.75	0.19
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	16	0.24	7.9673	11	51	74	140	5	3.83	0.76
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	5	0.31	5.8306	12	43	49	62	---	---	---
AEMP-DS-09 (Goose Island)	8	0	9	0.32	4.2582	8	46	56	62	---	---	---
AEMP-DS-02 (Marine Dock)	31	0	59	0.32	0.6565	2	24	41	73	109	0.66	0.07
AEMP-US-05 (Bosworth Creek)	6	0	-5	0.41	-8.6792	-5	160	175	180	---	---	---
AEMP-US-02 (10 Mile Island)	25	0	30	0.50	0.9805	2	27	44	81	28	0.37	0.53
AEMP-US-04 (Bosworth Creek)	9	0	4	0.74	0.0000	0	160	170	180	---	---	---

Table F-3
Temporal Trend Statistical Analysis (2017-2025) - Total Dissolved Solids

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	27	0	122	0.01	8.61	2	320	430	510	-23	-0.0030	0.65
AEMP-DS-03 (Island 3)	30	0	120	0.03	4.0138	2	110	190	250	117	0.02	0.04

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-01 (Tulita/Midway Island)	12	0	26	0.08	25.09	17	96	150	210	26	0.1760	0.09
AEMP-US-03 (6 Mile Island)	9	0	12	0.21	11.22	7	130	160	190	---	---	---
AEMP-DS-05 (Radar North)	25	0	44	0.30	3.33E-08	0	88	170	200	12	0.0031	0.80
AEMP-DS-09 (Goose Island)	8	0	-8	0.38	-19.86	-10	180	205	240	---	---	---
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	11	0.43	9.96	4	200	230	290	-11	-0.0040	0.44
AEMP-DS-08 (Radar South)	6	0	-4	0.49	2.71E-09	0	160	180	180	---	---	---
AEMP-DS-02 (Marine Dock)	32	0	31	0.62	-7.75E-08	0	96	160	240	52	2.58E-07	0.41
AEMP-US-05 (Bosworth Creek)	6	0	-3	0.71	-17.36	-4	400	450	500	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	2	0.81	13.35	8	150	170	200	---	---	---
AEMP-US-04 (Bosworth Creek)	9	0	-3	0.83	-10.88	-2	380	460	510	---	---	---
AEMP-US-02 (10 Mile Island)	25	0	5	0.92	2.25E-08	0	130	170	250	-10	5.90E-08	0.83
AEMP-DS-04 (Refinery)	30	0	2	0.99	-1.09E-08	0	88	160	200	7	-5.41E-08	0.91

Table F-4
Temporal Trend Statistical Analysis (2017-2025) - Total Suspended Solids

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	27	7	-116	0.02	-0.59	-19	1	3.1	21	-34	-0.79	0.49

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-04 (Bosworth Creek)	9	2	9	0.40	1.49	65	1	2.3	30	---	---	---
AEMP-DS-05 (Radar North)	24	2	-33	0.43	-6.93	-9	1	79.5	700	-8	-0.03	0.86
AEMP-US-02 (10 Mile Island)	24	1	-28	0.50	-3.35	-6	0.99	51.5	280	-25	-0.08	0.55
AEMP-DS-06 (Fort Good Hope-Bluefish)	10	0	8	0.53	9.45	23	13	40.5	700	21	0.51	0.07
AEMP-DS-08 (Radar South)	6	0	-3	0.71	-19.88	-20	9.4	100.5	510	---	---	---
AEMP-DS-09 (Goose Island)	8	1	4	0.71	14.12	59	1	23.95	300	---	---	---
AEMP-DS-04 (Refinery)	29	2	19	0.74	2.39	3	1	86	920	54	0.13	0.32
AEMP-DS-03 (Island 3)	29	1	-16	0.78	-1.06	-2	1	61	550	61	0.09	0.26
AEMP-US-05 (Bosworth Creek)	6	1	-2	0.85	-0.20	-14	1	1.4	1.9	---	---	---
AEMP-US-01 (Tulita/Midway Island)	11	0	-2	0.94	-0.76	-6	1.1	13	440	5	0.06	0.76
AEMP-DS-02 (Marine Dock)	31	3	-5	0.946	-0.001	0	1	34	460	39	0.06	0.52
AEMP-US-03 (6 Mile Island)	8	2	1	1.00	5.25	7	1	80	480	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	0	1.00	34.89	21	22	170	370	---	---	---

Table F-5
Temporal Trend Statistical Analysis (2017-2025) - Calcium (Dissolved)

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-01 (Tulita/Midway Island)	12	0	33	0.03	3.4000	12	9.6	28.5	34	32	3.40	0.03

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-03 (Island 3)	30	0	156	0.01	1.0062	3	30	38	47	101	0.40	0.07
AEMP-DS-05 (Radar North)	25	0	88	0.04	0.7172	2	27	34	37	66	0.42	0.13
AEMP-DS-04 (Refinery)	30	0	109	0.05	0.3305	1	26	31	34	123	0.33	0.03
AEMP-DS-01 (Bosworth Creek)	26	0	67	0.14	0.6590	1	65	78.5	87	-41	-0.36	0.38
AEMP-DS-02 (Marine Dock)	32	0	90	0.15	0.4115	1	25	32	49	128	0.42	0.04
AEMP-US-05 (Bosworth Creek)	6	0	-7	0.26	-7.1174	-9	73	82.5	91	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	5	0.31	1.3456	4	34	38	39	---	---	---
AEMP-US-02 (10 Mile Island)	25	0	41	0.35	0.4099	1	25	34	47	34	0.41	0.44
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	12	0.38	1.0182	2	42	46	56	17	1.79	0.21
AEMP-US-03 (6 Mile Island)	9	0	7	0.52	0.8802	3	27	33	36	---	---	---
AEMP-DS-09 (Goose Island)	8	0	-6	0.53	-3.6058	-9	37	42	52	---	---	---
AEMP-DS-08 (Radar South)	6	0	4	0.57	2.0071	6	33	34.5	39	---	---	---
AEMP-US-04 (Bosworth Creek)	9	0	-2	0.92	-0.3184	0	75	81	93	---	---	---

Table F-6
Temporal Trend Statistical Analysis (2017-2025) - Magnesium

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-01 (Tulita/Midway Island)	12	0	44	0.003	0.8749	9	2.7	9.55	12	44	0.87	0.003

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	26	0	129	0.004	0.4943	2	24	30	34	-1	-0.005	1.00
AEMP-DS-05 (Radar North)	25	0	114	0.01	0.2619	3	7.4	9.9	12	46	0.05	0.29
AEMP-DS-03 (Island 3)	30	0	144	0.01	0.2510	2	7.7	11	13	101	0.11	0.07
AEMP-US-02 (10 Mile Island)	25	0	99	0.02	0.2513	3	7.6	10	15	40	0.08	0.36
AEMP-DS-04 (Refinery)	30	0	98	0.08	0.0736	1	7.3	9.55	11	79	0.05	0.16
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	20	0.14	1.4600	10	12	15	21	17	0.89	0.21
AEMP-DS-02 (Marine Dock)	32	0	76	0.22	0.1464	1	7.4	10	17	34	0.06	0.59
AEMP-US-04 (Bosworth Creek)	9	0	9	0.40	0.9341	3	29	32	36	---	---	---
AEMP-DS-08 (Radar South)	6	0	4	0.55	0.0862	1	9.5	10	12	---	---	---
AEMP-DS-09 (Goose Island)	8	0	-3	0.80	0.0000	0	11	12.5	14	---	---	---
AEMP-US-05 (Bosworth Creek)	6	0	2	0.85	1.0068	3	31	33	36	---	---	---
AEMP-US-03 (6 Mile Island)	9	0	1	1.00	0.0000	0	9.2	10	12	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	---	---	0.0000	0	11	11	11	---	---	---

Table F-7
Temporal Trend Statistical Analysis (2017-2025) - Aluminum

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-02 (Marine Dock)	32	0	-11	0.87	-0.0057	-1	0.024	0.63	4.4	156	0.09	0.01
AEMP-DS-03 (Island 3)	30	0	-24	0.68	-0.0349	-3	0.059	1.35	7.9	113	0.14	0.05

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	27	0	-70	0.15	-0.0026	-8	0.01	0.031	0.23	-19	-0.001	0.71
AEMP-US-02 (10 Mile Island)	25	0	-53	0.22	-0.1234	-11	0.037	1.1	4.7	12	0.03	0.80
AEMP-US-05 (Bosworth Creek)	6	0	-5	0.45	-0.0030	-17	0.014	0.0175	0.045	---	---	---
AEMP-US-04 (Bosworth Creek)	9	0	8	0.47	0.0135	24	0.024	0.055	0.4	---	---	---
AEMP-US-03 (6 Mile Island)	9	0	7	0.53	0.1530	25	0.025	0.61	6.3	---	---	---
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	9	0.53	0.3055	28	0.13	1.1	8.9	9	0.04	0.53
AEMP-US-01 (Tulita/Midway Island)	12	0	-10	0.54	-0.1278	-33	0.046	0.385	3.2	6	0.10	0.73
AEMP-DS-05 (Radar North)	25	0	-18	0.69	-0.0343	-3	0.021	1.3	8.1	52	0.13	0.23
AEMP-DS-08 (Radar South)	6	0	-3	0.71	-0.4016	-21	0.25	1.88	5.1	---	---	---
AEMP-DS-09 (Goose Island)	8	0	4	0.71	0.5478	69	0.065	0.79	4.9	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-2	0.81	-0.3955	-19	0.36	2.1	5.5	---	---	---
AEMP-DS-04 (Refinery)	30	0	-10	0.87	-0.0129	-1	0.02	1.15	8.5	75	0.13	0.19

Table F-8
Temporal Trend Statistical Analysis (2017-2025) - Arsenic

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-02 (10 Mile Island)	25	1	-91	0.04	-0.0001	-11	0.0002	0.0011	0.0039	12	1.69E-05	0.80

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	27	6	-85	0.08	0.0000	-4	0.0002	0.00026	0.0004	-36	-6.60E-06	0.46
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	12	0.39	0.0003	29	0.00043	0.00093	0.0064	17	2.58E-04	0.21
AEMP-DS-08 (Radar South)	6	0	-5	0.45	-0.0005	-27	0.0004	0.0017	0.0043	---	---	---
AEMP-DS-03 (Island 3)	30	0	-32	0.58	0.0000	-3	0.00031	0.00115	0.0068	91	9.86E-05	0.11
AEMP-US-01 (Tulita/Midway Island)	12	0	-9	0.58	0.0000	-10	0.00023	0.00046	0.0033	-2	-2.92E-05	0.95
AEMP-US-03 (6 Mile Island)	9	0	6	0.60	0.0001	15	0.00024	0.00064	0.0066	---	---	---
AEMP-DS-05 (Radar North)	25	0	-23	0.61	-0.0001	-5	0.00026	0.0011	0.0081	58	1.15E-04	0.18
AEMP-US-05 (Bosworth Creek)	6	2	-3	0.70	0.0000	-5	0.0002	0.000225	0.00025	---	---	---
AEMP-DS-02 (Marine Dock)	32	0	-17	0.80	0.0000	-2	0.00023	0.00084	0.0037	110	5.99E-05	0.08
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-2	0.81	-0.0008	-36	0.00054	0.0021	0.0038	---	---	---
AEMP-DS-04 (Refinery)	30	0	-11	0.86	0.0000	-1	0.00022	0.00125	0.0093	77	1.01E-04	0.18
AEMP-DS-09 (Goose Island)	8	0	2	0.90	0.0001	16	0.0003	0.00068	0.0036	---	---	---
AEMP-US-04 (Bosworth Creek)	9	4	-2	0.91	0.0000	-5	0.0002	0.00022	0.00048	---	---	---

Table F-9
Temporal Trend Statistical Analysis (2017-2025) - Barium

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-02 (Marine Dock)	32	0	15	0.82	0.0002	0	0.034	0.062	0.17	134	0.002	0.03
AEMP-DS-03 (Island 3)	30	0	21	0.72	0.0005	1	0.053	0.075	0.24	111	0.004	0.05

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	27	0	86	0.08	0.0007	1	0.068	0.082	0.087	26	0.0002	0.60
AEMP-US-02 (10 Mile Island)	25	0	-77	0.08	-0.0035	-5	0.035	0.075	0.16	12	0.001	0.80
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	16	0.24	0.0093	12	0.06	0.076	0.23	15	0.01	0.28
AEMP-US-03 (6 Mile Island)	9	0	9	0.40	0.0079	13	0.035	0.059	0.24	---	---	---
AEMP-US-04 (Bosworth Creek)	9	0	8	0.46	0.0030	4	0.074	0.083	0.089	---	---	---
AEMP-US-05 (Bosworth Creek)	6	0	-3	0.71	-0.0019	-2	0.075	0.0835	0.087	---	---	---
AEMP-DS-05 (Radar North)	25	0	-15	0.74	-0.0010	-1	0.039	0.072	0.33	70	0.01	0.11
AEMP-DS-04 (Refinery)	30	0	13	0.83	0.0005	1	0.035	0.0655	0.39	77	0.002	0.18
AEMP-US-01 (Tulita/Midway Island)	12	0	-3	0.89	-0.0008	-2	0.034	0.051	0.1	8	0.003	0.63
AEMP-DS-09 (Goose Island)	8	0	-2	0.90	-0.0023	-3	0.057	0.0685	0.18	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-1	1.00	-0.0056	-5	0.068	0.12	0.14	---	---	---
AEMP-DS-08 (Radar South)	6	0	1	1.00	0.0030	3	0.049	0.095	0.15	---	---	---

Table F-10
Temporal Trend Statistical Analysis (2017-2025) - Cadmium

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-02 (10 Mile Island)	25	3	-103	0.02	-1.10E-05	-16	0.00002	0.000067	0.00028	-20	-2.72E-06	0.66

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-05 (Radar North)	25	2	-32	0.47	-5.24E-06	-6	0.00002	0.000081	0.00062	35	7.863E-06	0.43
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	9	0.53	1.34E-05	13	0.000046	0.0001	0.0005	17	2.437E-05	0.21
AEMP-DS-09 (Goose Island)	8	1	6	0.54	7.16E-05	105	0.00002	0.000068	0.00023	---	---	---
AEMP-DS-03 (Island 3)	30	0	-32	0.58	-3.94E-06	-4	0.000021	0.0000985	0.0005	81	6.49E-06	0.15
AEMP-DS-08 (Radar South)	6	1	-3	0.71	-8.03E-05	-75	0.00002	0.0001075	0.00023	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-2	0.79	-4.02E-06	-3	0.000043	0.00014	0.00015	---	---	---
AEMP-DS-02 (Marine Dock)	32	4	15	0.82	7.95E-07	1	0.00002	0.0000565	0.00027	70	5.203E-06	0.26
AEMP-DS-04 (Refinery)	30	1	-10	0.87	-5.75E-07	-1	0.00002	0.0000765	0.00071	47	6.422E-06	0.41
AEMP-US-01 (Tulita/Midway Island)	12	3	2	0.94	1.98E-06	6	0.00002	0.000033	0.00017	7	1.65E-05	0.68
AEMP-US-03 (6 Mile Island)	9	2	1	1.00	1.23E-06	3	0.00002	0.000037	0.00044	---	---	---
AEMP-US-04 (Bosworth Creek)	9	9	---	---	---	---	---	---	---	---	---	---
AEMP-US-05 (Bosworth Creek)	6	6	---	---	---	---	---	---	---	---	---	---
AEMP-DS-01 (Bosworth Creek)	27	23	---	---	---	---	---	---	---	---	---	---

Table F-11
Temporal Trend Statistical Analysis (2017-2025) - Chromium

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-02 (10 Mile Island)	25	9	-42	0.32	-0.0002	-10	0.001	0.0021	0.0074	-5	-8.16E-06	0.92
AEMP-DS-05 (Radar North)	25	7	-27	0.54	-0.0001	-5	0.001	0.0023	0.014	-13	-0.0002	0.78
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	3	8	0.58	0.0007	34	0.001	0.0021	0.015	24	0.0040	0.07
AEMP-US-03 (6 Mile Island)	9	3	5	0.67	0.0005	39	0.001	0.0013	0.011	---	---	---
AEMP-DS-09 (Goose Island)	8	4	4	0.68	0.0035	295	0.001	0.00119257	0.0074	---	---	---
AEMP-DS-02 (Marine Dock)	32	13	24	0.70	0.0000	3	0.001	0.0011	0.0069	81	0.0004	0.19
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	1	-2	0.81	-0.0007	-21	0.001	0.0032	0.0086	---	---	---
AEMP-DS-08 (Radar South)	6	2	-2	0.85	-0.0017	-61	0.001	0.0028	0.0083	---	---	---
AEMP-DS-03 (Island 3)	30	8	-11	0.86	0.0000	0	0.001	0.0025	0.04	17	0.0001	0.77
AEMP-DS-04 (Refinery)	30	9	-7	0.91	0.0000	0	0.001	0.00185	0.014	7	0.0001	0.91
AEMP-US-01 (Tulita/Midway Island)	12	7	-2	0.94	0.0000	-4	0.001	0.00105499	0.0052	-3	-0.0009	0.89
AEMP-US-04 (Bosworth Creek)	9	9	---	---	---	---	---	---	---	---	---	---
AEMP-US-05 (Bosworth Creek)	6	6	---	---	---	---	---	---	---	---	---	---
AEMP-DS-01 (Bosworth Creek)	27	25	---	---	---	---	---	---	---	---	---	---

Table F-12
Temporal Trend Statistical Analysis (2017-2025) - Copper

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-02 (10 Mile Island)	25	3	-102	0.02	-0.0004	-15	0.001	0.0028	0.012	-14	-8.3E-05	0.76
AEMP-DS-01 (Bosworth Creek)	27	15	-30	0.50	0.0000	-8	0.00033	0.00064	0.001	-149	-7.39E-05	0.002

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-05 (Radar North)	25	1	-65	0.13	-0.00026	-8	0.001	0.0031	0.021	30	0.0002	0.50
AEMP-DS-03 (Island 3)	30	0	-47	0.41	-0.00020	-6	0.0013	0.0035	0.019	71	0.0002	0.21
AEMP-US-01 (Tulita/Midway Island)	12	4	-9	0.57	-0.00039	-26	0.001	0.0015	0.0072	-10	-0.0012	0.53
AEMP-US-03 (6 Mile Island)	9	1	6	0.60	0.00030	19	0.001	0.0016	0.015	---	---	---
AEMP-DS-08 (Radar South)	6	0	-3	0.71	-0.00110	-22	0.001	0.00495	0.011	---	---	---
AEMP-DS-09 (Goose Island)	8	0	-4	0.71	-0.00065	-27	0.0012	0.00245	0.01	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-2	0.81	-0.00199	-37	0.0016	0.0054	0.011	---	---	---
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	2	0.94	0.00051	16	0.0018	0.0032	0.02	3	0.0005	0.88
AEMP-DS-02 (Marine Dock)	32	1	-1	1.00	0.00000	0	0.00095	0.0024	0.01	95	0.0001	0.13
AEMP-DS-04 (Refinery)	30	1	-1	1.00	0.00000	0	0.001	0.00345	0.021	73	0.0003	0.20
AEMP-US-05 (Bosworth Creek)	6	6	---	---	---	---	---	---	---	---	---	---
AEMP-US-04 (Bosworth Creek)	9	8	---	---	---	---	---	---	---	---	---	---

Table F-13
Temporal Trend Statistical Analysis (2017-2025) - Iron

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	27	2	-108	0.03	-0.0075	-7	0.06	0.11	0.57	8	0.0002	0.88

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-02 (10 Mile Island)	25	1	-63	0.15	-0.2027	-12	0.06	1.7	11	35	0.13	0.43
AEMP-US-05 (Bosworth Creek)	6	2	8	0.18	0.0599	89	0.06	0.0675	0.12	---	---	---
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	17	0.21	1.4754	78	0.12	1.9	19	19	1.53	0.16
AEMP-US-04 (Bosworth Creek)	9	1	12	0.25	0.0453	32	0.06	0.14	0.75	---	---	---
AEMP-DS-05 (Radar North)	25	3	-41	0.35	-0.1366	-7	0.06	2	21	31	0.32	0.48
AEMP-DS-03 (Island 3)	30	0	-44	0.44	-0.0957	-4	0.078	2.2	16	91	0.27	0.11
AEMP-US-01 (Tulita/Midway Island)	12	0	-12	0.45	-0.1816	-32	0.085	0.56	6.6	8	0.10	0.63
AEMP-DS-09 (Goose Island)	8	0	6	0.54	0.5393	55	0.089	0.975	10	---	---	---
AEMP-US-03 (6 Mile Island)	9	3	5	0.67	0.8316	88	0.06	0.95	15	---	---	---
AEMP-DS-02 (Marine Dock)	32	3	-27	0.67	-0.0324	-3	0.06	1.1	9	55	0.11	0.38
AEMP-DS-04 (Refinery)	30	2	-22	0.71	-0.0431	-2	0.06	1.9	24	66	0.32	0.25
AEMP-DS-08 (Radar South)	6	0	-2	0.85	-1.2700	-35	0.32	3.65	11	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	0	1.00	-0.0020	0	0.6	4.7	10	---	---	---

Table F-14
Temporal Trend Statistical Analysis (2017-2025) - Molybdenum

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-02 (Marine Dock)	32	0	61	0.33	1.78E-05	2	0.00055	0.00098	0.0027	160	3.65E-05	0.01
AEMP-DS-04 (Refinery)	30	0	56	0.33	1.39E-05	1	0.0006	0.000995	0.0068	127	5.158E-05	0.02

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-03 (Island 3)	30	0	89	0.11	2.69E-05	2	0.00076	0.0013	0.0027	109	2.692E-05	0.05
AEMP-DS-01 (Bosworth Creek)	27	0	69	0.15	2.11E-05	1	0.0016	0.0019	0.0059	37	1.117E-05	0.45
AEMP-US-05 (Bosworth Creek)	6	0	-5	0.37	7.17E-08	0	0.0016	0.0019	0.002	---	---	---
AEMP-US-01 (Tulita/Midway Island)	12	0	13	0.41	2.81E-05	4	0.00057	0.0008	0.0014	-2	-3.68E-06	0.95
AEMP-US-04 (Bosworth Creek)	9	0	-7	0.48	4.23E-08	0	0.0018	0.0021	0.0021	---	---	---
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	8	0.57	-1.51E-08	0	0.00089	0.0012	0.0023	9	4.724E-07	0.53
AEMP-DS-05 (Radar North)	25	0	14	0.76	1.27E-09	0	0.00058	0.0011	0.0025	60	3.297E-05	0.17
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-2	0.81	-1.43E-04	-11	0.001	0.0013	0.0019	---	---	---
AEMP-US-03 (6 Mile Island)	9	0	2	0.92	5.80E-05	6	0.00057	0.001	0.0019	---	---	---
AEMP-US-02 (10 Mile Island)	25	0	-1	1.00	-2.12E-08	0	0.00044	0.0011	0.0019	26	2.292E-05	0.56
AEMP-DS-09 (Goose Island)	8	0	0	1.00	7.88E-09	0	0.0011	0.0012	0.0025	---	---	---
AEMP-DS-08 (Radar South)	6	0	-1	1.00	2.60E-08	0	0.00087	0.00125	0.0019	---	---	---

Table F-15
Temporal Trend Statistical Analysis (2017-2025) - Nickel

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	27	2	-99	0.04	-3.93E-05	-5	0.0005	0.00082	0.0036	-98	-4.01E-05	0.04

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-US-02 (10 Mile Island)	25	0	-81	0.06	-0.0005	-12	0.00078	0.0045	0.017	-12	-4.75E-05	0.80
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	22	0.10	0.0022	39	0.0023	0.0056	0.031	21	2.62E-03	0.12
AEMP-DS-05 (Radar North)	25	0	-49	0.26	-0.0003	-6	0.00073	0.0044	0.031	46	3.31E-04	0.29
AEMP-US-05 (Bosworth Creek)	6	1	-5	0.45	-0.0004	-69	0.0005	0.000625	0.0011	---	---	---
AEMP-US-03 (6 Mile Island)	9	0	8	0.47	0.0006	27	0.00071	0.0023	0.021	---	---	---
AEMP-US-04 (Bosworth Creek)	9	0	-6	0.60	0.0000	-6	0.0006	0.00072	0.0018	---	---	---
AEMP-DS-03 (Island 3)	30	0	-29	0.62	-0.0001	-3	0.0015	0.00485	0.026	41	2.09E-04	0.48
AEMP-DS-08 (Radar South)	6	0	-3	0.71	-0.0014	-23	0.0016	0.0061	0.017	---	---	---
AEMP-US-01 (Tulita/Midway Island)	12	0	-5	0.78	-0.0002	-15	0.00071	0.0015	0.011	10	2.03E-04	0.54
AEMP-DS-09 (Goose Island)	8	0	3	0.80	0.0011	32	0.0018	0.0034	0.016	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-2	0.81	-0.0019	-26	0.0022	0.0076	0.017	---	---	---
AEMP-DS-04 (Refinery)	30	0	-11	0.86	0.0000	-1	0.00071	0.0047	0.03	87	3.54E-04	0.12
AEMP-DS-02 (Marine Dock)	32	0	2	0.99	0.0000	0	0.0011	0.00355	0.014	114	2.52E-04	0.07

Table F-16
Temporal Trend Statistical Analysis (2017-2025) - Selenium

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-04 (Refinery)	30	3	60	0.29	1.30E-05	3	0.0002	0.00039	0.00099	118	2.71E-05	0.04

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-01 (Bosworth Creek)	27	16	-62	0.14	-1.02E-05	-6	0.0002	0.00017206	0.00032	-57	-2.13E-05	0.23
AEMP-US-02 (10 Mile Island)	25	4	-64	0.14	-2.23E-05	-6	0.0002	0.00038	0.00067	4	4.11E-07	0.94
AEMP-DS-03 (Island 3)	30	0	81	0.15	1.06E-05	2	0.0003	0.000475	0.00081	105	1.49E-05	0.06
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-4	0.46	-1.19E-04	-24	0.00039	0.0005	0.00065	---	---	---
AEMP-US-04 (Bosworth Creek)	9	3	-5	0.67	-5.11E-06	-2	0.0002	0.00022	0.00025	---	---	---
AEMP-US-01 (Tulita/Midway Island)	12	5	6	0.72	2.84E-05	11	0.0002	0.00025	0.00047	8	1.93E-05	0.62
AEMP-US-03 (6 Mile Island)	9	1	4	0.75	4.54E-05	14	0.0002	0.00033	0.00099	---	---	---
AEMP-DS-02 (Marine Dock)	32	3	20	0.76	4.92E-06	2	0.0002	0.000325	0.00073	110	1.36E-05	0.08
AEMP-DS-05 (Radar North)	25	2	-5	0.93	-3.56E-08	0	0.0002	0.00041	0.00082	61	1.66E-05	0.16
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	-2	0.94	-5.17E-06	-1	0.00046	0.00055	0.00094	1	6.53E-06	1.00
AEMP-DS-09 (Goose Island)	8	0	0	1.00	4.59E-06	1	0.0004	0.00048	0.00077	---	---	---
AEMP-DS-08 (Radar South)	6	0	-1	1.00	-1.00E-04	-20	0.00028	0.00049	0.00065	---	---	---
AEMP-US-05 (Bosworth Creek)	6	5	1	1.00	3.18E-05	14	0.0002	0.00023	0.00023	---	---	---

Table F-17
Temporal Trend Statistical Analysis (2017-2025) - Uranium

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-04 (Refinery)	30	0	79	0.16	2.28E-05	3	0.00044	0.00079	0.0019	135	3.73E-05	0.02
AEMP-DS-02 (Marine Dock)	32	0	96	0.12	2.13E-05	3	0.00036	0.000745	0.0012	132	2.86E-05	0.03
AEMP-DS-03 (Island 3)	30	0	97	0.08	2.66E-05	3	0.00057	0.000975	0.0014	111	2.71E-05	0.05

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-05 (Radar North)	25	0	41	0.35	1.82E-05	2	0.00059	0.00087	0.0015	60	2.07E-05	0.17
AEMP-US-05 (Bosworth Creek)	6	0	-5	0.41	-8.68E-05	-7	0.0011	0.0012	0.0013	---	---	---
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	0	7	0.62	4.64E-09	0	0.00089	0.001	0.0017	15	2.96E-05	0.28
AEMP-US-02 (10 Mile Island)	25	0	-20	0.66	-5.90E-06	-1	0.00032	0.00085	0.0011	26	5.12E-06	0.56
AEMP-US-04 (Bosworth Creek)	9	0	-2	0.91	6.74E-08	0	0.0011	0.0012	0.0014	---	---	---
AEMP-US-01 (Tulita/Midway Island)	12	0	2	0.95	2.26E-05	4	0.00044	0.000625	0.00094	-6	-2.21E-05	0.73
AEMP-DS-01 (Bosworth Creek)	27	0	-3	0.97	-5.15E-08	0	0.001	0.0012	0.0016	41	1.57E-06	0.40
AEMP-US-03 (6 Mile Island)	9	0	1	1.00	2.58E-05	3	0.00046	0.00077	0.0013	---	---	---
AEMP-DS-09 (Goose Island)	8	0	-1	1.00	-3.18E-05	-3	0.00084	0.00105	0.0014	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-1	1.00	-4.22E-05	-4	0.00086	0.0011	0.0012	---	---	---
AEMP-DS-08 (Radar South)	6	0	0	1.00	-6.16E-08	0	0.00072	0.00101	0.0014	---	---	---

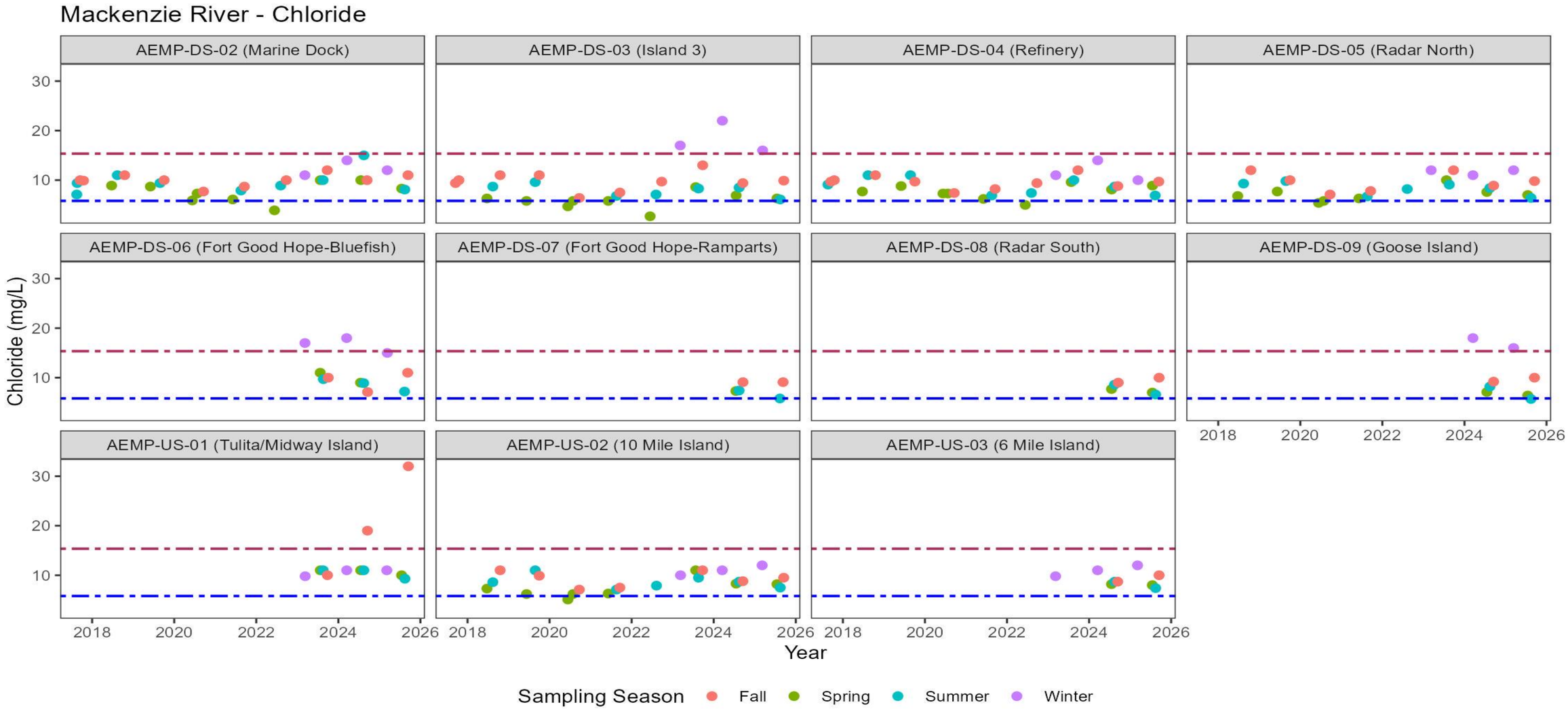
Table F-18
Temporal Trend Statistical Analysis (2017-2025) - Zinc

Filtered Trend Results, two-sided p-value < 0.05 And Normalized Slope > ± 5%/Year, or Flow Corrected two-sided p-value < 0.05

Location	Count		Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-02 (Marine Dock)	32	3	46	0.46	0.0003	3	0.003	0.011	0.1	124	0.002	0.05
AEMP-US-02 (10 Mile Island)	25	5	-91	0.03	-0.0015	-15	0.003	0.0097	0.099	-21	-0.001	0.64

Kendall Analysis, Sorted by two-sided p-value (Uncorrected for river flow)

Location	Count	Count of Non-Detects	Kendall S	Two-sided p-value (for MK test)	Slope (mg/L/year)	Normalized Slope (%/year)	Min (mg/L)	Median (mg/L)	Max (mg/L)	Kendall S of ATS on Residuals	Flow Corrected Slope	Flow Corrected p-value
AEMP-DS-06 (Fort Good Hope-Bluefish)	11	1	16	0.24	0.0114	71	0.003	0.016	0.12	17	0.026	0.21
AEMP-US-03 (6 Mile Island)	9	3	8	0.45	0.0019	43	0.003	0.0044	0.24	---	---	---
AEMP-DS-05 (Radar North)	25	2	-32	0.47	-0.0007	-6	0.003	0.012	0.11	41	0.003	0.35
AEMP-DS-03 (Island 3)	30	3	-37	0.52	-0.0010	-6	0.003	0.0165	0.092	44	0.002	0.44
AEMP-US-01 (Tulita/Midway Island)	12	5	-8	0.61	-0.0016	-41	0.003	0.00405	0.052	-14	-0.012	0.36
AEMP-DS-08 (Radar South)	6	1	-3	0.71	-0.0208	-51	0.003	0.0405	0.078	---	---	---
AEMP-DS-07 (Fort Good Hope-Ramparts)	5	0	-2	0.81	-0.0387	-70	0.004	0.055	0.07	---	---	---
AEMP-DS-04 (Refinery)	30	2	13	0.83	0.0001	1	0.003	0.01105	0.17	81	0.003	0.15
AEMP-DS-09 (Goose Island)	8	2	1	1.00	0.0042	54	0.003	0.00775	0.077	---	---	---
AEMP-DS-01 (Bosworth Creek)	27	23	---	---	---	---	---	---	---	---	---	---
AEMP-US-04 (Bosworth Creek)	9	8	---	---	---	---	---	---	---	---	---	---
AEMP-US-05 (Bosworth Creek)	6	6	---	---	---	---	---	---	---	---	---	---



Open circles denote values below detection
CCME Freshwater Aquatic Life Guideline of 120 mg/L is not presented
Federal Environmental Quality Guideline has not been established for chloride

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CHLORIDE CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No. F-1
REV A

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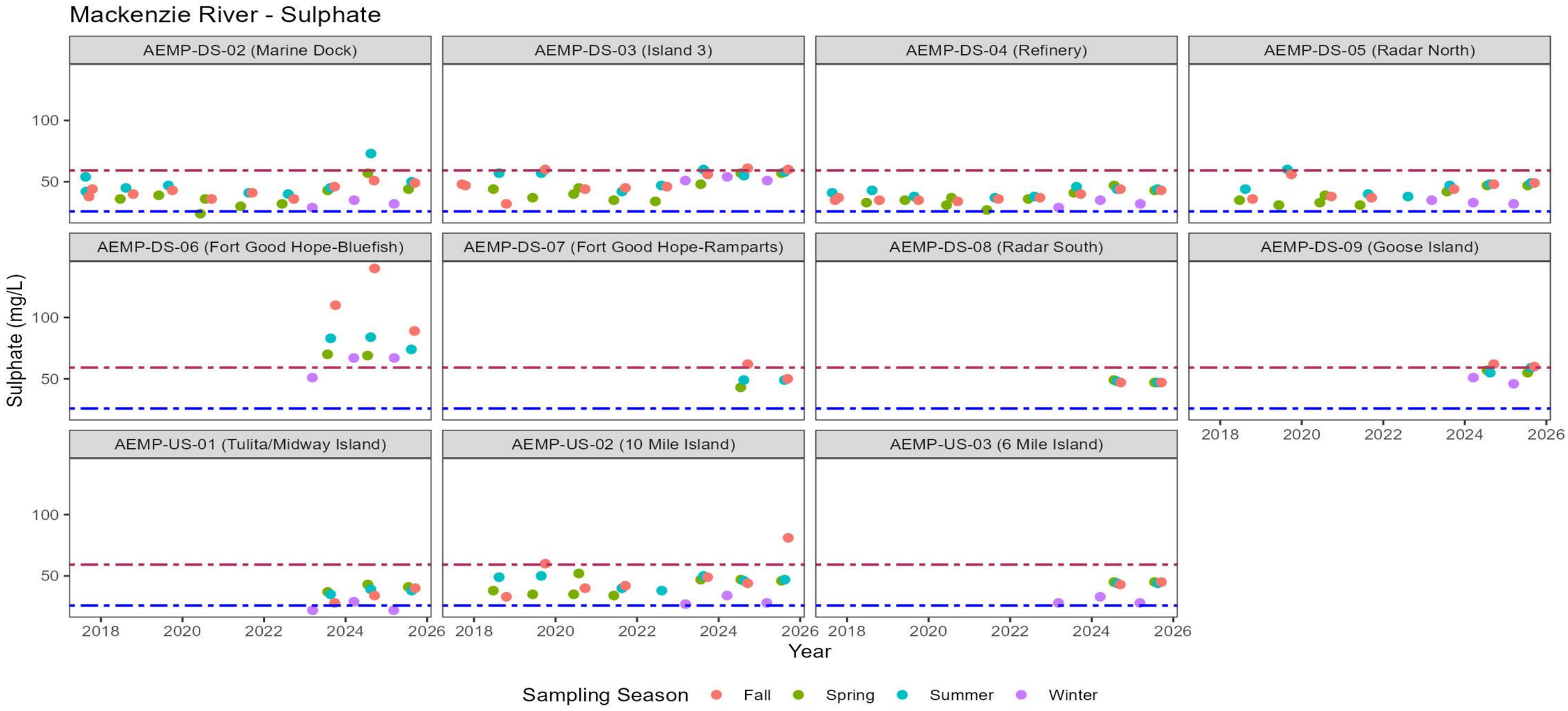

Upper Control Limit

Lower Control Limit

Open circles denote values below detection
Regulatory guidelines applied during the NW AEMP do not have water quality criteria for sulphate
Control Limits are based on concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations

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SULPHATE CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No. F-2 | REV A

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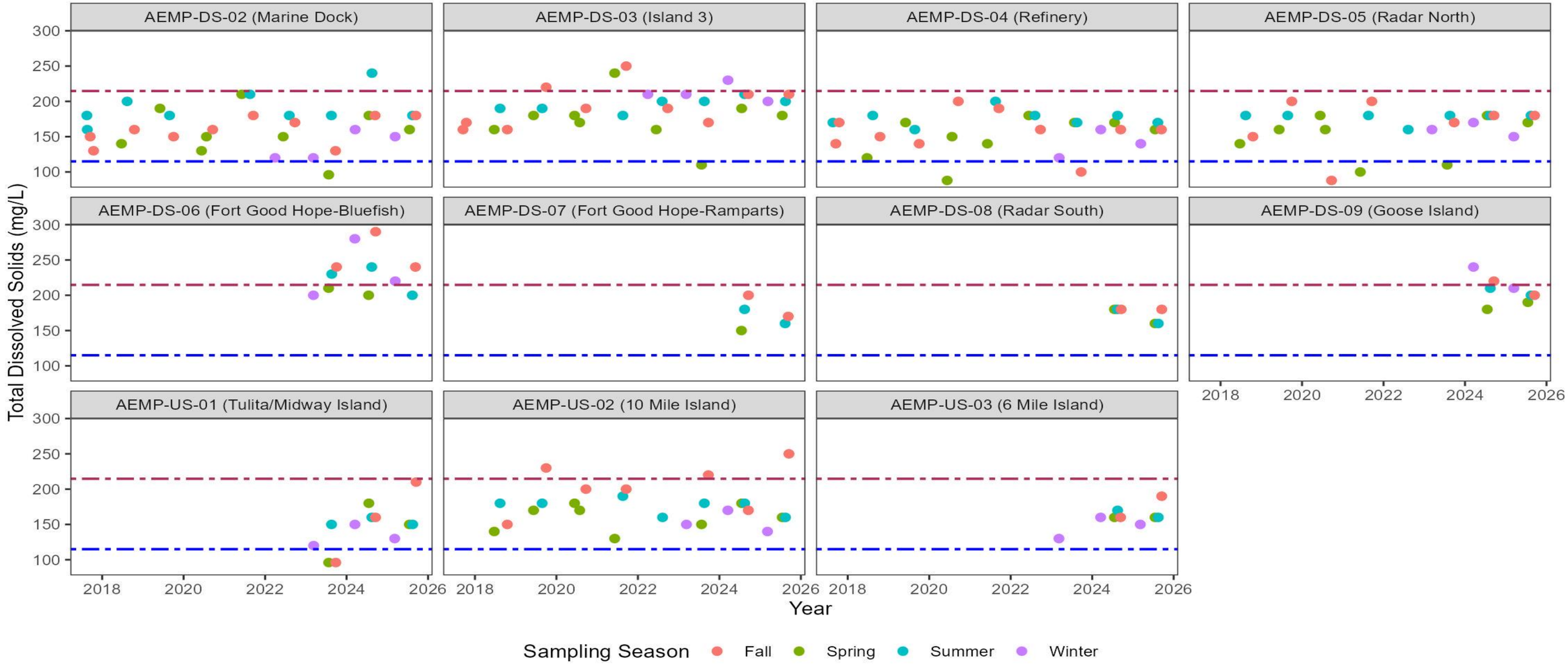
Mackenzie River - Total Dissolved Solids



Upper Control Limit

Lower Control Limit

Open circles denote values below detection
Regulatory guidelines applied during the NW AEMP do not have water quality criteria for total dissolved solids
Control Limits are based on concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations

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TOTAL DISSOLVED SOLIDS CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No.: F-3

REV: A

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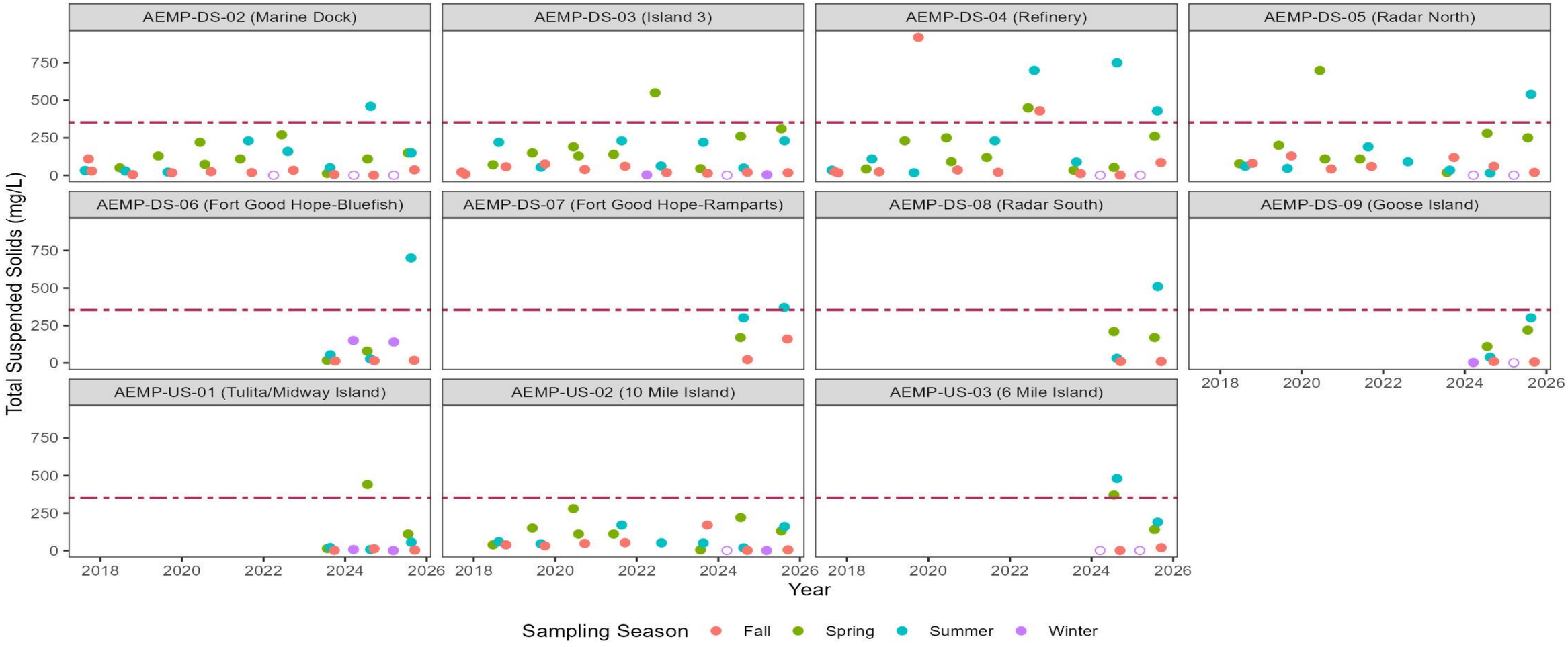
Mackenzie River - Total Suspended Solids



Upper Control Limit

Lower Control Limit

Open circles denote values below detection
Control Limits are based on concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
Lower control limit is a negative value and is not presented

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TOTAL SUSPENDED SOLIDS CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No.: F-4

REV: A

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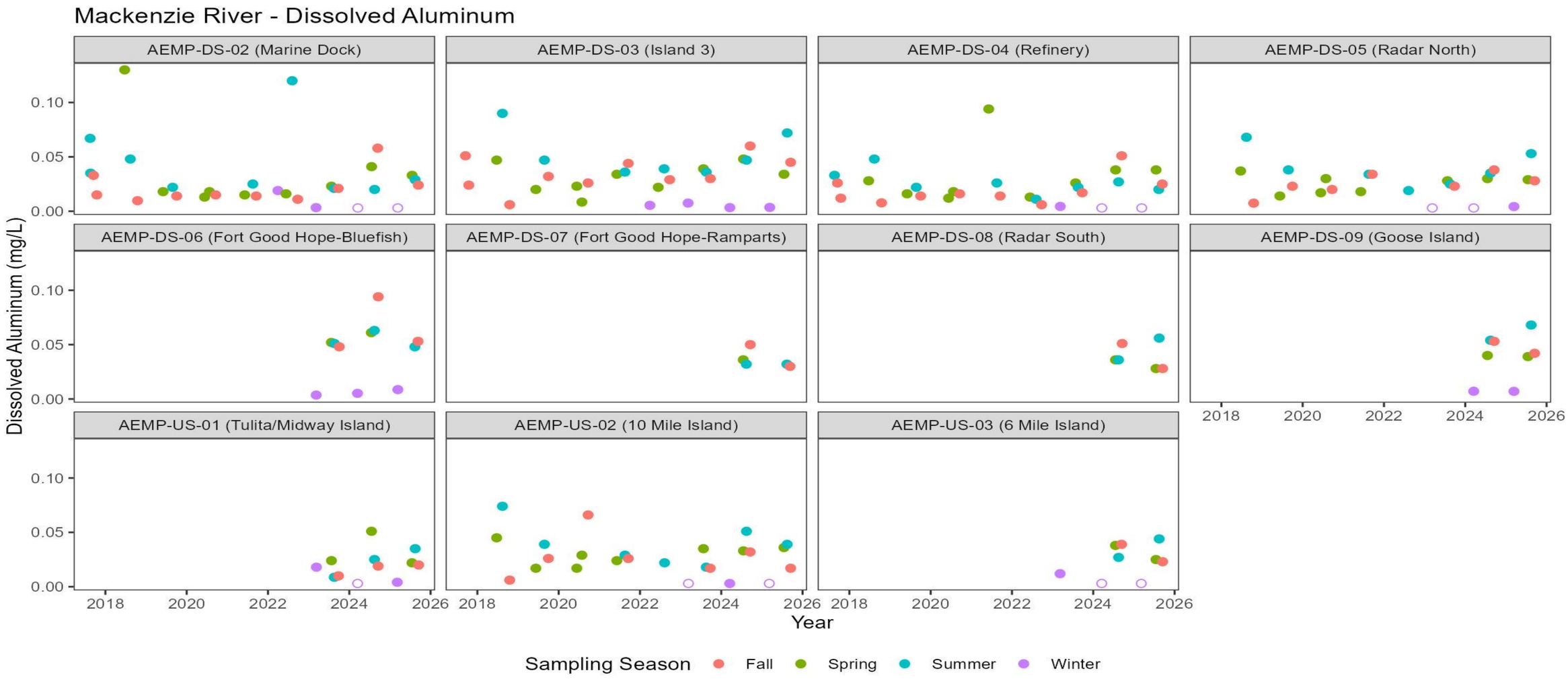

Open circles denote values below detection

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DISSOLVED ALUMINUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No.: F-5

REV: A

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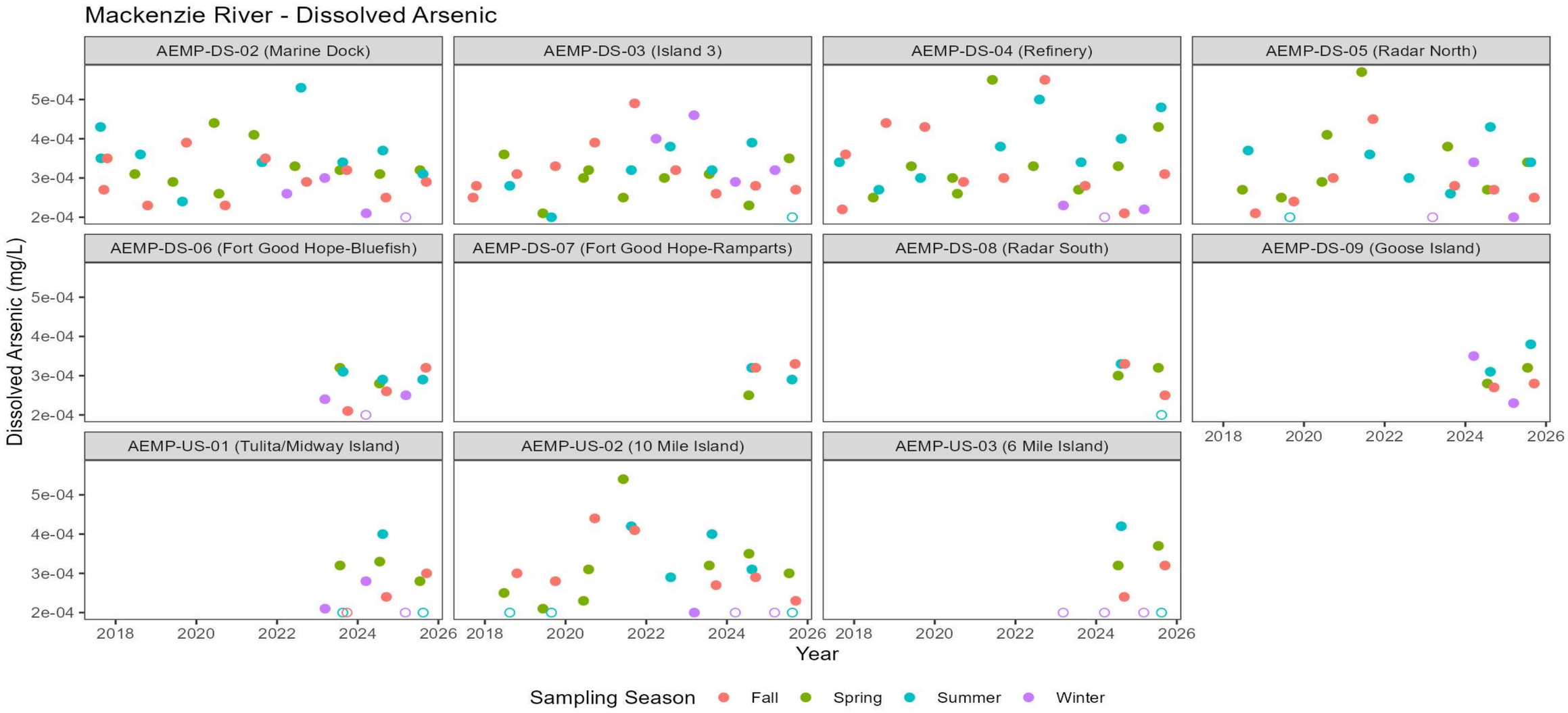

Open circles denote values below detection

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DISSOLVED ARSENIC CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No.: F-6

REV: A

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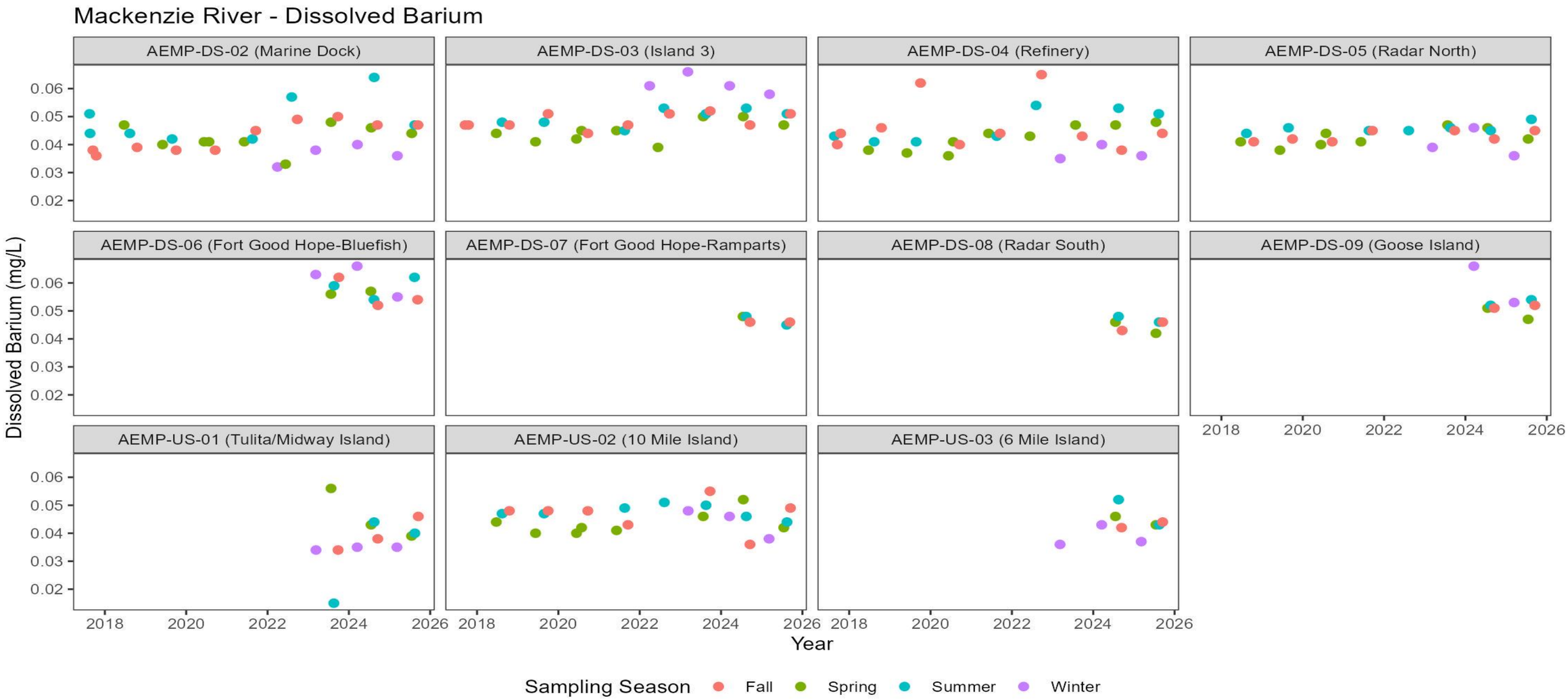

Open circles denote values below detection

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DISSOLVED BARIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No. F-7 | REV A

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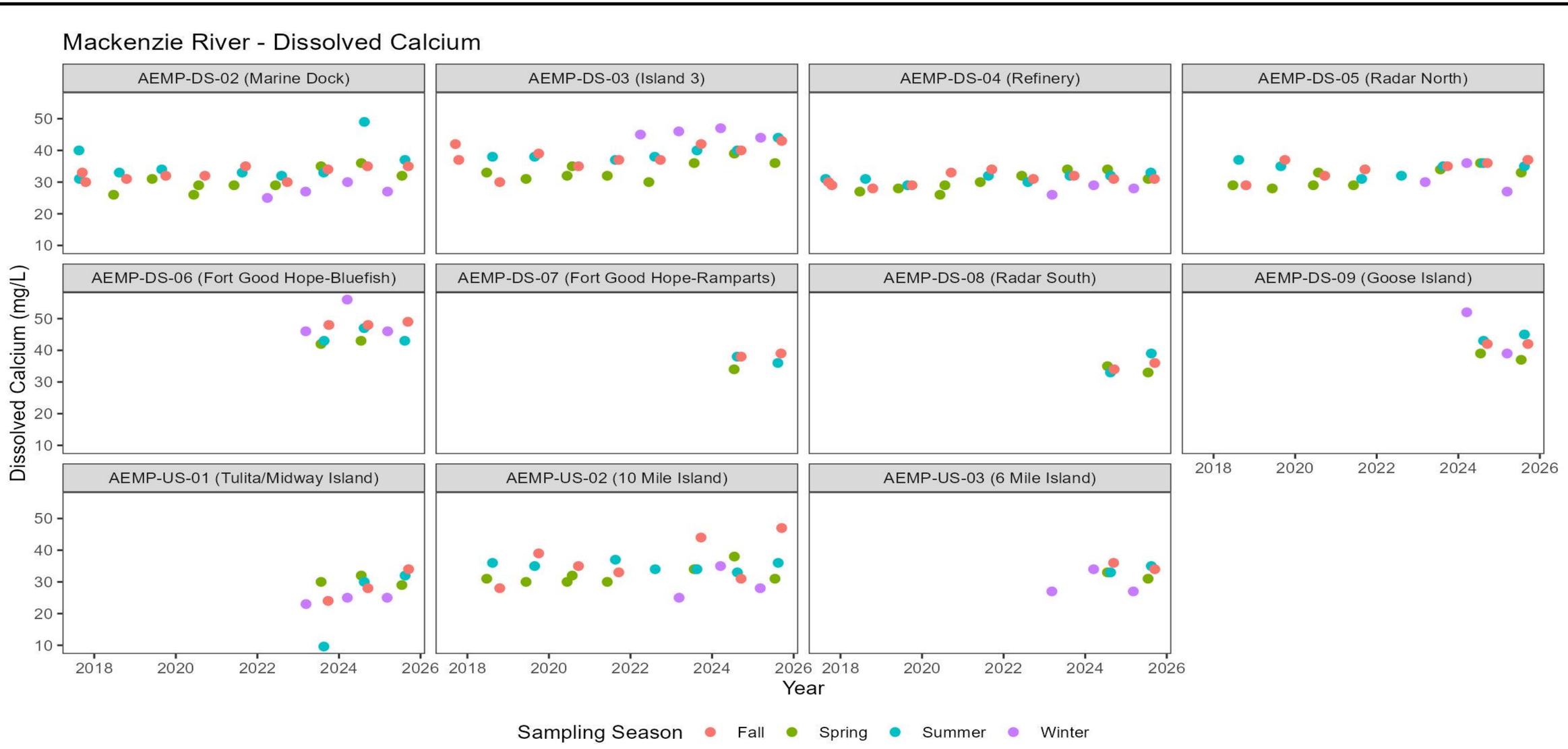

Open circles denote values below detection

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DISSOLVED CALCIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No.: F-8 REV: A

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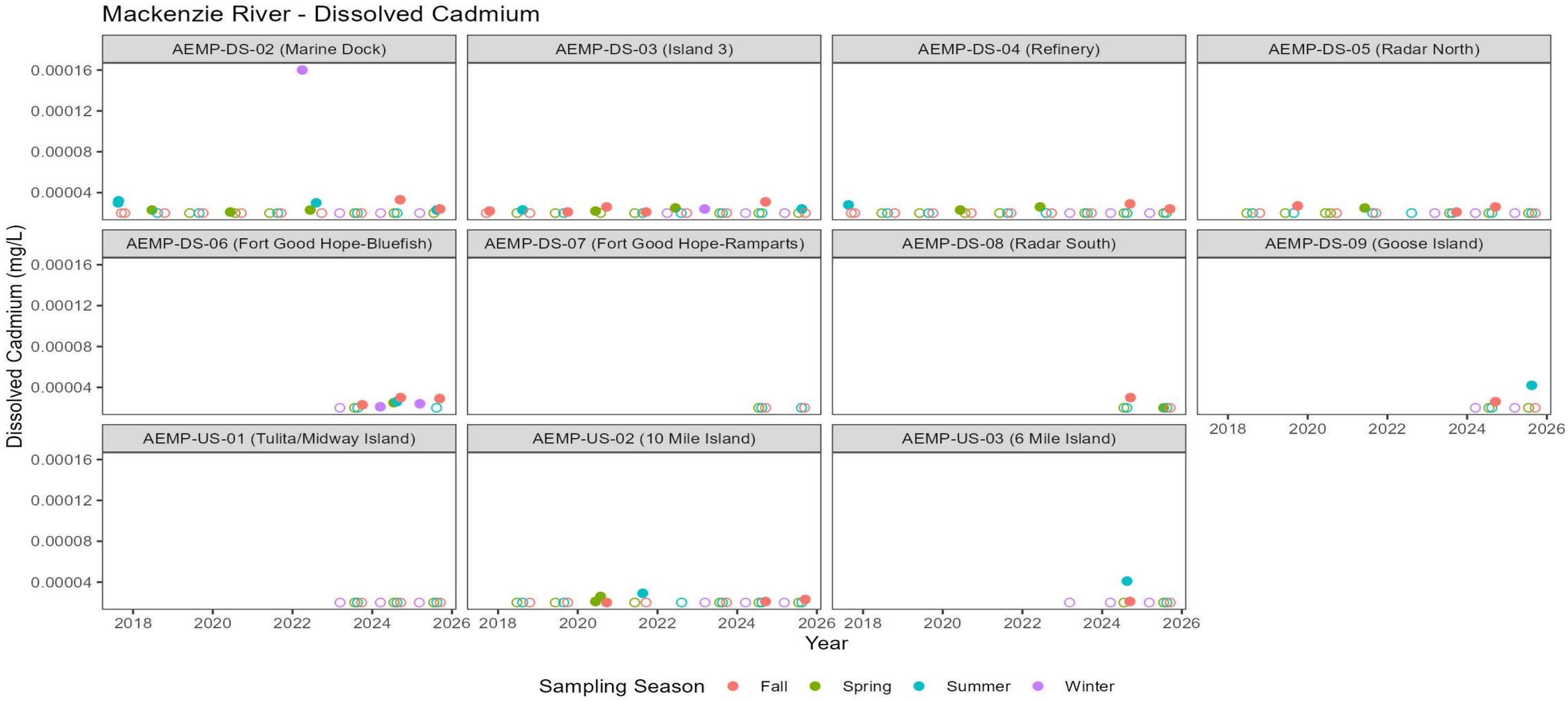

Open circles denote values below detection

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DISSOLVED CADMIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No.: F-9

REV: A

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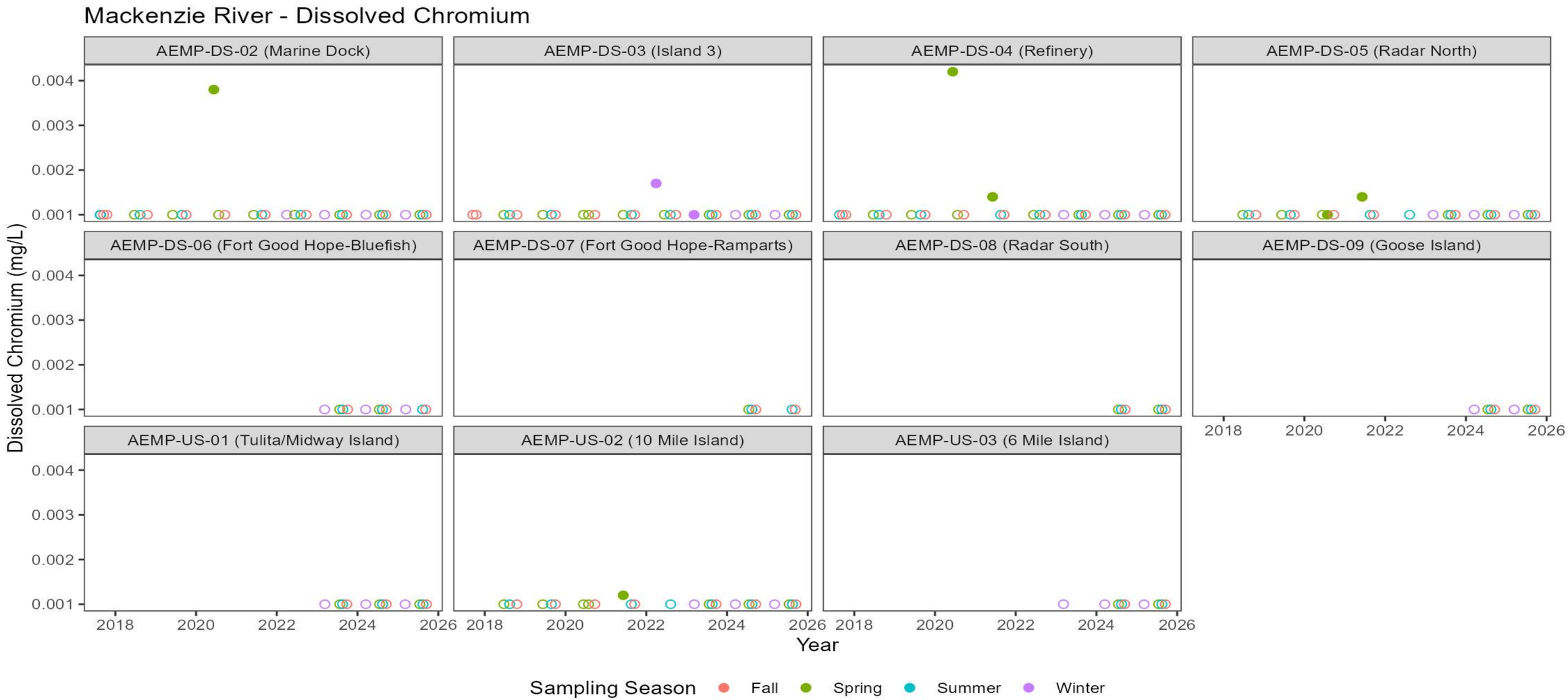

Open circles denote values below detection

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DISSOLVED CHROMIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No.: F-10

REV: A

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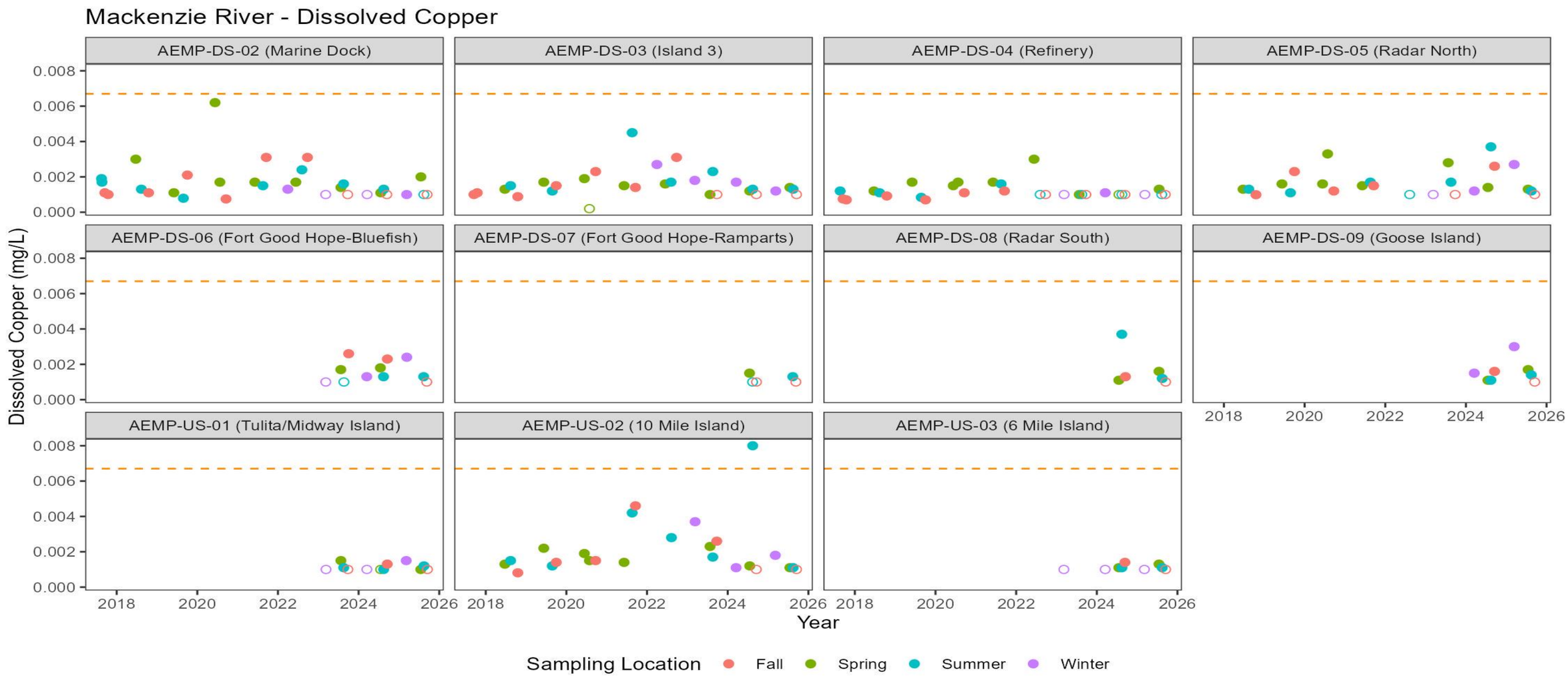

Open circles denote values below detection
CCME Freshwater Aquatic Life Guideline is based on the total copper fraction and is not presented
Federal Environmental Quality Guideline of 0.0067 mg/L is based on the dissolved fraction using the biotic ligand model (BLM) tool
Canadian Drinking Water Quality Guideline of 2 mg/L is not presented

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DISSOLVED COPPER CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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FIG No.: F-11 REV: A

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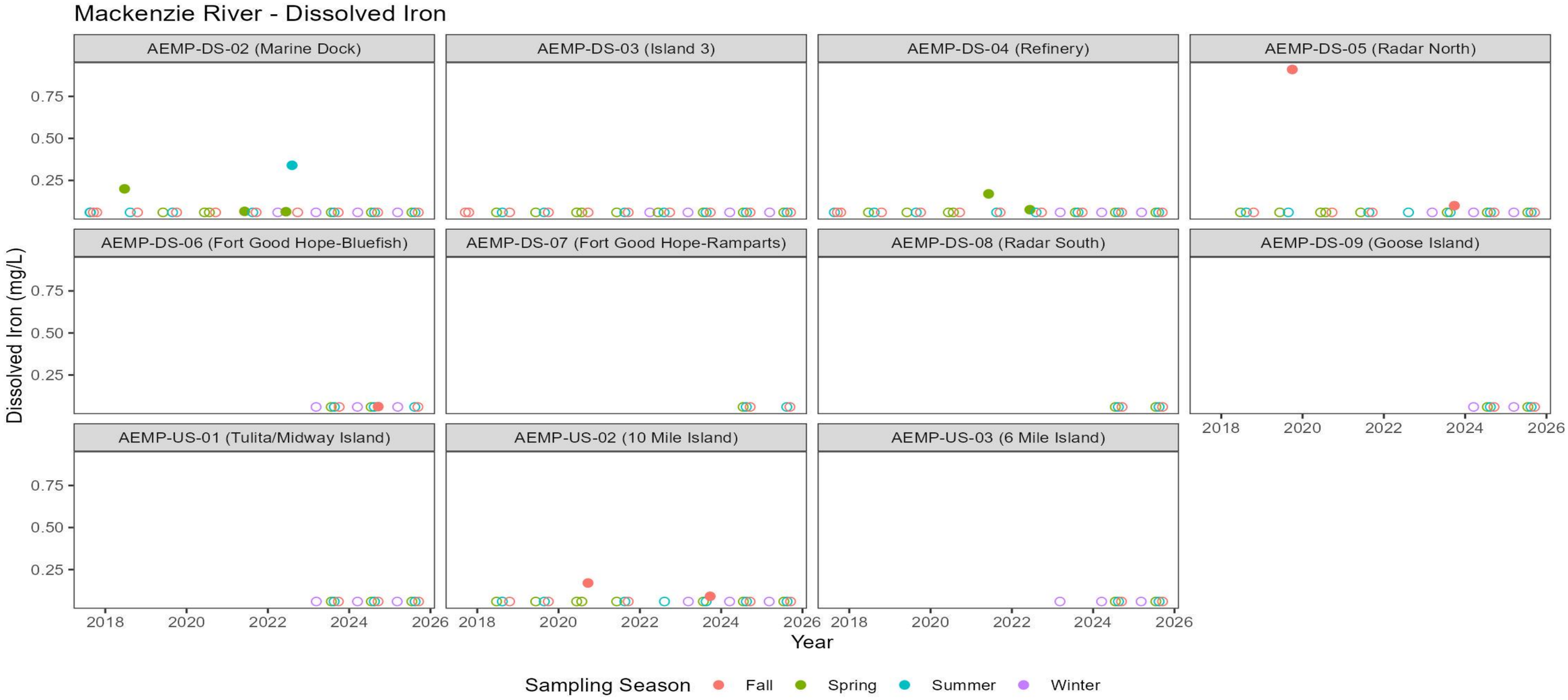

Open circles denote values below detection

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DISSOLVED IRON CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-12

REV: A

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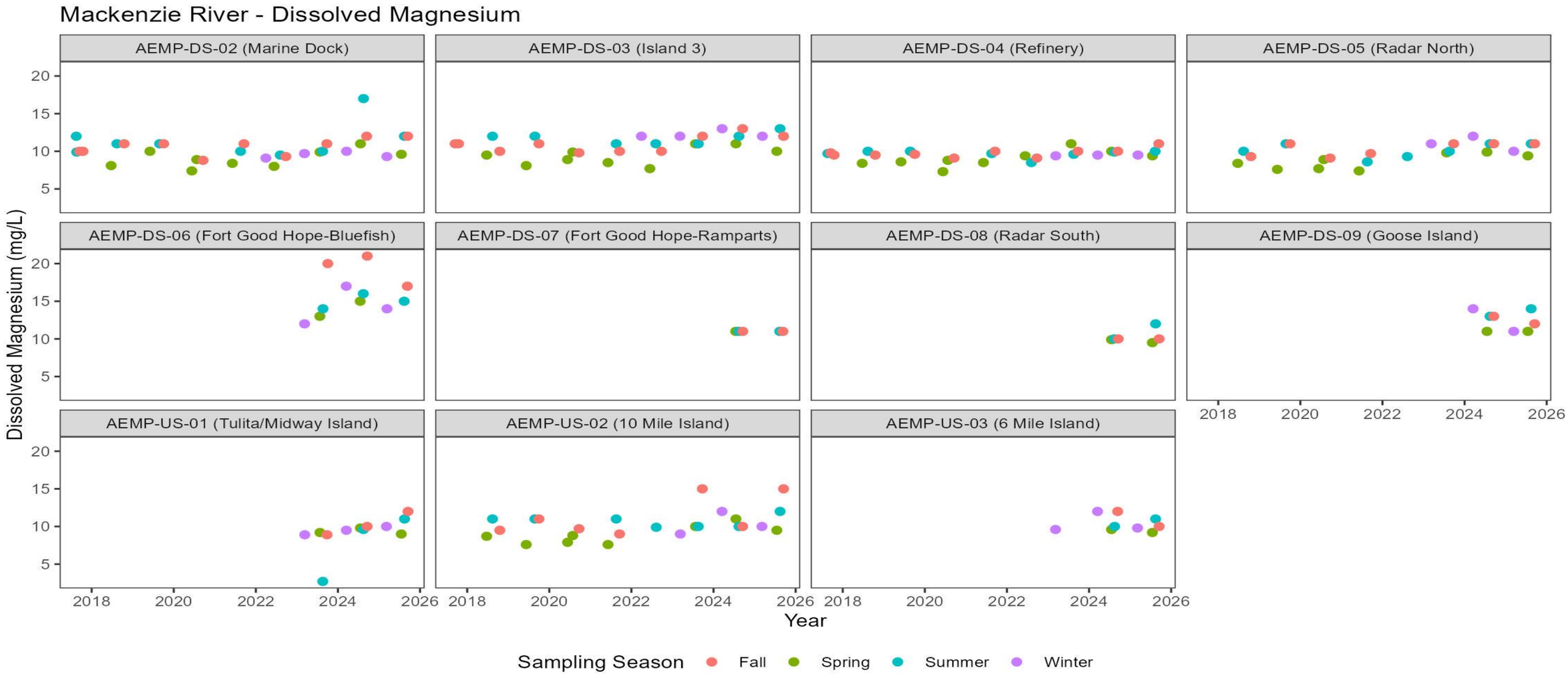

Open circles denote values below detection

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DISSOLVED MAGNESIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-13

REV: A

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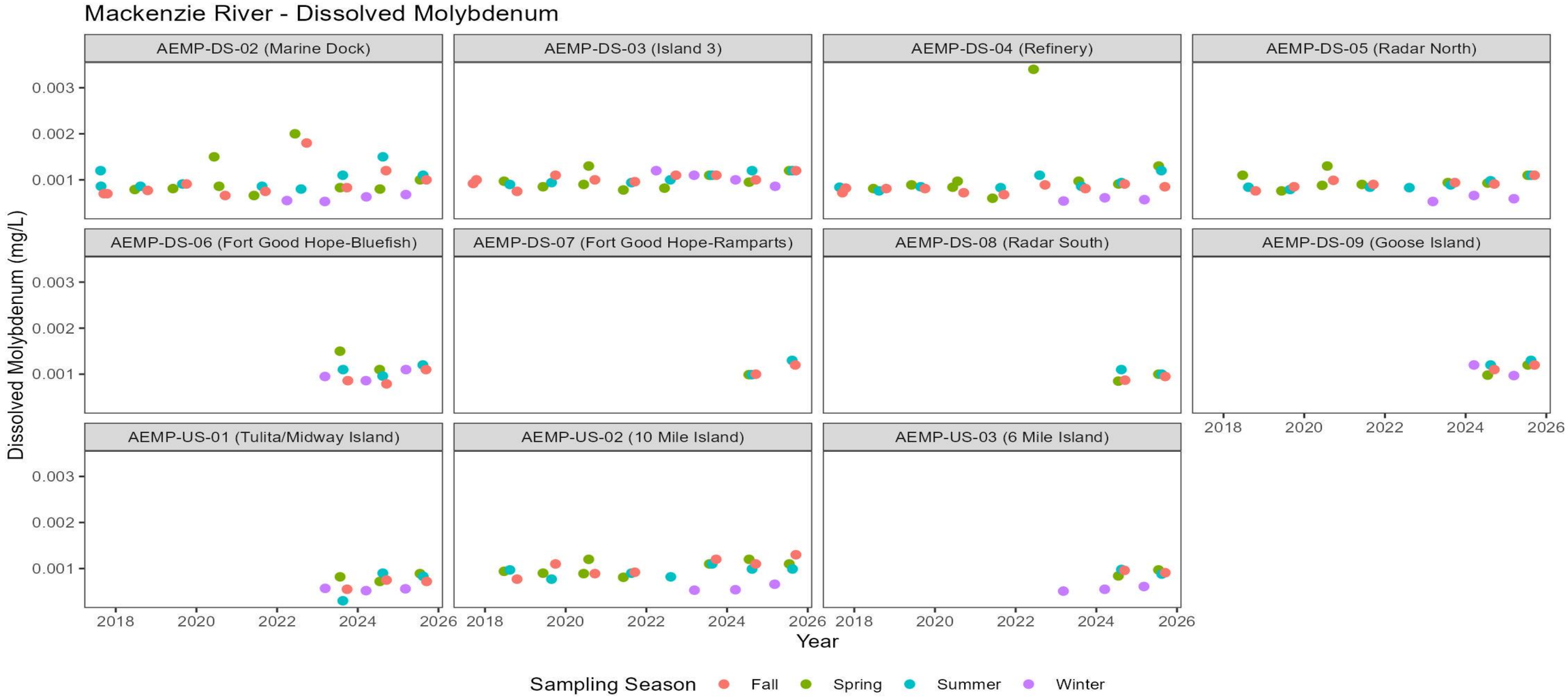

Open circles denote values below detection

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

DISSOLVED MOLYBDENUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-14

REV: A

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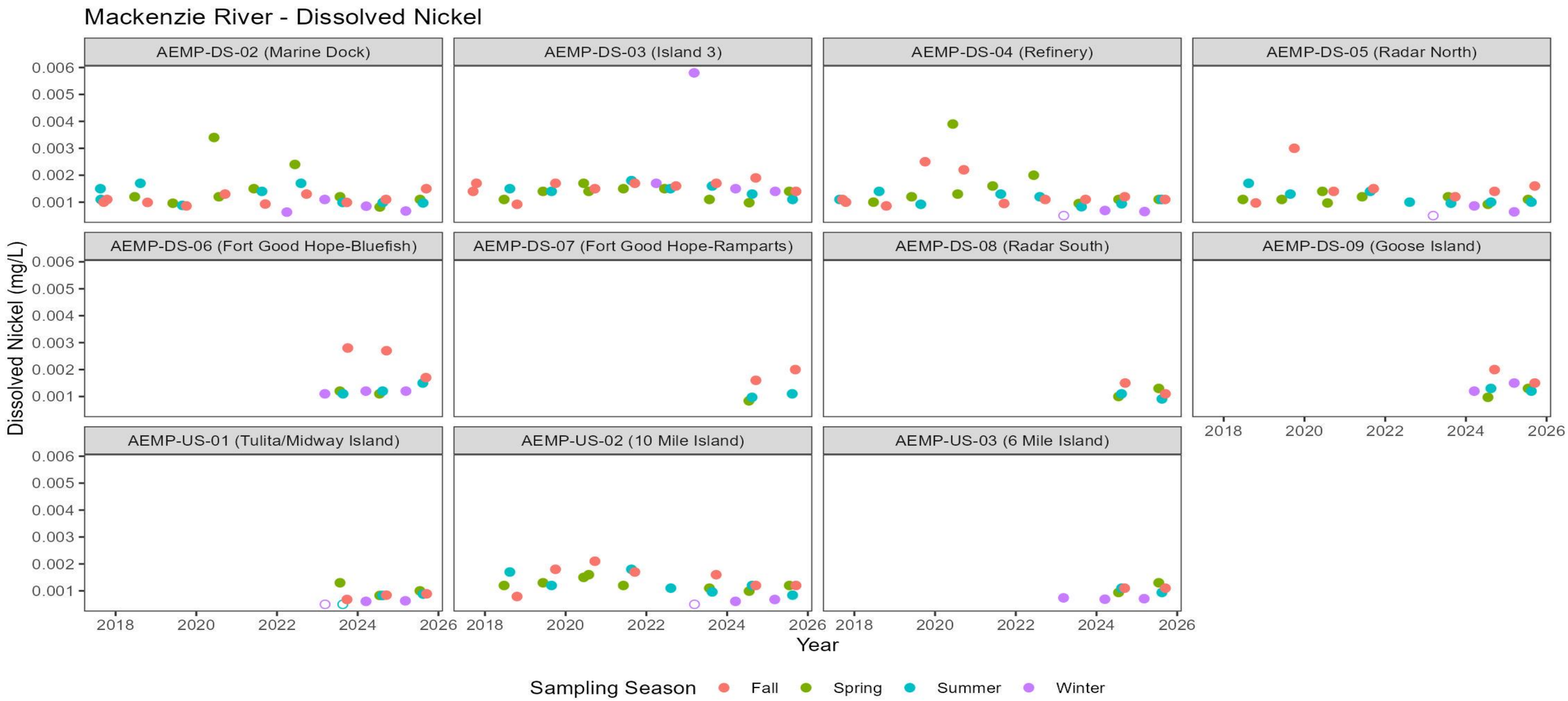

Open circles denote values below detection

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NORMAN WELLS, NT

DISSOLVED NICKEL CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

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WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-15

REV: A

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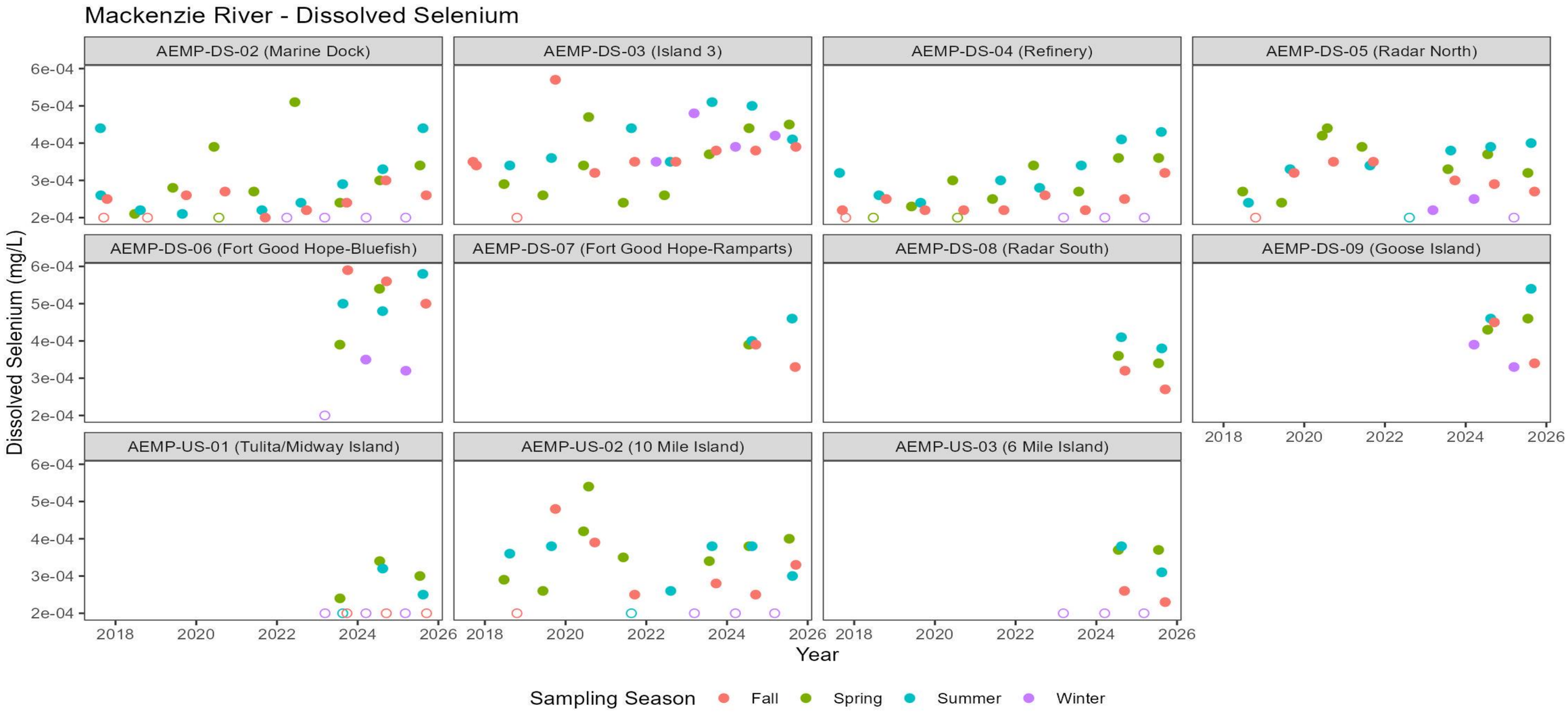
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

DISSOLVED SELENIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-16

REV: A

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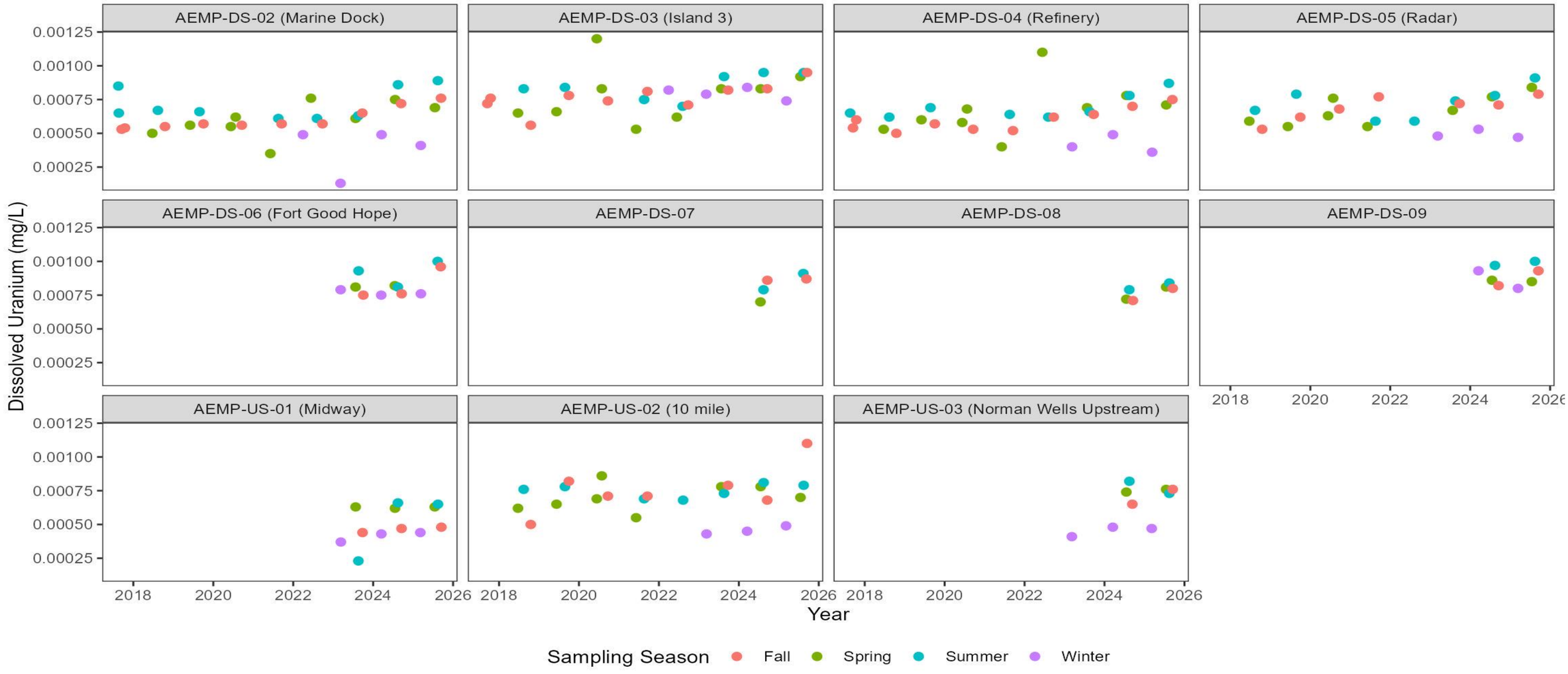
Mackenzie River - Dissolved Uranium



Open circles denote values below detection

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

DISSOLVED URANIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-17

REV: A

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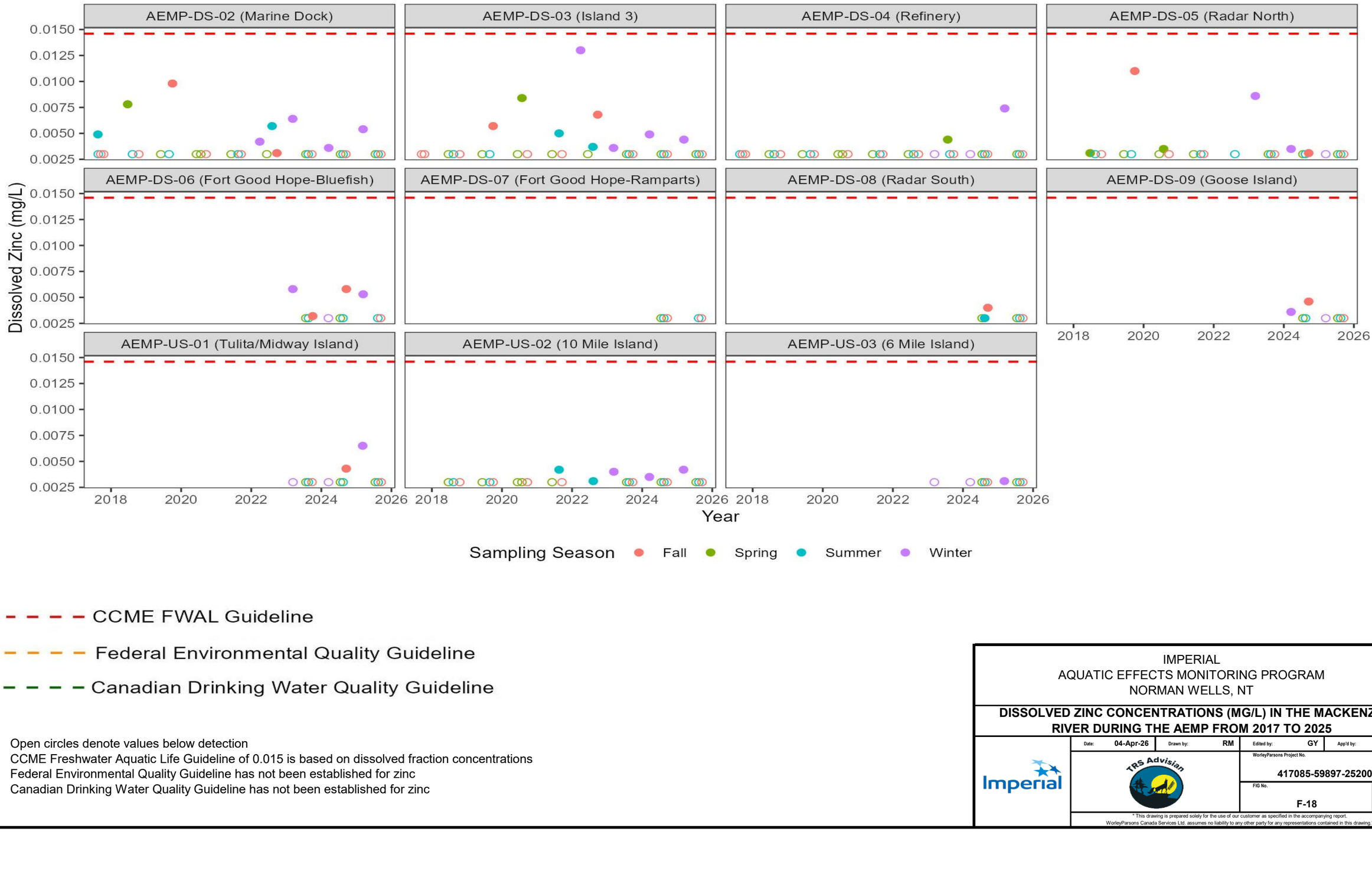
Mackenzie River - Dissolved Zinc



CCME FWAL Guideline

Federal Environmental Quality Guideline

Canadian Drinking Water Quality Guideline

Open circles denote values below detection
CCME Freshwater Aquatic Life Guideline of 0.015 is based on dissolved fraction concentrations
Federal Environmental Quality Guideline has not been established for zinc
Canadian Drinking Water Quality Guideline has not been established for zinc

IMPERIAL
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DISSOLVED ZINC CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
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WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-18

REV: A

TRS Advisian

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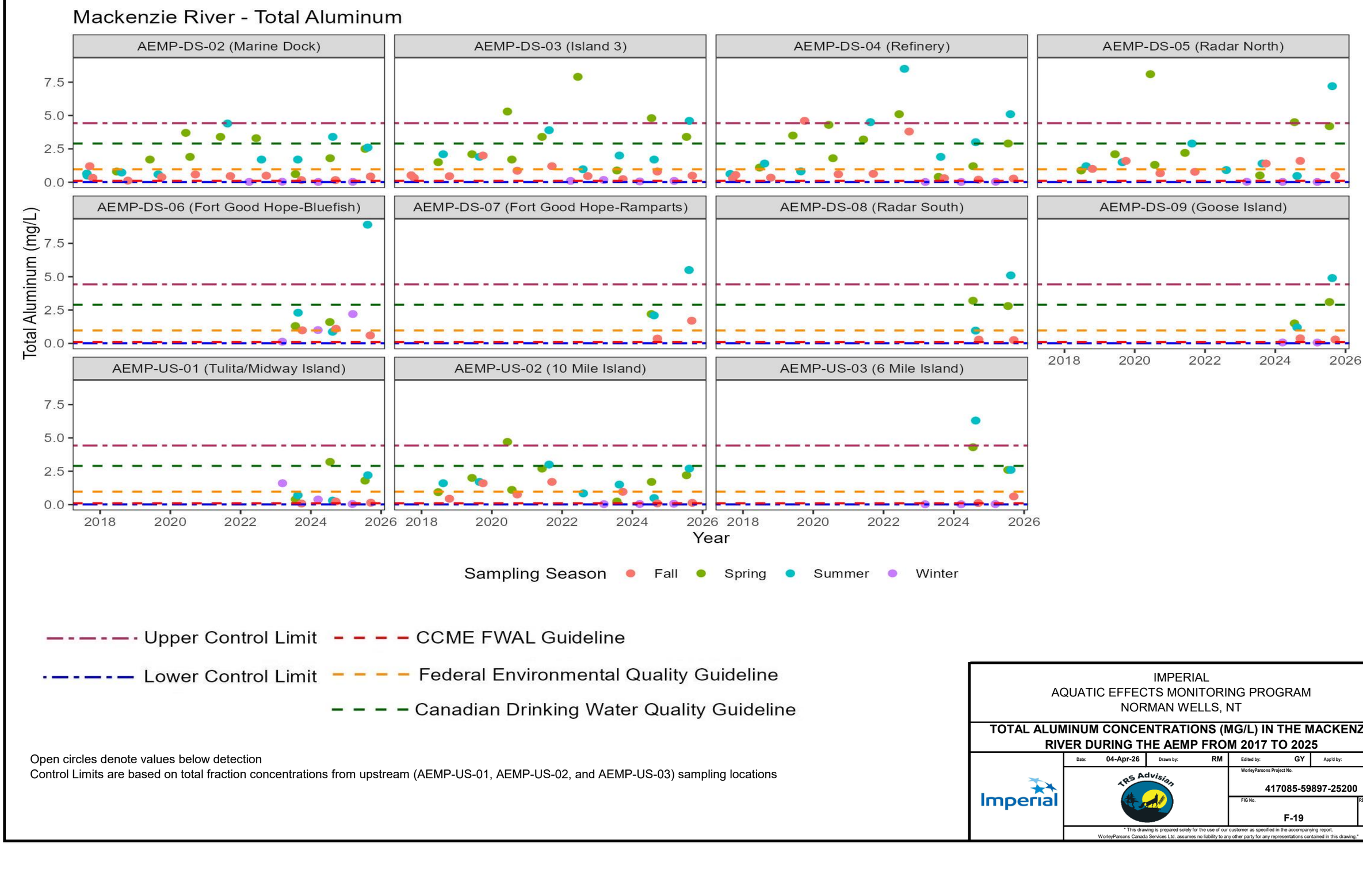
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL ALUMINUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

WorleyParsons Project No.
417085-59897-25200

FIG No. F-19
REV A

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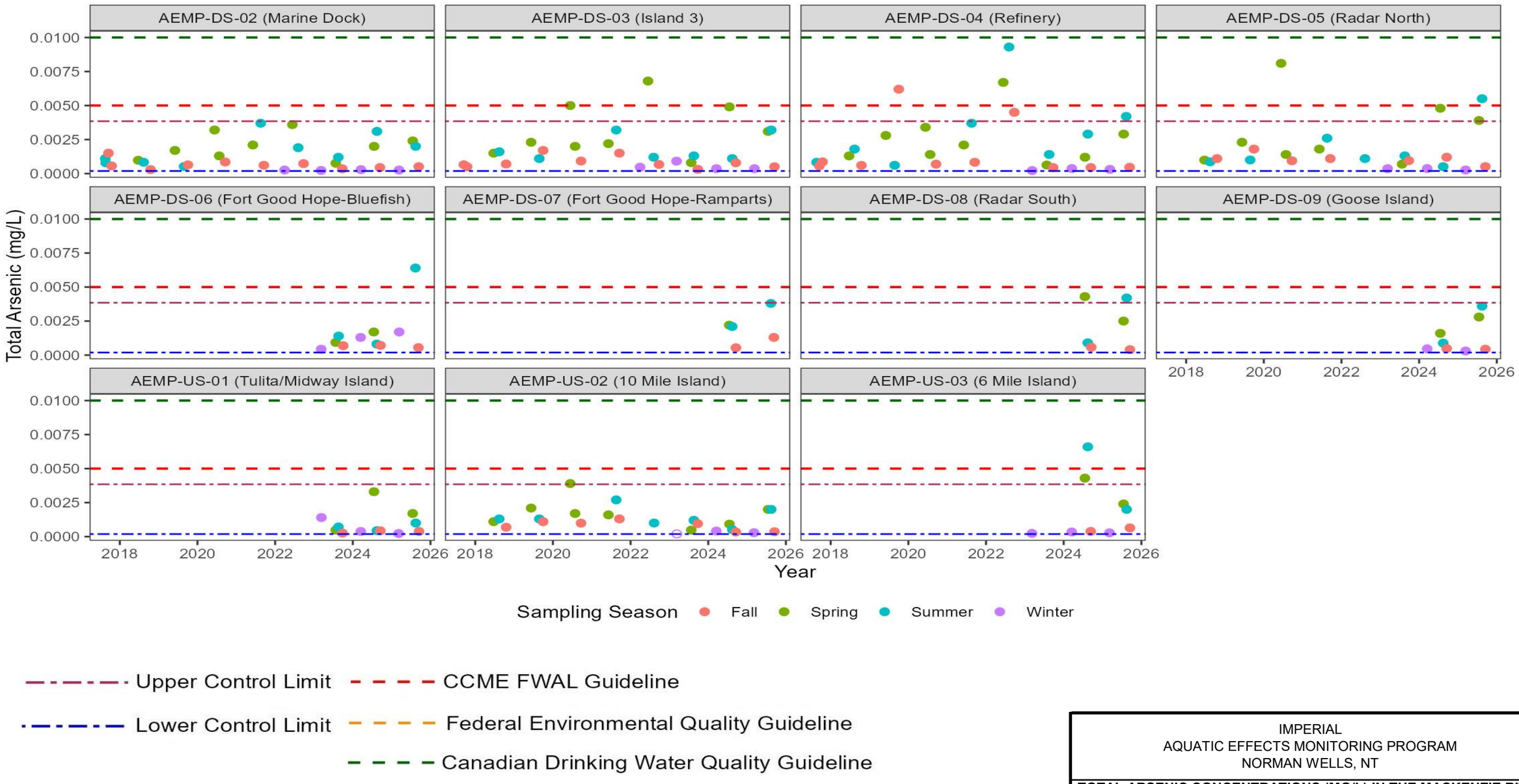
FILE DIRECTORY: U:\CALGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
Federal Environmental Quality Guideline has not been established for arsenic

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL ARSENIC CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
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WorleyParsons Project No.
417085-59897-25200

FIG No. F-20
REV A

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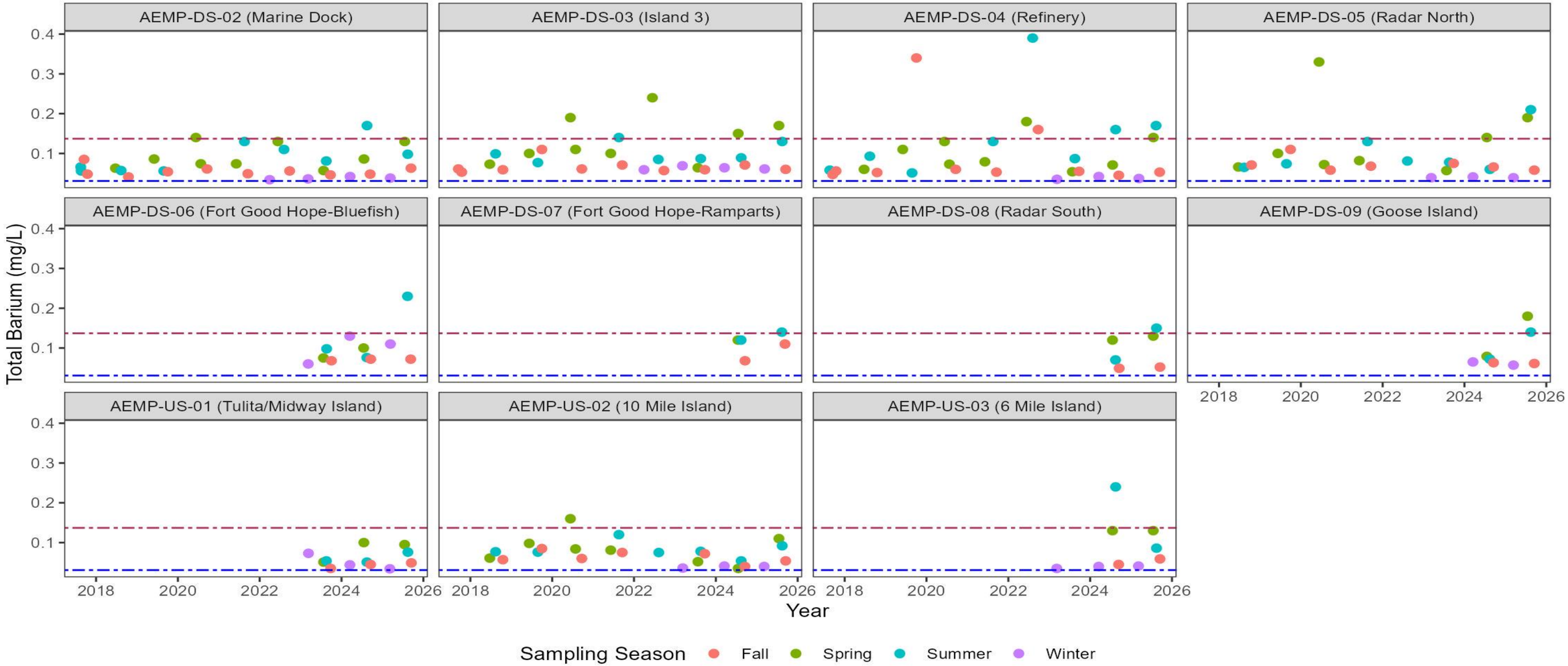
Mackenzie River - Total Barium



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
CCME Freshwater Aquatic Life Guideline has not been established for barium
Federal Environmental Quality Guideline has not been established for barium
Canadian Drinking Water Quality Guideline of 2.0 mg/L is not presented

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TOTAL BARIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
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WorleyParsons Project No.
417085-59897-25200

FIG No. F-21
REV A

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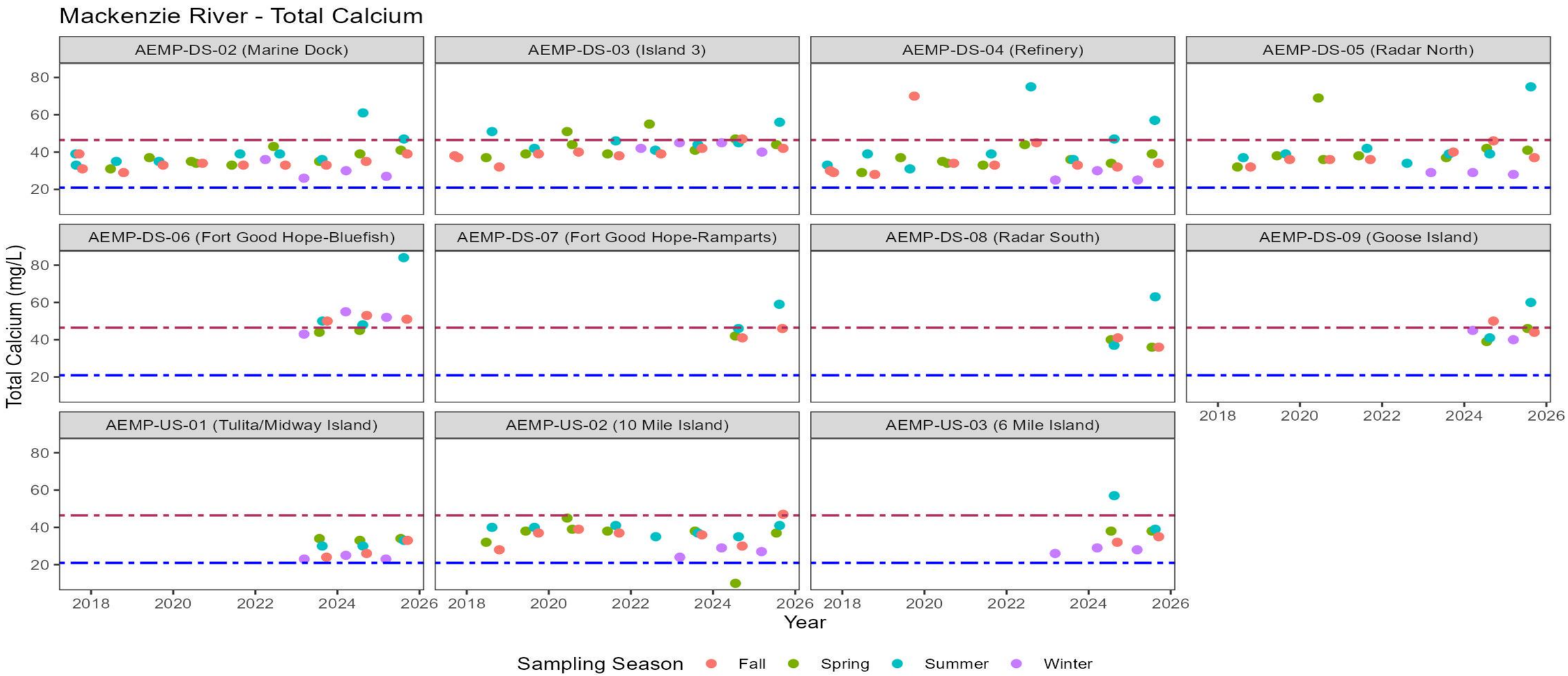
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
Regulatory guidelines applied during the NW AEMP do not have water quality criteria for calcium

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AQUATIC EFFECTS MONITORING PROGRAM
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TOTAL CALCIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date: 04-Apr-26	Drawn by: RM	Edited by: GY	App'd by: AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-22 | REV: A

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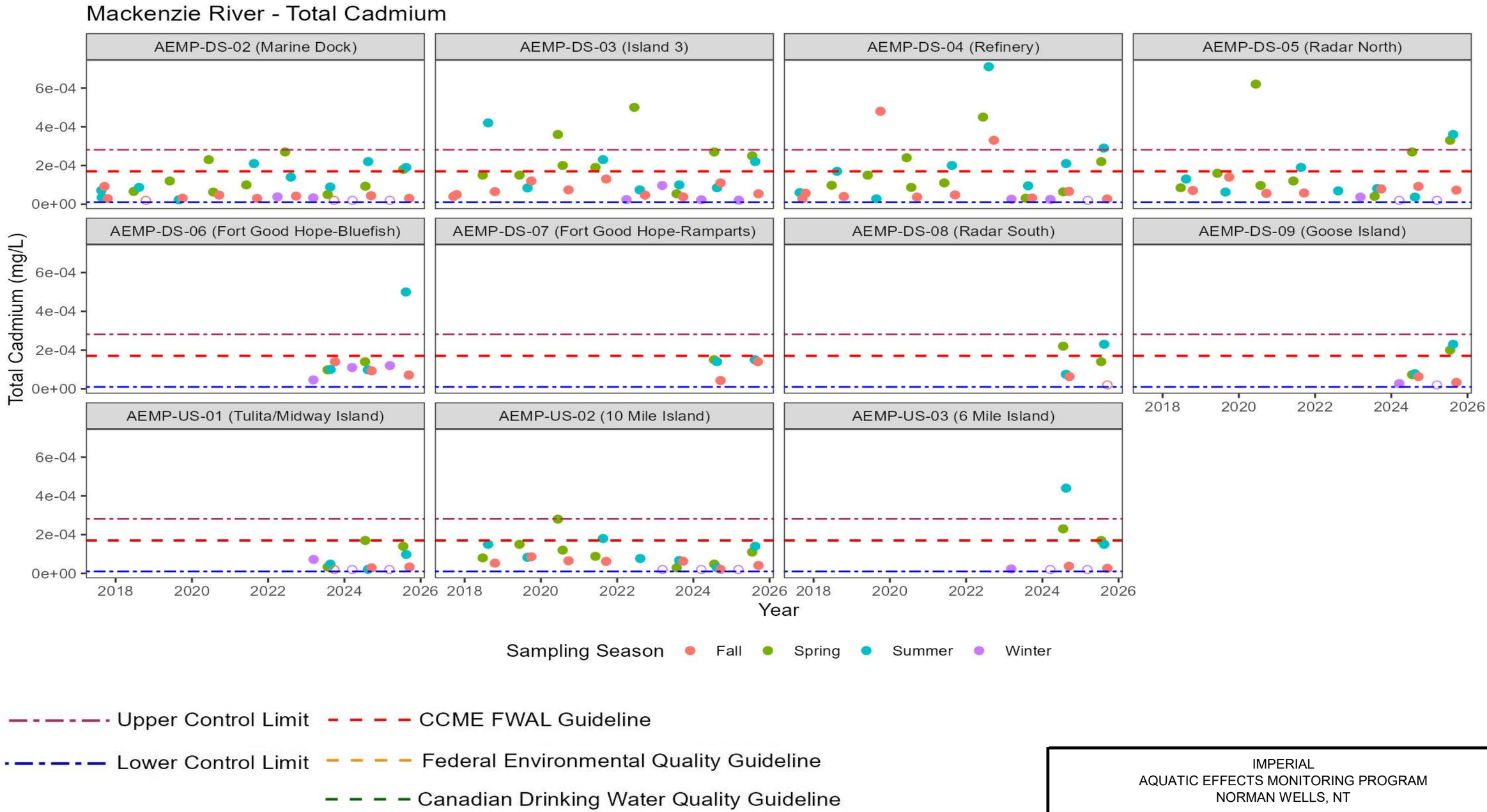
FILE DIRECTORY: U:\CALIGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
Short-term CCME Freshwater Aquatic Life Guideline of 0.0023 mg/L is not presented
Federal Environmental Quality Guideline has not been established for cadmium
Canadian Drinking Water Quality Guideline of 0.007 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL CADMIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-23
REV: A

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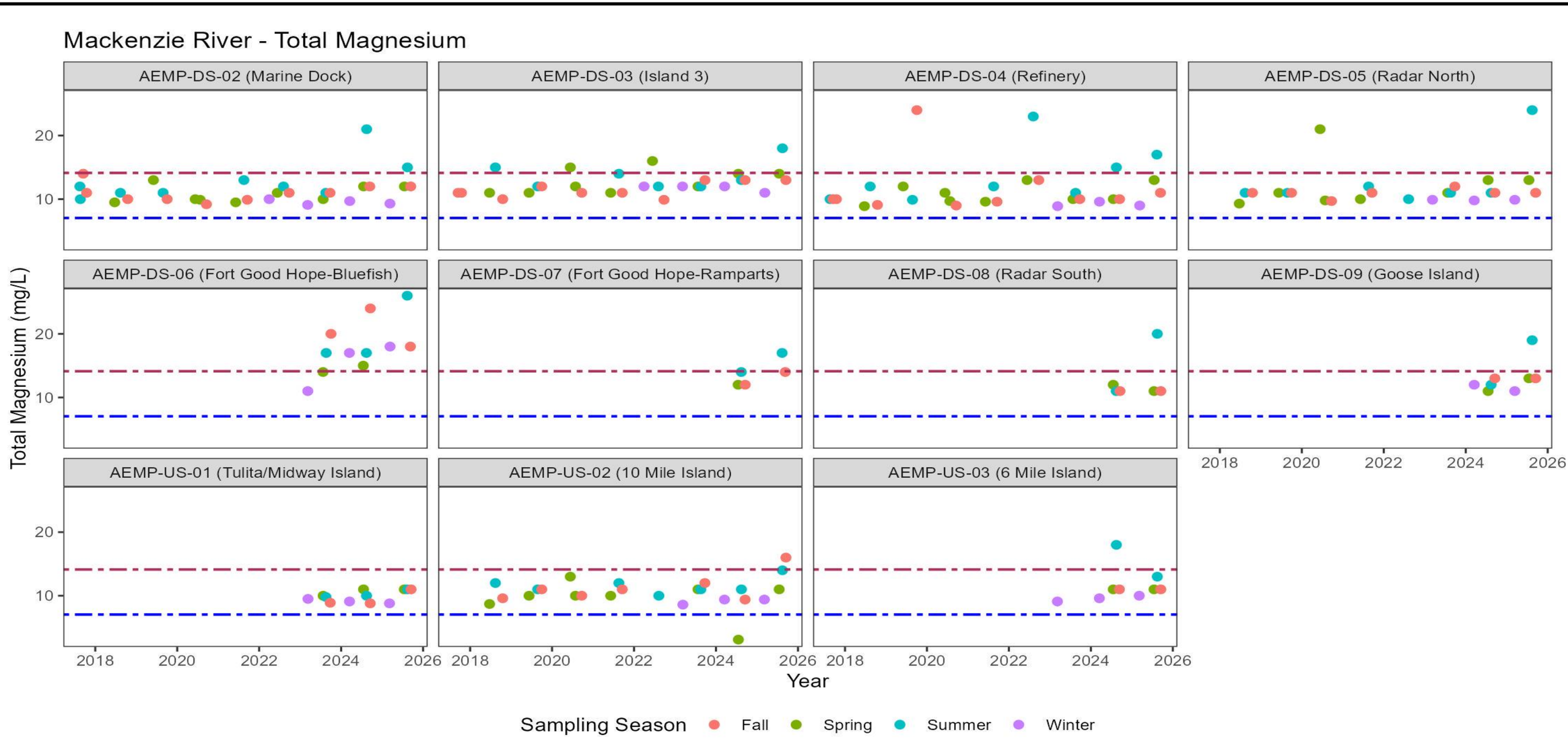
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Upper Control Limit

Lower Control Limit

Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
Regulatory guidelines applied during the NW AEMP do not have water quality criteria for magnesium

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL MAGNESIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-24

REV: A

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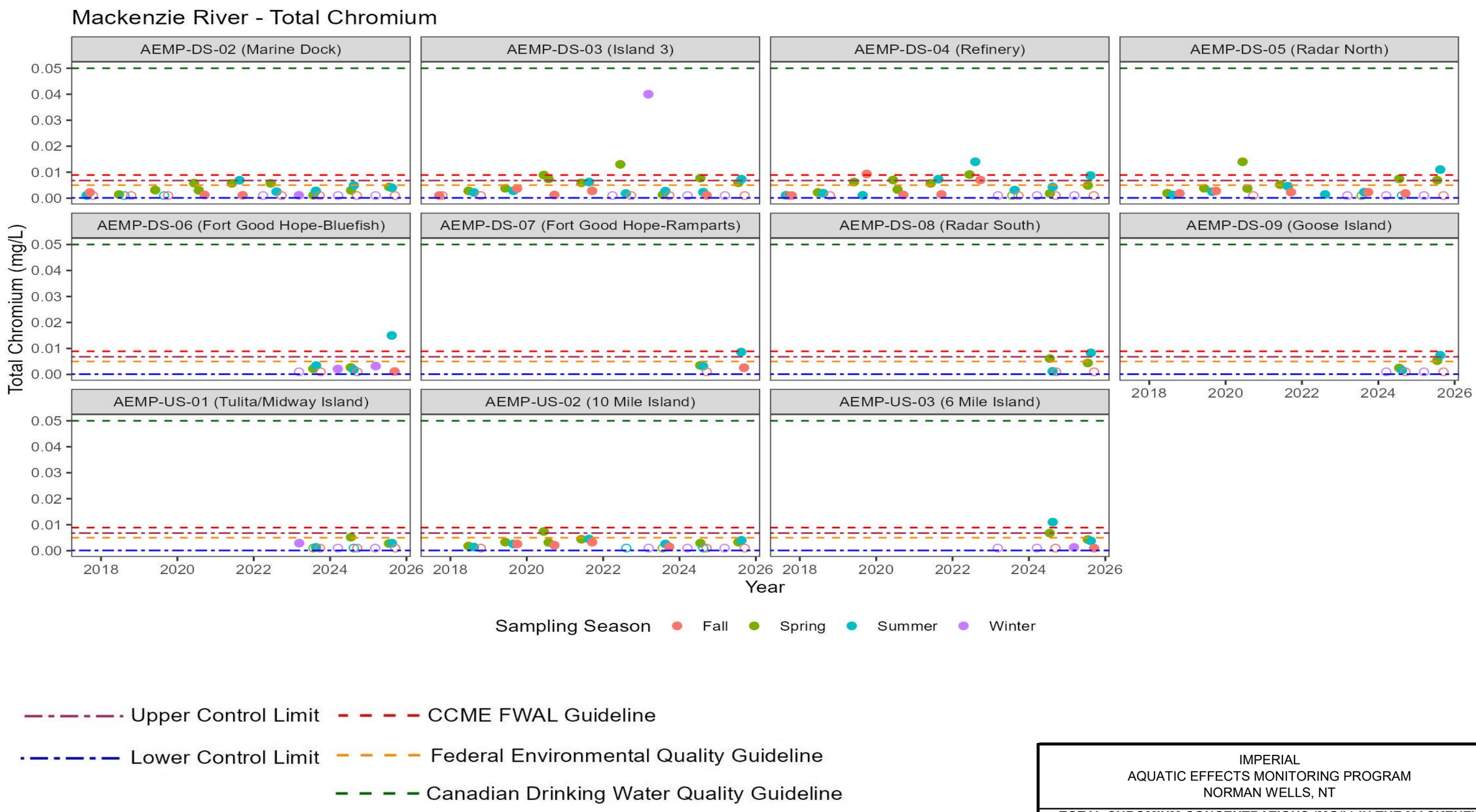
FILE DIRECTORY: U:\CALGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
CCME Freshwater Aquatic Life Guideline of 0.0089 mg/L is based on the guideline for trivalent chromium
Federal Environmental Quality Guideline of 0.005 mg/L is based on guideline for hexavalent chromium
Canadian Drinking Water Quality Guideline of 0.05 mg/L is based on total chromium concentration

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL CHROMIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-25
REV: A

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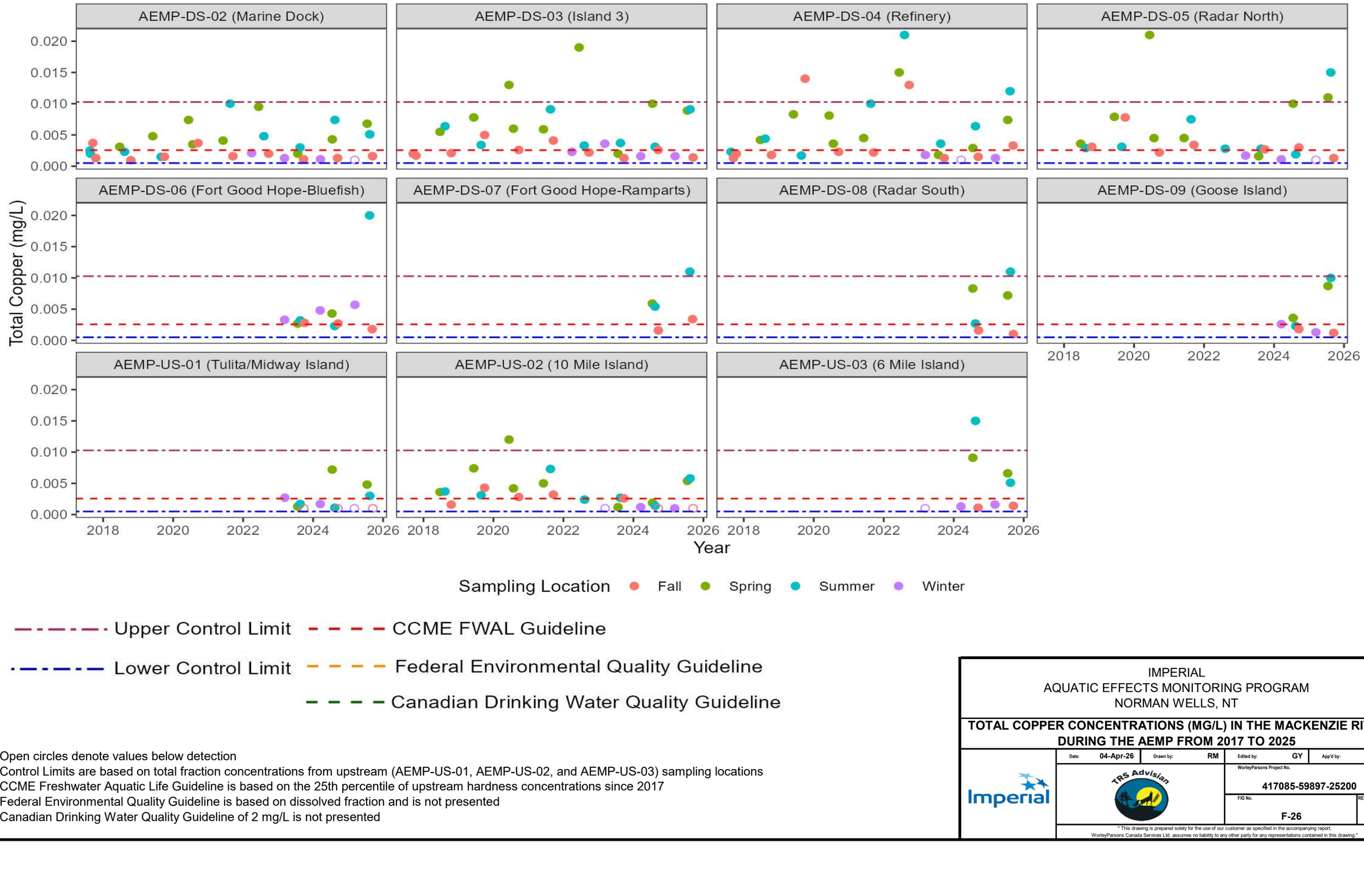
Mackenzie River - Total Copper



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
CCME Freshwater Aquatic Life Guideline is based on the 25th percentile of upstream hardness concentrations since 2017
Federal Environmental Quality Guideline is based on dissolved fraction and is not presented
Canadian Drinking Water Quality Guideline of 2 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL COPPER CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
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WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-26
REV: A

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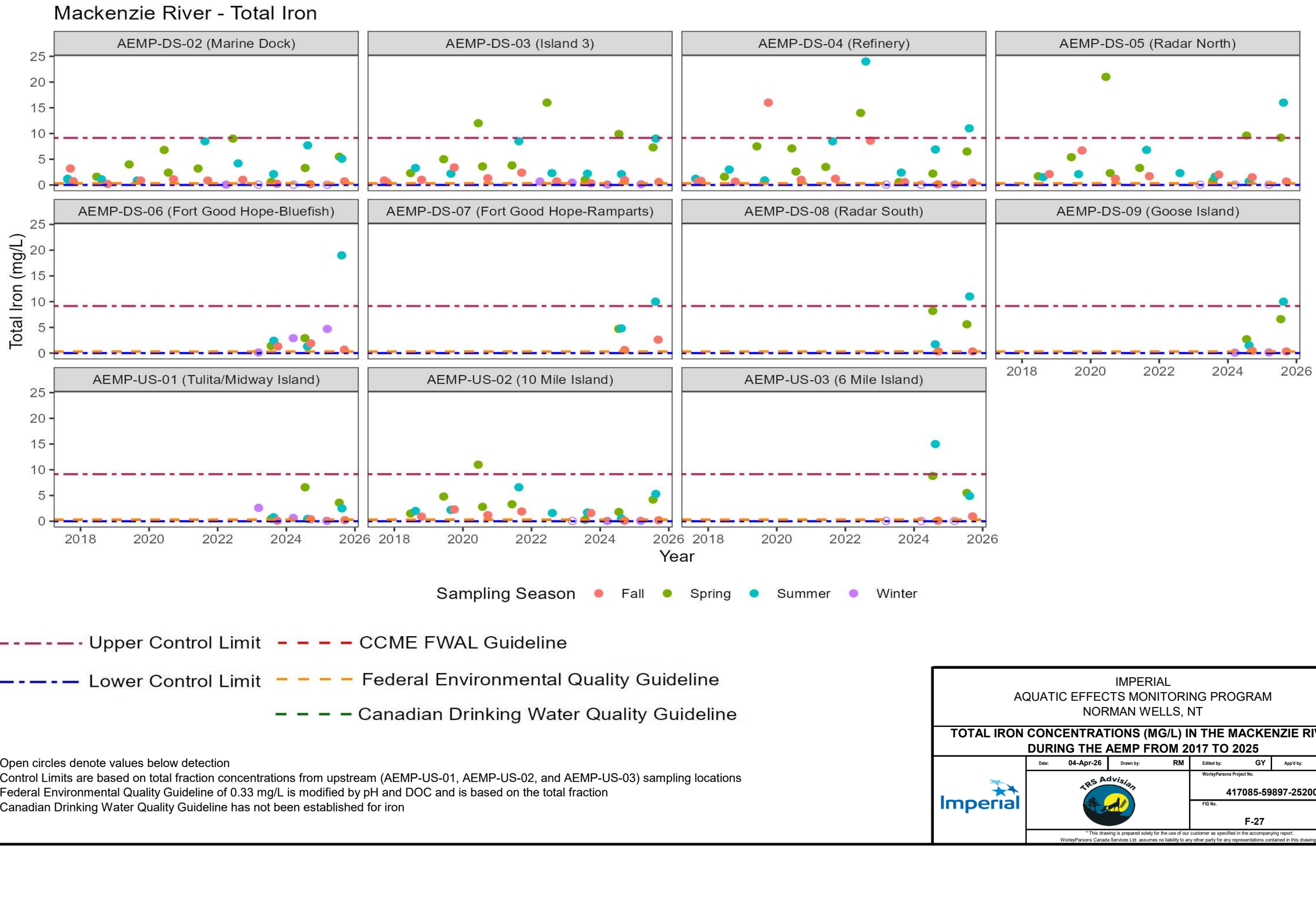
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
Federal Environmental Quality Guideline of 0.33 mg/L is modified by pH and DOC and is based on the total fraction
Canadian Drinking Water Quality Guideline has not been established for iron

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL IRON CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-27
REV: A

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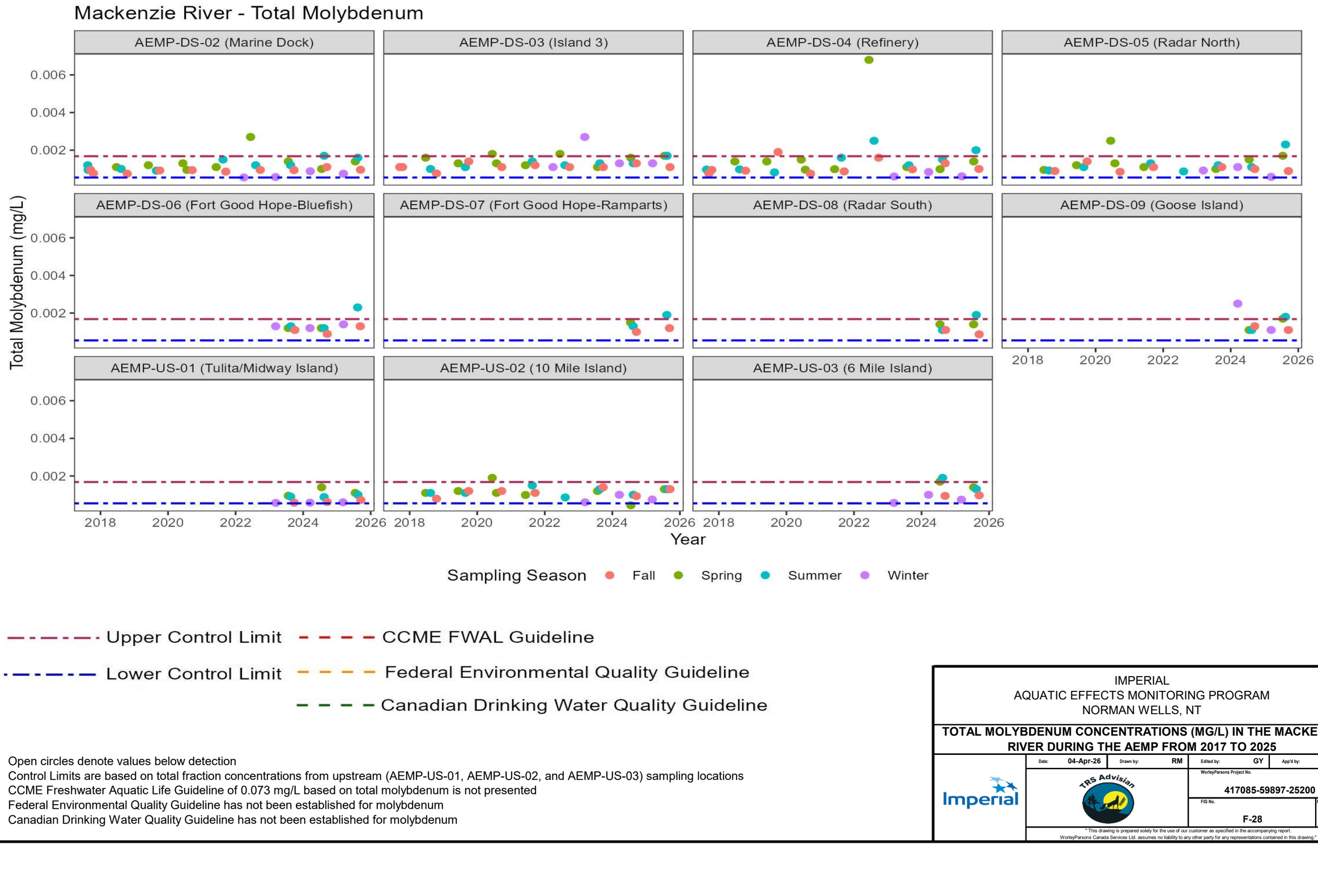
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
CCME Freshwater Aquatic Life Guideline of 0.073 mg/L based on total molybdenum is not presented
Federal Environmental Quality Guideline has not been established for molybdenum
Canadian Drinking Water Quality Guideline has not been established for molybdenum

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AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL MOLYBDENUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
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WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-28
REV: A

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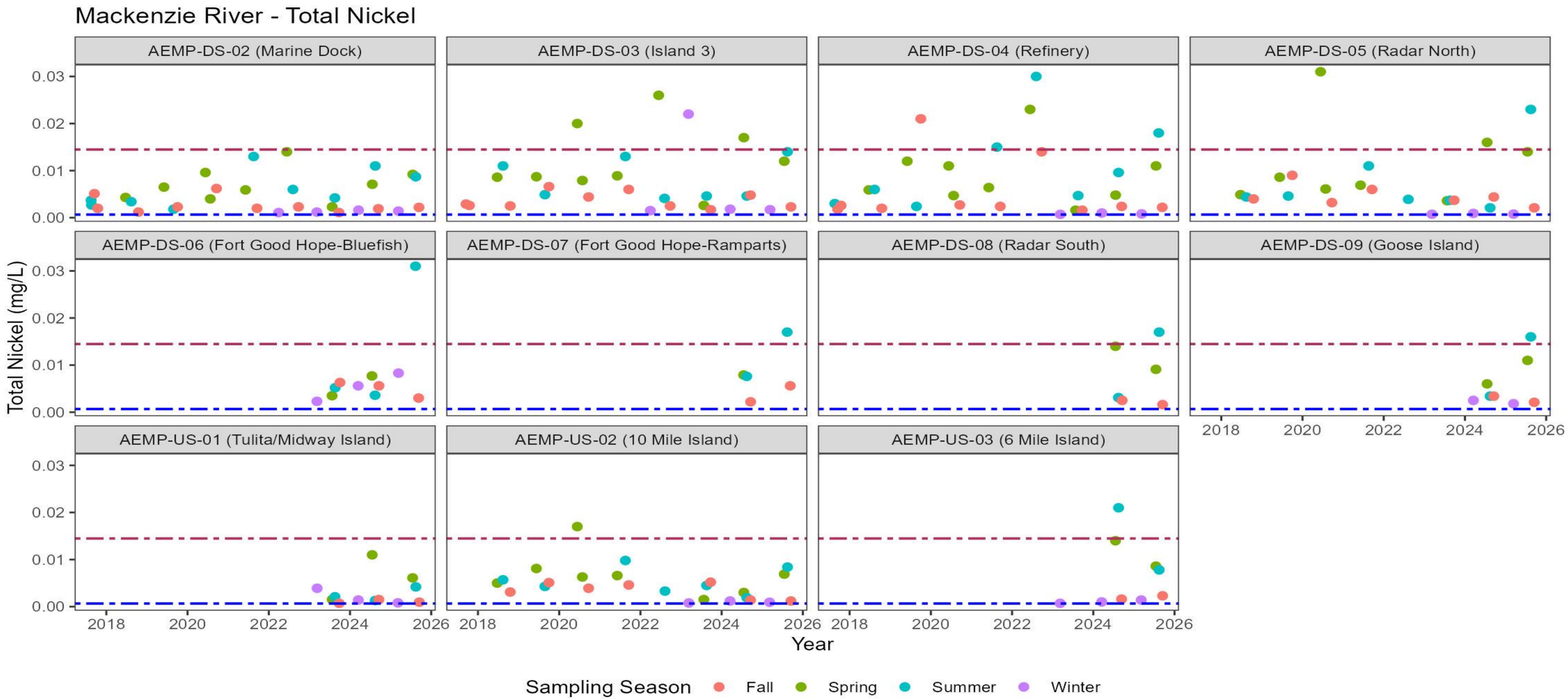
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
CCME Freshwater Aquatic Life Guideline of 0.103 mg/L that is dependent on hardness is not presented
Federal Environmental Quality Guideline has not been established for nickel
Canadian Drinking Water Quality Guideline has not been established for iron

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL NICKEL CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
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WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-29
REV: A

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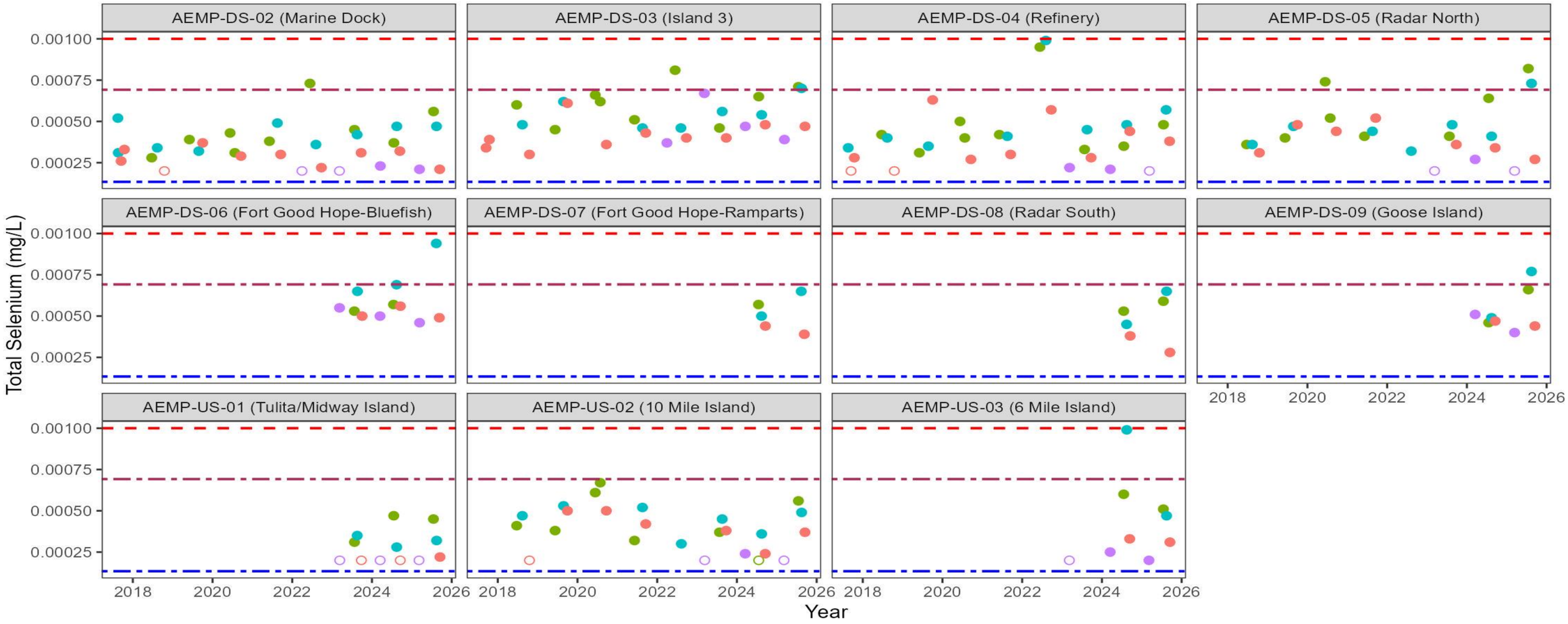
Mackenzie River - Total Selenium



Upper Control Limit

Lower Control Limit

CCME FWAL Guideline

Federal Environmental Quality Guideline

Canadian Drinking Water Quality Guideline

Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
Federal Environmental Quality Guideline for water quality has not been established for selenium
Canadian Drinking Water Quality Guidelineof 0.05 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL SELENIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-30

REV: A

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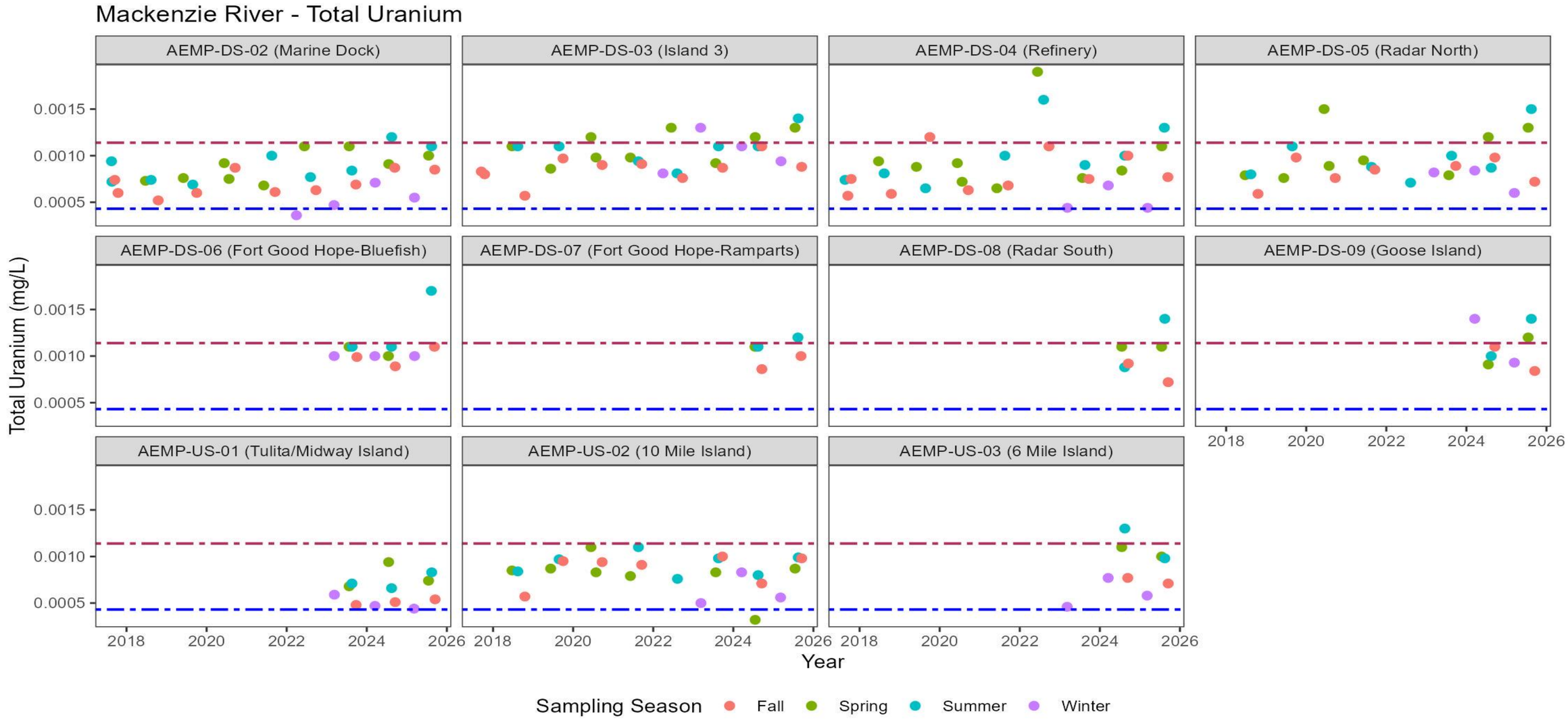

Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
CCME Freshwater Aquatic Life Guideline of 0.015 mg/L is not presented
Federal Environmental Quality Guideline has not been established for uranium
Canadian Drinking Water Quality Guideline of 0.020 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL URANIUM CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-31
REV: A

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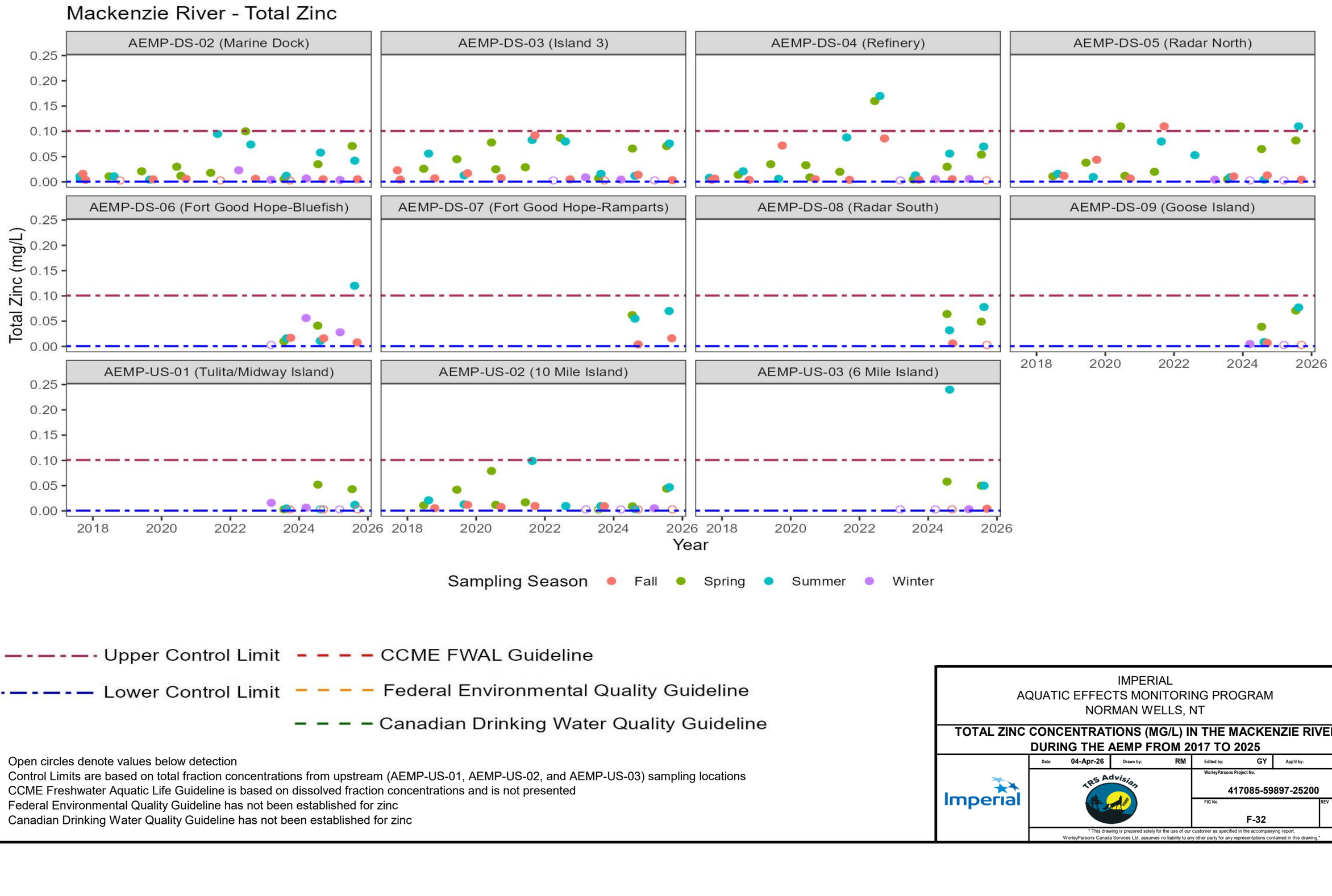
FILE DIRECTORY: U:\CALIGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from upstream (AEMP-US-01, AEMP-US-02, and AEMP-US-03) sampling locations
CCME Freshwater Aquatic Life Guideline is based on dissolved fraction concentrations and is not presented
Federal Environmental Quality Guideline has not been established for zinc
Canadian Drinking Water Quality Guideline has not been established for zinc

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL ZINC CONCENTRATIONS (MG/L) IN THE MACKENZIE RIVER DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-32
REV: A

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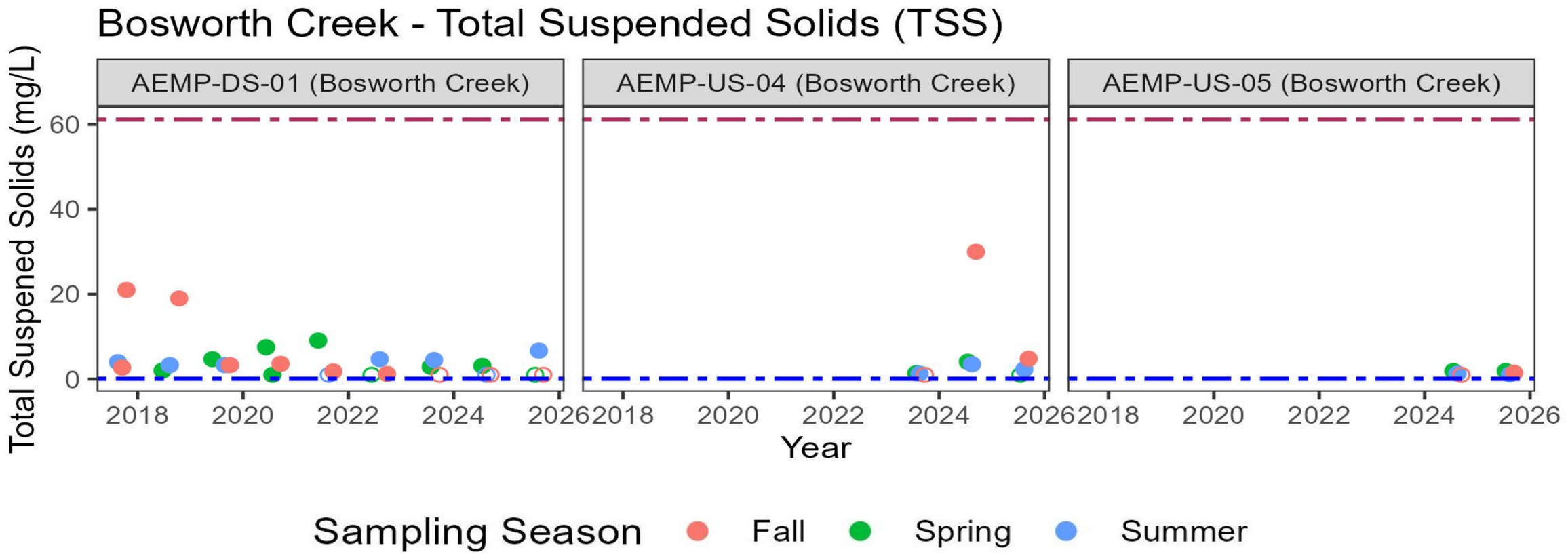
FILE LOCATION: U:\CALGBS\
FILE DIRECTORY: U:\CALGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL SUSPENDED SOLIDS CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-37 REV: A

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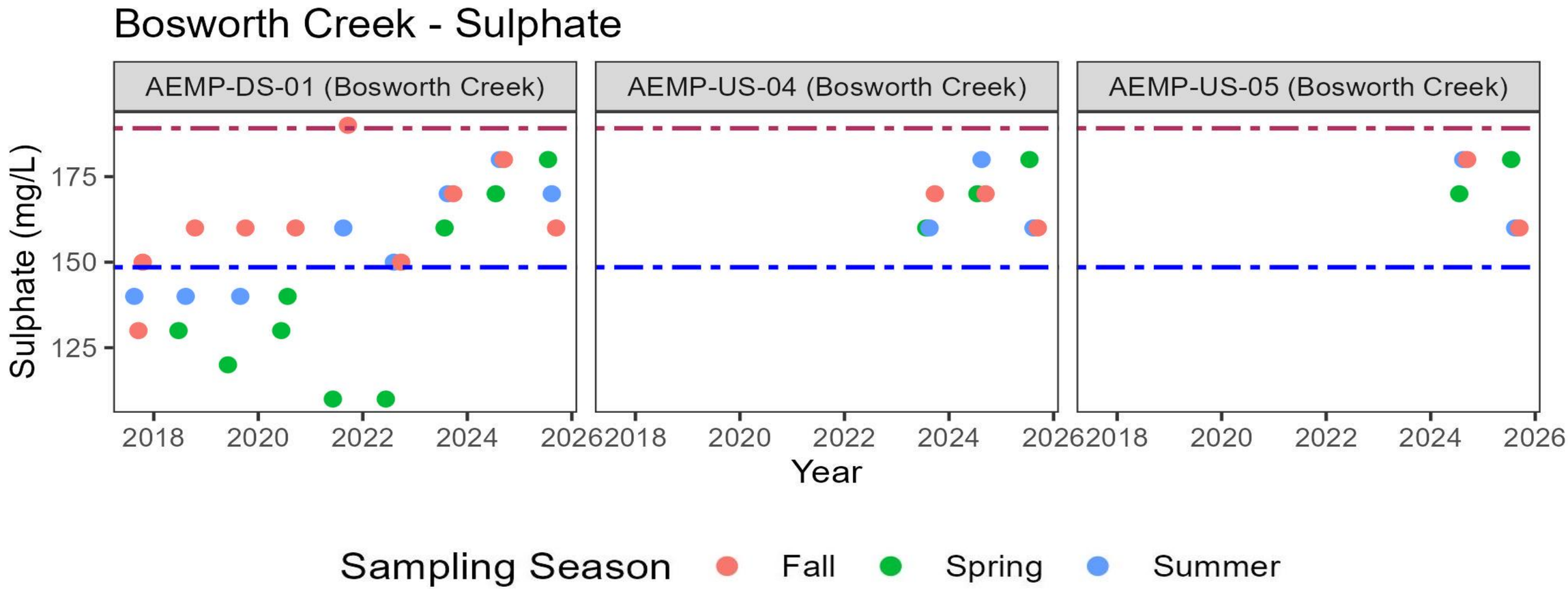
FILE DIRECTORY: U:\CALIGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Upper Control Limit

Lower Control Limit

Open circles denote values below detection
Control Limits are based on concentrations from the upstream (AEMP-US-04) sampling location
Regulatory guidelines applied during the NW AEMP do not have water quality criteria for sulphate

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

SULPHATE CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-35

REV: A

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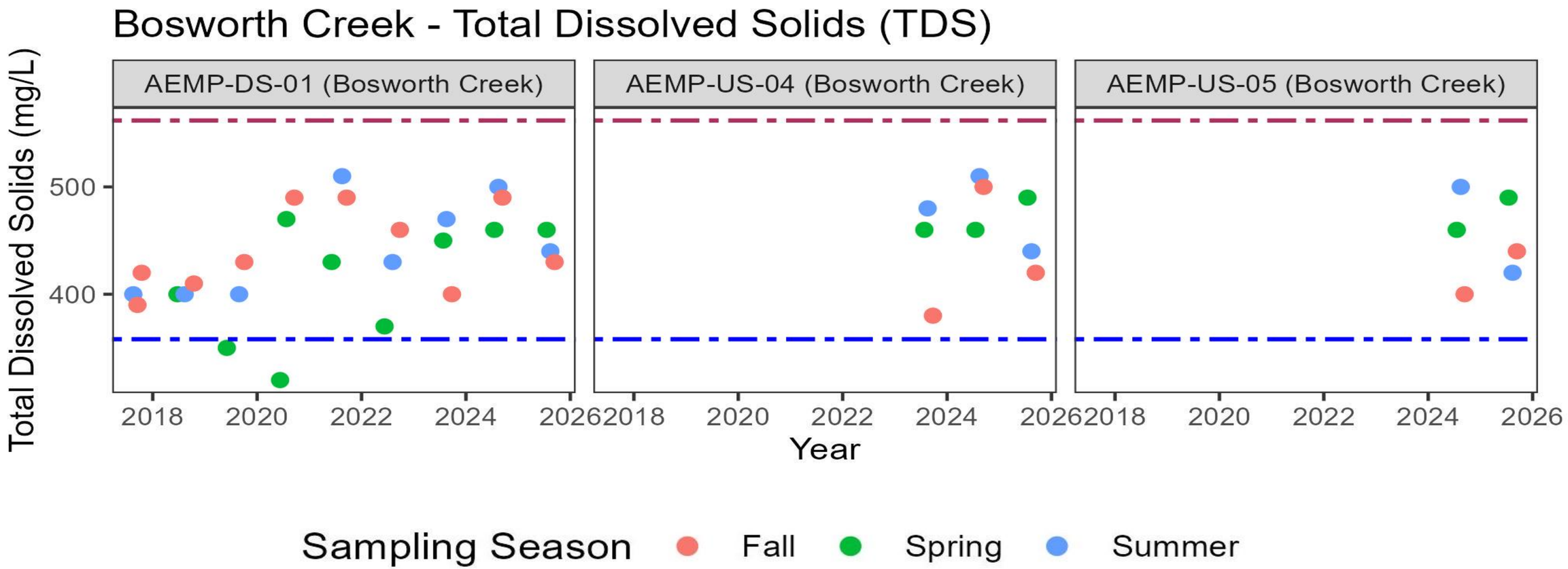
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Upper Control Limit

Lower Control Limit

Open circles denote values below detection
Control Limits are based on concentrations from the upstream (AEMP-US-04) sampling location
Regulatory guidelines applied during the NW AEMP do not have water quality criteria for total dissolved solids

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL DISSOLVED SOLIDS CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-36 REV: A

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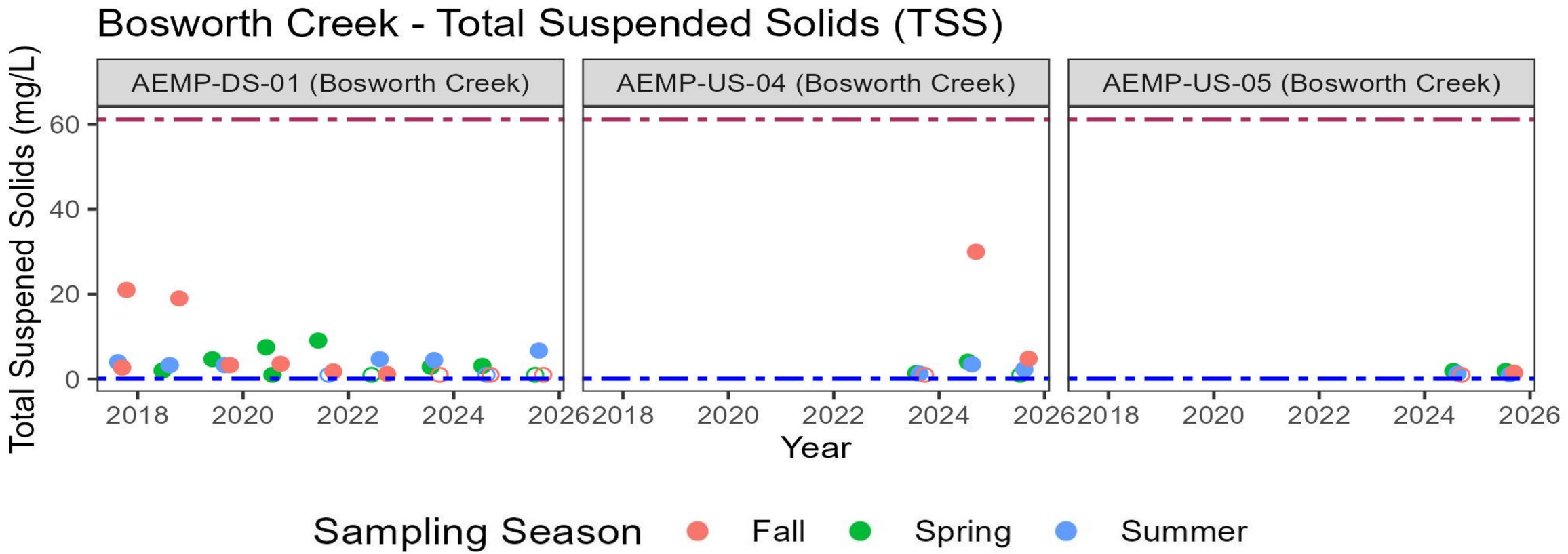
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL SUSPENDED SOLIDS CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-37 REV: A

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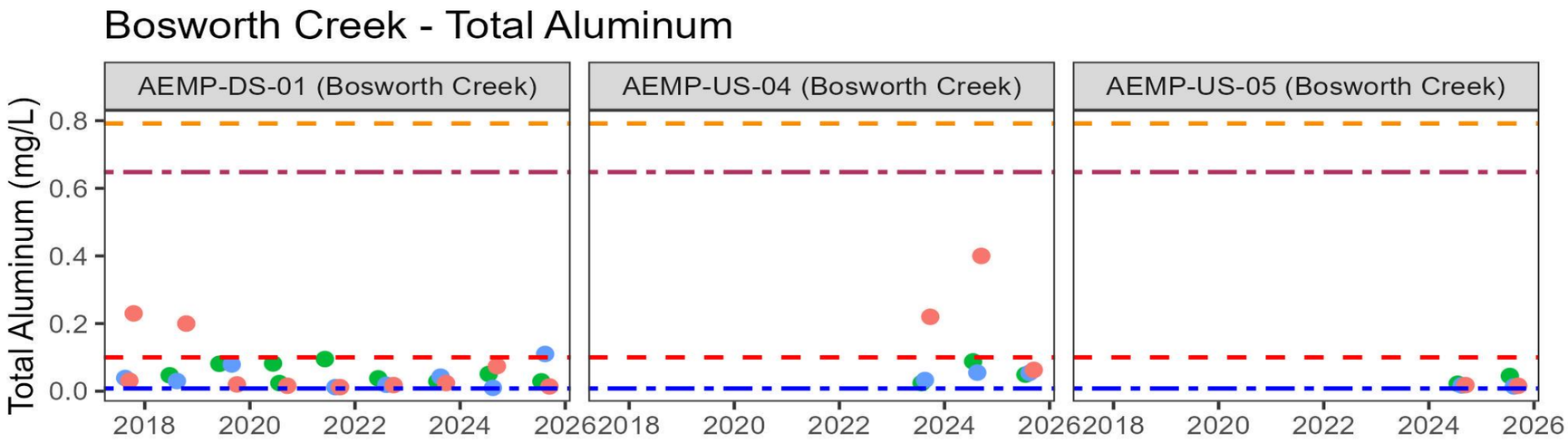
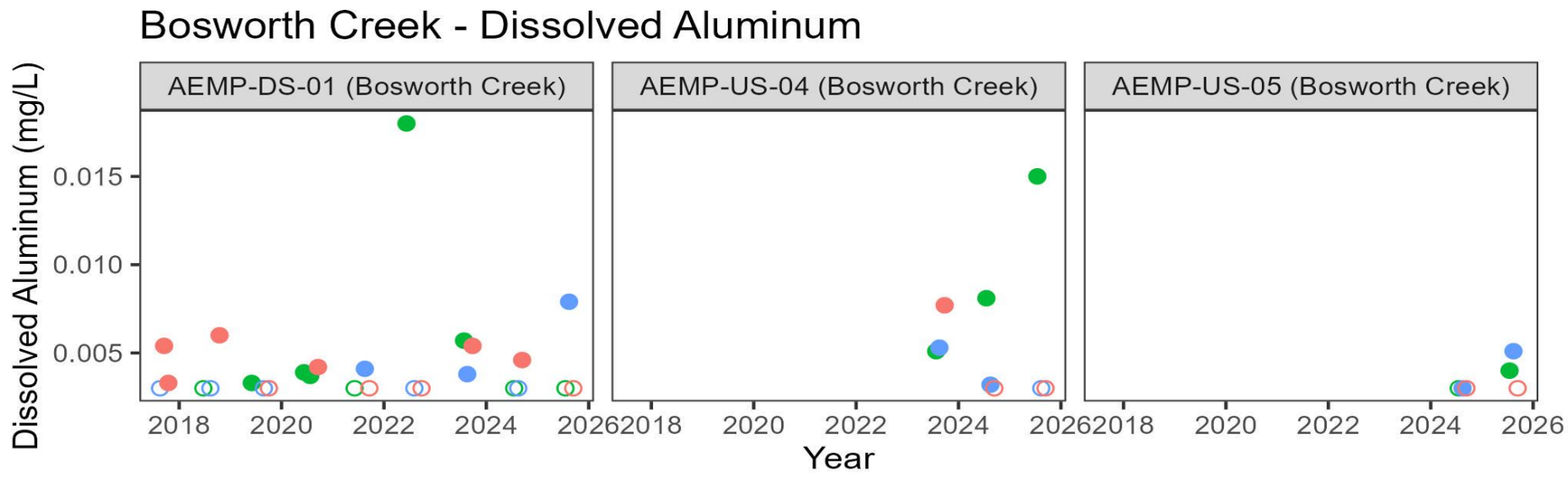
FILE DIRECTORY: U:\CALIGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\





Sampling Season ● Fall ● Spring ● Summer

Upper Control Limit

Lower Control Limit

CCME FWAL Guideline

Federal Environmental Quality Guideline

Canadian Drinking Water Quality Guideline

Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
CCME Freshwater Aquatic Life Guideline and Federal Environmental Quality Guideline are applicable to the total fraction only
Canadian Drinking Water Quality Guideline of 2.9 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED ALUMINUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-38 REV: A

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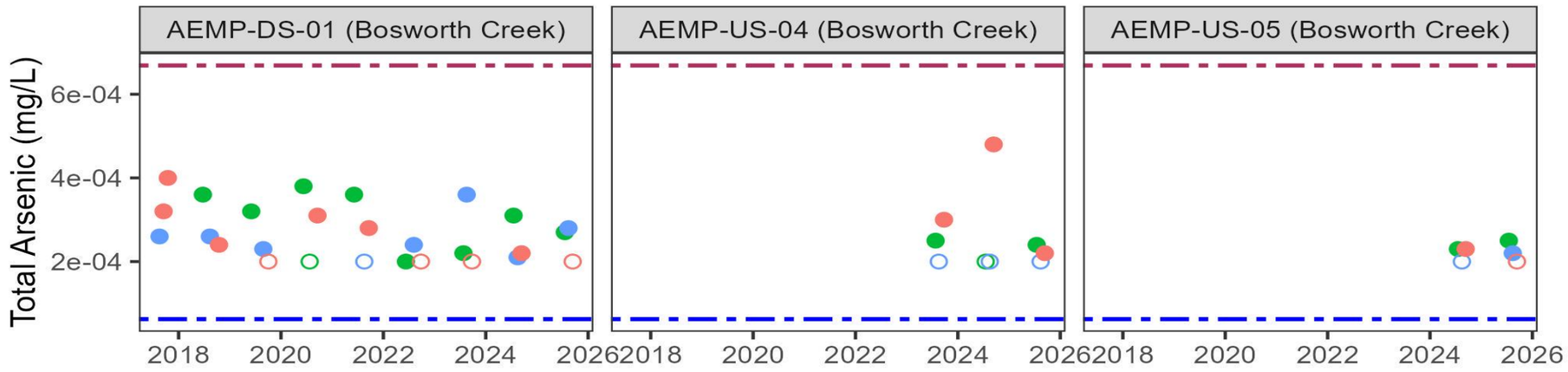
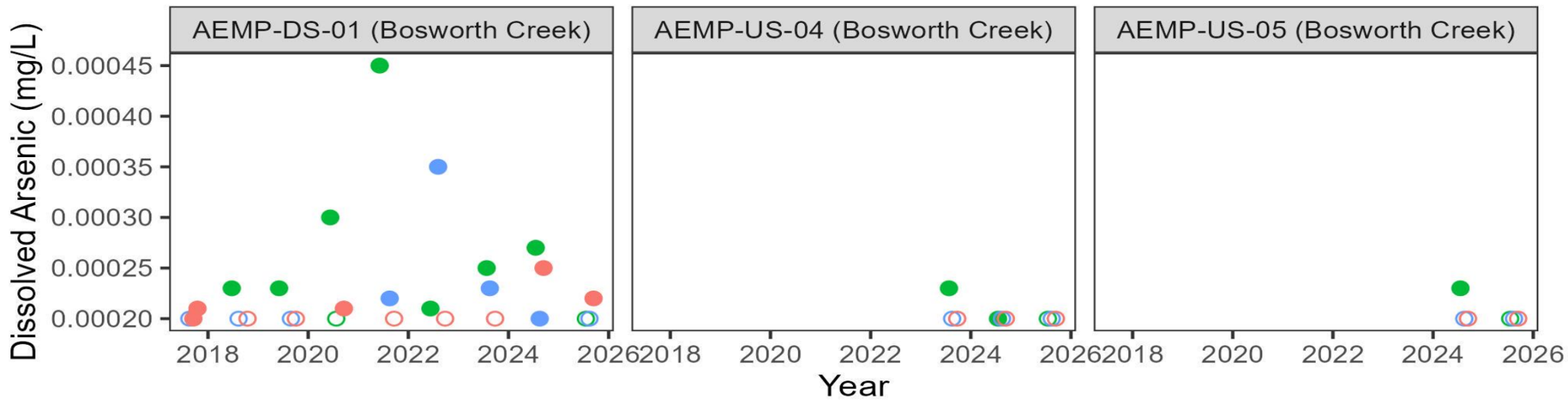
Bosworth Creek - Total Arsenic



Bosworth Creek - Dissolved Arsenic



Sampling Season ● Fall ● Spring ● Summer

Upper Control Limit — — — CCME FWAL Guideline

Lower Control Limit — — — Federal Environmental Quality Guideline

— — — Canadian Drinking Water Quality Guideline

Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
CCME Freshwater Aquatic Life Guideline of 0.005 mg/L is not presented and is applicable to the total fraction only
Canadian Drinking Water Quality Guideline of 0.01 mg/L is not presented
Federal Environmental Quality Guideline has not been established for arsenic

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED ARESENIC CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

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WorleyParsons Project No.
417085-59897-25200

FIG No. F-39

REV A

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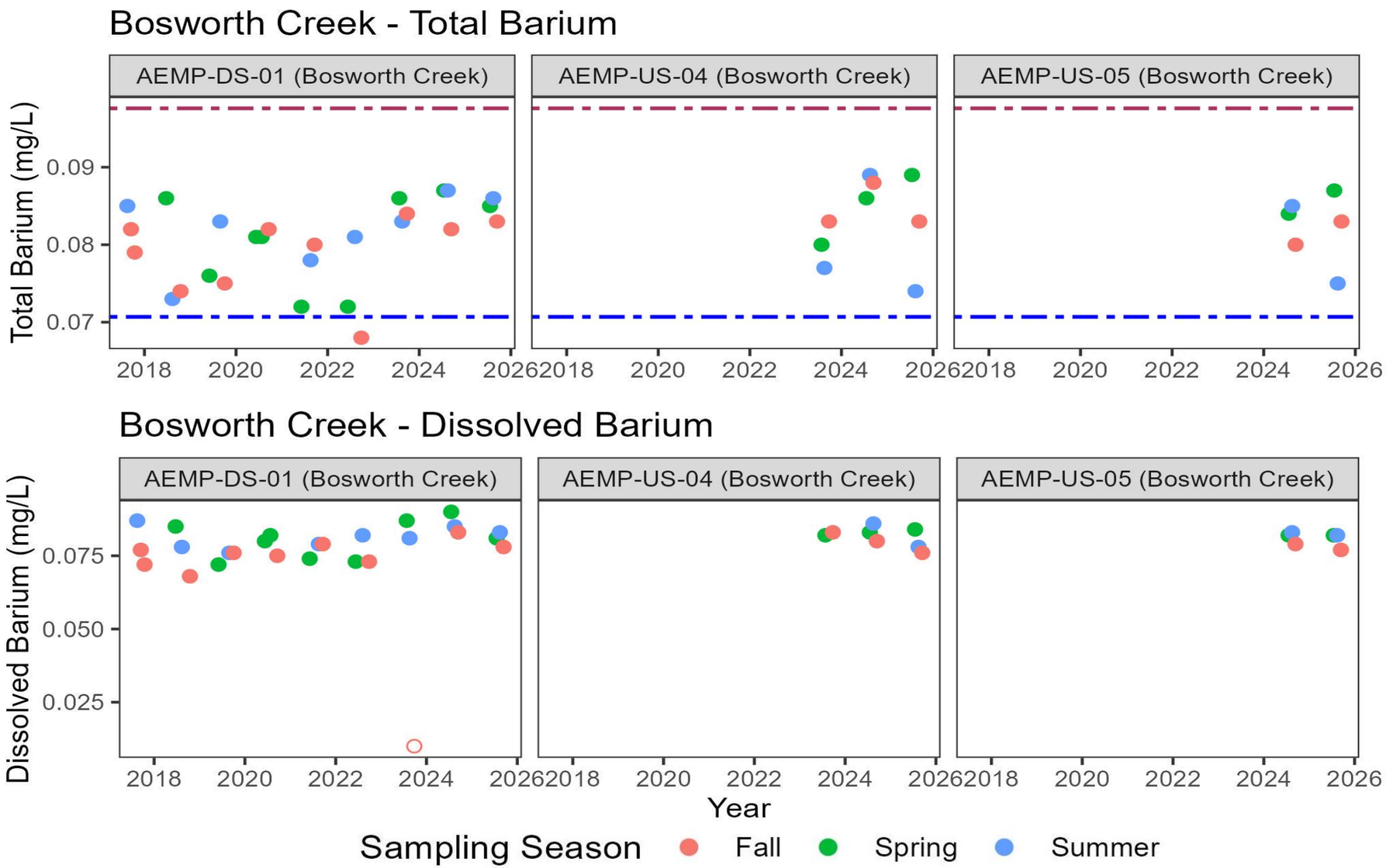
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
CCME Freshwater Aquatic Life Guideline has not been established for barium
Federal Environmental Quality Guideline has not been established for barium
Canadian Drinking Water Quality Guideline of 2.0 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED BARIUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-40 REV: A

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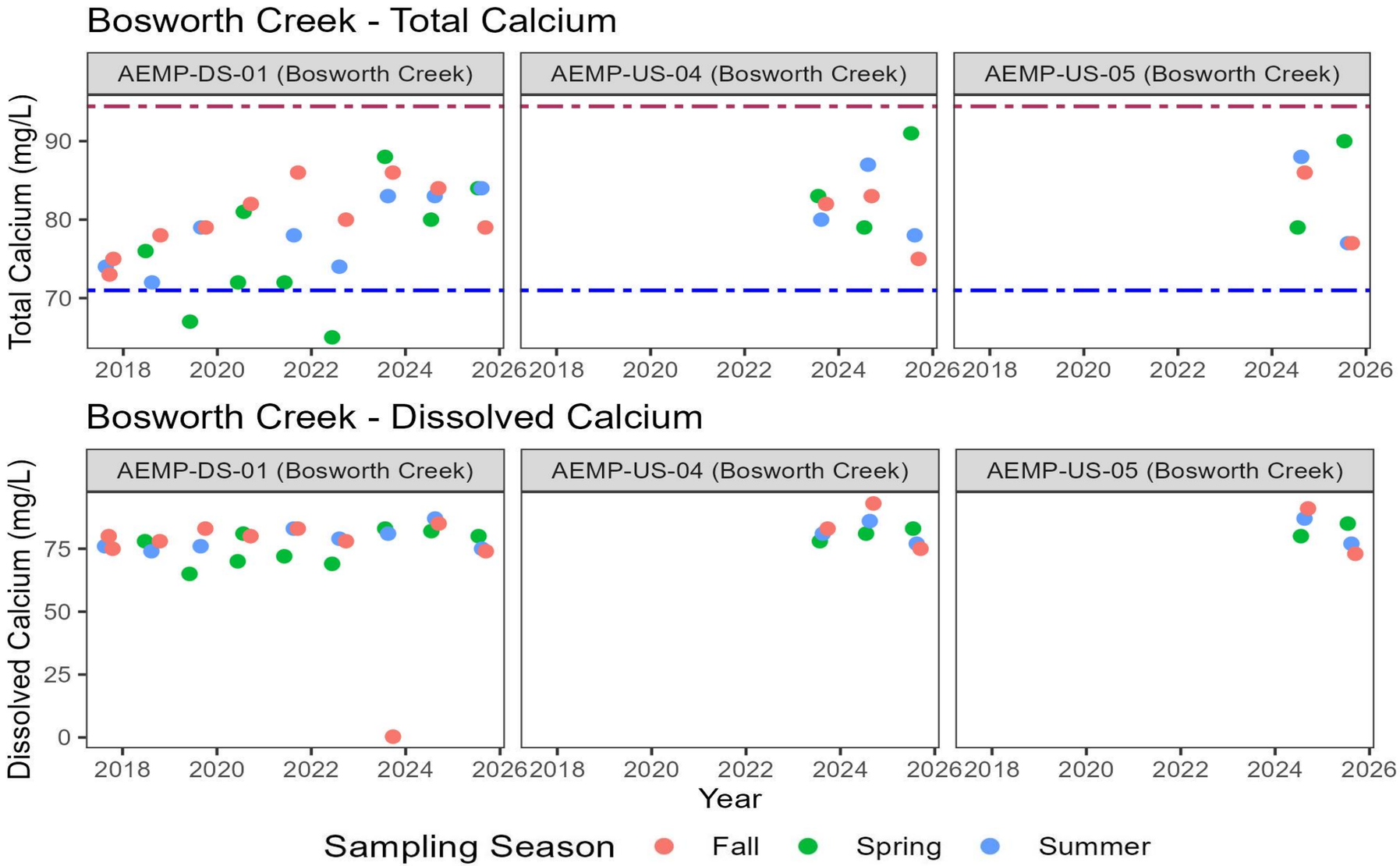
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
Regulatory guidelines applied during the NW AEMP do not have water quality criteria for calcium

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED CALCIUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date: 04-Apr-26	Drawn by: RM	Edited by: GY	App'd by: AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-41 REV: A

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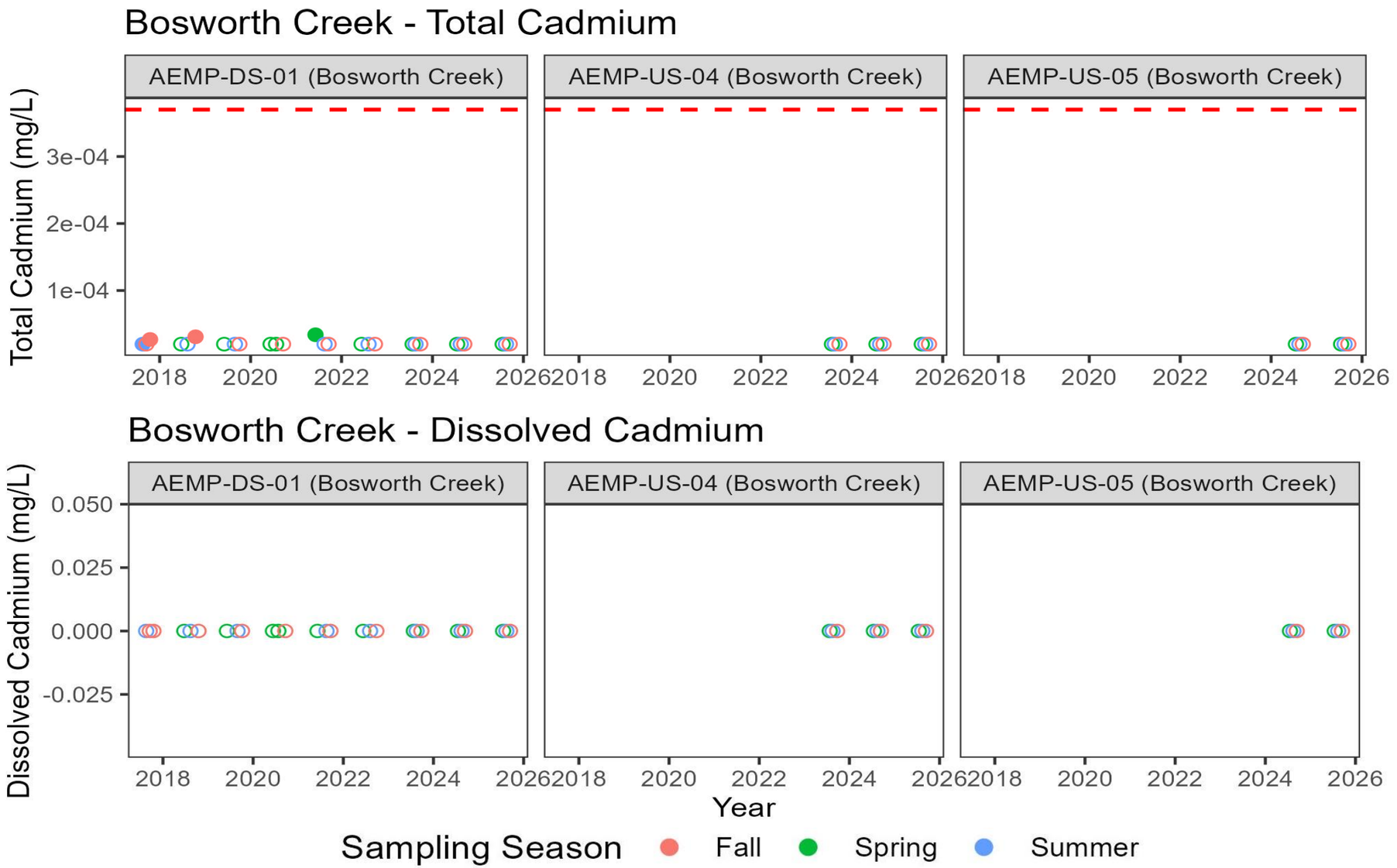
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits were not calculated for cadmium because >60% of concentrations were below the detection limit in Bosworth Creek.
Short-term CCME Freshwater Aquatic Life Guideline of 0.0023 mg/L is not presented
Federal Environmental Quality Guideline has not been established for cadmium
Canadian Drinking Water Quality Guideline of 0.007 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED CADMIUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200
FIG No.: F-42
REV: A

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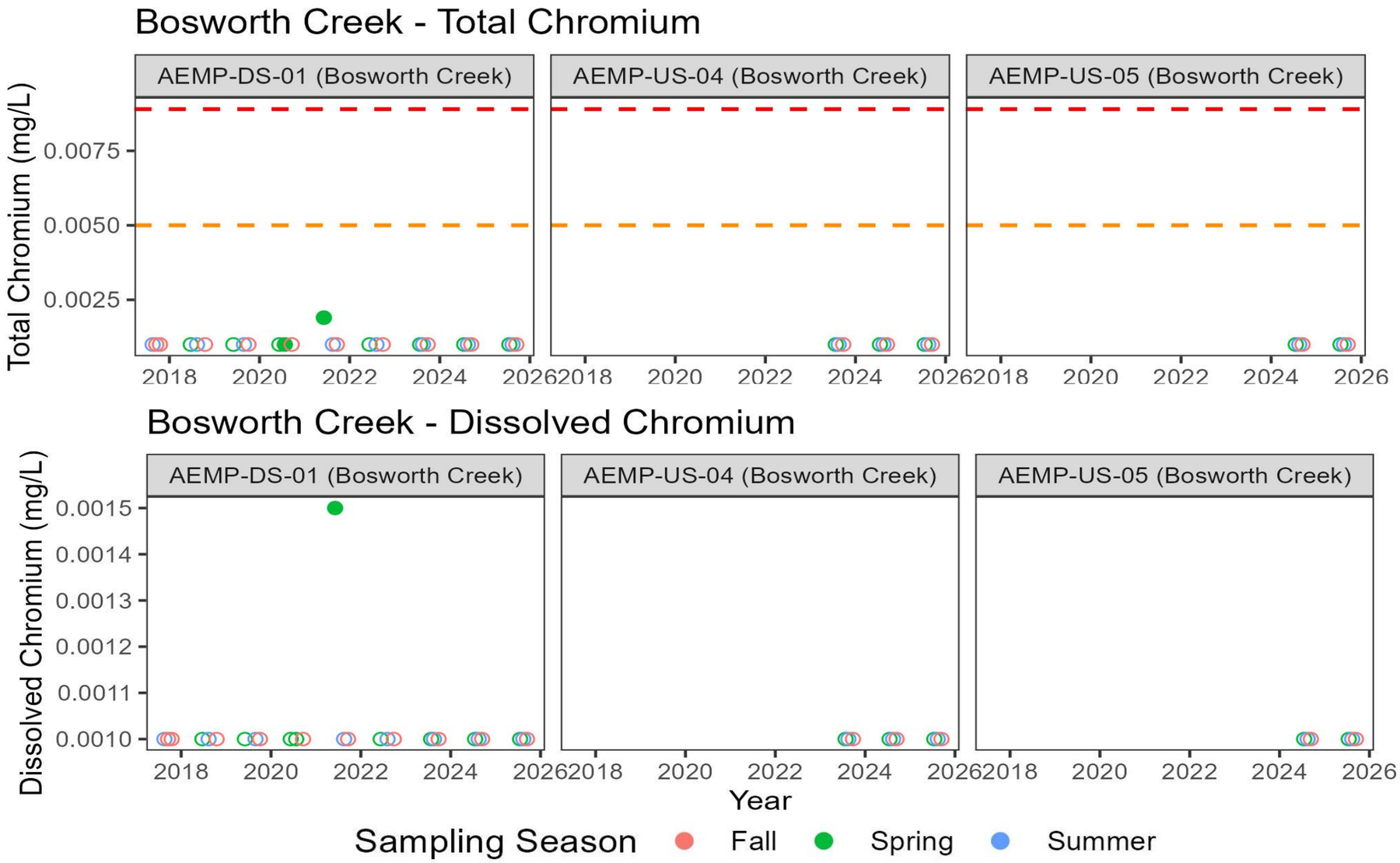
FILE DIRECTORY: U:\CALIGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits were not calculated for chromium because >60% of concentrations were below the detection limit in Bosworth Creek.
CCME Freshwater Aquatic Life Guideline of 0.0089 mg/L is based on the guideline for trivalent chromium
Federal Environmental Quality Guideline of 0.005 mg/L is based on guideline for hexavalent chromium
Canadian Drinking Water Quality Guideline of 0.05 mg/L , based on total chromium concentration is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED CHROMIUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-43 REV: A

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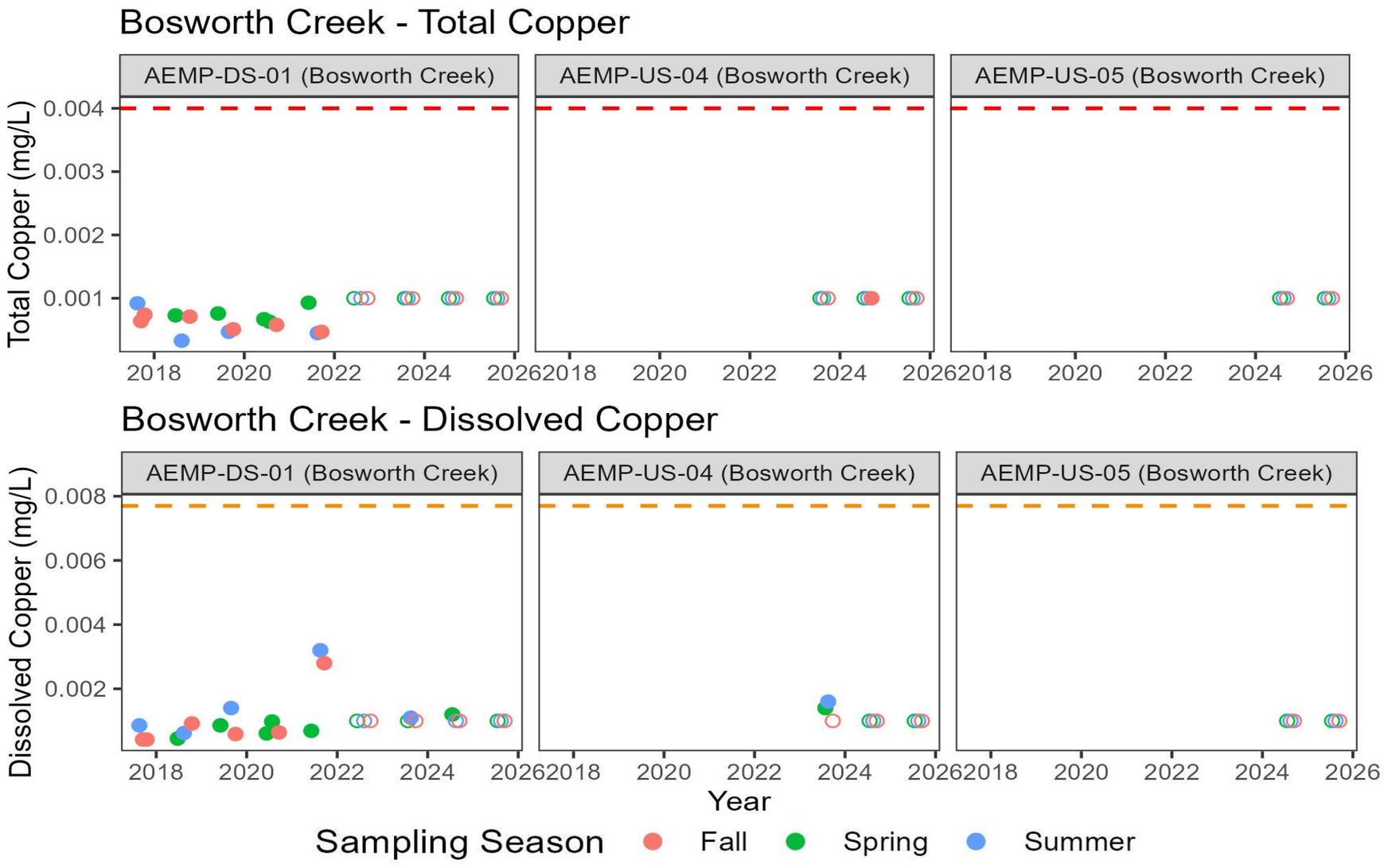
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits were not calculated for chromium because >60% of concentrations were below the detection limit in Bosworth Creek
CCME Freshwater Aquatic Life Guideline of 0.004 mg/L is based on the total copper fraction and is hardness dependant
Federal Environmental Quality Guideline of 0.0077 mg/L is based on the dissolved fraction using the biotic ligand model (BLM) tool
Canadian Drinking Water Quality Guideline of 2 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED COPPER CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-44

REV: A

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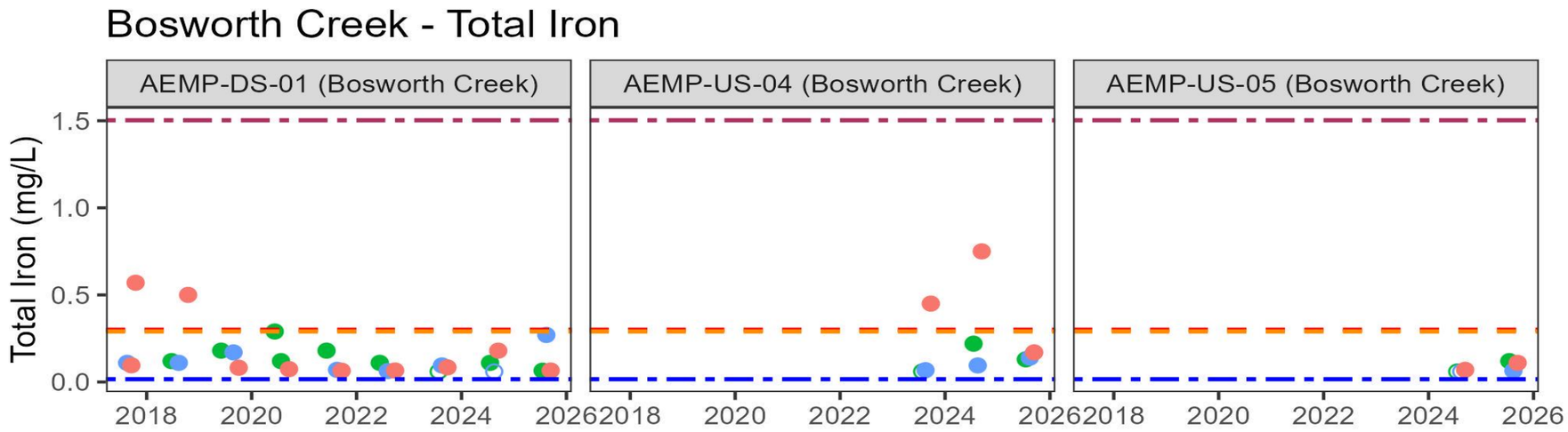
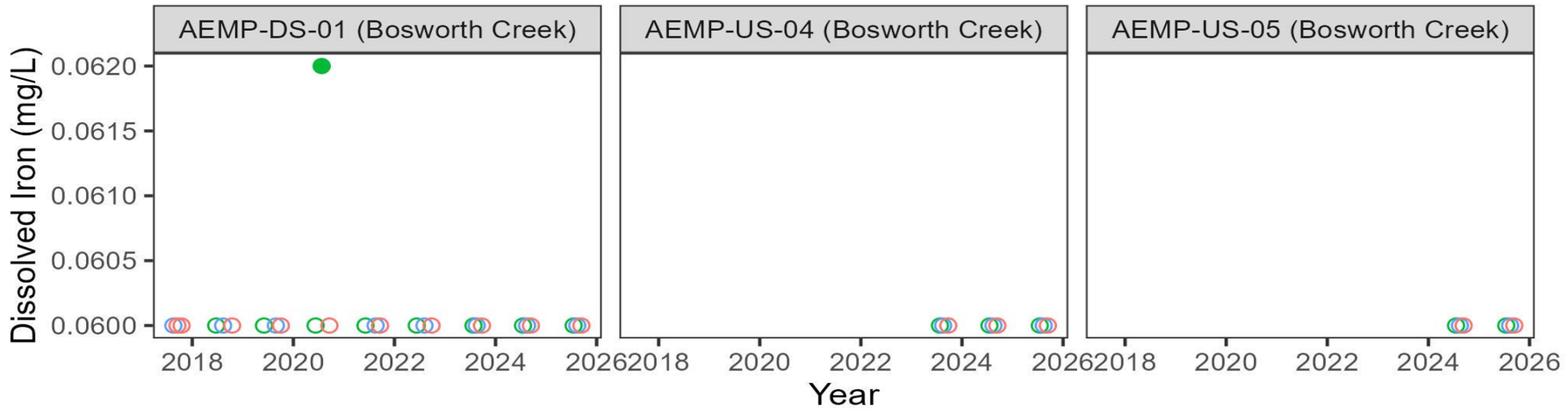
FILE DIRECTORY: U:\CALGBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\





Sampling Season ● Fall ● Spring ● Summer

Upper Control Limit — — — CCME FWAL Guideline

Lower Control Limit — — — Federal Environmental Quality Guideline

— — — Canadian Drinking Water Quality Guideline

Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
Federal Environmental Quality Guideline of 0.29 mg/L is modified by pH and DOC and is based on the total fraction
Canadian Drinking Water Quality Guideline has not been established for iron

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED IRON CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date: 04-Apr-26	Drawn by: RM	Edited by: GY	App'd by: AH

WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-45 | REV: A

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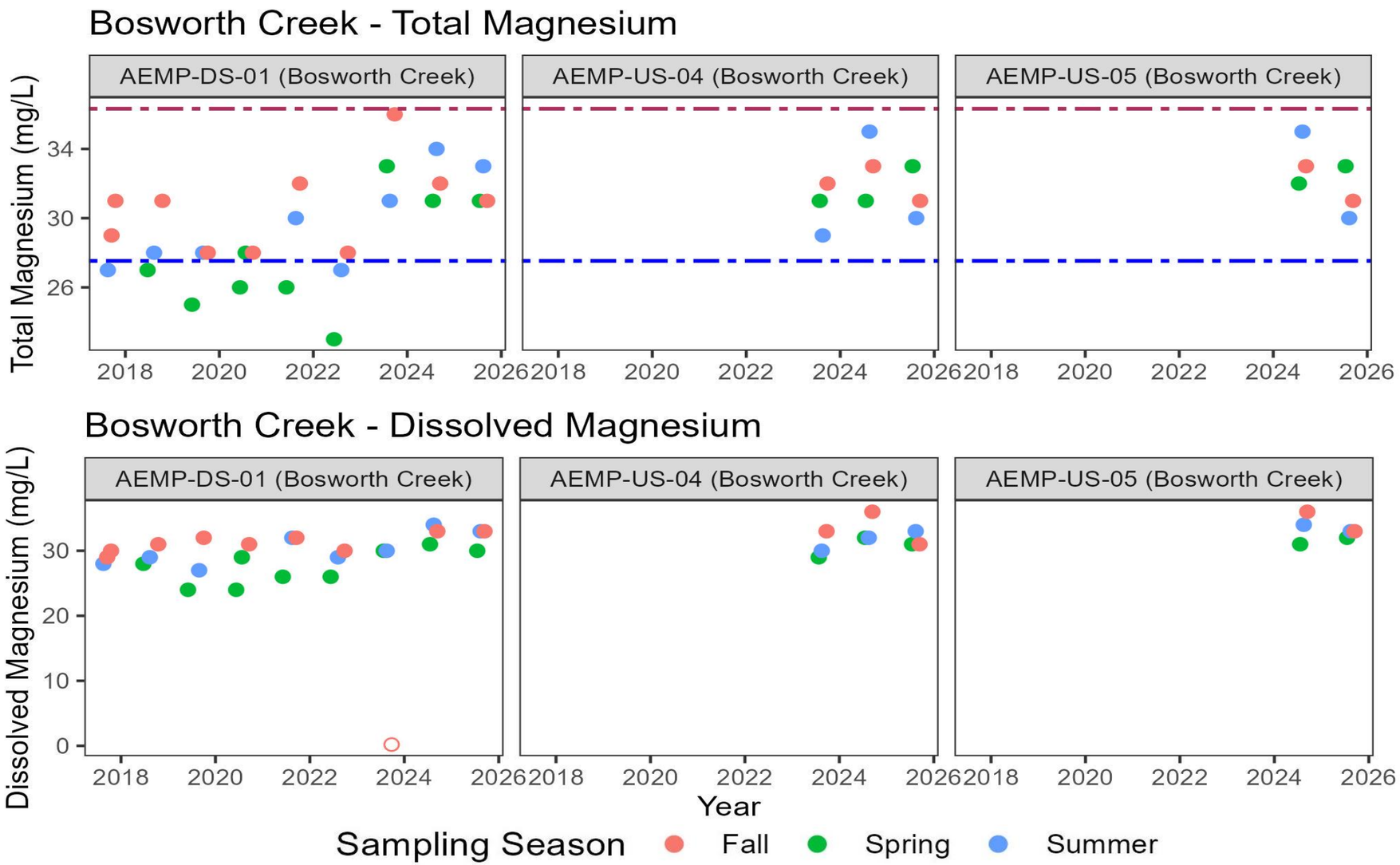
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
Regulatory guidelines applied during the NW AEMP do not have water quality criteria for magnesium

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED MAGNESIUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

WorleyParsons Project No.
417085-59897-25200

FIG No. F-46
REV A

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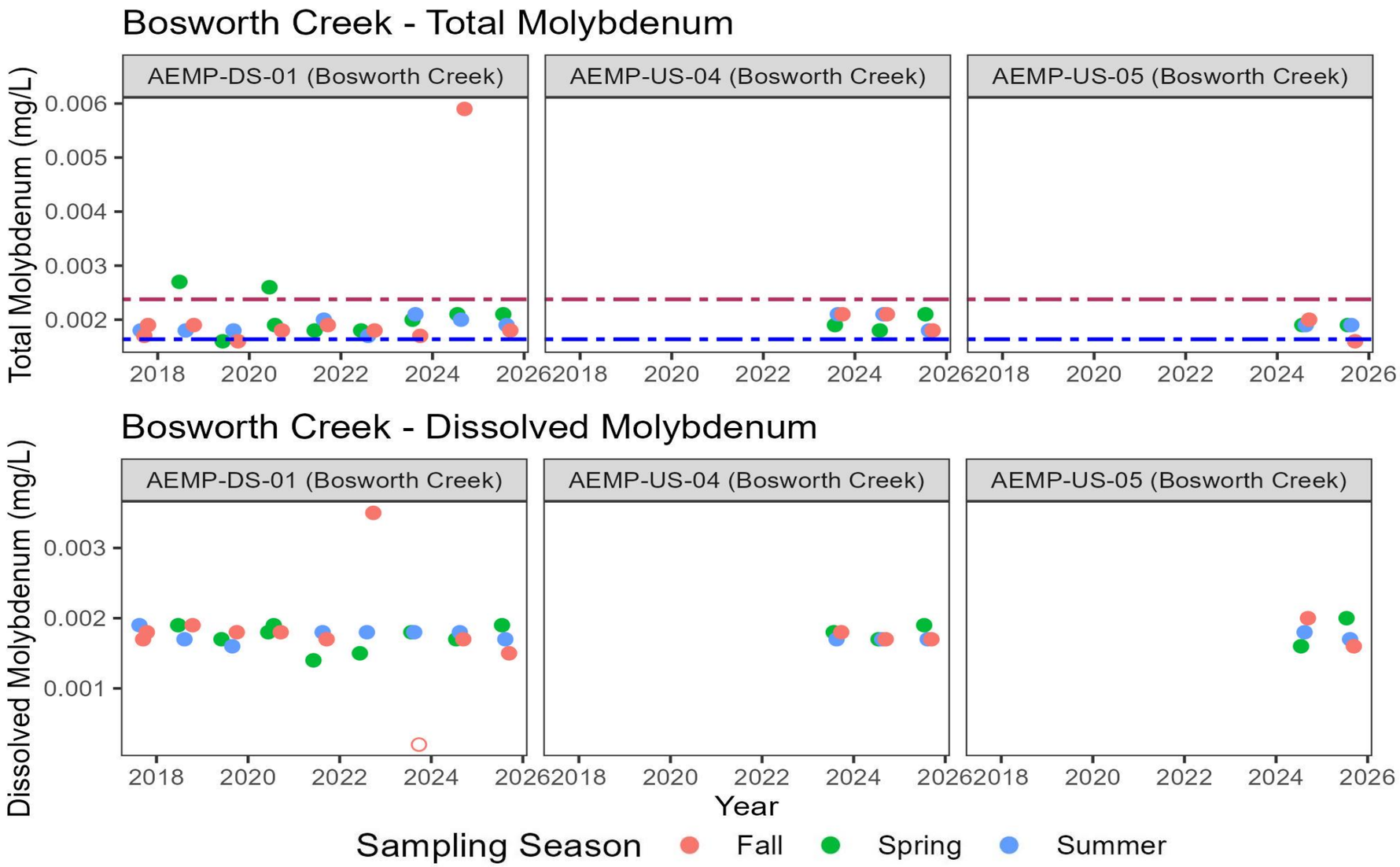
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
CCME Freshwater Aquatic Life Guideline of 0.073 mg/L based on total molybdenum is not presented
Federal Environmental Quality Guideline has not been established for molybdenum
Canadian Drinking Water Quality Guideline has not been established for molybdenum

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED MOLYBDENUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

WorleyParsons Project No.
417085-59897-25200

FIG No. F-47
REV A

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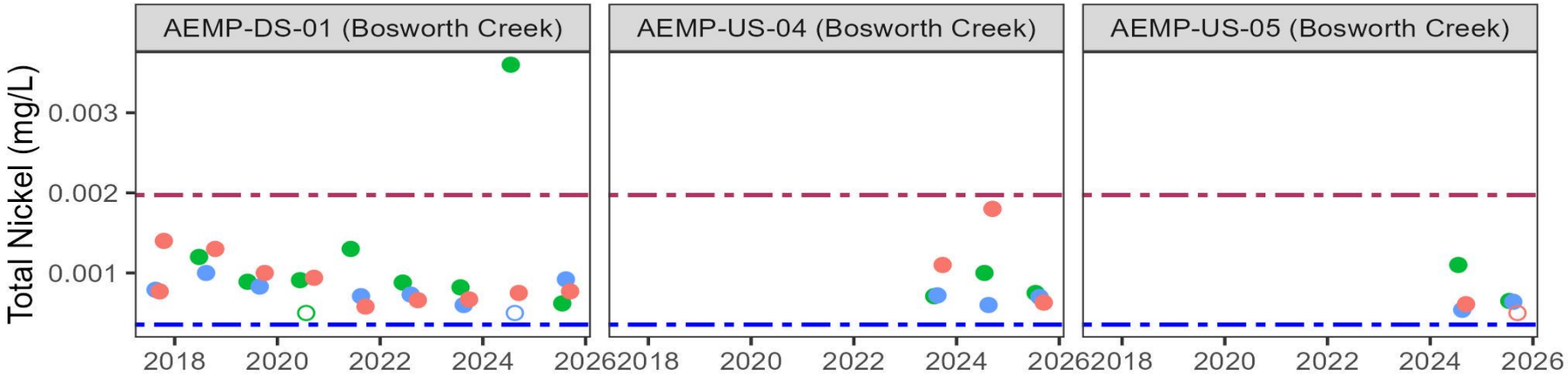
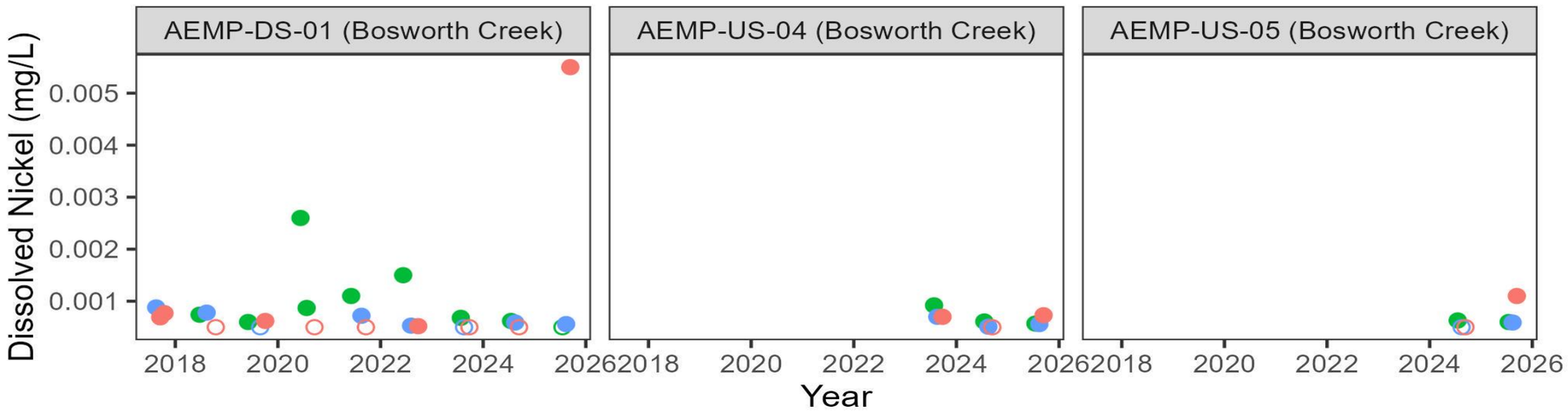
Bosworth Creek - Total Nickel



Bosworth Creek - Dissolved Nickel



Sampling Season ● Fall ● Spring ● Summer

Upper Control Limit

Lower Control Limit

CCME FWAL Guideline

Federal Environmental Quality Guideline

Canadian Drinking Water Quality Guideline

Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
CCME Freshwater Aquatic Life Guideline of 0.103 mg/L that applies to the total fraction and is dependent on hardness is not presented
Federal Environmental Quality Guideline has not been established for nickel
Canadian Drinking Water Quality Guideline has not been established for iron

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED NICKEL CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

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WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-48

REV: A

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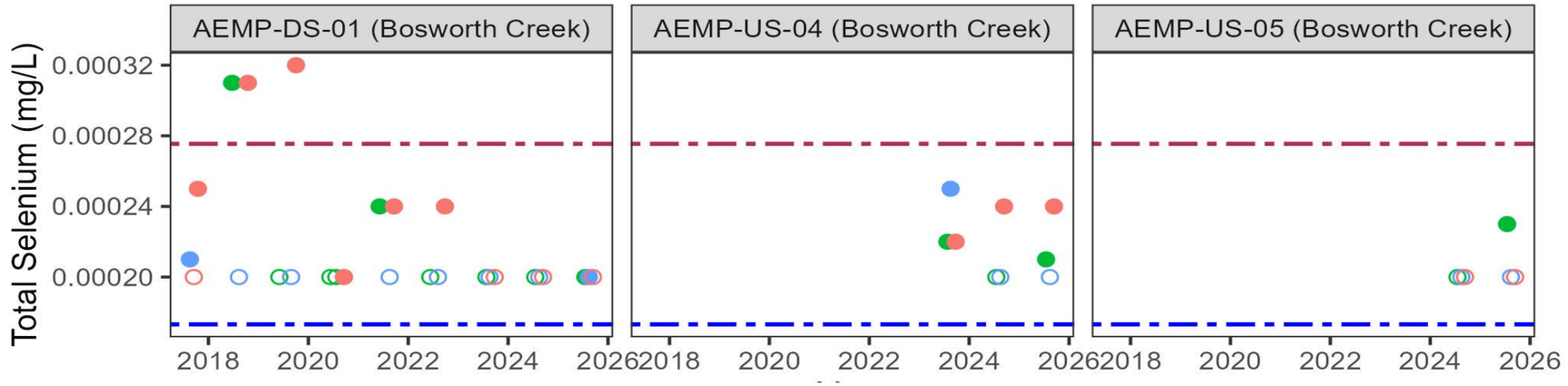
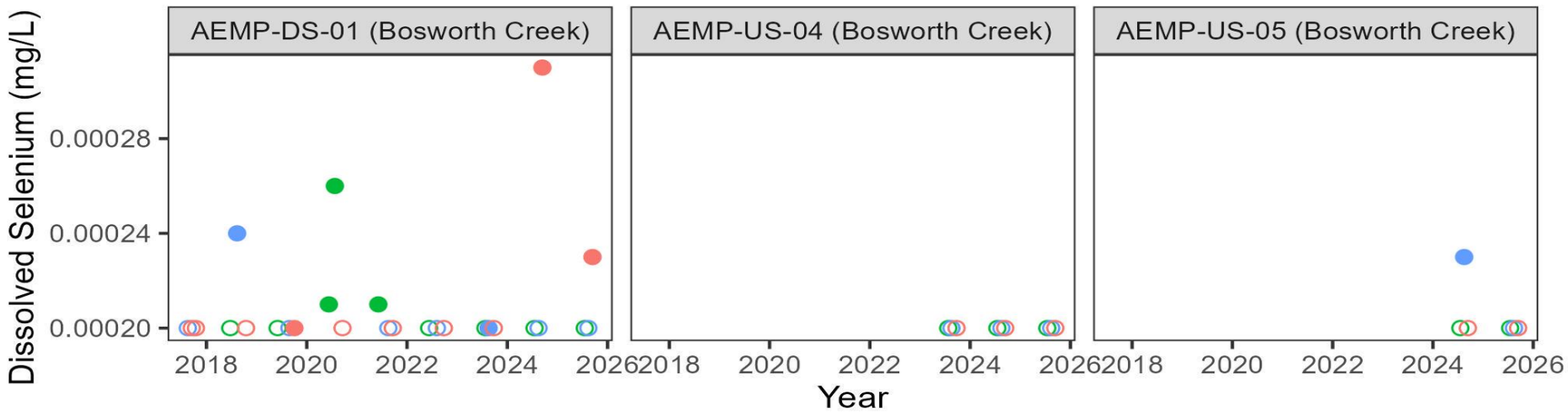
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\

Bosworth Creek - Total Selenium



Bosworth Creek - Dissolved Selenium



Sampling Season ● Fall ● Spring ● Summer

Upper Control Limit — — — CCME FWAL Guideline

Lower Control Limit — — — Federal Environmental Quality Guideline

— — — Canadian Drinking Water Quality Guideline

Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
CCME Freshwater Aquatic Life Guideline of 0.001 mg/L that applies to the total fraction is not presented
Federal Environmental Quality Guideline for water quality has not been established for selenium
Canadian Drinking Water Quality Guideline of 0.05 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED SELENIUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

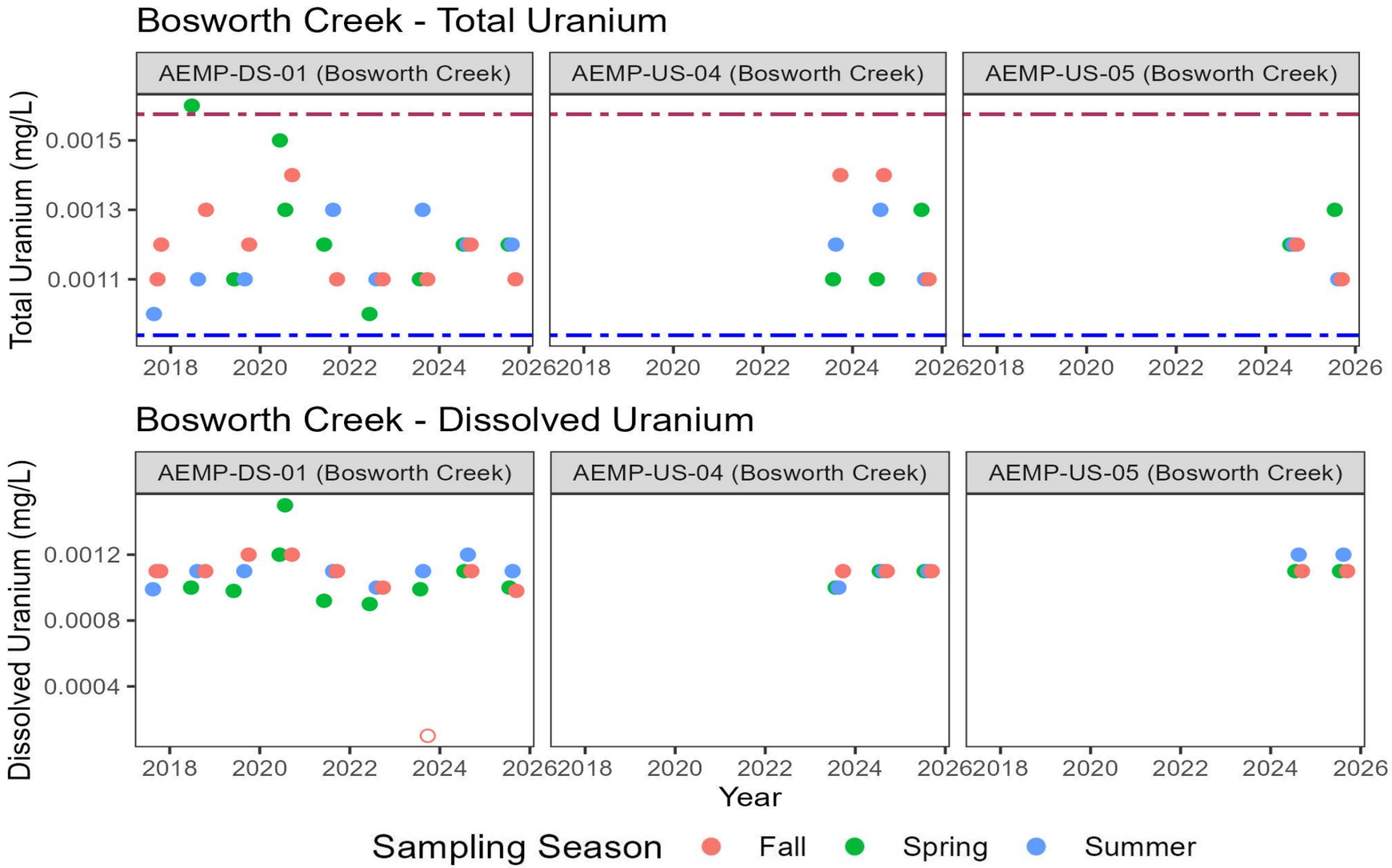
WorleyParsons Project No.: 417085-59897-25200

FIG No.: F-49 REV: A

* This drawing is prepared solely for the use of our customer as specified in the accompanying report. WorleyParsons Canada Services Ltd. assumes no liability to any other party for any representations contained in this drawing.*

FILE LOCATION: U:\CAL\GBS\

FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\



Open circles denote values below detection
Control Limits are based on total fraction concentrations from the upstream (AEMP-US-04) sampling location
CCME Freshwater Aquatic Life Guideline of 0.015 mg/L is not presented
Federal Environmental Quality Guideline has not been established for uranium
Canadian Drinking Water Quality Guideline of 0.020 mg/L is not presented

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

TOTAL AND DISSOLVED URANIUM CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	Drawn by:	Edited by:	App'd by:
04-Apr-26	RM	GY	AH

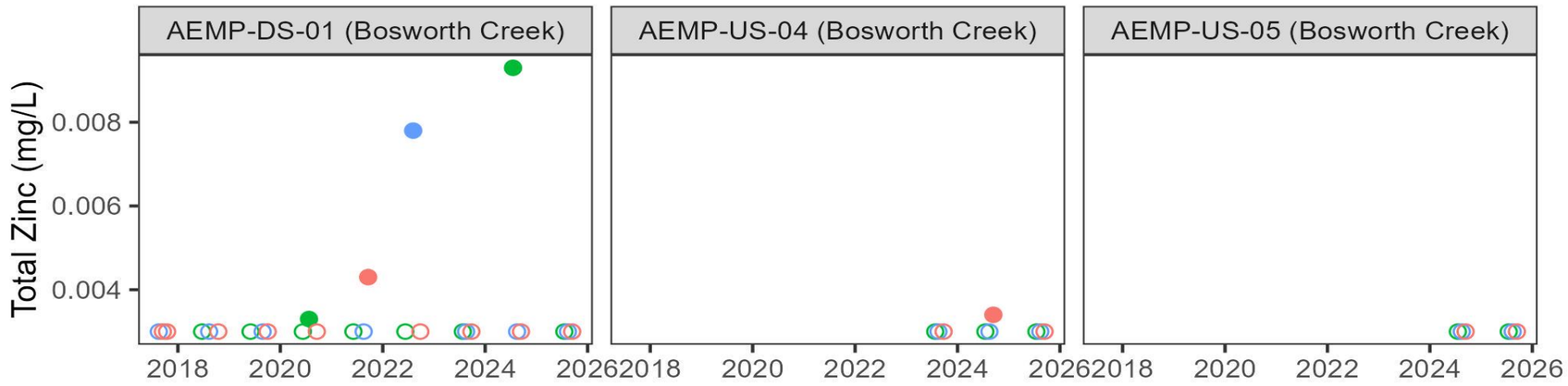
WorleyParsons Project No.
417085-59897-25200

FIG No. F-50
REV A

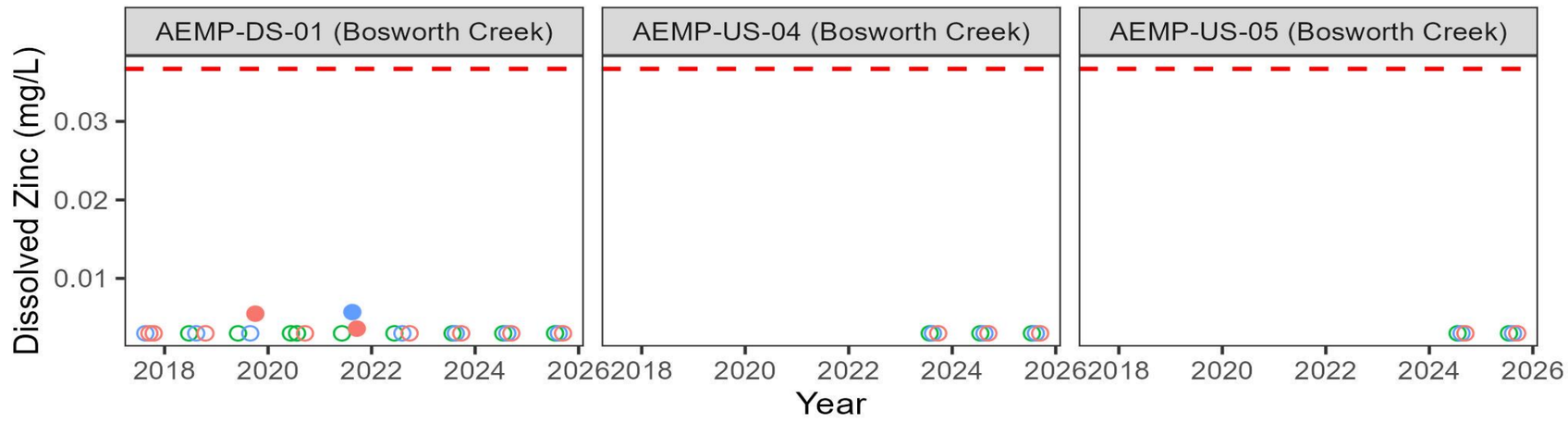
* This drawing is prepared solely for the use of our customer as specified in the accompanying report. WorleyParsons Canada Services Ltd. assumes no liability to any other party for any representations contained in this drawing.*

FILE LOCATION: U:\CAL\GBS\
FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\

Bosworth Creek - Total Zinc



Bosworth Creek - Dissolved Zinc



Sampling Season ● Fall ● Spring ● Summer

- - - - CCME FWAL Guideline

- - - - Federal Environmental Quality Guideline

- - - - Canadian Drinking Water Quality Guideline

Open circles denote values below detection
Control Limits were not calculated for zinc because >60% of concentrations were below the detection limit in Bosworth Creek
CCME Freshwater Aquatic Life Guideline of 0.037 mg/L is based on dissolved fraction concentrations
Federal Environmental Quality Guideline has not been established for zinc
Canadian Drinking Water Quality Guideline has not been established for zinc

IMPERIAL
AQUATIC EFFECTS MONITORING PROGRAM
NORMAN WELLS, NT

DISSOLVED ZINC CONCENTRATIONS (MG/L) IN THE BOSWORTH CREEK DURING THE AEMP FROM 2017 TO 2025

Date:	04-Apr-26	Drawn by:	RM	Edited by:	GY	App'd by:	AH

WorleyParsons Project No.: 417085-59897-25200

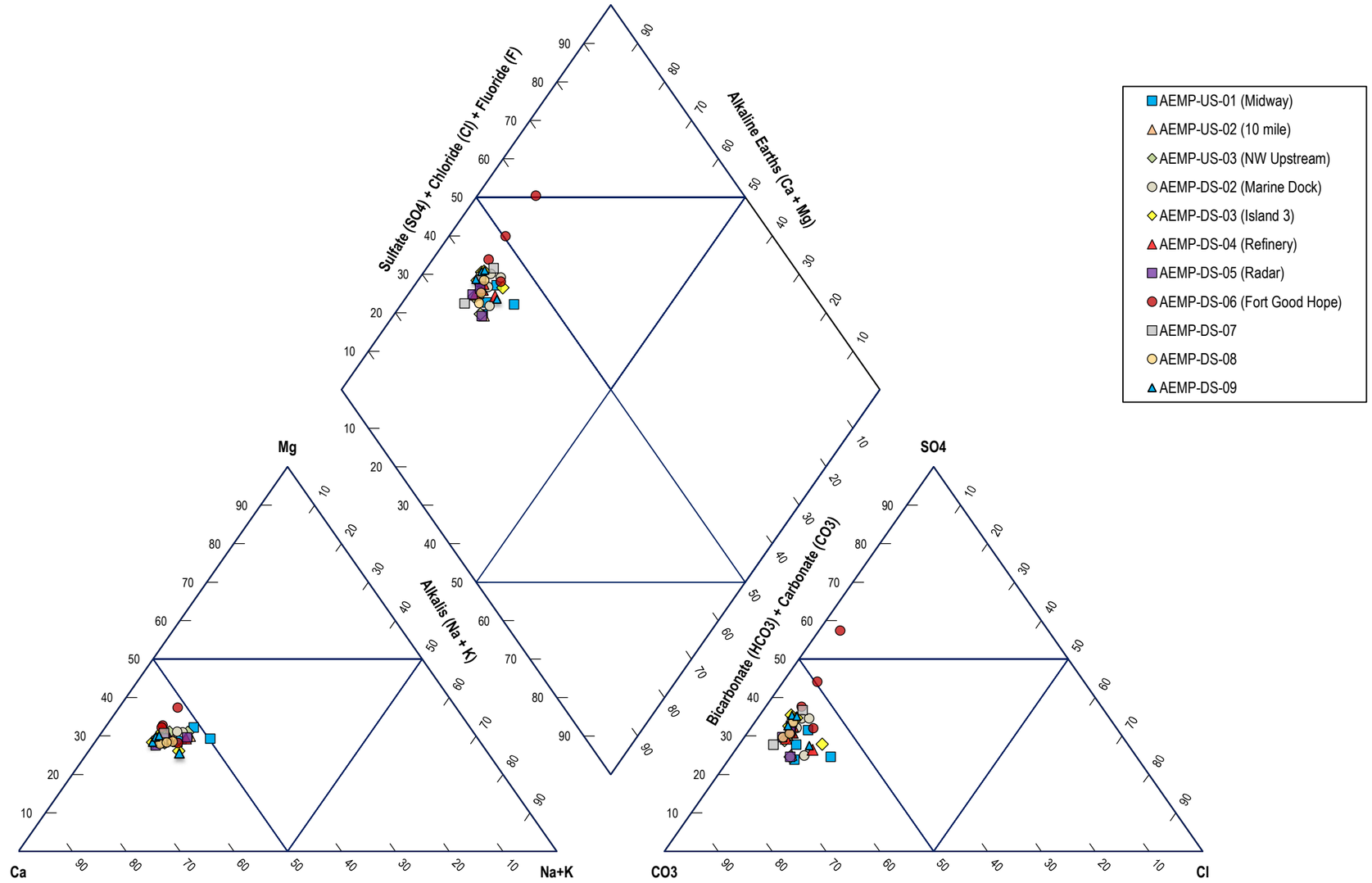
FIG No.: F-51 REV: A

* This drawing is prepared solely for the use of our customer as specified in the accompanying report.
WorleyParsons Canada Services Ltd. assumes no liability to any other party for any representations contained in this drawing.*

FILE LOCATION: U:\CAL\GBS\

FILE DIRECTORY: U:\CAL\GBS\417085-59897 2025 NW OPS\25200 - AEMP\02_RPTS\11_TECHRPTS&STUDIES\03_BACKEND\FIGURES\

Appendix G. Piper Plots



IMPERIAL
AEMP
NORMAN WELLS, NT

MACKENZIE RIVER - ALL 2025

Date:	13-03-2026	Drawn by:	RM	Edited by:	GY	App'd by:	AH

Advisian Project No.
417085-59897

FIG No. **G-1** REV **A**

* This drawing is prepared solely for the use of our customer as specified in the accompanying report.
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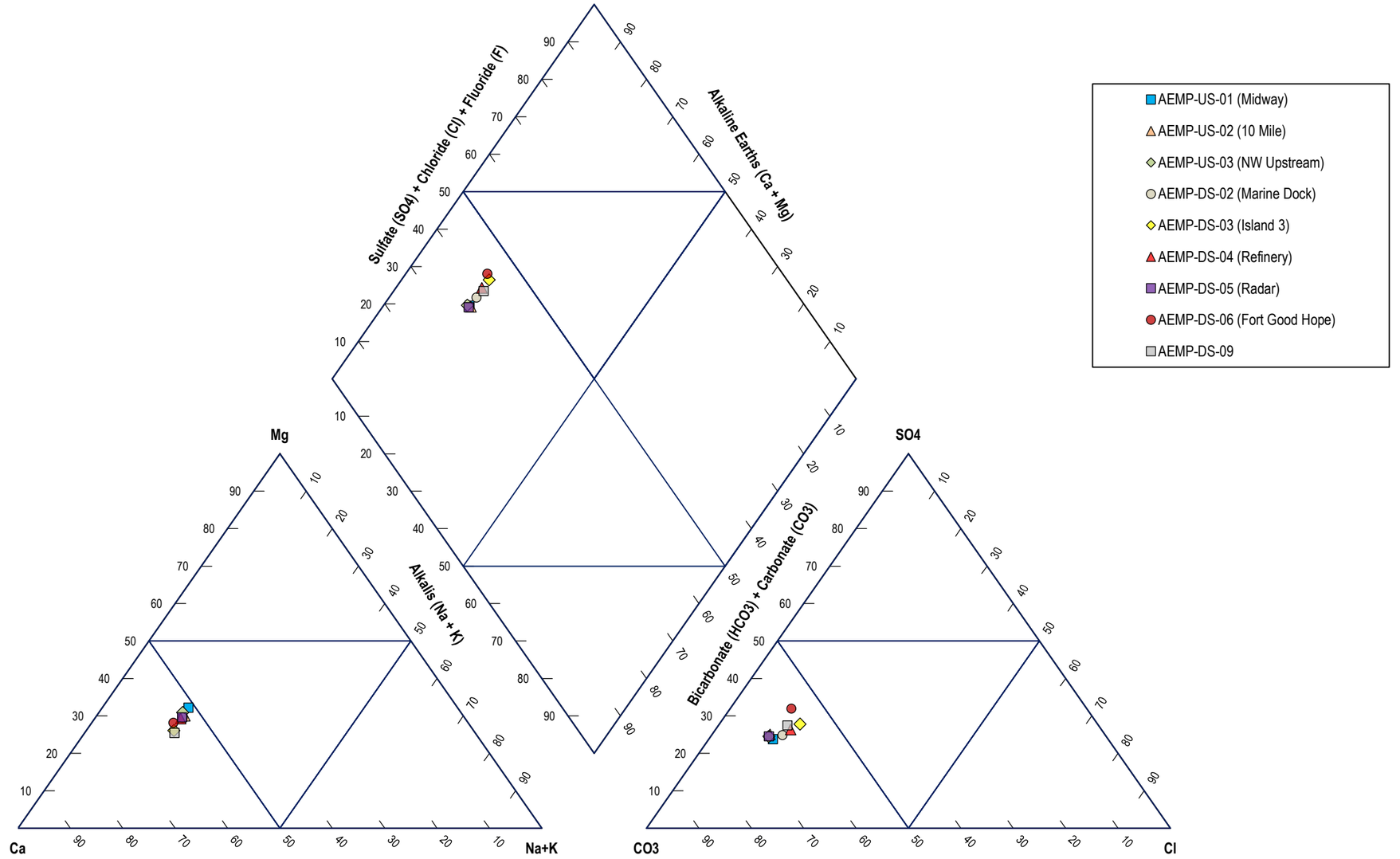

IMPERIAL
AEMP
NORMAN WELLS, NT

MACKENZIE RIVER - MARCH 2025

Date:	Drawn by:	Edited by:	App'd by:
12-03-2026	RM	GY	AH

Advisian Project No.
417085-59897

FIG No. G-2 | REV A

* This drawing is prepared solely for the use of our customer as specified in the accompanying report.
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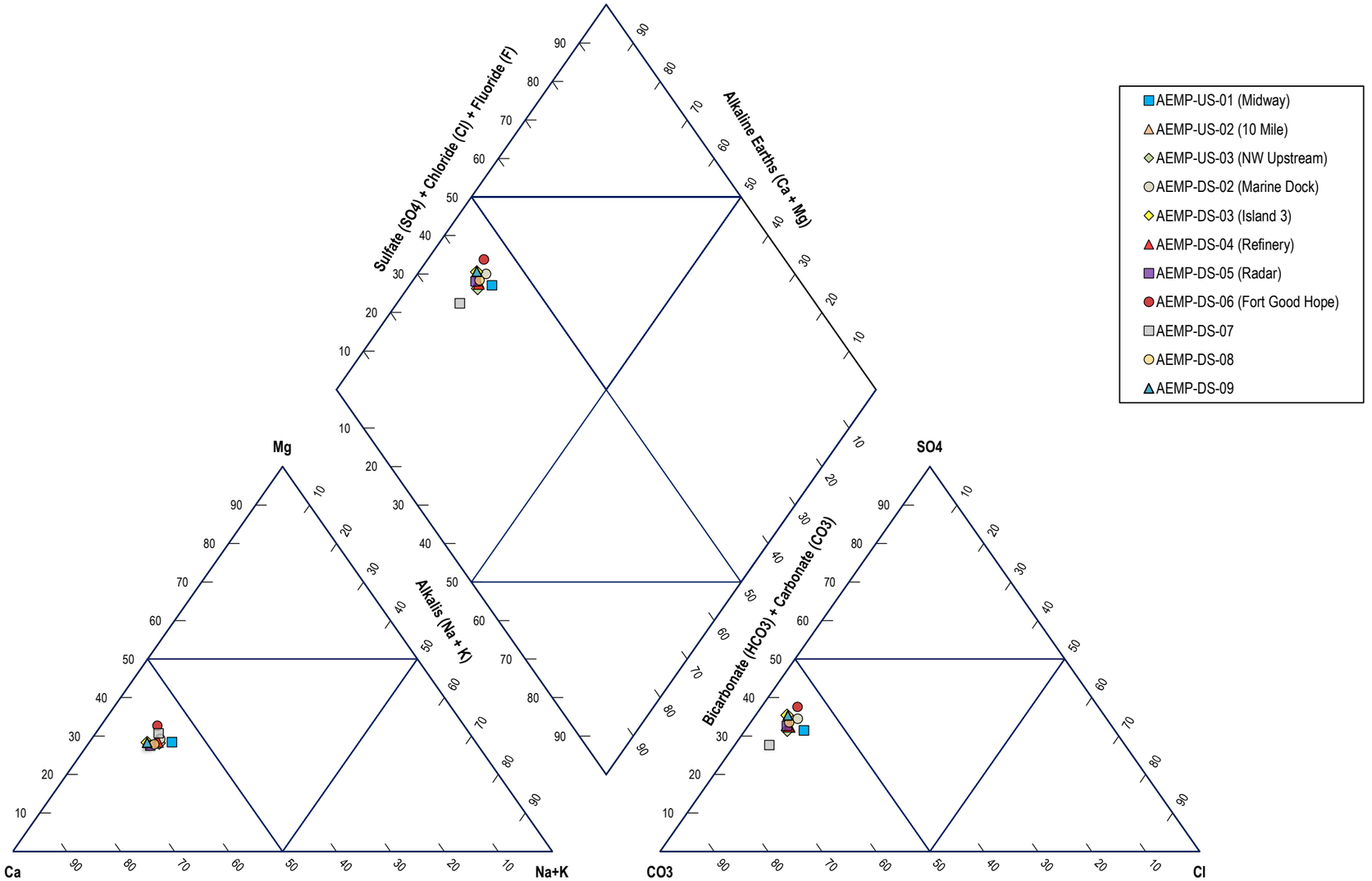


IMPERIAL
AEMP
NORMAN WELLS, NT

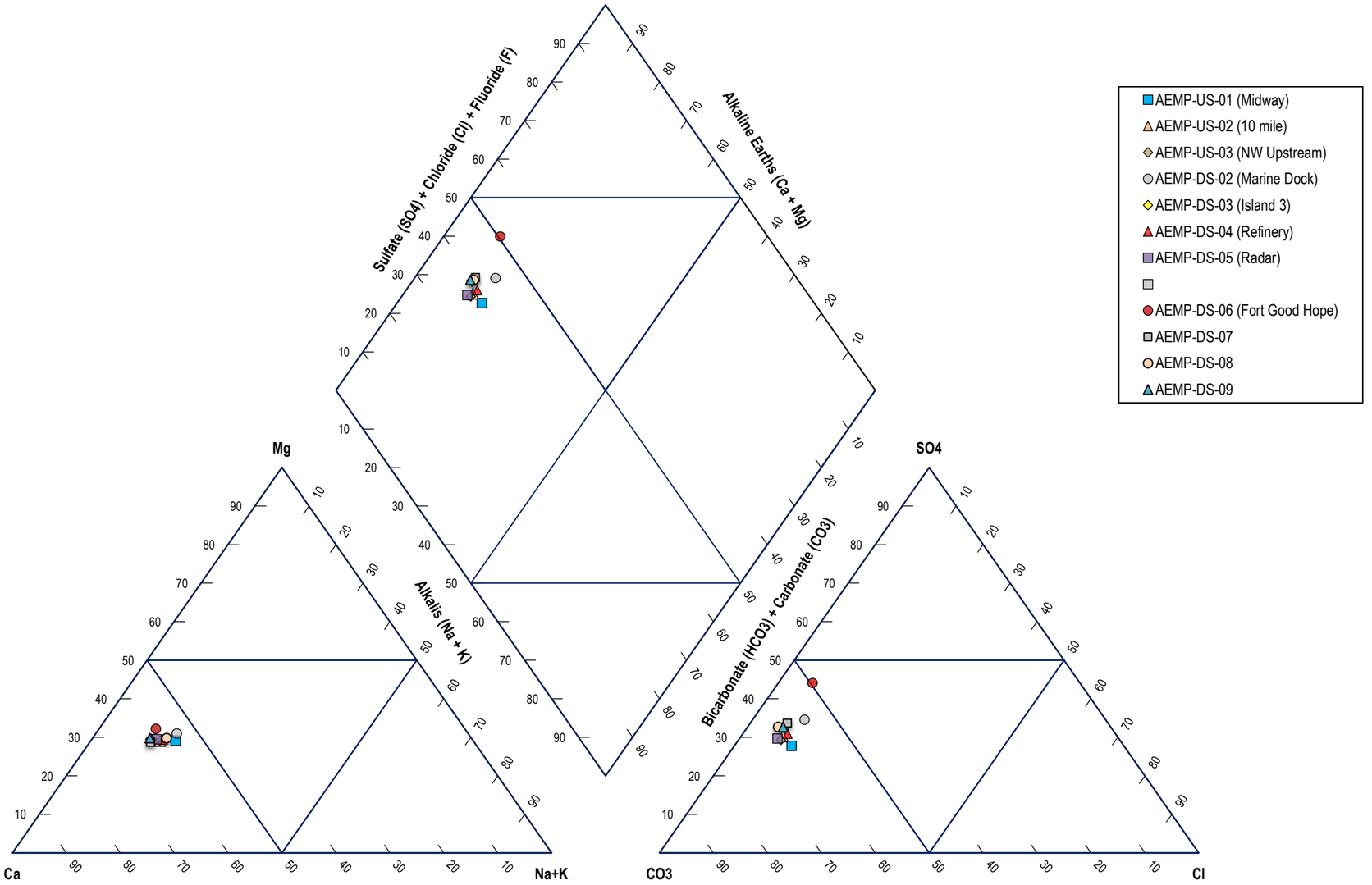
MACKENZIE RIVER - JULY 2025

Date:	13-03-2026	Drawn by:	RM	Edited by:	GY	App'd by:	AH

Advisian Project No.: 417085-59897

FIG No.: G-3 REV: A

* This drawing is prepared solely for the use of our customer as specified in the accompanying report. WorleyParsons Canada Services Ltd. assumes no liability to any other party for any representations contained in this drawing."



IMPERIAL
AEMP
NORMAN WELLS, NT

MACKENZIE RIVER - AUGUST 2025

Date:	Drawn by:	Edited by:	App'd by:
13-03-2026	RM	GY	AH

Advisian Project No.: 417085-59897

FIG No.: G-4

REV: A

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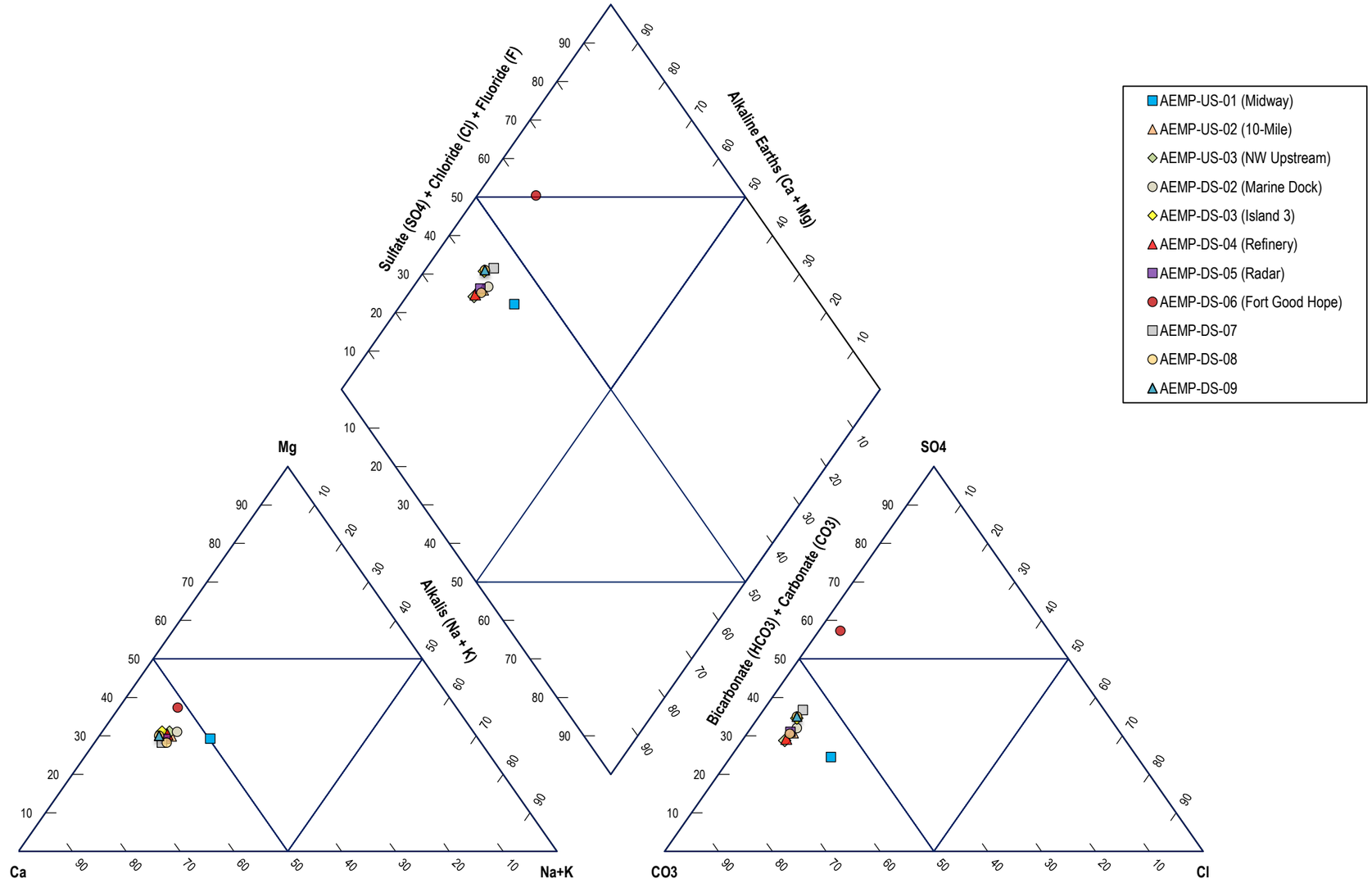

IMPERIAL
AEMP
NORMAN WELLS, NT

MACKENZIE RIVER - SEPTEMBER 2025

Date:	13-03-2026	Drawn by:	RM	Edited by:	GY	App'd by:	AH

Advisian Project No.: 417085-59897

FIG No.: G-5 | REV: A

* This drawing is prepared solely for the use of our customer as specified in the accompanying report.
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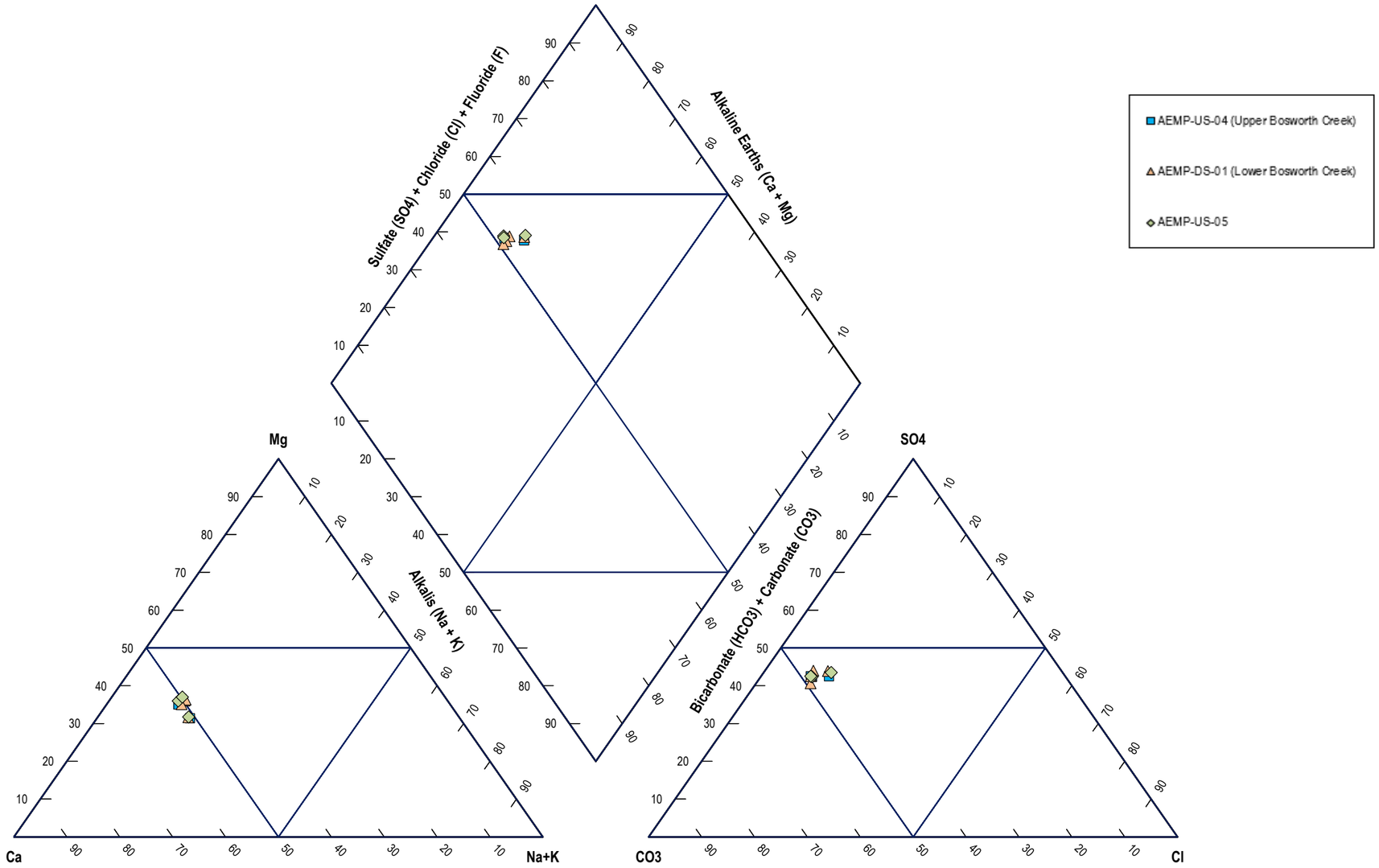

IMPERIAL
AEMP
NORMAN WELLS, NT

BOSWORTH CREEK - ALL 2025

Date:	14-01-2026	Drawn by:	RM	Edited by:	GY	App'd by:	AH

Advisian Project No.
417085-59897

FIG No. G-6

REV A

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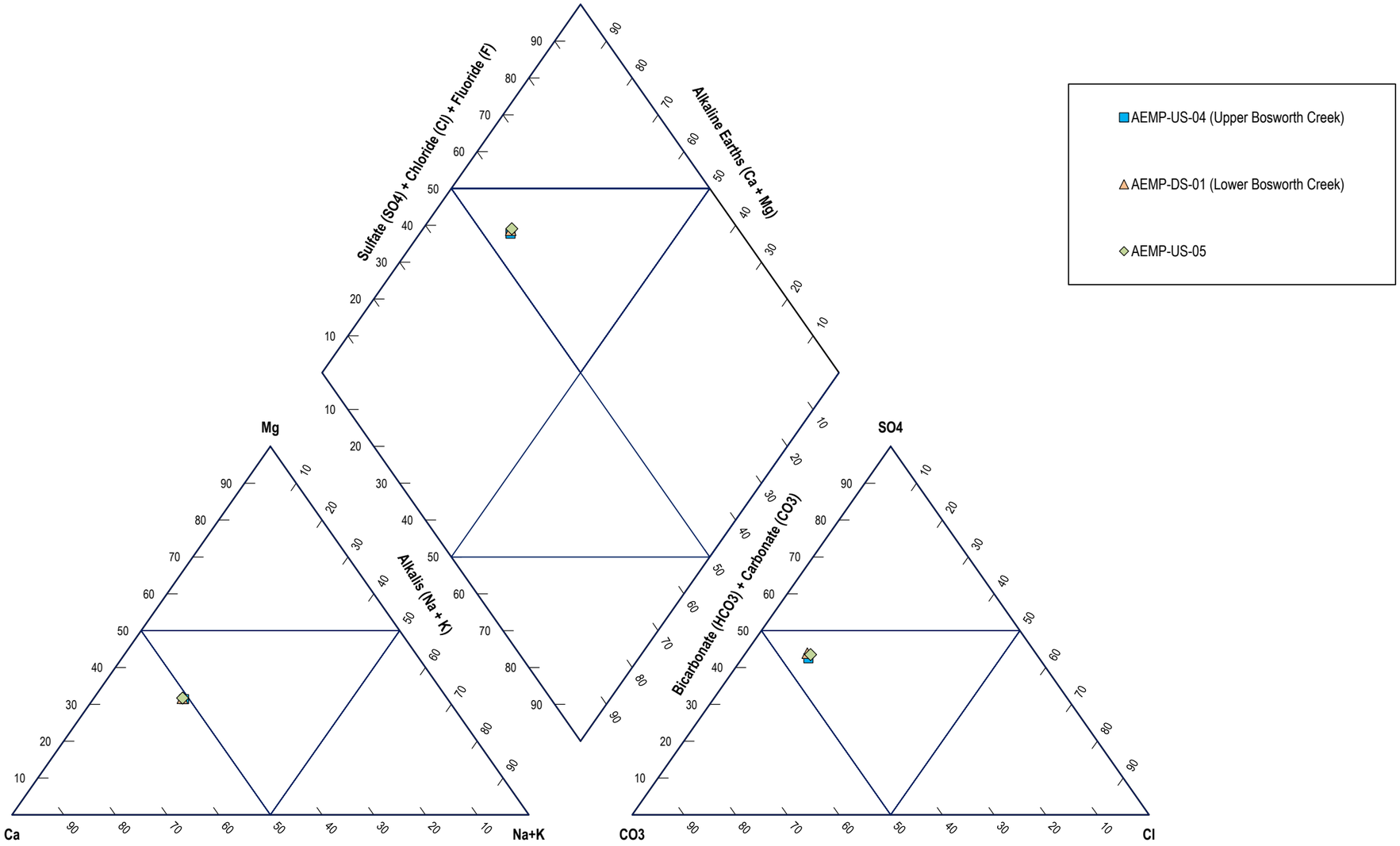

IMPERIAL
AEMP
NORMAN WELLS, NT

BOSWORTH CREEK - JULY 2025

Date:	Drawn by:	Edited by:	App'd by:
15-01-2026	RM	GY	AH

Advisian Project No.
417085-59897

FIG No. G-7

REV A

* This drawing is prepared solely for the use of our customer as specified in the accompanying report.
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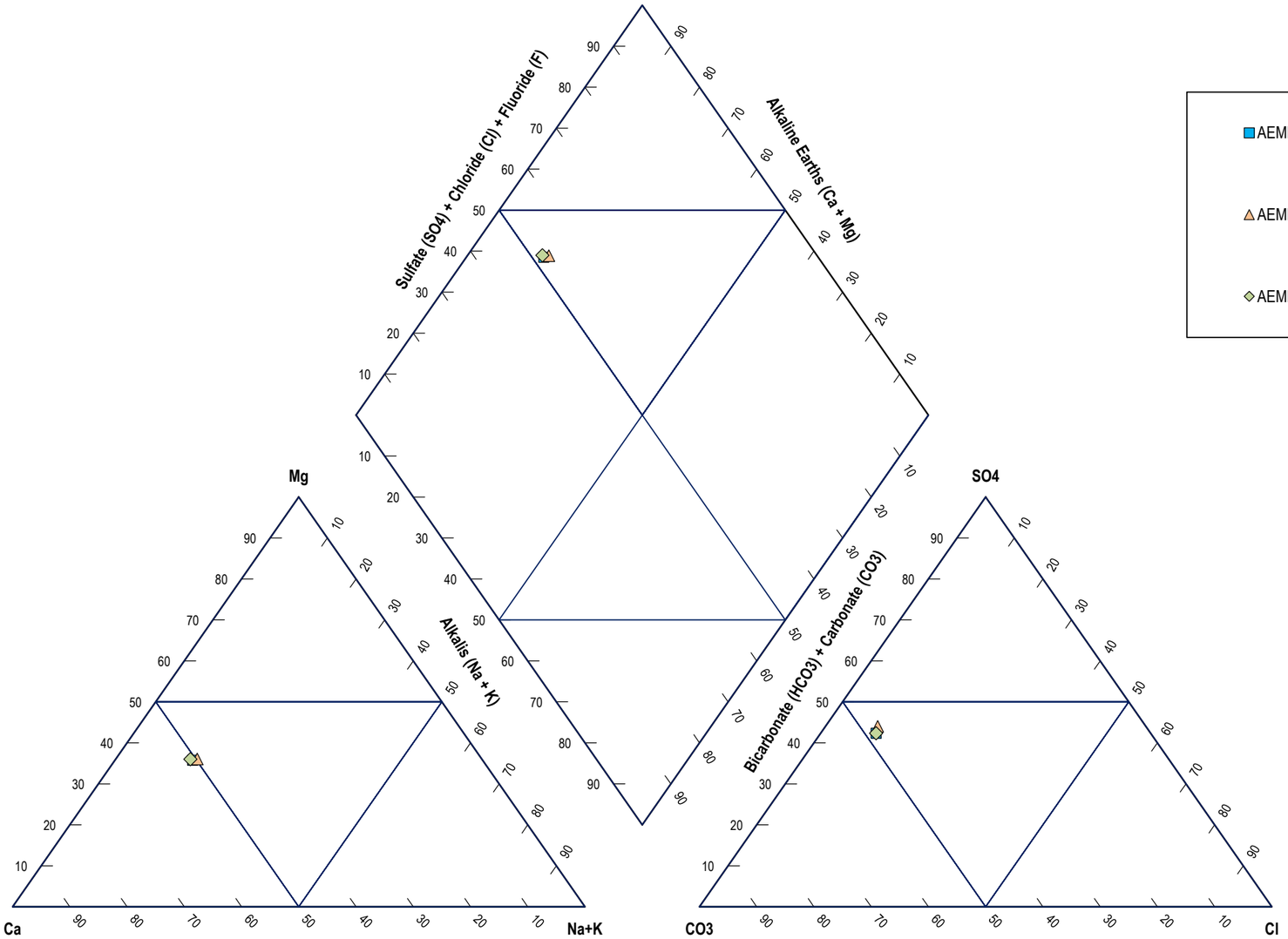

IMPERIAL
AEMP
NORMAN WELLS, NT

BOSWORTH CREEK - AUGUST 2025

Date:	Drawn by:	Edited by:	App'd by:
12-04-2025	RM	GY	AH

Advisian Project No.
417085-59897

FIG No.
G-8

REV
A

* This drawing is prepared solely for the use of our customer as specified in the accompanying report.
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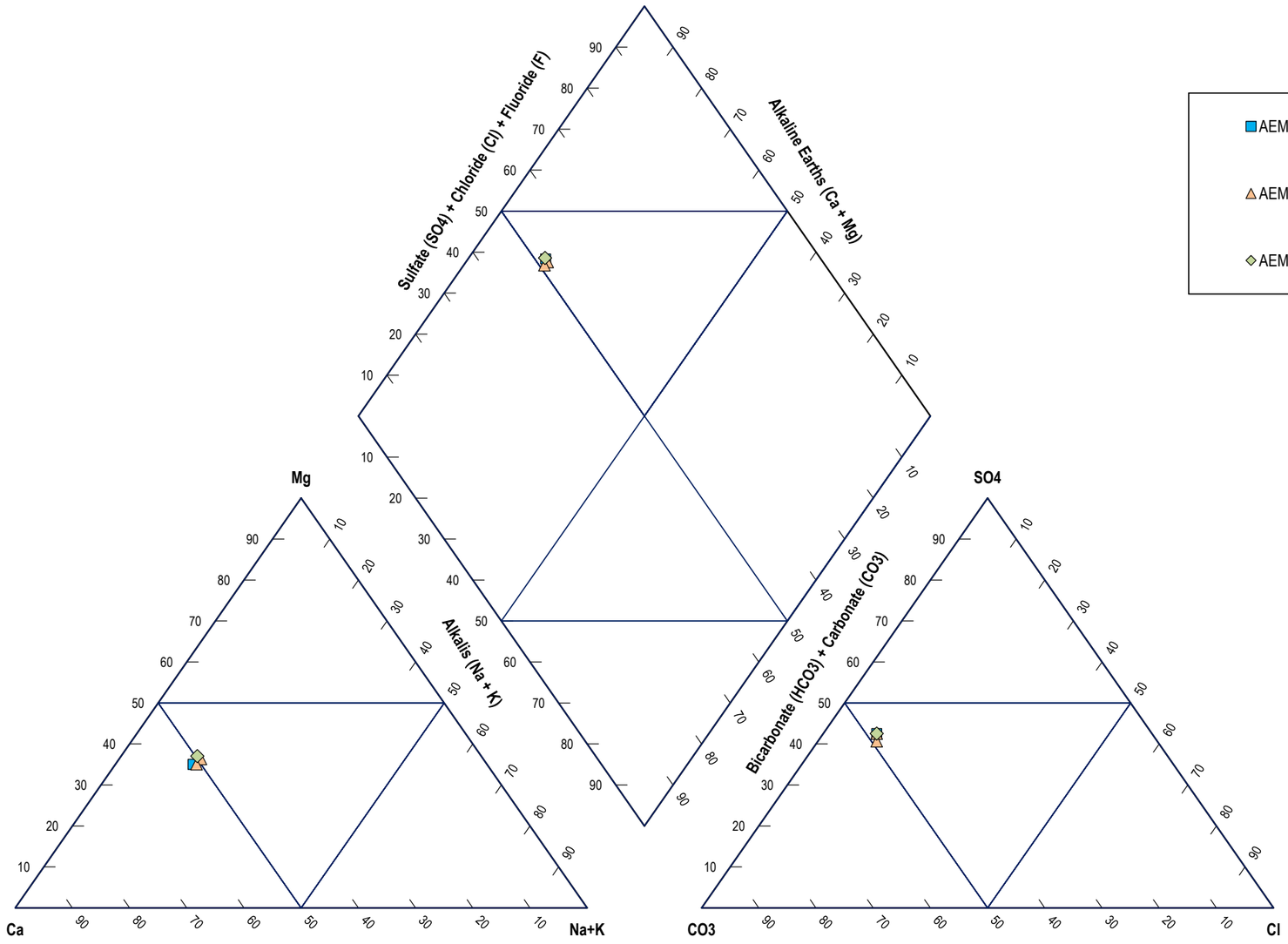

IMPERIAL
AEMP
NORMAN WELLS, NT

BOSWORTH CREEK - SEPTEMBER 2025

Date:	Drawn by:	Edited by:	App'd by:
16-01-2025	RM	GY	AH

Advisian Project No.: 417085-59897

FIG No.: G-9

REV: A

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Appendix H. Surface Water Laboratory Certificates of Analysis

SGS AXYS

2045 Mills Road West
Sidney, BC, Canada V8L5X2

TEL: (250) 655-5800
TOLL-FREE: 1-888-373-0881

SGS AXYS Client No.: 4608

Client Address: Worley Canada Services Ltd
49 Quarry Park BLVD SE
Calgary, AB, CA, T2C 5H9

The SGS AXYS contact for these data is Suma Thomas.

"This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law."
"The sample(s) to which the findings recorded herein (the "Findings") relate was[were] drawn and [or] provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is[are] said to be extracted."

How did we do today?

Your feedback helps us improve our service and takes less than a minute to complete.

START SURVEY

BATCH SUMMARY

Batch ID: WG95247	***Date:*** 09-Oct-2025
Analysis Type: PAH	***Matrix Type:*** SPMD

BATCH MAKEUP

Contract: 4608

Samples:

L43152-1	Day Zero 1
L43619-1	Field Blank 19-JUL-25
L43619-5	AEMP-US-04 17-JUL-25
L43619-6	AEMP-US-05 17-JUL-25
L43619-7	AEMP-DS-01 19-JUL-25
L43619-8	AEMP-DS-02 19-JUL-25
L43619-9	AEMP-DS-03 18-JUL-25
L43619-10	AEMP-DS-04 19-JUL-25
L43619-11	AEMP-DS-05 18-JUL-25
L43619-12	AEMP-DS-06 16-JUL-25
L43619-13	AEMP-DS-07 16-JUL-25
L43619-14	AEMP-DS-08 18-JUL-25
L43619-15	AEMP-DS-09 18-JUL-25
L43619-16	AEMP-Dup-1 19-Jul-25
L43619-17	AEMP-US-01 18-JUL-25
L43619-18	AEMP-US-03 18-JUL-25

Blank: WG95247-101

Reference or Spike: WG95247-102

Duplicate:

Comments:

1. Data are considered final.
2. Data are not blank corrected. Blank data should be taken into consideration when evaluating sample data.
3. Blank data should be evaluated against specifications using the same blank sample size as the size of the client samples.
4. For the OPR (AXYS ID WG95247-102), the percent recoveries of the native compounds FLUORANTHENE and PYRENE fell slightly outside the method control limits and are flagged with 'N'. Based on the pattern of surrogate recoveries, these variances are judged not to affect the quantification of native analytes in client samples.

Copyright SGS AXYS Analytical Services Ltd
February 2017

4608

L43152

Client ID	Axys ID
Day Zero 1	L43152-1
Day Zero 2	L43152-2
Day Zero 3	L43152-3

10:40

SGS AXYS

SGS AXYS Analytical Services Chain of Custody

Mills Road West, Sidney, British Columbia, Canada V8L 5X2
TEL: (250) 655-5800 TOLL FREE 1-888-373-0881 FAX: (250) 655-5811

2045 SGS AXYS CLIENT #: 4608

PAGE 1 OF 1

Client / Reporting Information	Invoice to	Analysis Requested
Company Name Worley Consulting	Same as report to (Y / N). If no, please fill in below YES	
Address - 49 Quarry Park BLVD SE, Calgary, AB T2C 5H9	Company - Worley Canada Services Ltd.	
	Address - 49 Quarry Park Blvd SE, Calgary AB T2C 5H9	
Project Contact Alex Haigh; Stacy Gibb	Contact Stacy Gibb	
Phone # 587-897-6249; 587-434-5393	Email stacy.gibb@worley.com	
Email alex.haigh@worley.com; stacy.gibb@worley.com	Client Purchase Order # or Quote # 2025 1692	
Project Name or Number: Norman Wells AEMP 417085-59897-25200	Sampler Signature: Name: Stacy Gibb	

Client Sample Identification	Matrix	Deploy Date/Time (YYYY-MM-DD/HH:MM)	Retrieve Date/Time (YYYY-MM-DD/HH:MM)	Container Type	# Strips	SGS AXYS Lab Sample ID (Lab use only)	PAHs	Alkylated PAHs			
AEMP-US-01	SPMD	2025-06-20/10:45	2025-07-18/14:21	SPMD	3	L43619-17	x	x			
AEMP-US-03	SPMD	2025-06-20/12:15	2025-07-18/12:40	SPMD	3	-18	x	x			
AEMP-US-04	SPMD	2025-06-19/11:40	2025-07-17/15:54	SPMD	3	-5	x	x			
AEMP-US-05	SPMD	2025-06-19/12:15	2025-07-17/15:09	SPMD	3	-6	x	x			
AEMP-DS-01	SPMD	2025-06-19/10:40	2025-07-19/16:54	SPMD	3	-7	x	x			
AEMP-DS-02	SPMD	2025-06-19/13:30	2025-07-19/15:29	SPMD	3	-8	x	x			
AEMP-DS-03	SPMD	2025-06-20/14:15	2025-07-18/11:45	SPMD	3	-9	x	x			
AEMP-DS-04	SPMD	2025-06-21/09:30	2025-07-19/14:54	SPMD	3	-10	x	x			
AEMP-DS-05	SPMD	2025-06-20/13:00	2025-07-18/10:00	SPMD	3	-11	x	x			
AEMP-DS-06	SPMD	2025-06-18/12:25	2025-07-16/11:37	SPMD	3	-12	x	x			
AEMP-DS-07	SPMD	2025-06-18/11:55	2025-07-16/10:37	SPMD	3	-13	x	x			
AEMP-DS-08	SPMD	2025-06-20/13:20	2025-07-18/09:15	SPMD	3	-14	x	x			
AEMP-DS-09	SPMD	2025-06-20/13:50	2025-07-18/10:47	SPMD	3	-15	x	x			
Field Blank	SPMD	NA	2025-07-19/16:54	SPMD	3	-1	x	x			
Day Zero	SPMD	NA	NS	SPMD	3	-2	x	x			
AEMP-Dup-1	SPMD	2025-06-19/10:40	2025-07-19/16:54	SPMD	2	-16	x	x			

Comments/Remarks

Sample Custody

Relinquished by (Signature):	Date: 2025-08-18	Received by (Signature): YNK	Date: 20AUG2025
Brendan Chapman	Time: 12:00		Time: 8:54

SGS AXYS

SGS AXYS

SGS AXYS Analytical Services Chain of Custody

Mills Road West, Sidney, British Columbia, Canada V8L 5X2
TEL: (250) 655-5800 TOLL FREE 1-888-373-0881 FAX: (250) 655-5811

2045 **SGS AXYS CLIENT #:**

PAGE 1 OF 1

Client / Reporting Information	Invoice to
Company Name **Worley Consulting**	**Same as report to (Y / N). If no, please fill in below** YES
Address - 49 Quarry Park BLVD SE, Calgary, AB T2C 5H9	**Company - Worley Canada Services Ltd.**
	Address - 49 Quarry Park Blvd SE, Calgary AB T2C 5H9
Project Contact Alex Haigh; Stacy Gibb	**Contact Stacy Gibb**
Phone # 587-897-6249; 587-434-5393	**Email stacy.gibb@worley.com**
Email alex.haigh@worley.com; stacy.gibb@worley.com	**Client Purchase Order # or Quote #** 2025 1692
Project Name or Number: Norman Wells AEMP **417085-59897-25200**	**Sampler Signature:** **Name: Brendan Chapman, Tino Ngulube**

Client Sample Identification	Matrix	Deploy Date/Time (YYYY-MM-DD/HH:MM)	Retrieve Date/Time (YYYY-MM-DD/HH:MM)	Container Type	# Strips	SGS AXYS Lab Sample ID (Lab use only)	PAHs	Alkylated PAHs	Analysis Requested			
AEMP-US-01	SPMD	2025-07-18/14:21	2025-08-16/14:40	SPMD	3	-19	x	x				
AEMP-US-02	SPMD	2025-07-23/13:13	2025-08-16/16:00	SPMD	2	-20	x	x				
AEMP-US-03	SPMD	2025-07-18/12:40	2025-08-16/16:55	SPMD	3	-21	x	x				
AEMP-US-04	SPMD	2025-07-17/15:54	2025-08-14/11:15	SPMD	3	-22	x	x				
AEMP-US-05	SPMD	2025-07-17/15:09	2025-08-14/10:00	SPMD	3	-23	x	x				
AEMP-DS-01	SPMD	2025-07-19/16:54	2025-08-14/15:05	SPMD	3	-24	x	x				
AEMP-DS-02	SPMD	2025-07-19/15:29	2025-08-15/13:20	SPMD	3	-25	x	x				
AEMP-DS-03	SPMD	2025-07-18/11:45	2025-08-16/12:45	SPMD	3	-26	x	x				
AEMP-DS-04	SPMD	2025-07-19/14:54	2025-08-12/16:10	SPMD	3	-27	x	x				
AEMP-DS-05	SPMD	2025-07-18/10:00	2025-08-16/09:50	SPMD	3	-28	x	x				
AEMP-DS-06	SPMD	2025-07-16/11:37	2025-08-13/12:10	SPMD	3	-29	x	x				
AEMP-DS-07	SPMD	2025-07-16/10:37	2025-08-13/11:10	SPMD	3	-30	x	x				
AEMP-DS-08	SPMD	2025-07-18/09:15	2025-08-16/10:35	SPMD	3	-31	x	x				
AEMP-DS-09	SPMD	2025-07-18/10:47	2025-08-16/11:40	SPMD	3	-32	x	x				
Trip Blank	SPMD	NA	2025-08-16/17:00	SPMD	3	-3	x	x				
Field Blank	SPMD	NA	2025-08-16/16:55	SPMD	3	-4	x	x				
Dup 1	SPMD	2025-07-19/16:54	2025-08-14/15:05	SPMD	2	-33	x	x				

Comments/Remarks

Sample Custody

Relinquished by (Signature):	Date: 2025-08-18	Received by (Signature): YNK	Date: 20 Aug 2025
Brendan Chapman	Time: 12:00		Time: 8:54

SGS AXYS

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Day Zero 1
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43152-1
Sample Receipt Date:	13-May-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 20:35:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4154.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4149.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		21.8	2.40 (S)	0.06	1.007
Acenaphthylene	208-96-8	ND		0.895 (S)		
Acenaphthene	83-32-9	ND		2.06 (S)		
2-Methylfluorene	1430-97-3	ND		2.24 (S)		
C2 Phenanthrenes/Anthracenes			6.62	1.16 (S)		
Fluorene	86-73-7		1.78	1.52 (S)	0.99	0.844
Phenanthrene	85-01-8		16.5	1.13 (S)	0.20	1.004
Anthracene	120-12-7	ND		1.11 (S)		
C1 Phenanthrenes/Anthracenes			4.42	1.03 (S)		
Fluoranthene	206-44-0		3.31	0.645 (S)	0.19	1.204
Pyrene	129-00-0		2.30	0.619 (S)	0.19	1.239
Benz[a]anthracene [3]	56-55-3	ND		1.05 (S)		
Chrysene [4]	218-01-9	ND		1.16 (S)		
Benzo[b]fluoranthene	205-99-2	ND		1.66 (S)		
Benzo[j,k]fluoranthenes		ND		1.74 (S)		
Benzo[e]pyrene	192-97-2	ND		2.32 (S)		
Benzo[a]pyrene	50-32-8	ND		2.24 (S)		
Perylene	198-55-0	ND		2.44 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.05 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.861 (S)		
Benzo[ghi]perylene	191-24-2	ND		0.895 (S)		
2-Methylnaphthalene	91-57-6		19.6	2.40 (S)	0.81	1.009
1-Methylnaphthalene	90-12-0		13.3	2.65 (S)	0.84	1.040
C1-Naphthalenes			32.9	2.40 (S)		
Biphenyl	92-52-4		8.17	2.05 (S)	0.31	1.005
C1-Biphenyls			16.5	1.71 (S)		
C2-Biphenyls			29.7	1.17 (S)		
C2-Naphthalenes			58.2	2.84 (S)		
1,2-Dimethylnaphthalene	573-98-8		4.42	2.84 (S)	0.98	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		7.52	2.16 (S)	0.67	1.011
C3-Naphthalenes			24.6	1.28 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		6.63	1.29 (S)	0.75	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		5.58	1.26 (S)	0.78	1.228
C4-Naphthalenes			11.4	3.75 (S)		
C1-Acenaphthenes		ND		1.55 (S)		
C1-Fluorenes			5.21	2.24 (S)		
1,7-Dimethylfluorene	442-66-0	ND		1.18 (S)		
C2-Fluorenes			2.21	1.18 (S)		
C3-Fluorenes			9.21	3.33 (S)		
Dibenzothiophene	132-65-0		1.73	0.997 (S)	0.08	1.003
C1-Dibenzothiophenes		ND		1.91 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		1.91 (S)		
C2-Dibenzothiophenes			13.0	2.74 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		2.74 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		2.21 (S)		
C3-Dibenzothiophenes			22.7	1.64 (S)		
C4-Dibenzothiophenes			5.31	1.13 (S)		
3-Methylphenanthrene	832-71-3		1.97	1.05 (S)	0.67	1.088
2-Methylphenanthrene	2531-84-2		2.45	1.03 (S)	0.63	1.092
2-Methylanthracene	613-12-7	ND		1.10 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4	ND		1.05 (S)		
1-Methylphenanthrene	832-69-9	ND		1.03 (S)		
3,6-Dimethylphenanthrene	1576-67-6	ND		1.13 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		1.16 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		1.20 (S)		
1,8-Dimethylphenanthrene	7372-87-4	ND		1.16 (S)		
C3-Phenanthrenes/Anthracenes		ND		1.18 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		1.18 (S)		
Retene	483-65-8	ND		3.75 (S)		
C4-Phenanthrenes/Anthracenes			3.98	3.75 (S)		
C1-Fluoranthenes/Pyrenes		ND		1.25 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		1.25 (S)		
C2-Fluoranthenes/Pyrenes		ND		0.918 (S)		
C3-Fluoranthenes/Pyrenes			2.02	1.15 (S)		
C4-Fluoranthenes/Pyrenes		ND		1.02 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		1.00 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		1.05 (S)		
1-Methylchrysene	3351-28-8	ND		0.957 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.24 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.24 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.62 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.07 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		1.04 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		1.04 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		1.32 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		3.75 (S)		
Anthracene d-10			21900	0.415 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		33200	0.974 (S)	0.15	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		2770	1.93 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43152-1_Form1A_PH5H4154.D_SJ3665714.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
Day Zero 1
Sample Collection:
N/A

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43152-1
Sample Receipt Date:	13-May-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 20:35:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4154.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4149.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2070	51.6	0.09	0.610
2-Methylnaphthalene d-10		4040	2340	58.0	0.18	0.756
Biphenyl d-10		4010	2440	60.8		0.869
2,6-Dimethylnaphthalene d-12		4020	2480	61.7	0.67	0.896
Acenaphthylene d-8		4020	2540	63.2	0.16	0.961
Dibenzothiophene d-8		4010	3110	77.6	0.07	0.792
Phenanthrene d-10		4010	3270	81.6	0.13	0.808
Benzo[a]anthracene d-12		4000	3460	86.6	0.21	1.164
Chrysene d-12		3220	2810	87.4	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3620	90.7	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3480	88.9	0.17	0.961
Benzo[a]pyrene d-12		4010	3580	89.4	0.17	1.008
Perylene d-12		4000	3610	90.1	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3530	88.9	0.16	1.205
Benzo[ghi]perylene d-12		3980	3710	93.3	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43152-1_Form2_PH5H4154.D_SJ3665714.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Field Blank 19-JUL-25
Sample Collection:
19-Jul-2025 16:54

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-1
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 21:24:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4155.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4149.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		25.7	2.21 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		0.891 (S)		
Acenaphthene	83-32-9	ND		2.15 (S)		
2-Methylfluorene	1430-97-3	ND		1.34 (S)		
C2 Phenanthrenes/Anthracenes			18.4	1.29 (S)		
Fluorene	86-73-7		2.68	1.26 (S)	0.89	0.844
Phenanthrene	85-01-8		15.6	0.573 (S)	0.21	1.003
Anthracene	120-12-7	ND		0.566 (S)		
C1 Phenanthrenes/Anthracenes			8.12	1.37 (S)		
Fluoranthene	206-44-0		3.21	0.478 (S)	0.18	1.204
Pyrene	129-00-0		2.79	0.459 (S)	0.20	1.240
Benz[a]anthracene [3]	56-55-3	ND		0.743 (S)		
Chrysene [4]	218-01-9	ND		0.792 (S)		
Benzo[b]fluoranthene	205-99-2	ND		1.96 (S)		
Benzo[j,k]fluoranthenes		ND		2.07 (S)		
Benzo[e]pyrene	192-97-2	ND		2.76 (S)		
Benzo[a]pyrene	50-32-8	ND		2.66 (S)		
Perylene	198-55-0	ND		2.87 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.64 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.33 (S)		
Benzo[ghi]perylene	191-24-2	ND		2.24 (S)		
2-Methylnaphthalene	91-57-6		20.2	1.62 (S)	0.94	1.008
1-Methylnaphthalene	90-12-0		13.1	1.79 (S)	0.83	1.040
C1-Naphthalenes			33.3	1.62 (S)		
Biphenyl	92-52-4		7.21	1.91 (S)	0.25	1.005
C1-Biphenyls			13.8	1.84 (S)		
C2-Biphenyls			21.8	1.45 (S)		
C2-Naphthalenes			53.0	3.33 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		3.33 (S)		

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		6.55	2.54 (S)	0.67	1.010
C3-Naphthalenes			22.6	0.966 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		9.44	0.980 (S)	0.73	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		6.98	0.953 (S)	0.67	1.225
C4-Naphthalenes			11.8	0.846 (S)		
C1-Acenaphthenes		ND		1.19 (S)		
C1-Fluorenes			7.15	1.34 (S)		
1,7-Dimethylfluorene	442-66-0	ND		2.21 (S)		
C2-Fluorenes		ND		2.21 (S)		
C3-Fluorenes		ND		1.48 (S)		
Dibenzothiophene	132-65-0		1.49	0.817 (S)	0.07	1.003
C1-Dibenzothiophenes		ND		1.07 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		1.07 (S)		
C2-Dibenzothiophenes			12.0	1.18 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		1.18 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		0.956 (S)		
C3-Dibenzothiophenes			22.2	1.63 (S)		
C4-Dibenzothiophenes		ND		2.41 (S)		
3-Methylphenanthrene	832-71-3		2.09	1.41 (S)	0.58	1.087
2-Methylphenanthrene	2531-84-2		2.37	1.37 (S)	0.59	1.092
2-Methylanthracene	613-12-7	ND		1.47 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		1.55	1.41 (S)	0.54	1.106
1-Methylphenanthrene	832-69-9		2.10	1.37 (S)	0.59	1.109
3,6-Dimethylphenanthrene	1576-67-6	ND		1.25 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		1.29 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		1.33 (S)		
1,8-Dimethylphenanthrene	7372-87-4		5.79	1.29 (S)	0.34	1.210
C3-Phenanthrenes/Anthracenes			8.03	0.657 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		0.657 (S)		
Retene	483-65-8	ND		2.77 (S)		
C4-Phenanthrenes/Anthracenes		ND		2.77 (S)		
C1-Fluoranthenes/Pyrenes			3.23	1.10 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		1.10 (S)		
C2-Fluoranthenes/Pyrenes		ND		1.40 (S)		
C3-Fluoranthenes/Pyrenes		ND		1.07 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.834 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		1.46 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		1.53 (S)		
1-Methylchrysene	3351-28-8	ND		1.40 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.62 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.62 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.87 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		0.775 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.28 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.28 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		1.88 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		0.846 (S)		
Anthracene d-10			21000	0.877 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		33200	0.402 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2630	2.33 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-1_Form1A_PH5H4155.D_SJ3665715.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Field Blank 19-JUL-25
Sample Collection:
19-Jul-2025 16:54

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-1
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 21:24:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4155.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4149.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2280	56.8	0.09	0.610
2-Methylnaphthalene d-10		4040	2640	65.4	0.18	0.756
Biphenyl d-10		4010	2760	68.8		0.869
2,6-Dimethylnaphthalene d-12		4020	2800	69.7	0.67	0.896
Acenaphthylene d-8		4020	2920	72.7	0.16	0.962
Dibenzothiophene d-8		4010	3110	77.6	0.07	0.792
Phenanthrene d-10		4010	3320	82.7	0.13	0.808
Benzo[a]anthracene d-12		4000	3390	84.7	0.21	1.164
Chrysene d-12		3220	2690	83.7	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3590	90.0	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3340	85.3	0.17	0.961
Benzo[a]pyrene d-12		4010	3470	86.5	0.17	1.008
Perylene d-12		4000	3540	88.6	0.21	1.023
Indeno[1,2,3-cd]pyrene d-12		3970	3260	82.2	0.16	1.205
Benzo[ghi]perylene d-12		3980	3460	87.0	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-1_Form2_PH5H4155.D_SJ3665715.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-04 17-JUL-25
Sample Collection:
17-Jul-2025 15:54

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-5
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 23:02:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4157.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4149.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		47.8	3.31 (S)	0.07	1.006
Acenaphthylene	208-96-8	ND		1.23 (S)		
Acenaphthene	83-32-9		24.1	2.05 (S)	1.01	1.048
2-Methylfluorene	1430-97-3		13.9	2.23 (S)	1.27	0.939
C2 Phenanthrenes/Anthracenes			792	1.34 (S)		
Fluorene	86-73-7		18.4	1.00 (S)	1.04	0.843
Phenanthrene	85-01-8		197	1.48 (S)	0.17	1.004
Anthracene	120-12-7	ND		1.46 (S)		
C1 Phenanthrenes/Anthracenes			466	2.05 (S)		
Fluoranthene	206-44-0		29.1	0.440 (S)	0.22	1.205
Pyrene	129-00-0		27.0	0.422 (S)	0.15	1.240
Benz[a]anthracene [3]	56-55-3		4.55	0.817 (S)	0.27	1.002
Chrysene [4]	218-01-9		50.8	0.854 (S)	0.33	1.002
Benzo[b]fluoranthene	205-99-2		1.98	0.770 (S)	0.19	1.004
Benzo[j,k]fluoranthenes		ND		0.808 (S)		
Benzo[e]pyrene	192-97-2		3.00	1.06 (S)	0.20	0.996
Benzo[a]pyrene	50-32-8	ND		1.03 (S)		
Perylene	198-55-0	NDR	1.55	1.12 (S)	0.37	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.91 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.23 (S)		
Benzo[ghi]perylene	191-24-2		3.19	1.16 (S)	0.13	1.002
2-Methylnaphthalene	91-57-6		23.6	1.21 (S)	0.85	1.008
1-Methylnaphthalene	90-12-0		23.9	1.34 (S)	0.89	1.040
C1-Naphthalenes			47.5	1.21 (S)		
Biphenyl	92-52-4		18.6	0.908 (S)	0.29	1.005
C1-Biphenyls			16.2	0.981 (S)		
C2-Biphenyls			46.9	1.24 (S)		
C2-Naphthalenes			224	3.30 (S)		
1,2-Dimethylnaphthalene	573-98-8		20.8	3.30 (S)	1.34	1.083

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		31.0	2.51 (S)	0.56	1.011
C3-Naphthalenes			735	2.01 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		241	2.04 (S)	0.84	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		157	1.98 (S)	0.84	1.225
C4-Naphthalenes			935	3.13 (S)		
C1-Acenaphthenes		ND		2.37 (S)		
C1-Fluorenes			79.3	2.23 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	21.4	2.51 (S)	0.39	1.033
C2-Fluorenes			266	2.51 (S)		
C3-Fluorenes			475	0.972 (S)		
Dibenzothiophene	132-65-0	NDR	18.7	1.68 (S)	0.13	1.003
C1-Dibenzothiophenes			137	1.53 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		30.2	1.53 (S)	0.79	1.094
C2-Dibenzothiophenes			471	2.06 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		46.3	2.06 (S)	0.52	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		94.3	1.66 (S)	0.14	1.152
C3-Dibenzothiophenes			424	2.50 (S)		
C4-Dibenzothiophenes			186	1.05 (S)		
3-Methylphenanthrene	832-71-3		81.8	2.10 (S)	0.58	1.088
2-Methylphenanthrene	2531-84-2		98.1	2.05 (S)	0.56	1.092
2-Methylanthracene	613-12-7	ND		2.20 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		174	2.10 (S)	0.57	1.106
1-Methylphenanthrene	832-69-9		112	2.05 (S)	0.63	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	55.1	1.30 (S)	0.80	1.165
2,6-Dimethylphenanthrene	17980-16-4		44.1	1.34 (S)	0.30	1.171
1,7-Dimethylphenanthrene	483-87-4		125	1.38 (S)	0.34	1.193
1,8-Dimethylphenanthrene	7372-87-4	NDR	60.8	1.34 (S)	1.08	1.209
C3-Phenanthrenes/Anthracenes			478	1.26 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		39.7	1.26 (S)	0.60	1.293
Retene	483-65-8		93.2	3.07 (S)	1.18	1.302
C4-Phenanthrenes/Anthracenes			881	3.07 (S)		
C1-Fluoranthenes/Pyrenes			70.3	1.21 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		15.8	1.21 (S)	1.21	1.300
C2-Fluoranthenes/Pyrenes			146	0.805 (S)		
C3-Fluoranthenes/Pyrenes			17.4	0.650 (S)		
C4-Fluoranthenes/Pyrenes			8.68	0.991 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			63.0	0.761 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		7.92	0.796 (S)		1.066
1-Methylchrysene	3351-28-8		10.0	0.728 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			52.0	0.900 (S)		
5,9-Dimethylchrysene	139493-40-6		6.01	0.900 (S)		1.127
C3-Benzo[a]anthracenes/Chrysenes [4]			4.65	1.22 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			2.44	1.40 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		2.93 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		2.93 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		2.14 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		140	3.13 (S)	0.03	1.376
Anthracene d-10			6170	1.54 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		23600	0.938 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2340	2.65 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-5_Form1A_PH5H4157.D_SJ3665716.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-US-04 17-JUL-25
Sample Collection:
17-Jul-2025 15:54

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-5
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 23:02:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4157.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4149.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2160	53.9	0.09	0.609
2-Methylnaphthalene d-10		4040	2570	63.6	0.18	0.756
Biphenyl d-10		4010	2690	67.1		0.869
2,6-Dimethylnaphthalene d-12		4020	2780	69.2	0.67	0.896
Acenaphthylene d-8		4020	2930	72.8	0.16	0.961
Dibenzothiophene d-8		4010	3040	75.9	0.07	0.792
Phenanthrene d-10		4010	3260	81.4	0.13	0.808
Benzo[a]anthracene d-12		4000	3310	82.8	0.21	1.164
Chrysene d-12		3220	2690	83.8	0.24	1.170
Benzo[b]fluoranthene d-12		3990	3600	90.2	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3330	85.1	0.17	0.961
Benzo[a]pyrene d-12		4010	3440	85.7	0.17	1.008
Perylene d-12		4000	3520	88.1	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3320	83.7	0.16	1.205
Benzo[ghi]perylene d-12		3980	3490	87.8	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

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Report Filename: PAH_PAH_LO_LPAHF_L43619-5_Form2_PH5H4157.D_SJ3665716.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-05 17-JUL-25
Sample Collection:
17-Jul-2025 15:09

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-6
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 23:51:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4158.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4149.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		51.5	3.22 (S)	0.07	1.006
Acenaphthylene	208-96-8	ND		0.918 (S)		
Acenaphthene	83-32-9		28.2	1.22 (S)	1.25	1.047
2-Methylfluorene	1430-97-3	NDR	27.2	0.855 (S)	0.63	0.939
C2 Phenanthrenes/Anthracenes			1030	0.730 (S)		
Fluorene	86-73-7		18.5	0.865 (S)	1.00	0.844
Phenanthrene	85-01-8		225	0.856 (S)	0.18	1.004
Anthracene	120-12-7	ND		0.845 (S)		
C1 Phenanthrenes/Anthracenes			551	0.872 (S)		
Fluoranthene	206-44-0		35.1	0.708 (S)	0.22	1.204
Pyrene	129-00-0		24.1	0.680 (S)	0.17	1.240
Benz[a]anthracene [3]	56-55-3		11.5	1.24 (S)	0.27	1.002
Chrysene [4]	218-01-9		72.5	1.34 (S)	0.30	1.002
Benzo[b]fluoranthene	205-99-2		7.70	1.69 (S)	0.18	1.004
Benzo[j,k]fluoranthenes		ND		1.69 (S)		
Benzo[e]pyrene	192-97-2		18.0	2.22 (S)	0.19	0.996
Benzo[a]pyrene	50-32-8	ND		2.14 (S)		
Perylene	198-55-0	ND		2.32 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.638 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.56 (S)		
Benzo[ghi]perylene	191-24-2	NDR	4.38	1.54 (S)	0.45	1.002
2-Methylnaphthalene	91-57-6		23.5	1.36 (S)	0.89	1.008
1-Methylnaphthalene	90-12-0		23.7	1.50 (S)	0.89	1.040
C1-Naphthalenes			47.2	1.36 (S)		
Biphenyl	92-52-4	NDR	20.9	1.54 (S)	0.32	1.005
C1-Biphenyls			17.0	1.12 (S)		
C2-Biphenyls			56.4	1.57 (S)		
C2-Naphthalenes			226	2.98 (S)		
1,2-Dimethylnaphthalene	573-98-8		18.3	2.98 (S)	1.05	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		28.5	2.27 (S)	0.72	1.011
C3-Naphthalenes			665	2.29 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		222	2.32 (S)	0.86	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		144	2.26 (S)	0.95	1.224
C4-Naphthalenes			1080	2.13 (S)		
C1-Acenaphthenes			95.3	1.76 (S)		
C1-Fluorenes			65.8	0.855 (S)		
1,7-Dimethylfluorene	442-66-0		56.4	1.01 (S)	0.06	1.032
C2-Fluorenes			296	1.01 (S)		
C3-Fluorenes			598	2.87 (S)		
Dibenzothiophene	132-65-0	NDR	14.7	0.714 (S)	0.39	1.003
C1-Dibenzothiophenes			106	0.745 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		31.7	0.745 (S)	0.78	1.094
C2-Dibenzothiophenes			672	2.16 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	70.5	2.16 (S)	0.87	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		134	1.75 (S)	0.16	1.153
C3-Dibenzothiophenes			995	1.32 (S)		
C4-Dibenzothiophenes			812	1.76 (S)		
3-Methylphenanthrene	832-71-3		101	0.892 (S)	0.59	1.088
2-Methylphenanthrene	2531-84-2		108	0.872 (S)	0.59	1.092
2-Methylanthracene	613-12-7	NDR	1.57	0.934 (S)	2.26	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		199	0.892 (S)	0.55	1.106
1-Methylphenanthrene	832-69-9		144	0.872 (S)	0.64	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	72.0	0.708 (S)	0.79	1.165
2,6-Dimethylphenanthrene	17980-16-4		63.8	0.730 (S)	0.34	1.171
1,7-Dimethylphenanthrene	483-87-4		188	0.754 (S)	0.31	1.193
1,8-Dimethylphenanthrene	7372-87-4	NDR	63.8	0.730 (S)	0.70	1.209
C3-Phenanthrenes/Anthracenes			1920	0.837 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	NDR	80.8	0.837 (S)	0.72	1.292
Retene	483-65-8		182	2.73 (S)	1.27	1.301
C4-Phenanthrenes/Anthracenes			3710	2.73 (S)		
C1-Fluoranthenes/Pyrenes			116	1.71 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		40.4	1.71 (S)	0.90	1.301
C2-Fluoranthenes/Pyrenes			382	1.95 (S)		
C3-Fluoranthenes/Pyrenes			125	0.720 (S)		
C4-Fluoranthenes/Pyrenes			31.0	2.11 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			166	1.11 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		26.4	1.17 (S)		1.065
1-Methylchrysene	3351-28-8		29.0	1.07 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			249	1.45 (S)		
5,9-Dimethylchrysene	139493-40-6		72.6	1.45 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			63.2	2.17 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			8.48	0.791 (S)		
C1-Benzofluoranthenes/Benzopyrenes			49.5	1.85 (S)		
7-Methylbenzo[a]pyrene	63041-77-0		3.64	1.85 (S)		1.108
C2-Benzofluoranthenes/Benzopyrenes			45.4	3.29 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		140	2.13 (S)	0.02	1.376
Anthracene d-10			5970	1.51 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		23100	1.55 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2650	1.81 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-6_Form1A_PH5H4158.D_SJ3665717.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-05 17-JUL-25
Sample Collection:
17-Jul-2025 15:09

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-6
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 23:51:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4158.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4149.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2110	52.6	0.09	0.610
2-Methylnaphthalene d-10		4040	2490	61.5	0.18	0.757
Biphenyl d-10		4010	2590	64.6		0.869
2,6-Dimethylnaphthalene d-12		4020	2670	66.3	0.66	0.896
Acenaphthylene d-8		4020	2770	69.0	0.16	0.962
Dibenzothiophene d-8		4010	3150	78.4	0.07	0.792
Phenanthrene d-10		4010	3330	82.9	0.13	0.808
Benzo[a]anthracene d-12		4000	3410	85.2	0.21	1.164
Chrysene d-12		3220	2730	85.0	0.24	1.170
Benzo[b]fluoranthene d-12		3990	3660	91.7	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3330	85.1	0.17	0.961
Benzo[a]pyrene d-12		4010	3500	87.2	0.18	1.008
Perylene d-12		4000	3590	89.7	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3560	89.6	0.16	1.205
Benzo[ghi]perylene d-12		3980	3650	91.7	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-6_Form2_PH5H4158.D_SJ3665717.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-01 19-JUL-25
Sample Collection:
19-Jul-2025 16:54

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-7
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 00:40:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4159.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4149.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		68.4	1.33 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		0.516 (S)		
Acenaphthene	83-32-9		62.5	1.92 (S)	1.16	1.047
2-Methylfluorene	1430-97-3	NDR	236	2.18 (S)	1.95	0.937
C2 Phenanthrenes/Anthracenes			5270	1.09 (S)		
Fluorene	86-73-7		141	1.09 (S)	1.03	0.844
Phenanthrene	85-01-8		905	1.06 (S)	0.18	1.004
Anthracene	120-12-7	NDR	10.5	1.04 (S)	0.94	1.011
C1 Phenanthrenes/Anthracenes			3840	0.966 (S)		
Fluoranthene	206-44-0		175	0.576 (S)	0.18	1.204
Pyrene	129-00-0		177	0.553 (S)	0.22	1.240
Benz[a]anthracene [3]	56-55-3		17.2	0.380 (S)	0.29	1.002
Chrysene [4]	218-01-9		156	0.409 (S)	0.32	1.002
Benzo[b]fluoranthene	205-99-2		9.88	1.48 (S)	0.23	1.004
Benzo[j,k]fluoranthenes		ND		1.55 (S)		
Benzo[e]pyrene	192-97-2		17.3	1.97 (S)	0.21	0.996
Benzo[a]pyrene	50-32-8	ND		1.90 (S)		
Perylene	198-55-0	ND		2.10 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.39 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.73 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.79 (S)		
2-Methylnaphthalene	91-57-6		288	1.07 (S)	0.86	1.008
1-Methylnaphthalene	90-12-0		297	1.19 (S)	0.89	1.039
C1-Naphthalenes			585	1.07 (S)		
Biphenyl	92-52-4		43.4	0.961 (S)	0.27	1.005
C1-Biphenyls			146	0.876 (S)		
C2-Biphenyls			295	0.650 (S)		
C2-Naphthalenes			4200	2.52 (S)		
1,2-Dimethylnaphthalene	573-98-8		305	2.52 (S)	1.12	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		813	1.92 (S)	0.62	1.011
C3-Naphthalenes			8940	2.21 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		3070	2.24 (S)	0.86	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		1990	2.18 (S)	0.93	1.224
C4-Naphthalenes			6700	1.61 (S)		
C1-Acenaphthenes			16.2	2.10 (S)		
C1-Fluorenes			1100	2.18 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	200	1.26 (S)	0.10	1.034
C2-Fluorenes			2740	1.26 (S)		
C3-Fluorenes			3180	3.04 (S)		
Dibenzothiophene	132-65-0	NDR	357	1.59 (S)	0.13	1.003
C1-Dibenzothiophenes			2090	1.08 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		591	1.08 (S)	0.63	1.094
C2-Dibenzothiophenes			4380	1.24 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	406	1.24 (S)	0.75	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		777	1.00 (S)	0.15	1.152
C3-Dibenzothiophenes			2710	1.10 (S)		
C4-Dibenzothiophenes			1010	1.10 (S)		
3-Methylphenanthrene	832-71-3		813	0.987 (S)	0.57	1.087
2-Methylphenanthrene	2531-84-2		891	0.966 (S)	0.55	1.092
2-Methylanthracene	613-12-7		9.33	1.03 (S)	0.57	1.099
9/4-Methylphenanthrene	883-20-5/832-64-4		1270	0.987 (S)	0.55	1.106
1-Methylphenanthrene	832-69-9		847	0.966 (S)	0.60	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	361	1.06 (S)	0.85	1.165
2,6-Dimethylphenanthrene	17980-16-4		385	1.09 (S)	0.35	1.171
1,7-Dimethylphenanthrene	483-87-4		931	1.13 (S)	0.30	1.193
1,8-Dimethylphenanthrene	7372-87-4		228	1.09 (S)	0.38	1.209
C3-Phenanthrenes/Anthracenes			4150	1.25 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		186	1.25 (S)	0.53	1.292
Retene	483-65-8		66.7	4.17 (S)	1.40	1.301
C4-Phenanthrenes/Anthracenes			4810	4.17 (S)		
C1-Fluoranthenes/Pyrenes			327	0.741 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		109	0.741 (S)	0.93	1.301
C2-Fluoranthenes/Pyrenes			717	1.96 (S)		
C3-Fluoranthenes/Pyrenes			146	1.29 (S)		
C4-Fluoranthenes/Pyrenes			74.3	1.05 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			285	1.06 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		39.2	1.11 (S)		1.066
1-Methylchrysene	3351-28-8		41.0	1.02 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			186	1.46 (S)		
5,9-Dimethylchrysene	139493-40-6		24.8	1.46 (S)		1.127
C3-Benzo[a]anthracenes/Chrysenes [4]			45.6	1.78 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			22.2	0.643 (S)		
C1-Benzofluoranthenes/Benzopyrenes			36.7	1.12 (S)		
7-Methylbenzo[a]pyrene	63041-77-0		7.14	1.12 (S)		1.109
C2-Benzofluoranthenes/Benzopyrenes			17.5	2.37 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		1040	1.61 (S)	0.03	1.375
Anthracene d-10			11000	1.28 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		27900	1.03 (S)	0.15	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		2500	1.06 (S)	0.19	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

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Report Filename: PAH_PAH_LO_LPAHF_L43619-7_Form1A_PH5H4159.D_SJ3665718.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-01 19-JUL-25
Sample Collection:
19-Jul-2025 16:54

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-7
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 00:40:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4159.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4149.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2180	54.4	0.09	0.610
2-Methylnaphthalene d-10		4040	2550	63.1	0.19	0.757
Biphenyl d-10		4010	2690	67.1		0.869
2,6-Dimethylnaphthalene d-12		4020	2790	69.5	0.66	0.896
Acenaphthylene d-8		4020	2960	73.7	0.16	0.962
Dibenzothiophene d-8		4010	3110	77.6	0.07	0.792
Phenanthrene d-10		4010	3300	82.2	0.13	0.808
Benzo[a]anthracene d-12		4000	3390	84.9	0.21	1.164
Chrysene d-12		3220	2710	84.2	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3580	89.7	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3260	83.3	0.17	0.961
Benzo[a]pyrene d-12		4010	3430	85.6	0.17	1.008
Perylene d-12		4000	3520	88.1	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3450	87.0	0.16	1.204
Benzo[ghi]perylene d-12		3980	3570	89.7	0.18	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

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Report Filename: PAH_PAH_LO_LPAHF_L43619-7_Form2_PH5H4159.D_SJ3665718.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-02 19-JUL-25
Sample Collection:
19-Jul-2025 15:29

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-8
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 01:29:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4160.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4149.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		86.1	4.48 (S)	0.06	1.006
Acenaphthylene	208-96-8		1.64	0.946 (S)	0.20	1.003
Acenaphthene	83-32-9		38.8	2.44 (S)	1.20	1.047
2-Methylfluorene	1430-97-3		267	1.53 (S)	1.28	0.937
C2 Phenanthrenes/Anthracenes			14700	1.96 (S)		
Fluorene	86-73-7		122	1.48 (S)	1.00	0.843
Phenanthrene	85-01-8		1160	0.437 (S)	0.17	1.003
Anthracene	120-12-7	NDR	14.0	0.431 (S)	0.40	1.011
C1 Phenanthrenes/Anthracenes			9250	1.91 (S)		
Fluoranthene	206-44-0		90.1	0.394 (S)	0.18	1.204
Pyrene	129-00-0		253	0.378 (S)	0.18	1.240
Benz[a]anthracene [3]	56-55-3		13.1	0.641 (S)	0.29	1.002
Chrysene [4]	218-01-9		276	0.694 (S)	0.30	1.002
Benzo[b]fluoranthene	205-99-2		9.32	1.08 (S)	0.19	1.004
Benzo[j,k]fluoranthenes		ND		1.10 (S)		
Benzo[e]pyrene	192-97-2		27.2	1.47 (S)	0.20	0.996
Benzo[a]pyrene	50-32-8	ND		1.42 (S)		
Perylene	198-55-0		45.9	1.53 (S)	0.25	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.25 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.10 (S)		
Benzo[ghi]perylene	191-24-2		3.80	1.19 (S)	0.19	1.002
2-Methylnaphthalene	91-57-6		263	1.67 (S)	0.87	1.009
1-Methylnaphthalene	90-12-0		349	1.85 (S)	0.89	1.040
C1-Naphthalenes			612	1.67 (S)		
Biphenyl	92-52-4		46.9	2.21 (S)	0.28	1.005
C1-Biphenyls			160	0.737 (S)		
C2-Biphenyls			400	1.25 (S)		
C2-Naphthalenes			4560	3.49 (S)		
1,2-Dimethylnaphthalene	573-98-8		308	3.49 (S)	1.10	1.082

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		867	2.66 (S)	0.61	1.011
C3-Naphthalenes			12800	3.10 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		4480	3.15 (S)	0.86	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		2590	3.06 (S)	0.94	1.224
C4-Naphthalenes			12600	2.17 (S)		
C1-Acenaphthenes			10.8	1.55 (S)		
C1-Fluorenes			1530	1.53 (S)		
1,7-Dimethylfluorene	442-66-0		1290	3.49 (S)	0.07	1.031
C2-Fluorenes			6600	3.49 (S)		
C3-Fluorenes			8090	1.26 (S)		
Dibenzothiophene	132-65-0	NDR	482	1.72 (S)	0.12	1.003
C1-Dibenzothiophenes			4150	2.06 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		1070	2.06 (S)	0.67	1.094
C2-Dibenzothiophenes			9780	2.45 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		1000	2.45 (S)	0.47	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		1740	1.98 (S)	0.13	1.153
C3-Dibenzothiophenes			3940	1.19 (S)		
C4-Dibenzothiophenes			873	1.89 (S)		
3-Methylphenanthrene	832-71-3		1790	1.95 (S)	0.57	1.087
2-Methylphenanthrene	2531-84-2		2070	1.91 (S)	0.55	1.091
2-Methylanthracene	613-12-7	ND		2.05 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		3320	1.95 (S)	0.55	1.105
1-Methylphenanthrene	832-69-9		2070	1.91 (S)	0.61	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	919	1.90 (S)	0.78	1.164
2,6-Dimethylphenanthrene	17980-16-4		983	1.96 (S)	0.31	1.170
1,7-Dimethylphenanthrene	483-87-4		2410	2.02 (S)	0.30	1.192
1,8-Dimethylphenanthrene	7372-87-4		623	1.96 (S)	0.34	1.209
C3-Phenanthrenes/Anthracenes			7370	2.42 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		141	2.42 (S)	0.62	1.296
Retene	483-65-8		373	3.54 (S)	1.44	1.300
C4-Phenanthrenes/Anthracenes			5740	3.54 (S)		
C1-Fluoranthenes/Pyrenes			679	1.30 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		254	1.30 (S)	1.12	1.300
C2-Fluoranthenes/Pyrenes			1030	1.13 (S)		
C3-Fluoranthenes/Pyrenes			97.6	1.52 (S)		
C4-Fluoranthenes/Pyrenes			77.5	0.785 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			287	1.41 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		32.2	1.48 (S)		1.066
1-Methylchrysene	3351-28-8		36.6	1.35 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			153	2.49 (S)		
5,9-Dimethylchrysene	139493-40-6		40.2	2.49 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			31.3	2.23 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			12.0	2.20 (S)		
C1-Benzofluoranthenes/Benzopyrenes			20.1	2.98 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		2.98 (S)		
C2-Benzofluoranthenes/Benzopyrenes			15.5	1.51 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	1720	2.17 (S)	0.04	1.376
Anthracene d-10			2440	0.932 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		16600	1.88 (S)	0.15	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		2640	1.08 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-8_Form1A_PH5H4160.D_SJ3665719.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-02 19-JUL-25
Sample Collection:
19-Jul-2025 15:29

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-8
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 01:29:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4160.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4149.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2330	58.2	0.09	0.610
2-Methylnaphthalene d-10		4040	2710	67.0	0.18	0.757
Biphenyl d-10		4010	2780	69.4		0.869
2,6-Dimethylnaphthalene d-12		4020	2860	71.2	0.66	0.896
Acenaphthylene d-8		4020	2980	74.1	0.16	0.962
Dibenzothiophene d-8		4010	3000	74.8	0.07	0.792
Phenanthrene d-10		4010	3310	82.6	0.14	0.809
Benzo[a]anthracene d-12		4000	3360	84.1	0.21	1.164
Chrysene d-12		3220	2660	82.7	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3580	89.7	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3390	86.7	0.17	0.961
Benzo[a]pyrene d-12		4010	3510	87.5	0.17	1.008
Perylene d-12		4000	3590	89.7	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3550	89.5	0.16	1.204
Benzo[ghi]perylene d-12		3980	3640	91.6	0.18	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-8_Form2_PH5H4160.D_SJ3665719.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-03 18-JUL-25
Sample Collection:
18-Jul-2025 11:45

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-9
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 02:18:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4161.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4149.D

Concentration Units: ng/sample

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		58.5	2.83 (S)	0.07	1.007
Acenaphthylene	208-96-8	ND		1.46 (S)		
Acenaphthene	83-32-9		31.1	2.85 (S)	0.97	1.047
2-Methylfluorene	1430-97-3		14.6	3.24 (S)	1.13	0.939
C2 Phenanthrenes/Anthracenes			178	1.42 (S)		
Fluorene	86-73-7		21.3	1.47 (S)	0.99	0.844
Phenanthrene	85-01-8		139	0.710 (S)	0.18	1.004
Anthracene	120-12-7		1.43	0.701 (S)	0.16	1.011
C1 Phenanthrenes/Anthracenes			229	1.14 (S)		
Fluoranthene	206-44-0		45.4	0.666 (S)	0.20	1.204
Pyrene	129-00-0		62.2	0.639 (S)	0.16	1.240
Benz[a]anthracene [3]	56-55-3		1.70	1.09 (S)	0.28	1.002
Chrysene [4]	218-01-9		29.9	1.11 (S)	0.32	1.002
Benzo[b]fluoranthene	205-99-2		2.74	1.86 (S)	0.19	1.004
Benzo[j,k]fluoranthenes		ND		1.86 (S)		
Benzo[e]pyrene	192-97-2		5.93	2.49 (S)	0.20	0.996
Benzo[a]pyrene	50-32-8	ND		2.40 (S)		
Perylene	198-55-0		23.8	2.59 (S)	0.18	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.05 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.29 (S)		
Benzo[ghi]perylene	191-24-2		2.12	1.31 (S)	0.21	1.002
2-Methylnaphthalene	91-57-6		31.0	2.05 (S)	0.89	1.009
1-Methylnaphthalene	90-12-0		25.4	2.27 (S)	0.89	1.039
C1-Naphthalenes			56.5	2.05 (S)		
Biphenyl	92-52-4		10.6	2.09 (S)	0.26	1.005
C1-Biphenyls			17.3	1.39 (S)		
C2-Biphenyls			44.3	1.74 (S)		
C2-Naphthalenes			135	3.98 (S)		
1,2-Dimethylnaphthalene	573-98-8		6.10	3.98 (S)	1.13	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		25.7	3.03 (S)	0.67	1.011
C3-Naphthalenes			334	2.32 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		87.2	2.35 (S)	0.86	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		72.2	2.29 (S)	0.95	1.225
C4-Naphthalenes			298	2.03 (S)		
C1-Acenaphthenes		ND		3.01 (S)		
C1-Fluorenes			42.5	3.24 (S)		
1,7-Dimethylfluorene	442-66-0		6.79	2.61 (S)	0.08	1.032
C2-Fluorenes			77.9	2.61 (S)		
C3-Fluorenes			103	1.97 (S)		
Dibenzothiophene	132-65-0	NDR	10.4	1.01 (S)	0.16	1.003
C1-Dibenzothiophenes			27.4	0.549 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	9.69	0.549 (S)	0.97	1.095
C2-Dibenzothiophenes			90.2	3.70 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		7.72	3.70 (S)	0.44	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		10.6	2.99 (S)	0.13	1.152
C3-Dibenzothiophenes			39.2	3.28 (S)		
C4-Dibenzothiophenes			9.23	2.19 (S)		
3-Methylphenanthrene	832-71-3		41.5	1.17 (S)	0.63	1.087
2-Methylphenanthrene	2531-84-2		45.6	1.14 (S)	0.50	1.092
2-Methylanthracene	613-12-7	ND		1.23 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		83.3	1.17 (S)	0.58	1.106
1-Methylphenanthrene	832-69-9		58.2	1.14 (S)	0.62	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	14.9	1.38 (S)	1.13	1.165
2,6-Dimethylphenanthrene	17980-16-4		16.3	1.42 (S)	0.40	1.171
1,7-Dimethylphenanthrene	483-87-4		37.8	1.47 (S)	0.33	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	13.3	1.42 (S)	0.52	1.209
C3-Phenanthrenes/Anthracenes			73.7	1.74 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		1.74 (S)		
Retene	483-65-8		227	2.58 (S)	1.41	1.301
C4-Phenanthrenes/Anthracenes			295	2.58 (S)		
C1-Fluoranthenes/Pyrenes			65.1	0.996 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		28.7	0.996 (S)	1.09	1.300
C2-Fluoranthenes/Pyrenes			48.8	0.858 (S)		
C3-Fluoranthenes/Pyrenes			12.1	0.360 (S)		
C4-Fluoranthenes/Pyrenes			2.48	0.941 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			19.1	1.15 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		1.45	1.21 (S)		1.066
1-Methylchrysene	3351-28-8		2.90	1.10 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			2.52	1.36 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.36 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		2.23 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.16 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		2.74 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		2.74 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		4.10 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	40.5	2.03 (S)	0.05	1.375
Anthracene d-10			1830	1.54 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		14900	1.23 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2540	1.83 (S)	0.19	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-9_Form1A_PH5H4161.D_SJ3665720.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-03 18-JUL-25
Sample Collection:
18-Jul-2025 11:45

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-9
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 02:18:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4161.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4149.D

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This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2450	61.1	0.09	0.610
2-Methylnaphthalene d-10		4040	2790	69.0	0.18	0.756
Biphenyl d-10		4010	2840	70.7		0.868
2,6-Dimethylnaphthalene d-12		4020	2880	71.6	0.66	0.896
Acenaphthylene d-8		4020	2980	74.1	0.16	0.961
Dibenzothiophene d-8		4010	3140	78.3	0.07	0.792
Phenanthrene d-10		4010	3330	83.0	0.13	0.808
Benzo[a]anthracene d-12		4000	3350	83.8	0.21	1.164
Chrysene d-12		3220	2690	83.7	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3660	91.8	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3330	85.1	0.17	0.961
Benzo[a]pyrene d-12		4010	3500	87.4	0.17	1.009
Perylene d-12		4000	3580	89.5	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3540	89.1	0.16	1.204
Benzo[ghi]perylene d-12		3980	3630	91.2	0.18	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-9_Form2_PH5H4161.D_SJ3665720.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-04 19-JUL-25
Sample Collection:
19-Jul-2025 14:54

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-10
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 05:54:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4166.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		81.1	2.65 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.21 (S)		
Acenaphthene	83-32-9		40.8	2.24 (S)	1.13	1.047
2-Methylfluorene	1430-97-3		145	0.746 (S)	1.07	0.939
C2 Phenanthrenes/Anthracenes			6670	1.19 (S)		
Fluorene	86-73-7		96.0	1.84 (S)	1.02	0.844
Phenanthrene	85-01-8		770	0.482 (S)	0.17	1.004
Anthracene	120-12-7	NDR	6.30	0.475 (S)	1.30	1.012
C1 Phenanthrenes/Anthracenes			4580	0.806 (S)		
Fluoranthene	206-44-0		78.6	0.388 (S)	0.18	1.204
Pyrene	129-00-0		179	0.373 (S)	0.20	1.240
Benz[a]anthracene [3]	56-55-3		13.3	1.08 (S)	0.29	1.002
Chrysene [4]	218-01-9		152	1.13 (S)	0.30	1.002
Benzo[b]fluoranthene	205-99-2		8.61	2.20 (S)	0.24	1.004
Benzo[j,k]fluoranthenes		ND		2.28 (S)		
Benzo[e]pyrene	192-97-2		37.0	2.94 (S)	0.25	0.996
Benzo[a]pyrene	50-32-8	NDR	4.43	2.84 (S)	0.14	1.004
Perylene	198-55-0		45.5	3.02 (S)	0.19	1.004
Dibenz[a,h]anthracene [5]	53-70-3		2.39	1.45 (S)	0.15	1.007
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.83 (S)		
Benzo[ghi]perylene	191-24-2		7.65	1.89 (S)	0.19	1.002
2-Methylnaphthalene	91-57-6		289	1.29 (S)	0.88	1.009
1-Methylnaphthalene	90-12-0		301	1.43 (S)	0.88	1.040
C1-Naphthalenes			589	1.29 (S)		
Biphenyl	92-52-4		42.1	1.86 (S)	0.27	1.005
C1-Biphenyls			142	1.15 (S)		
C2-Biphenyls			278	2.22 (S)		
C2-Naphthalenes			4140	2.02 (S)		
1,2-Dimethylnaphthalene	573-98-8		235	2.02 (S)	1.11	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		782	1.54 (S)	0.61	1.011
C3-Naphthalenes			8300	1.32 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		3070	1.34 (S)	0.84	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		1730	1.30 (S)	0.94	1.224
C4-Naphthalenes			7590	1.06 (S)		
C1-Acenaphthenes			9.10	0.897 (S)		
C1-Fluorenes			874	0.746 (S)		
1,7-Dimethylfluorene	442-66-0		321	3.00 (S)	0.08	1.034
C2-Fluorenes			3230	3.00 (S)		
C3-Fluorenes			3720	3.00 (S)		
Dibenzothiophene	132-65-0	NDR	310	0.602 (S)	0.12	1.003
C1-Dibenzothiophenes			2110	1.55 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		563	1.55 (S)	0.68	1.094
C2-Dibenzothiophenes			4580	1.66 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	473	1.66 (S)	0.62	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		836	1.34 (S)	0.13	1.153
C3-Dibenzothiophenes			1830	2.02 (S)		
C4-Dibenzothiophenes			754	1.95 (S)		
3-Methylphenanthrene	832-71-3		899	0.824 (S)	0.57	1.087
2-Methylphenanthrene	2531-84-2		1040	0.806 (S)	0.56	1.092
2-Methylanthracene	613-12-7		4.39	0.863 (S)	0.52	1.099
9/4-Methylphenanthrene	883-20-5/832-64-4		1590	0.824 (S)	0.56	1.106
1-Methylphenanthrene	832-69-9		1040	0.806 (S)	0.60	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	396	1.16 (S)	0.83	1.165
2,6-Dimethylphenanthrene	17980-16-4		461	1.19 (S)	0.30	1.171
1,7-Dimethylphenanthrene	483-87-4		1130	1.23 (S)	0.29	1.193
1,8-Dimethylphenanthrene	7372-87-4		284	1.19 (S)	0.38	1.209
C3-Phenanthrenes/Anthracenes			4170	1.11 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		186	1.11 (S)	0.56	1.292
Retene	483-65-8		527	1.54 (S)	1.22	1.301
C4-Phenanthrenes/Anthracenes			3700	1.54 (S)		
C1-Fluoranthenes/Pyrenes			426	0.722 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		148	0.722 (S)	0.91	1.301
C2-Fluoranthenes/Pyrenes			663	0.652 (S)		
C3-Fluoranthenes/Pyrenes			168	1.93 (S)		
C4-Fluoranthenes/Pyrenes			80.7	1.35 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			240	1.80 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		31.0	1.88 (S)		1.066
1-Methylchrysene	3351-28-8		35.7	1.72 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			206	1.86 (S)		
5,9-Dimethylchrysene	139493-40-6		22.2	1.86 (S)		1.127
C3-Benzo[a]anthracenes/Chrysenes [4]			49.8	1.29 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			20.4	0.781 (S)		
C1-Benzofluoranthenes/Benzopyrenes			35.5	1.24 (S)		
7-Methylbenzo[a]pyrene	63041-77-0		10.9	1.24 (S)		1.109
C2-Benzofluoranthenes/Benzopyrenes			42.4	1.41 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	1050	1.06 (S)	0.03	1.375
Anthracene d-10			1140	0.921 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		11700	1.44 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2630	2.65 (S)	0.21	1.003

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-10_Form1A_PH5H4166.D_SJ3665639.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-04 19-JUL-25
Sample Collection:
19-Jul-2025 14:54

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-10
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 05:54:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4166.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2220	55.4	0.09	0.610
2-Methylnaphthalene d-10		4040	2570	63.7	0.18	0.757
Biphenyl d-10		4010	2670	66.5		0.869
2,6-Dimethylnaphthalene d-12		4020	2750	68.4	0.66	0.896
Acenaphthylene d-8		4020	2850	70.8	0.16	0.962
Dibenzothiophene d-8		4010	3090	77.1	0.07	0.792
Phenanthrene d-10		4010	3300	82.3	0.13	0.808
Benzo[a]anthracene d-12		4000	3410	85.2	0.21	1.164
Chrysene d-12		3220	2730	84.9	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3520	88.2	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3360	85.9	0.17	0.961
Benzo[a]pyrene d-12		4010	3490	87.2	0.18	1.008
Perylene d-12		4000	3550	88.7	0.22	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3570	89.8	0.16	1.205
Benzo[ghi]perylene d-12		3980	3670	92.3	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-10_Form2_PH5H4166.D_SJ3665639.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-05 18-JUL-25
Sample Collection:
18-Jul-2025 10:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-11
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 06:43:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4167.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		50.7	3.52 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.37 (S)		
Acenaphthene	83-32-9		29.1	1.37 (S)	1.18	1.047
2-Methylfluorene	1430-97-3		12.5	1.90 (S)	1.17	0.939
C2 Phenanthrenes/Anthracenes			343	1.41 (S)		
Fluorene	86-73-7		28.8	0.836 (S)	0.86	0.844
Phenanthrene	85-01-8		163	0.864 (S)	0.17	1.004
Anthracene	120-12-7	NDR	2.92	0.852 (S)	0.37	1.011
C1 Phenanthrenes/Anthracenes			350	1.29 (S)		
Fluoranthene	206-44-0		55.6	0.971 (S)	0.20	1.204
Pyrene	129-00-0	NDR	91.3	0.931 (S)	0.35	1.240
Benz[a]anthracene [3]	56-55-3		2.87	0.820 (S)	0.28	1.002
Chrysene [4]	218-01-9		42.2	0.891 (S)	0.32	1.002
Benzo[b]fluoranthene	205-99-2		4.64	2.02 (S)	0.25	1.004
Benzo[j,k]fluoranthenes		ND		2.00 (S)		
Benzo[e]pyrene	192-97-2		11.8	2.71 (S)	0.24	0.995
Benzo[a]pyrene	50-32-8	ND		2.61 (S)		
Perylene	198-55-0		35.9	2.80 (S)	0.18	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.41 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.828 (S)		
Benzo[ghi]perylene	191-24-2		3.30	0.835 (S)	0.11	1.002
2-Methylnaphthalene	91-57-6		34.0	1.20 (S)	0.84	1.009
1-Methylnaphthalene	90-12-0		31.0	1.32 (S)	0.90	1.039
C1-Naphthalenes			65.1	1.20 (S)		
Biphenyl	92-52-4		12.1	1.19 (S)	0.30	1.006
C1-Biphenyls			20.8	1.55 (S)		
C2-Biphenyls			49.9	1.87 (S)		
C2-Naphthalenes			223	4.45 (S)		
1,2-Dimethylnaphthalene	573-98-8		16.2	4.45 (S)	1.17	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		33.0	3.39 (S)	0.72	1.010
C3-Naphthalenes			504	1.17 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		139	1.18 (S)	0.86	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		104	1.15 (S)	0.96	1.224
C4-Naphthalenes			418	2.50 (S)		
C1-Acenaphthenes			1.96	0.646 (S)		
C1-Fluorenes			49.0	1.90 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	22.3	1.92 (S)	0.09	1.032
C2-Fluorenes			141	1.92 (S)		
C3-Fluorenes			201	2.26 (S)		
Dibenzothiophene	132-65-0		14.2	0.476 (S)	0.08	1.003
C1-Dibenzothiophenes			65.1	0.892 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		16.9	0.892 (S)	0.71	1.094
C2-Dibenzothiophenes			102	1.93 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		17.4	1.93 (S)	0.38	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		26.7	1.56 (S)	0.12	1.153
C3-Dibenzothiophenes			113	3.27 (S)		
C4-Dibenzothiophenes			17.7	1.82 (S)		
3-Methylphenanthrene	832-71-3		60.6	1.32 (S)	0.57	1.088
2-Methylphenanthrene	2531-84-2		70.5	1.29 (S)	0.54	1.092
2-Methylanthracene	613-12-7		4.50	1.38 (S)	0.55	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		127	1.32 (S)	0.60	1.106
1-Methylphenanthrene	832-69-9		87.6	1.29 (S)	0.62	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	33.0	1.37 (S)	0.73	1.165
2,6-Dimethylphenanthrene	17980-16-4		31.0	1.41 (S)	0.38	1.171
1,7-Dimethylphenanthrene	483-87-4		72.3	1.46 (S)	0.32	1.193
1,8-Dimethylphenanthrene	7372-87-4	NDR	21.1	1.41 (S)	0.54	1.209
C3-Phenanthrenes/Anthracenes			188	1.89 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		16.8	1.89 (S)	0.56	1.292
Retene	483-65-8		340	3.72 (S)	1.40	1.301
C4-Phenanthrenes/Anthracenes			540	3.72 (S)		
C1-Fluoranthenes/Pyrenes			110	0.954 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		41.1	0.954 (S)	1.06	1.300
C2-Fluoranthenes/Pyrenes			77.0	1.03 (S)		
C3-Fluoranthenes/Pyrenes			13.9	1.19 (S)		
C4-Fluoranthenes/Pyrenes			7.11	1.29 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			33.6	0.646 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		2.91	0.676 (S)		1.066
1-Methylchrysene	3351-28-8		5.91	0.618 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		2.23 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.23 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.21 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.85 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.06 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.06 (S)		
C2-Benzofluoranthenes/Benzopyrenes			3.69	2.12 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		69.8	2.50 (S)	0.03	1.375
Anthracene d-10			1500	1.06 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		13100	1.66 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2640	1.46 (S)	0.20	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-11_Form1A_PH5H4167.D_SJ3665640.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-05 18-JUL-25
Sample Collection:
18-Jul-2025 10:00

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-11
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 06:43:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4167.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2130	53.0	0.09	0.610
2-Methylnaphthalene d-10		4040	2490	61.7	0.18	0.757
Biphenyl d-10		4010	2630	65.5		0.869
2,6-Dimethylnaphthalene d-12		4020	2700	67.1	0.67	0.896
Acenaphthylene d-8		4020	2830	70.4	0.16	0.962
Dibenzothiophene d-8		4010	3150	78.6	0.07	0.792
Phenanthrene d-10		4010	3320	82.7	0.13	0.808
Benzo[a]anthracene d-12		4000	3420	85.5	0.21	1.164
Chrysene d-12		3220	2720	84.6	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3560	89.1	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3310	84.8	0.17	0.961
Benzo[a]pyrene d-12		4010	3460	86.4	0.17	1.009
Perylene d-12		4000	3520	88.0	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3500	88.1	0.16	1.205
Benzo[ghi]perylene d-12		3980	3570	89.8	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-11_Form2_PH5H4167.D_SJ3665640.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-06 16-JUL-25
Sample Collection:
16-Jul-2025 11:37

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-12
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 07:32:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4168.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		56.7	2.41 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.06 (S)		
Acenaphthene	83-32-9		30.7	3.19 (S)	1.06	1.047
2-Methylfluorene	1430-97-3		12.0	1.65 (S)	1.10	0.938
C2 Phenanthrenes/Anthracenes			114	1.50 (S)		
Fluorene	86-73-7		15.5	0.894 (S)	1.06	0.844
Phenanthrene	85-01-8		105	0.700 (S)	0.18	1.003
Anthracene	120-12-7		2.54	0.691 (S)	0.17	1.011
C1 Phenanthrenes/Anthracenes			163	0.869 (S)		
Fluoranthene	206-44-0		28.4	1.00 (S)	0.18	1.204
Pyrene	129-00-0	NDR	42.1	0.964 (S)	0.51	1.240
Benz[a]anthracene [3]	56-55-3	ND		0.976 (S)		
Chrysene [4]	218-01-9		19.3	1.09 (S)	0.31	1.002
Benzo[b]fluoranthene	205-99-2		4.19	1.39 (S)	0.25	1.004
Benzo[j,k]fluoranthenes		ND		1.47 (S)		
Benzo[e]pyrene	192-97-2	NDR	3.82	1.91 (S)	0.27	0.996
Benzo[a]pyrene	50-32-8	ND		1.85 (S)		
Perylene	198-55-0		12.3	1.93 (S)	0.22	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.42 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.67 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.65 (S)		
2-Methylnaphthalene	91-57-6		34.8	1.29 (S)	0.94	1.008
1-Methylnaphthalene	90-12-0		33.7	1.43 (S)	0.88	1.039
C1-Naphthalenes			68.5	1.29 (S)		
Biphenyl	92-52-4		11.6	1.72 (S)	0.31	1.006
C1-Biphenyls			14.7	1.50 (S)		
C2-Biphenyls			42.0	1.50 (S)		
C2-Naphthalenes			182	3.49 (S)		
1,2-Dimethylnaphthalene	573-98-8		15.5	3.49 (S)	1.17	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		27.2	2.66 (S)	0.64	1.011
C3-Naphthalenes			269	2.79 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		81.5	2.83 (S)	0.81	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		60.9	2.75 (S)	0.93	1.225
C4-Naphthalenes			186	1.79 (S)		
C1-Acenaphthenes		ND		1.81 (S)		
C1-Fluorenes			36.9	1.65 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	5.52	2.09 (S)	0.15	1.031
C2-Fluorenes			56.1	2.09 (S)		
C3-Fluorenes			101	1.84 (S)		
Dibenzothiophene	132-65-0		9.31	0.801 (S)	0.08	1.003
C1-Dibenzothiophenes			13.4	0.813 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	6.60	0.813 (S)	1.66	1.094
C2-Dibenzothiophenes			16.9	1.24 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		6.51	1.24 (S)	0.49	1.162
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	6.61	1.00 (S)	0.35	1.153
C3-Dibenzothiophenes			46.2	1.24 (S)		
C4-Dibenzothiophenes			3.76	2.16 (S)		
3-Methylphenanthrene	832-71-3		28.9	0.889 (S)	0.61	1.087
2-Methylphenanthrene	2531-84-2		34.0	0.869 (S)	0.52	1.092
2-Methylanthracene	613-12-7	NDR	2.26	0.931 (S)	2.09	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		59.5	0.889 (S)	0.58	1.106
1-Methylphenanthrene	832-69-9		40.5	0.869 (S)	0.58	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	9.42	1.46 (S)	1.11	1.164
2,6-Dimethylphenanthrene	17980-16-4	NDR	9.77	1.50 (S)	0.83	1.171
1,7-Dimethylphenanthrene	483-87-4	NDR	20.6	1.55 (S)	0.36	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	7.46	1.50 (S)	1.15	1.209
C3-Phenanthrenes/Anthracenes			73.9	2.31 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		2.31 (S)		
Retene	483-65-8		136	1.94 (S)	1.30	1.301
C4-Phenanthrenes/Anthracenes			192	1.94 (S)		
C1-Fluoranthenes/Pyrenes			38.5	0.620 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		17.9	0.620 (S)	1.05	1.300
C2-Fluoranthenes/Pyrenes			29.7	1.47 (S)		
C3-Fluoranthenes/Pyrenes			9.27	0.646 (S)		
C4-Fluoranthenes/Pyrenes			1.54	0.930 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			12.2	0.619 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		0.807	0.647 (S)		1.066
1-Methylchrysene	3351-28-8		1.59	0.592 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		0.798 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		0.798 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.13 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.50 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		2.37 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		2.37 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		2.21 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		25.2	1.79 (S)	0.02	1.375
Anthracene d-10			3300	1.24 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		18100	0.852 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2630	1.71 (S)	0.20	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-12_Form1A_PH5H4168.D_SJ3665641.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-06 16-JUL-25
Sample Collection:
16-Jul-2025 11:37

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-12
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 07:32:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4168.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2430	60.6	0.09	0.610
2-Methylnaphthalene d-10		4040	2780	68.7	0.18	0.757
Biphenyl d-10		4010	2850	71.1		0.868
2,6-Dimethylnaphthalene d-12		4020	2920	72.5	0.66	0.896
Acenaphthylene d-8		4020	3010	74.9	0.16	0.962
Dibenzothiophene d-8		4010	3120	77.8	0.07	0.792
Phenanthrene d-10		4010	3380	84.4	0.13	0.808
Benzo[a]anthracene d-12		4000	3440	85.9	0.21	1.164
Chrysene d-12		3220	2720	84.6	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3630	91.0	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3370	86.3	0.17	0.961
Benzo[a]pyrene d-12		4010	3540	88.2	0.18	1.008
Perylene d-12		4000	3600	90.0	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3570	89.9	0.16	1.204
Benzo[ghi]perylene d-12		3980	3690	92.8	0.18	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

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Report Filename: PAH_PAH_LO_LPAHF_L43619-12_Form2_PH5H4168.D_SJ3665641.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-07 16-JUL-25
Sample Collection:
16-Jul-2025 10:37

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-13
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 08:24:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4169.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		84.8	3.04 (S)	0.07	1.006
Acenaphthylene	208-96-8	ND		0.604 (S)		
Acenaphthene	83-32-9		33.8	0.865 (S)	1.15	1.047
2-Methylfluorene	1430-97-3		7.90	1.69 (S)	0.99	0.938
C2 Phenanthrenes/Anthracenes			312	0.658 (S)		
Fluorene	86-73-7		23.8	1.01 (S)	0.91	0.844
Phenanthrene	85-01-8		139	0.429 (S)	0.18	1.004
Anthracene	120-12-7		4.47	0.423 (S)	0.18	1.011
C1 Phenanthrenes/Anthracenes			291	0.694 (S)		
Fluoranthene	206-44-0		53.8	0.549 (S)	0.18	1.204
Pyrene	129-00-0	NDR	71.3	0.527 (S)	0.34	1.240
Benz[a]anthracene [3]	56-55-3		1.74	0.635 (S)	0.29	1.002
Chrysene [4]	218-01-9		33.4	0.682 (S)	0.30	1.002
Benzo[b]fluoranthene	205-99-2		3.97	1.05 (S)	0.23	1.004
Benzo[j,k]fluoranthenes		ND		1.09 (S)		
Benzo[e]pyrene	192-97-2		10.9	1.41 (S)	0.21	0.995
Benzo[a]pyrene	50-32-8	ND		1.36 (S)		
Perylene	198-55-0		28.8	1.45 (S)	0.17	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.573 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.856 (S)		
Benzo[ghi]perylene	191-24-2	ND		0.875 (S)		
2-Methylnaphthalene	91-57-6		55.4	1.58 (S)	0.90	1.009
1-Methylnaphthalene	90-12-0		42.3	1.75 (S)	0.89	1.040
C1-Naphthalenes			97.7	1.58 (S)		
Biphenyl	92-52-4		12.2	0.752 (S)	0.31	1.005
C1-Biphenyls			15.8	0.932 (S)		
C2-Biphenyls			40.6	0.451 (S)		
C2-Naphthalenes			148	1.85 (S)		
1,2-Dimethylnaphthalene	573-98-8		13.0	1.85 (S)	1.14	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		26.9	1.41 (S)	0.67	1.010
C3-Naphthalenes			400	1.60 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		119	1.62 (S)	0.85	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		78.4	1.58 (S)	0.97	1.224
C4-Naphthalenes			372	2.10 (S)		
C1-Acenaphthenes			1.82	1.10 (S)		
C1-Fluorenes			51.8	1.69 (S)		
1,7-Dimethylfluorene	442-66-0		7.16	1.07 (S)	0.07	1.034
C2-Fluorenes			167	1.07 (S)		
C3-Fluorenes			200	1.31 (S)		
Dibenzothiophene	132-65-0		11.1	0.645 (S)	0.08	1.003
C1-Dibenzothiophenes			43.3	0.605 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	14.9	0.605 (S)	1.58	1.095
C2-Dibenzothiophenes			119	0.977 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	13.8	0.977 (S)	0.56	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		22.8	0.790 (S)	0.15	1.153
C3-Dibenzothiophenes			86.1	1.67 (S)		
C4-Dibenzothiophenes			9.19	1.01 (S)		
3-Methylphenanthrene	832-71-3		50.6	0.709 (S)	0.53	1.087
2-Methylphenanthrene	2531-84-2		53.4	0.694 (S)	0.60	1.092
2-Methylanthracene	613-12-7	NDR	2.75	0.743 (S)	1.56	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		115	0.709 (S)	0.56	1.106
1-Methylphenanthrene	832-69-9		71.9	0.694 (S)	0.60	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	23.8	0.638 (S)	0.98	1.164
2,6-Dimethylphenanthrene	17980-16-4		25.6	0.658 (S)	0.39	1.171
1,7-Dimethylphenanthrene	483-87-4		55.2	0.679 (S)	0.31	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	19.0	0.658 (S)	0.48	1.209
C3-Phenanthrenes/Anthracenes			168	1.29 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		10.3	1.29 (S)	0.46	1.292
Retene	483-65-8		277	1.81 (S)	1.41	1.301
C4-Phenanthrenes/Anthracenes			405	1.81 (S)		
C1-Fluoranthenes/Pyrenes			92.2	0.457 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		33.8	0.457 (S)	1.02	1.300
C2-Fluoranthenes/Pyrenes			61.1	0.890 (S)		
C3-Fluoranthenes/Pyrenes			18.5	0.794 (S)		
C4-Fluoranthenes/Pyrenes			3.81	0.553 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			17.0	0.486 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		2.27	0.509 (S)		1.066
1-Methylchrysene	3351-28-8		3.46	0.466 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.44 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.44 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		0.691 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.09 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		1.72 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		1.72 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		1.49 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		66.2	2.10 (S)	0.02	1.375
Anthracene d-10			1650	0.392 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		13500	0.710 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2650	1.21 (S)	0.20	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-13_Form1A_PH5H4169.D_SJ3665642.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-07 16-JUL-25
Sample Collection:
16-Jul-2025 10:37

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-13
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 08:24:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4169.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2170	54.0	0.09	0.610
2-Methylnaphthalene d-10		4040	2550	63.2	0.18	0.756
Biphenyl d-10		4010	2630	65.5		0.868
2,6-Dimethylnaphthalene d-12		4020	2680	66.8	0.67	0.896
Acenaphthylene d-8		4020	2770	68.9	0.16	0.961
Dibenzothiophene d-8		4010	3090	76.9	0.07	0.792
Phenanthrene d-10		4010	3290	81.9	0.13	0.808
Benzo[a]anthracene d-12		4000	3440	85.9	0.21	1.164
Chrysene d-12		3220	2740	85.2	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3550	89.1	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3380	86.3	0.17	0.961
Benzo[a]pyrene d-12		4010	3500	87.2	0.18	1.009
Perylene d-12		4000	3570	89.3	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3530	88.8	0.16	1.205
Benzo[ghi]perylene d-12		3980	3610	90.8	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-13_Form2_PH5H4169.D_SJ3665642.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-08 18-JUL-25
Sample Collection:
18-Jul-2025 09:15

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-14
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 09:13:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4170.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		57.8	2.96 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		0.714 (S)		
Acenaphthene	83-32-9		29.5	0.947 (S)	0.93	1.047
2-Methylfluorene	1430-97-3		12.9	1.17 (S)	1.22	0.939
C2 Phenanthrenes/Anthracenes			405	1.01 (S)		
Fluorene	86-73-7		23.9	0.622 (S)	1.08	0.844
Phenanthrene	85-01-8		169	0.821 (S)	0.18	1.004
Anthracene	120-12-7		2.79	0.810 (S)	0.19	1.011
C1 Phenanthrenes/Anthracenes			365	0.603 (S)		
Fluoranthene	206-44-0		57.4	0.452 (S)	0.20	1.204
Pyrene	129-00-0	NDR	93.8	0.434 (S)	0.34	1.240
Benz[a]anthracene [3]	56-55-3	NDR	3.53	0.592 (S)	0.51	1.002
Chrysene [4]	218-01-9		45.0	0.626 (S)	0.30	1.002
Benzo[b]fluoranthene	205-99-2		7.86	1.20 (S)	0.21	1.004
Benzo[j,k]fluoranthenes		ND		1.21 (S)		
Benzo[e]pyrene	192-97-2		16.4	1.52 (S)	0.22	0.995
Benzo[a]pyrene	50-32-8	ND		1.47 (S)		
Perylene	198-55-0		37.8	1.65 (S)	0.24	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.04 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.29 (S)		
Benzo[ghi]perylene	191-24-2		5.66	1.29 (S)	0.18	1.002
2-Methylnaphthalene	91-57-6		33.1	1.28 (S)	0.83	1.009
1-Methylnaphthalene	90-12-0		31.4	1.42 (S)	0.90	1.040
C1-Naphthalenes			64.5	1.28 (S)		
Biphenyl	92-52-4		14.3	0.996 (S)	0.28	1.005
C1-Biphenyls			18.5	0.724 (S)		
C2-Biphenyls			51.4	0.966 (S)		
C2-Naphthalenes			241	1.87 (S)		
1,2-Dimethylnaphthalene	573-98-8		19.1	1.87 (S)	0.97	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		38.7	1.42 (S)	0.65	1.010
C3-Naphthalenes			560	2.04 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		133	2.07 (S)	0.89	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		106	2.02 (S)	0.93	1.225
C4-Naphthalenes			442	0.965 (S)		
C1-Acenaphthenes		ND		1.97 (S)		
C1-Fluorenes			72.1	1.17 (S)		
1,7-Dimethylfluorene	442-66-0		8.23	1.12 (S)	0.07	1.034
C2-Fluorenes			218	1.12 (S)		
C3-Fluorenes			240	0.951 (S)		
Dibenzothiophene	132-65-0		14.9	0.816 (S)	0.08	1.003
C1-Dibenzothiophenes			49.5	0.901 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	17.9	0.901 (S)	1.13	1.094
C2-Dibenzothiophenes			178	1.43 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	21.4	1.43 (S)	0.63	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		29.7	1.15 (S)	0.13	1.152
C3-Dibenzothiophenes			127	1.17 (S)		
C4-Dibenzothiophenes			47.0	1.01 (S)		
3-Methylphenanthrene	832-71-3		62.6	0.617 (S)	0.56	1.087
2-Methylphenanthrene	2531-84-2		71.7	0.604 (S)	0.53	1.092
2-Methylanthracene	613-12-7	NDR	5.54	0.646 (S)	0.96	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		134	0.617 (S)	0.59	1.106
1-Methylphenanthrene	832-69-9		96.8	0.603 (S)	0.59	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	28.1	0.983 (S)	0.85	1.165
2,6-Dimethylphenanthrene	17980-16-4	NDR	29.8	1.01 (S)	0.68	1.171
1,7-Dimethylphenanthrene	483-87-4		77.2	1.05 (S)	0.31	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	22.2	1.01 (S)	0.55	1.209
C3-Phenanthrenes/Anthracenes			244	1.09 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		14.5	1.09 (S)	0.54	1.293
Retene	483-65-8		364	2.91 (S)	1.39	1.301
C4-Phenanthrenes/Anthracenes			648	2.91 (S)		
C1-Fluoranthenes/Pyrenes			134	0.654 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		45.6	0.654 (S)	1.05	1.300
C2-Fluoranthenes/Pyrenes			95.2	0.680 (S)		
C3-Fluoranthenes/Pyrenes			42.6	0.811 (S)		
C4-Fluoranthenes/Pyrenes			11.3	0.915 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			35.9	1.08 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		4.11	1.13 (S)		1.066
1-Methylchrysene	3351-28-8		5.48	1.03 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			18.7	0.842 (S)		
5,9-Dimethylchrysene	139493-40-6		2.20	0.842 (S)		1.127
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		0.780 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.50 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		1.24 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		1.24 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		1.15 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		68.3	0.965 (S)	0.02	1.375
Anthracene d-10			1350	0.831 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		12600	1.42 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2640	1.20 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-14_Form1A_PH5H4170.D_SJ3665643.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-08 18-JUL-25
Sample Collection:
18-Jul-2025 09:15

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-14
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 09:13:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4170.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2310	57.6	0.09	0.610
2-Methylnaphthalene d-10		4040	2720	67.2	0.18	0.756
Biphenyl d-10		4010	2820	70.4		0.868
2,6-Dimethylnaphthalene d-12		4020	2870	71.4	0.66	0.896
Acenaphthylene d-8		4020	2970	73.9	0.16	0.961
Dibenzothiophene d-8		4010	3120	77.7	0.07	0.792
Phenanthrene d-10		4010	3330	83.0	0.13	0.808
Benzo[a]anthracene d-12		4000	3430	85.7	0.21	1.164
Chrysene d-12		3220	2740	85.2	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3620	90.8	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3400	86.8	0.17	0.961
Benzo[a]pyrene d-12		4010	3550	88.4	0.17	1.009
Perylene d-12		4000	3610	90.3	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3570	90.0	0.16	1.205
Benzo[ghi]perylene d-12		3980	3660	92.0	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

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Report Filename: PAH_PAH_LO_LPAHF_L43619-14_Form2_PH5H4170.D_SJ3665643.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-09 18-JUL-25
Sample Collection:
18-Jul-2025 10:47

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-15
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 10:02:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4171.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		53.3	3.02 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		0.936 (S)		
Acenaphthene	83-32-9		31.8	2.58 (S)	1.14	1.047
2-Methylfluorene	1430-97-3		8.34	0.899 (S)	1.00	0.938
C2 Phenanthrenes/Anthracenes			230	1.25 (S)		
Fluorene	86-73-7		20.4	0.855 (S)	1.08	0.844
Phenanthrene	85-01-8		142	0.637 (S)	0.18	1.004
Anthracene	120-12-7	NDR	1.96	0.629 (S)	0.44	1.011
C1 Phenanthrenes/Anthracenes			246	0.834 (S)		
Fluoranthene	206-44-0		48.9	0.709 (S)	0.21	1.204
Pyrene	129-00-0		73.7	0.680 (S)	0.19	1.240
Benz[a]anthracene [3]	56-55-3		2.46	0.429 (S)	0.20	1.002
Chrysene [4]	218-01-9		34.0	0.440 (S)	0.29	1.002
Benzo[b]fluoranthene	205-99-2		5.27	1.75 (S)	0.24	1.004
Benzo[j,k]fluoranthenes		ND		1.82 (S)		
Benzo[e]pyrene	192-97-2	NDR	10.3	2.37 (S)	0.15	0.996
Benzo[a]pyrene	50-32-8	ND		2.28 (S)		
Perylene	198-55-0		30.1	2.48 (S)	0.20	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.819 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.829 (S)		
Benzo[ghi]perylene	191-24-2		4.63	0.839 (S)	0.19	1.002
2-Methylnaphthalene	91-57-6		31.4	1.13 (S)	0.90	1.008
1-Methylnaphthalene	90-12-0		26.5	1.25 (S)	0.91	1.040
C1-Naphthalenes			57.9	1.13 (S)		
Biphenyl	92-52-4	NDR	12.6	0.761 (S)	0.35	1.006
C1-Biphenyls			17.0	1.11 (S)		
C2-Biphenyls			41.4	1.20 (S)		
C2-Naphthalenes			192	1.74 (S)		
1,2-Dimethylnaphthalene	573-98-8		16.2	1.74 (S)	0.93	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		27.7	1.32 (S)	0.63	1.010
C3-Naphthalenes			363	2.68 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		90.3	2.72 (S)	0.82	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		74.9	2.65 (S)	0.96	1.225
C4-Naphthalenes			309	2.16 (S)		
C1-Acenaphthenes		ND		1.99 (S)		
C1-Fluorenes			53.9	0.899 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	10.1	1.43 (S)	0.32	1.031
C2-Fluorenes			129	1.43 (S)		
C3-Fluorenes			139	2.32 (S)		
Dibenzothiophene	132-65-0	NDR	10.5	0.563 (S)	0.26	1.003
C1-Dibenzothiophenes			32.1	1.06 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	11.6	1.06 (S)	1.61	1.095
C2-Dibenzothiophenes			73.9	1.69 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	7.64	1.69 (S)	1.30	1.163
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	13.4	1.36 (S)	0.17	1.153
C3-Dibenzothiophenes			58.0	1.99 (S)		
C4-Dibenzothiophenes			18.1	0.750 (S)		
3-Methylphenanthrene	832-71-3		43.1	0.853 (S)	0.53	1.087
2-Methylphenanthrene	2531-84-2		48.6	0.834 (S)	0.58	1.092
2-Methylanthracene	613-12-7	NDR	4.38	0.893 (S)	1.00	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		89.6	0.853 (S)	0.59	1.106
1-Methylphenanthrene	832-69-9		64.6	0.834 (S)	0.60	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	17.0	1.21 (S)	1.03	1.164
2,6-Dimethylphenanthrene	17980-16-4	NDR	17.9	1.25 (S)	0.76	1.171
1,7-Dimethylphenanthrene	483-87-4	NDR	42.1	1.29 (S)	0.37	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	12.6	1.25 (S)	0.70	1.209
C3-Phenanthrenes/Anthracenes			95.0	1.39 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	NDR	6.12	1.39 (S)	0.75	1.292
Retene	483-65-8		262	2.99 (S)	1.42	1.301
C4-Phenanthrenes/Anthracenes			371	2.99 (S)		
C1-Fluoranthenes/Pyrenes			87.5	0.817 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		33.5	0.817 (S)	1.04	1.300
C2-Fluoranthenes/Pyrenes			59.0	0.587 (S)		
C3-Fluoranthenes/Pyrenes			23.3	0.408 (S)		
C4-Fluoranthenes/Pyrenes			8.27	1.23 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			23.8	0.612 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		2.98	0.640 (S)		1.066
1-Methylchrysene	3351-28-8		3.71	0.586 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			11.9	0.585 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		0.585 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.31 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		0.390 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		1.24 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		1.24 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		1.79 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		40.6	2.16 (S)	0.03	1.375
Anthracene d-10			1590	0.613 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		13600	0.894 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2590	2.65 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-15_Form1A_PH5H4171.D_SJ3665644.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-09 18-JUL-25
Sample Collection:
18-Jul-2025 10:47

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-15
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 10:02:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4171.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2020	50.4	0.09	0.610
2-Methylnaphthalene d-10		4040	2390	59.1	0.18	0.757
Biphenyl d-10		4010	2500	62.3		0.868
2,6-Dimethylnaphthalene d-12		4020	2550	63.5	0.67	0.896
Acenaphthylene d-8		4020	2670	66.4	0.16	0.962
Dibenzothiophene d-8		4010	2970	74.0	0.07	0.792
Phenanthrene d-10		4010	3140	78.3	0.13	0.808
Benzo[a]anthracene d-12		4000	3360	84.0	0.21	1.164
Chrysene d-12		3220	2650	82.5	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3460	86.8	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3300	84.4	0.17	0.961
Benzo[a]pyrene d-12		4010	3450	86.0	0.17	1.008
Perylene d-12		4000	3470	86.8	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3450	86.8	0.16	1.204
Benzo[ghi]perylene d-12		3980	3550	89.2	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-15_Form2_PH5H4171.D_SJ3665644.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-Dup-1 19-Jul-25
Sample Collection:
19-Jul-2025 16:54

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-16
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 10:51:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4172.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		48.9	2.29 (S)	0.06	1.007
Acenaphthylene	208-96-8	ND		0.653 (S)		
Acenaphthene	83-32-9		44.7	2.11 (S)	1.04	1.047
2-Methylfluorene	1430-97-3		119	1.46 (S)	1.08	0.939
C2 Phenanthrenes/Anthracenes			5780	0.813 (S)		
Fluorene	86-73-7		84.5	1.67 (S)	1.01	0.844
Phenanthrene	85-01-8		587	0.474 (S)	0.17	1.004
Anthracene	120-12-7		31.9	0.467 (S)	0.14	1.016
C1 Phenanthrenes/Anthracenes			3000	1.56 (S)		
Fluoranthene	206-44-0		110	1.03 (S)	0.19	1.204
Pyrene	129-00-0		161	0.991 (S)	0.21	1.240
Benz[a]anthracene [3]	56-55-3		16.8	0.939 (S)	0.28	1.002
Chrysene [4]	218-01-9		171	1.07 (S)	0.31	1.002
Benzo[b]fluoranthene	205-99-2		9.65	1.68 (S)	0.22	1.004
Benzo[j,k]fluoranthenes		ND		1.71 (S)		
Benzo[e]pyrene	192-97-2		31.2	2.23 (S)	0.21	0.996
Benzo[a]pyrene	50-32-8	ND		2.15 (S)		
Perylene	198-55-0	ND		2.34 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.21 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.16 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.24 (S)		
2-Methylnaphthalene	91-57-6		171	1.03 (S)	0.87	1.008
1-Methylnaphthalene	90-12-0		187	1.15 (S)	0.87	1.039
C1-Naphthalenes			358	1.03 (S)		
Biphenyl	92-52-4		27.3	0.657 (S)	0.31	1.005
C1-Biphenyls			90.3	0.719 (S)		
C2-Biphenyls			214	1.72 (S)		
C2-Naphthalenes			2550	1.41 (S)		
1,2-Dimethylnaphthalene	573-98-8		176	1.41 (S)	1.18	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		493	1.08 (S)	0.63	1.010
C3-Naphthalenes			6310	1.91 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		2030	1.94 (S)	0.85	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		1260	1.88 (S)	0.95	1.224
C4-Naphthalenes			6000	1.92 (S)		
C1-Acenaphthenes			11.1	1.08 (S)		
C1-Fluorenes			745	1.46 (S)		
1,7-Dimethylfluorene	442-66-0		467	2.44 (S)	0.07	1.032
C2-Fluorenes			2400	2.44 (S)		
C3-Fluorenes			976	1.54 (S)		
Dibenzothiophene	132-65-0	NDR	238	0.900 (S)	0.15	1.003
C1-Dibenzothiophenes			1430	0.561 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		477	0.561 (S)	0.72	1.094
C2-Dibenzothiophenes			4560	1.47 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	427	1.47 (S)	0.71	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		814	1.19 (S)	0.13	1.153
C3-Dibenzothiophenes			3510	1.87 (S)		
C4-Dibenzothiophenes			1400	2.10 (S)		
3-Methylphenanthrene	832-71-3		618	1.60 (S)	0.55	1.088
2-Methylphenanthrene	2531-84-2		719	1.56 (S)	0.56	1.092
2-Methylanthracene	613-12-7		4.52	1.67 (S)	0.49	1.096
9/4-Methylphenanthrene	883-20-5/832-64-4		979	1.60 (S)	0.55	1.106
1-Methylphenanthrene	832-69-9		682	1.56 (S)	0.62	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	351	0.789 (S)	0.88	1.165
2,6-Dimethylphenanthrene	17980-16-4		386	0.813 (S)	0.33	1.171
1,7-Dimethylphenanthrene	483-87-4		941	0.840 (S)	0.30	1.193
1,8-Dimethylphenanthrene	7372-87-4		244	0.813 (S)	0.40	1.209
C3-Phenanthrenes/Anthracenes			5030	1.54 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		241	1.54 (S)	0.62	1.292
Retene	483-65-8	NDR	197	5.10 (S)	0.49	1.302
C4-Phenanthrenes/Anthracenes			7240	5.10 (S)		
C1-Fluoranthenes/Pyrenes			435	1.23 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		114	1.23 (S)	0.89	1.301
C2-Fluoranthenes/Pyrenes			911	1.57 (S)		
C3-Fluoranthenes/Pyrenes			521	1.28 (S)		
C4-Fluoranthenes/Pyrenes			205	0.615 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			357	0.909 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		42.0	0.952 (S)		1.066
1-Methylchrysene	3351-28-8		54.7	0.870 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			377	0.993 (S)		
5,9-Dimethylchrysene	139493-40-6		40.3	0.993 (S)		1.127
C3-Benzo[a]anthracenes/Chrysenes [4]			96.7	1.46 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			1.85	0.828 (S)		
C1-Benzofluoranthenes/Benzopyrenes			82.0	3.16 (S)		
7-Methylbenzo[a]pyrene	63041-77-0		13.0	3.16 (S)		1.109
C2-Benzofluoranthenes/Benzopyrenes			48.3	2.43 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	787	1.92 (S)	0.04	1.374
Anthracene d-10			8340	0.496 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		18400	1.19 (S)	0.15	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		1800	2.19 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-16_Form1A_PH5H4172.D_SJ3665645.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-Dup-1 19-Jul-25
Sample Collection:
19-Jul-2025 16:54

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-16
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 10:51:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4172.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1980	49.5	0.09	0.610
2-Methylnaphthalene d-10		4040	2350	58.2	0.18	0.757
Biphenyl d-10		4010	2460	61.4		0.868
2,6-Dimethylnaphthalene d-12		4020	2510	62.5	0.67	0.896
Acenaphthylene d-8		4020	2630	65.5	0.15	0.961
Dibenzothiophene d-8		4010	2770	69.1	0.07	0.792
Phenanthrene d-10		4010	2990	74.5	0.13	0.808
Benzo[a]anthracene d-12		4000	3310	82.7	0.21	1.164
Chrysene d-12		3220	2610	81.1	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3320	83.3	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3130	80.1	0.17	0.961
Benzo[a]pyrene d-12		4010	3260	81.4	0.18	1.009
Perylene d-12		4000	3320	83.1	0.22	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3400	85.5	0.16	1.205
Benzo[ghi]perylene d-12		3980	3470	87.1	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

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Report Filename: PAH_PAH_LO_LPAHF_L43619-16_Form2_PH5H4172.D_SJ3665645.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-01 18-JUL-25
Sample Collection:
18-Jul-2025 14:21

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-17
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 11:40:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4173.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		52.6	3.68 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.18 (S)		
Acenaphthene	83-32-9		28.8	1.25 (S)	1.07	1.047
2-Methylfluorene	1430-97-3		12.3	2.23 (S)	0.96	0.939
C2 Phenanthrenes/Anthracenes			291	1.70 (S)		
Fluorene	86-73-7		27.8	1.11 (S)	1.00	0.844
Phenanthrene	85-01-8		172	2.39 (S)	0.18	1.004
Anthracene	120-12-7		3.63	2.35 (S)	0.18	1.011
C1 Phenanthrenes/Anthracenes			293	3.57 (S)		
Fluoranthene	206-44-0		60.0	2.15 (S)	0.20	1.204
Pyrene	129-00-0	NDR	81.3	2.06 (S)	0.37	1.240
Benz[a]anthracene [3]	56-55-3	NDR	2.37	0.589 (S)	0.52	1.002
Chrysene [4]	218-01-9		39.1	0.660 (S)	0.28	1.002
Benzo[b]fluoranthene	205-99-2	NDR	7.28	1.04 (S)	0.41	1.004
Benzo[j,k]fluoranthenes		ND		1.07 (S)		
Benzo[e]pyrene	192-97-2		12.3	1.45 (S)	0.17	0.996
Benzo[a]pyrene	50-32-8	ND		1.40 (S)		
Perylene	198-55-0		41.9	1.44 (S)	0.25	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.599 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.51 (S)		
Benzo[ghi]perylene	191-24-2		7.61	1.54 (S)	0.19	1.002
2-Methylnaphthalene	91-57-6		39.2	2.00 (S)	0.87	1.008
1-Methylnaphthalene	90-12-0		33.4	2.21 (S)	0.86	1.039
C1-Naphthalenes			72.6	2.00 (S)		
Biphenyl	92-52-4		18.4	1.06 (S)	0.28	1.005
C1-Biphenyls			22.2	1.65 (S)		
C2-Biphenyls			50.4	0.996 (S)		
C2-Naphthalenes			239	3.23 (S)		
1,2-Dimethylnaphthalene	573-98-8		13.2	3.23 (S)	1.28	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		34.3	2.46 (S)	0.68	1.010
C3-Naphthalenes			432	1.54 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		102	1.56 (S)	0.86	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		85.3	1.52 (S)	0.89	1.224
C4-Naphthalenes			450	1.44 (S)		
C1-Acenaphthenes		ND		2.26 (S)		
C1-Fluorenes			36.4	2.23 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	13.5	1.53 (S)	0.11	1.032
C2-Fluorenes			149	1.53 (S)		
C3-Fluorenes			196	1.41 (S)		
Dibenzothiophene	132-65-0		12.2	1.08 (S)	0.08	1.003
C1-Dibenzothiophenes			43.7	0.966 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		13.4	0.966 (S)	0.80	1.094
C2-Dibenzothiophenes			113	0.784 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		12.7	0.784 (S)	0.49	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		16.8	0.634 (S)	0.15	1.153
C3-Dibenzothiophenes			101	2.01 (S)		
C4-Dibenzothiophenes			34.1	1.50 (S)		
3-Methylphenanthrene	832-71-3		52.4	3.65 (S)	0.53	1.088
2-Methylphenanthrene	2531-84-2		61.5	3.57 (S)	0.55	1.092
2-Methylanthracene	613-12-7	ND		3.82 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		98.7	3.65 (S)	0.61	1.106
1-Methylphenanthrene	832-69-9		80.0	3.57 (S)	0.60	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	18.5	1.65 (S)	1.08	1.165
2,6-Dimethylphenanthrene	17980-16-4	NDR	20.0	1.70 (S)	0.60	1.171
1,7-Dimethylphenanthrene	483-87-4		59.1	1.76 (S)	0.33	1.193
1,8-Dimethylphenanthrene	7372-87-4	NDR	18.5	1.70 (S)	0.80	1.209
C3-Phenanthrenes/Anthracenes			166	1.74 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		9.34	1.74 (S)	0.52	1.293
Retene	483-65-8		333	2.32 (S)	1.42	1.301
C4-Phenanthrenes/Anthracenes			495	2.32 (S)		
C1-Fluoranthenes/Pyrenes			112	1.39 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		38.8	1.39 (S)	1.03	1.300
C2-Fluoranthenes/Pyrenes			64.7	1.49 (S)		
C3-Fluoranthenes/Pyrenes			48.2	1.01 (S)		
C4-Fluoranthenes/Pyrenes			22.0	0.953 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			30.6	1.55 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		2.29	1.63 (S)		1.066
1-Methylchrysene	3351-28-8		5.67	1.49 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.36 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.36 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.73 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.37 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		2.85 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		2.85 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		1.65 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		53.4	1.44 (S)	0.03	1.374
Anthracene d-10			2310	0.859 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		15300	1.17 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2700	1.87 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-17_Form1A_PH5H4173.D_SJ3665646.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-US-01 18-JUL-25
Sample Collection:
18-Jul-2025 14:21

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-17
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 11:40:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4173.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2090	52.2	0.09	0.610
2-Methylnaphthalene d-10		4040	2490	61.6	0.18	0.757
Biphenyl d-10		4010	2620	65.3		0.868
2,6-Dimethylnaphthalene d-12		4020	2650	66.0	0.67	0.896
Acenaphthylene d-8		4020	2770	68.9	0.16	0.961
Dibenzothiophene d-8		4010	3110	77.6	0.07	0.792
Phenanthrene d-10		4010	3260	81.2	0.13	0.808
Benzo[a]anthracene d-12		4000	3500	87.6	0.21	1.164
Chrysene d-12		3220	2780	86.3	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3620	90.8	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3440	88.0	0.17	0.961
Benzo[a]pyrene d-12		4010	3560	88.7	0.18	1.009
Perylene d-12		4000	3640	91.0	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3600	90.8	0.16	1.205
Benzo[ghi]perylene d-12		3980	3690	92.7	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-17_Form2_PH5H4173.D_SJ3665646.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-US-03 18-JUL-25
Sample Collection:
18-Jul-2025 12:40

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-18
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 12:29:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4174.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4163.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		49.1	3.76 (S)	0.07	1.006
Acenaphthylene	208-96-8	ND		1.10 (S)		
Acenaphthene	83-32-9		28.9	2.44 (S)	1.09	1.047
2-Methylfluorene	1430-97-3		10.9	1.98 (S)	1.11	0.939
C2 Phenanthrenes/Anthracenes			278	1.44 (S)		
Fluorene	86-73-7		23.5	0.987 (S)	1.08	0.844
Phenanthrene	85-01-8		165	3.20 (S)	0.18	1.003
Anthracene	120-12-7		3.42	3.16 (S)	0.18	1.011
C1 Phenanthrenes/Anthracenes			318	3.23 (S)		
Fluoranthene	206-44-0		61.8	0.448 (S)	0.16	1.204
Pyrene	129-00-0	NDR	84.2	0.430 (S)	0.46	1.240
Benz[a]anthracene [3]	56-55-3		2.75	0.727 (S)	0.26	1.002
Chrysene [4]	218-01-9		41.5	0.746 (S)	0.26	1.002
Benzo[b]fluoranthene	205-99-2		7.57	1.77 (S)	0.17	1.004
Benzo[j,k]fluoranthenes		ND		1.83 (S)		
Benzo[e]pyrene	192-97-2	NDR	13.6	2.31 (S)	0.13	0.996
Benzo[a]pyrene	50-32-8	ND		2.23 (S)		
Perylene	198-55-0		39.7	2.36 (S)	0.20	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.39 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.736 (S)		
Benzo[ghi]perylene	191-24-2	NDR	5.23	0.750 (S)	0.44	1.002
2-Methylnaphthalene	91-57-6		32.8	1.16 (S)	0.91	1.008
1-Methylnaphthalene	90-12-0		28.8	1.29 (S)	0.89	1.039
C1-Naphthalenes			61.6	1.16 (S)		
Biphenyl	92-52-4		15.4	1.52 (S)	0.29	1.005
C1-Biphenyls			20.5	1.59 (S)		
C2-Biphenyls			55.8	2.02 (S)		
C2-Naphthalenes			264	3.43 (S)		
1,2-Dimethylnaphthalene	573-98-8		15.7	3.43 (S)	0.98	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		33.5	2.61 (S)	0.61	1.010
C3-Naphthalenes			481	2.55 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		117	2.58 (S)	0.82	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		95.5	2.51 (S)	0.93	1.224
C4-Naphthalenes			468	1.60 (S)		
C1-Acenaphthenes			2.59	2.35 (S)		
C1-Fluorenes			37.3	1.98 (S)		
1,7-Dimethylfluorene	442-66-0		12.5	2.75 (S)	0.06	1.031
C2-Fluorenes			161	2.75 (S)		
C3-Fluorenes			210	2.40 (S)		
Dibenzothiophene	132-65-0	NDR	12.8	0.848 (S)	0.17	1.003
C1-Dibenzothiophenes			14.9	1.63 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		14.9	1.63 (S)	0.78	1.094
C2-Dibenzothiophenes			123	1.41 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	12.3	1.41 (S)	0.93	1.162
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	17.6	1.14 (S)	0.20	1.153
C3-Dibenzothiophenes			92.2	2.25 (S)		
C4-Dibenzothiophenes			39.8	1.18 (S)		
3-Methylphenanthrene	832-71-3		55.0	3.30 (S)	0.62	1.087
2-Methylphenanthrene	2531-84-2		63.8	3.23 (S)	0.54	1.091
2-Methylanthracene	613-12-7	ND		3.46 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		109	3.30 (S)	0.59	1.105
1-Methylphenanthrene	832-69-9		89.7	3.23 (S)	0.59	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	20.7	1.40 (S)	0.99	1.164
2,6-Dimethylphenanthrene	17980-16-4		18.2	1.44 (S)	0.39	1.170
1,7-Dimethylphenanthrene	483-87-4		63.5	1.49 (S)	0.30	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	14.5	1.44 (S)	0.74	1.209
C3-Phenanthrenes/Anthracenes			170	1.28 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	NDR	11.5	1.28 (S)	0.23	1.292
Retene	483-65-8		341	3.87 (S)	1.47	1.300
C4-Phenanthrenes/Anthracenes			551	3.87 (S)		
C1-Fluoranthenes/Pyrenes			115	1.21 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		40.0	1.21 (S)	1.06	1.300
C2-Fluoranthenes/Pyrenes			82.4	1.80 (S)		
C3-Fluoranthenes/Pyrenes			37.9	1.50 (S)		
C4-Fluoranthenes/Pyrenes			25.6	1.32 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			28.2	1.04 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		2.88	1.09 (S)		1.067
1-Methylchrysene	3351-28-8		5.06	0.993 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.68 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.68 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.89 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.59 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		4.00 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		4.00 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		1.76 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		55.0	1.60 (S)	0.02	1.375
Anthracene d-10		NDR	1820	0.708 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		14100	0.669 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2600	1.79 (S)	0.22	1.003

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-18_Form1A_PH5H4174.D_SJ3665647.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-03 18-JUL-25
Sample Collection:
18-Jul-2025 12:40

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-18
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	23-Sep-2025 **Time:** 12:29:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4174.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4163.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2130	53.1	0.09	0.610
2-Methylnaphthalene d-10		4040	2510	62.0	0.18	0.757
Biphenyl d-10		4010	2600	64.9		0.868
2,6-Dimethylnaphthalene d-12		4020	2680	66.7	0.66	0.896
Acenaphthylene d-8		4020	2800	69.6	0.16	0.961
Dibenzothiophene d-8		4010	3140	78.4	0.07	0.792
Phenanthrene d-10		4010	3340	83.3	0.13	0.809
Benzo[a]anthracene d-12		4000	3520	87.9	0.21	1.164
Chrysene d-12		3220	2750	85.6	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3630	91.1	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3440	88.1	0.17	0.961
Benzo[a]pyrene d-12		4010	3620	90.2	0.17	1.009
Perylene d-12		4000	3710	92.8	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3640	91.8	0.16	1.205
Benzo[ghi]perylene d-12		3980	3750	94.2	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-18_Form2_PH5H4174.D_SJ3665647.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	N/A
Matrix:	SPMD	**Lab Sample I.D.:**	WG95247-101
Sample Receipt Date:	N/A	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 19:46:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4153.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
		Cal. Ver. Data Filename:	PH5H4149.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		2.53	1.73 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.48 (S)		
Acenaphthene	83-32-9	ND		2.65 (S)		
2-Methylfluorene	1430-97-3	ND		3.90 (S)		
C2 Phenanthrenes/Anthracenes		ND		3.12 (S)		
Fluorene	86-73-7	ND		2.38 (S)		
Phenanthrene	85-01-8	ND		2.41 (S)		
Anthracene	120-12-7	ND		2.38 (S)		
C1 Phenanthrenes/Anthracenes		ND		2.06 (S)		
Fluoranthene	206-44-0	ND		1.10 (S)		
Pyrene	129-00-0	ND		1.06 (S)		
Benz[a]anthracene [3]	56-55-3	ND		0.743 (S)		
Chrysene [4]	218-01-9	ND		0.691 (S)		
Benzo[b]fluoranthene	205-99-2	ND		0.952 (S)		
Benzo[j,k]fluoranthenes		ND		1.04 (S)		
Benzo[e]pyrene	192-97-2	ND		1.47 (S)		
Benzo[a]pyrene	50-32-8	ND		1.42 (S)		
Perylene	198-55-0	ND		1.56 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.90 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		3.95 (S)		
Benzo[ghi]perylene	191-24-2	ND		3.36 (S)		
2-Methylnaphthalene	91-57-6		3.78	1.95 (S)	0.89	1.009
1-Methylnaphthalene	90-12-0	ND		2.16 (S)		
C1-Naphthalenes			3.78	1.95 (S)		
Biphenyl	92-52-4	ND		2.48 (S)		
C1-Biphenyls			3.93	1.94 (S)		
C2-Biphenyls			18.7	1.69 (S)		
C2-Naphthalenes		ND		5.00 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		5.00 (S)		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0	ND		3.81 (S)		
C3-Naphthalenes		ND		1.12 (S)		
2,3,6-Trimethylnaphthalene	829-26-5	ND		1.13 (S)		
2,3,5-Trimethylnaphthalene	2245-38-7	ND		1.10 (S)		
C4-Naphthalenes		ND		2.03 (S)		
C1-Acenaphthenes		ND		1.82 (S)		
C1-Fluorenes		ND		3.90 (S)		
1,7-Dimethylfluorene	442-66-0	ND		3.73 (S)		
C2-Fluorenes		ND		3.73 (S)		
C3-Fluorenes		ND		5.30 (S)		
Dibenzothiophene	132-65-0	ND		1.60 (S)		
C1-Dibenzothiophenes		ND		2.96 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		2.96 (S)		
C2-Dibenzothiophenes		ND		2.80 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		2.80 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		2.26 (S)		
C3-Dibenzothiophenes		ND		2.24 (S)		
C4-Dibenzothiophenes		ND		3.36 (S)		
3-Methylphenanthrene	832-71-3	ND		2.10 (S)		
2-Methylphenanthrene	2531-84-2	ND		2.06 (S)		
2-Methylanthracene	613-12-7	ND		2.20 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4	ND		2.10 (S)		
1-Methylphenanthrene	832-69-9	ND		2.06 (S)		
3,6-Dimethylphenanthrene	1576-67-6	ND		3.02 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		3.12 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		3.22 (S)		
1,8-Dimethylphenanthrene	7372-87-4	ND		3.12 (S)		
C3-Phenanthrenes/Anthracenes		ND		3.38 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		3.38 (S)		
Retene	483-65-8	ND		4.11 (S)		
C4-Phenanthrenes/Anthracenes		ND		4.11 (S)		
C1-Fluoranthenes/Pyrenes		ND		3.51 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		3.51 (S)		
C2-Fluoranthenes/Pyrenes		ND		1.90 (S)		
C3-Fluoranthenes/Pyrenes		ND		1.49 (S)		
C4-Fluoranthenes/Pyrenes		ND		2.91 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.986 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		1.03 (S)		
1-Methylchrysene	3351-28-8	ND		0.944 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.97 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.97 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.23 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.91 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		2.30 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		2.30 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		2.25 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		2.03 (S)		
Anthracene d-10			17.4	2.58 (S)	0.12	1.007
Fluoranthene d-10	93951-69-0		3.74	0.968 (S)	0.16	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1	ND		2.36 (S)		

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_WG95247-101_Form1A_PH5H4153.D_SJ3665712.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	N/A
Matrix:	SPMD	**Lab Sample I.D.:**	WG95247-101
Sample Receipt Date:	N/A	**Sample Size:**	1 sample
Extraction Date:	16-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	22-Sep-2025 **Time:** 19:46:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4153.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4153.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4149.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1950	48.5	0.09	0.610
2-Methylnaphthalene d-10		4040	2110	52.2	0.18	0.756
Biphenyl d-10		4010	2110	52.5		0.868
2,6-Dimethylnaphthalene d-12		4020	2080	51.8	0.66	0.896
Acenaphthylene d-8		4020	2100	52.1	0.15	0.961
Dibenzothiophene d-8		4010	2070	51.6	0.07	0.792
Phenanthrene d-10		4010	2270	56.5	0.13	0.808
Benzo[a]anthracene d-12		4000	3330	83.3	0.21	1.163
Chrysene d-12		3220	3020	93.8	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3420	85.8	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3430	87.8	0.17	0.961
Benzo[a]pyrene d-12		4010	3330	83.1	0.18	1.009
Perylene d-12		4000	3410	85.4	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3010	75.9	0.16	1.207
Benzo[ghi]perylene d-12		3980	3410	85.7	0.18	1.238

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_WG95247-101_Form2_PH5H4153.D_SJ3665712.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 8A

POLYAROMATIC HYDROCARBON ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4608 **OPR Data Filename:** **PH5H4150.D**

Matrix: SPMD **Lab Sample I.D.:** WG95247-102

Extraction Date: 16-Sep-2025 **Analysis Date:** 22-Sep-2025 **Time:** 17:19:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON 100 uL EXTRACT.

COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
Naphthalene	91-20-3		0.06	39500	41100	27700 - 51400	104
Acenaphthylene	208-96-8		0.19	39700	41200	27800 - 55600	104
Acenaphthene	83-32-9		1.09	39700	43800	27800 - 51600	110
2-Methylfluorene	1430-97-3		1.14	40000	42200	20000 - 60000	105
Fluorene	86-73-7		0.95	39700	35900	23800 - 55600	90.5
Phenanthrene	85-01-8		0.17	40400	43200	28300 - 52600	107
Anthracene	120-12-7		0.16	40100	43100	28100 - 52100	108
Fluoranthene	206-44-0	N	0.19	39400	51900	27600 - 51300	132
Pyrene	129-00-0	N	0.19	39600	52800	27700 - 51500	133
Benz[a]anthracene	56-55-3		0.25	40200	43400	28100 - 52300	108
Chrysene	218-01-9		0.27	40400	43300	28300 - 52500	107
Benzo[b]fluoranthene	205-99-2		0.21	40000	43000	28000 - 52100	107
Benzo[j,k]fluoranthenes			0.21	40300	43300	28200 - 52400	108
Benzo[e]pyrene	192-97-2		0.21	40000	45300	28000 - 52000	113
Benzo[a]pyrene	50-32-8		0.21	40200	43700	28100 - 52200	109
Perylene	198-55-0		0.21	40000	43000	28000 - 52000	108
Dibenz[a,h]anthracene	53-70-3		0.12	40400	43100	28300 - 52500	107
Indeno[1,2,3-cd]pyrene	193-39-5		0.15	40400	43800	28300 - 52500	108
Benzo[ghi]perylene	191-24-2		0.17	40100	42400	28100 - 52100	106
2-Methylnaphthalene	91-57-6		0.85	40000	42300	28000 - 52000	106
1-Methylnaphthalene	90-12-0		0.89	40100	43600	28000 - 52100	109
Biphenyl	92-52-4		0.26	39800	42800	27900 - 51800	107
1,2-Dimethylnaphthalene	573-98-8		1.16	39900	45100	23900 - 55900	113
2,6-Dimethylnaphthalene	581-42-0		0.62	40100	44000	28100 - 52200	110
2,3,6-Trimethylnaphthalene	829-26-5		0.81	39900	47800	20000 - 59900	120
2,3,5-Trimethylnaphthalene	2245-38-7		0.80	40000	48700	20000 - 60100	122
1,7-Dimethylfluorene	442-66-0		0.07	39800	48700	19900 - 59700	122
Dibenzothiophene	132-65-0		0.07	40000	40400	24000 - 55900	101
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		0.68	40200	44000	20100 - 60200	110
4,6-Dimethyldibenzothiophene	1207-12-1		0.13	40000	51600	20000 - 59900	129
2-Methylphenanthrene	2531-84-2		0.56	39800	49300	19900 - 59700	124
2-Methylanthracene	613-12-7		0.48	40000	47700	20000 - 60000	119
1-Methylphenanthrene	832-69-9		0.57	40000	50800	20000 - 60100	127
3,6-Dimethylphenanthrene	1576-67-6		0.31	40200	53900	20100 - 60200	134
1,7-Dimethylphenanthrene	483-87-4		0.29	39000	53300	19500 - 58500	137

COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
1,2,6-Trimethylphenanthrene	30436-55-6		0.52	40000	58100	20000 - 60000	145
Retene	483-65-8		1.47	40000	59400	20000 - 60000	149
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		1.02	40300	58200	20100 - 60400	145
5/6-Methylchrysene	3697-24-3/1705-85-7			40000	43600	20000 - 60100	109
1-Methylchrysene	3351-28-8			39900	43500	19900 - 59800	109
5,9-Dimethylchrysene	139493-40-6			40200	44000	20100 - 60200	110
7-Methylbenzo[a]pyrene	63041-77-0			40000	43800	20000 - 59900	110
1,4,6,7-Tetramethylnaphthalene	13764-18-6		0.02	39900	54600	19900 - 79800	137
Anthracene d-10			0.12	39800	38600	27900 - 51800	96.8
Fluoranthene d-10	93951-69-0		0.15	39800	39200	27900 - 51700	98.4
Dibenzo[a,h]anthracene d-14	13250-98-1		0.23	38400	41400	26900 - 49900	108

(1) Where applicable, custom lab flags have been used on this report; N = authentic recovery in the OPR is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

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Report Filename: PAH_PAH_LO_LPAHF_WG95247-102_Form8A_SJ3665709.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 8B

POLYAROMATIC HYDROCARBON ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4608 **OPR Data Filename:** **PH5H4150.D**

Matrix: SPMD **Lab Sample I.D.:** WG95247-102

Extraction Date: 16-Sep-2025 **Analysis Date:** 22-Sep-2025 **Time:** 17:19:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON 100 uL EXTRACT.

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
Naphthalene d-8	1146-65-2		0.09	40100	17800	6020-52100	44.3
2-Methylnaphthalene d-10	7297-45-2		0.18	40400	19300	8080-52500	47.9
Biphenyl d-10	1486-01-7			40100	19700	6020-52100	49.1
2,6-Dimethylnaphthalene d-12	350820-12-1		0.67	40200	19600	8040-52300	48.8
Acenaphthylene d-8	93951-97-4		0.16	40200	20100	8040-52300	49.9
Dibenzothiophene d-8	33262-29-2		0.07	40100	23600	12000-52100	58.8
Phenanthrene d-10	1517-22-2		0.13	40100	25900	12000-52100	64.5
Benzo[a]anthracene d-12	1718-53-2		0.21	40000	33500	12000-52000	83.8
Chrysene d-12	1719-03-5		0.24	32200	28200	9650-41800	87.5
Benzo[b]fluoranthene d-12	93951-98-5		0.18	39900	34500	12000-51900	86.5
Benzo[k]fluoranthene d-12	93952-01-3		0.18	39100	34100	11700-50800	87.2
Benzo[a]pyrene d-12	63466-71-7		0.18	40100	34100	12000-52100	85.1
Perylene d-12	1520-96-3		0.22	40000	34600	12000-52000	86.5
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		0.16	39700	32800	11900-51600	82.6
Benzo[ghi]perylene d-12	93951-66-7		0.18	39800	35300	11900-51700	88.7

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Pest8B.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_WG95247-102_Form8B_SJ3665709.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3A

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H3983.D

CS2 Data Filename: PH5H3984.D

CS3 Data Filename: PH5H3985.D

CS4 Data Filename: PH5H3987.D

CS5 Data Filename: PH5H3986.D

CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
COMPOUND	**LAB FLAG 1**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
Naphthalene			1.07	1.11	1.17	1.16	1.20		1.14	4.47
Acenaphthylene			1.13	1.17	1.22	1.23	1.29		1.21	5.06
Acenaphthene			0.61	0.64	0.68	0.68	0.70		0.66	5.39
2-Methylfluorene			0.47	0.52	0.55	0.55	0.58		0.53	8.06
Fluorene			0.70	0.76	0.82	0.80	0.86		0.79	7.82
Phenanthrene			1.09	1.15	1.22	1.23	1.28		1.19	6.05
Anthracene			1.12	1.16	1.22	1.25	1.30		1.21	5.90
Fluoranthene			1.31	1.31	1.36	1.45	1.47		1.38	5.61
Pyrene			1.35	1.39	1.42	1.50	1.52		1.44	5.19
Benz[a]anthracene			1.08	1.14	1.18	1.22	1.26		1.18	5.81
Chrysene			1.03	1.08	1.14	1.18	1.21		1.13	6.60
Benzo[b]fluoranthene			1.25	1.33	1.35	1.38	1.39		1.34	4.11
Benzo[j,k]fluoranthenes			1.10	1.16	1.25	1.30	1.33		1.23	7.72
Benzo[e]pyrene			1.08	1.11	1.19	1.24	1.24		1.17	6.16
Benzo[a]pyrene			1.09	1.16	1.22	1.30	1.31		1.22	7.78
Perylene			1.02	1.09	1.15	1.21	1.24		1.14	7.89
Dibenz[a,h]anthracene			1.03	1.09	1.17	1.24	1.28		1.16	8.87
Indeno[1,2,3-cd]pyrene			1.09	1.15	1.20	1.24	1.26		1.19	5.70
Benzo[ghi]perylene			1.15	1.21	1.30	1.33	1.36		1.27	6.74
2-Methylnaphthalene			1.10	1.15	1.20	1.22	1.26		1.19	5.32
1-Methylnaphthalene			0.99	1.03	1.09	1.10	1.14		1.07	5.74
Biphenyl			1.00	1.04	1.09	1.11	1.15		1.08	5.59
C1-Biphenyls			1.00	1.04	1.09	1.11	1.15		1.08	5.59
C2-Biphenyls			1.00	1.04	1.09	1.11	1.15		1.08	5.59
1,2-Dimethylnaphthalene			0.82	0.86	0.87	0.90	0.92		0.87	4.47
2,6-Dimethylnaphthalene			1.05	1.10	1.16	1.19	1.22		1.15	6.03
C3-Naphthalenes			1.02	1.05	1.08	1.16	1.16		1.09	5.90
2,3,6-Trimethylnaphthalene			1.01	1.06	1.06	1.13	1.14		1.08	5.12
2,3,5-Trimethylnaphthalene			1.02	1.05	1.10	1.19	1.18		1.11	6.76
C4-Naphthalenes			1.01	1.03	1.02	1.14	1.12		1.06	5.64
C1-Acenaphthenes			0.61	0.64	0.68	0.68	0.70		0.66	5.39
C1-Fluorenes			0.47	0.52	0.55	0.55	0.58		0.53	8.06
1,7-Dimethylfluorene			0.47	0.48	0.52	0.54	0.56		0.51	7.25
C2-Fluorenes			0.47	0.48	0.52	0.54	0.56		0.51	7.25
C3-Fluorenes			0.47	0.48	0.52	0.54	0.56		0.51	7.25
Dibenzothiophene			1.05	1.09	1.12	1.10	1.16		1.10	3.71
2/3-Methyldibenzothiophenes			0.79	0.82	0.85	0.88	0.90		0.85	5.05
C2-Dibenzothiophenes			0.57	0.58	0.60	0.66	0.66		0.61	7.00

COMPOUND	LAB FLAG [1]	RELATIVE RESPONSE (RR) CS0	CS1	CS2	CS3	CS4	CS5	CS6	MEAN RR	CV (%RSD)[2]
2,4-Dimethyldibenzothiophene			0.57	0.58	0.60	0.66	0.66		0.61	7.00
4,6-Dimethyldibenzothiophene			0.72	0.72	0.76	0.80	0.81		0.76	5.57
C3-Dibenzothiophenes			0.57	0.58	0.60	0.66	0.66		0.61	7.00
C4-Dibenzothiophenes			0.57	0.58	0.60	0.66	0.66		0.61	7.00
3-Methylphenanthrene			0.79	0.82	0.87	0.91	0.95		0.87	7.50
2-Methylphenanthrene			0.80	0.84	0.88	0.94	0.97		0.88	7.62
2-Methylanthracene			0.74	0.78	0.83	0.87	0.91		0.83	8.44
9/4-Methylphenanthrene			0.79	0.82	0.87	0.91	0.95		0.87	7.50
1-Methylphenanthrene			0.82	0.84	0.89	0.93	0.96		0.88	6.63
3,6-Dimethylphenanthrene			0.70	0.74	0.76	0.82	0.83		0.77	7.05
2,6-Dimethylphenanthrene			0.68	0.71	0.74	0.79	0.81		0.75	7.05
1,7-Dimethylphenanthrene			0.67	0.68	0.72	0.77	0.78		0.72	7.05
1,8-Dimethylphenanthrene			0.68	0.71	0.74	0.79	0.81		0.75	7.05
C3-Phenanthrenes/Anthracenes			0.66	0.70	0.73	0.78	0.79		0.73	7.49
1,2,6-Trimethylphenanthrene			0.66	0.70	0.73	0.78	0.79		0.73	7.49
Retene			0.27	0.26	0.27	0.31	0.31		0.28	7.38
C4-Phenanthrenes/Anthracenes			0.27	0.26	0.27	0.31	0.31		0.28	7.38
3-Methylfluoranthene/Benzo[a]fluorene			0.76	0.80	0.84	0.92	0.94		0.85	8.95
C2-Fluoranthenes/Pyrenes			0.76	0.80	0.84	0.92	0.94		0.85	8.95
C3-Fluoranthenes/Pyrenes			0.76	0.80	0.84	0.92	0.94		0.85	8.95
C4-Fluoranthenes/Pyrenes			0.76	0.80	0.84	0.92	0.94		0.85	8.95
C1-Benzo[a]anthracenes/Chrysenes			0.73	0.75	0.82	0.86	0.88		0.81	8.09
5/6-Methylchrysene			0.71	0.72	0.79	0.81	0.84		0.77	7.49
1-Methylchrysene			0.76	0.78	0.86	0.91	0.93		0.85	8.62
C2-Benzo[a]anthracenes/Chrysenes			0.63	0.64	0.68	0.72	0.75		0.68	7.13
5,9-Dimethylchrysene			0.63	0.64	0.68	0.72	0.75		0.68	7.13
C3-Benzo[a]anthracenes/Chrysenes			0.63	0.64	0.68	0.72	0.75		0.68	7.13
C4-Benzo[a]anthracenes/Chrysenes			0.63	0.64	0.68	0.72	0.75		0.68	7.13
C1-Benzofluoranthenes/Benzopyrenes			0.79	0.83	0.90	0.95	0.98		0.89	9.19
7-Methylbenzo[a]pyrene			0.79	0.83	0.90	0.95	0.98		0.89	9.19
C2-Benzofluoranthenes/Benzopyrenes			0.79	0.83	0.90	0.95	0.98		0.89	9.19
1,4,6,7-Tetramethylnaphthalene			1.01	1.03	1.02	1.14	1.12		1.06	5.64
Anthracene d-10			1.09	1.09	1.10	1.09	1.11		1.10	0.91
Fluoranthene d-10			0.98	1.00	1.01	0.99	1.01		1.00	1.46
Dibenzo[a,h]anthracene d-14			0.91	0.91	0.92	0.94	0.94		0.92	1.71

(1) Where applicable, custom lab flags have been used on this report.
(2) QC limit is 20% for native compounds with a labeled analog, 35% for those without a labeled analog.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Form3A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_09-Sep-2025_PH5H__Form3A_GS117362.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3B
POLYAROMATIC HYDROCARBON INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H3983.D

CS2 Data Filename: PH5H3984.D

CS3 Data Filename: PH5H3985.D

CS4 Data Filename: PH5H3987.D

CS5 Data Filename: PH5H3986.D

CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
LABELED COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
Naphthalene d-8			1.62	1.61	1.69	1.65	1.65		1.64	1.88
2-Methylnaphthalene d-10			1.06	1.05	1.08	1.06	1.06		1.06	1.13
Biphenyl d-10			1.42	1.41	1.43	1.41	1.42		1.42	0.66
2,6-Dimethylnaphthalene d-12			1.00	0.99	1.00	0.98	0.99		0.99	0.92
Acenaphthylene d-8			1.76	1.74	1.76	1.77	1.77		1.76	0.71
Dibenzothiophene d-8			0.84	0.86	0.87	0.85	0.88		0.86	1.73
Phenanthrene d-10			0.83	0.85	0.86	0.84	0.85		0.85	1.40
Benzo[a]anthracene d-12			1.03	1.00	0.99	1.01	1.01		1.01	1.39
Chrysene d-12			1.03	1.01	1.00	1.03	1.03		1.02	1.37
Benzo[b]fluoranthene d-12			1.00	1.00	1.00	0.99	1.01		1.00	0.63
Benzo[k]fluoranthene d-12			1.07	1.05	1.06	1.07	1.09		1.07	1.17
Benzo[a]pyrene d-12			1.02	1.01	1.02	1.00	1.04		1.02	1.44
Perylene d-12			1.04	1.03	1.03	1.03	1.05		1.03	0.61
Indeno[1,2,3-cd]pyrene d-12			1.10	1.08	1.09	1.07	1.13		1.09	2.00
Benzo[ghi]perylene d-12			1.02	1.00	1.00	1.00	1.04		1.01	1.80

(1) Where applicable, custom lab flags have been used on this report.
(2) QC limit is 35% for labeled compounds.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Form3B.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_09-Sep-2025_PH5H__Form3B_GS117362.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3C

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H3983.D

CS2 Data Filename: PH5H3984.D

CS3 Data Filename: PH5H3985.D

CS4 Data Filename: PH5H3987.D

CS5 Data Filename: PH5H3986.D

CS6 Data Filename: N/A

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
Naphthalene		**128,102**		0.08	0.08	0.07	0.07	0.07	
Acenaphthylene		**152,151**		0.19	0.20	0.20	0.20	0.20	
Acenaphthene		**154,153**		1.14	1.17	1.14	1.14	1.15	
2-Methylfluorene		**180,165**		1.24	1.20	1.21	1.20	1.21	
Fluorene		**166,165**		0.99	1.00	0.98	0.98	0.98	
Phenanthrene		**178,176**		0.19	0.19	0.18	0.18	0.18	
Anthracene		**178,176**		0.18	0.19	0.18	0.18	0.18	
Fluoranthene		**202,200**		0.20	0.20	0.19	0.20	0.19	
Pyrene		**202,200**		0.19	0.19	0.20	0.20	0.20	
Benz[a]anthracene		**228,226**		0.26	0.26	0.25	0.26	0.26	
Chrysene		**228,226**		0.29	0.28	0.28	0.29	0.28	
Benzo[b]fluoranthene		**252,253**		0.22	0.21	0.21	0.21	0.21	
Benzo[j,k]fluoranthenes		**252,253**		0.23	0.22	0.21	0.21	0.21	
Benzo[e]pyrene		**252,253**		0.21	0.21	0.21	0.21	0.21	
Benzo[a]pyrene		**252,253**		0.20	0.20	0.21	0.21	0.21	
Perylene		**252,253**		0.23	0.21	0.21	0.21	0.21	
Dibenz[a,h]anthracene		**278,139**		0.14	0.13	0.14	0.14	0.14	
Indeno[1,2,3-cd]pyrene		**276,138**		0.23	0.20	0.17	0.17	0.17	
Benzo[ghi]perylene		**276,138**		0.21	0.18	0.18	0.19	0.19	
2-Methylnaphthalene		**142,141**		0.90	0.89	0.89	0.90	0.90	
1-Methylnaphthalene		**142,141**		0.93	0.94	0.93	0.93	0.94	
Biphenyl		**154,152**		0.27	0.27	0.27	0.27	0.27	
1,2-Dimethylnaphthalene		**156,141**		1.20	1.24	1.24	1.24	1.25	
2,6-Dimethylnaphthalene		**156,141**		0.67	0.66	0.66	0.65	0.65	
2,3,6-Trimethylnaphthalene		**170,155**		0.82	0.84	0.85	0.86	0.85	
2,3,5-Trimethylnaphthalene		**170,155**		0.88	0.88	0.86	0.84	0.86	
1,7-Dimethylfluorene		**194,177**		0.08	0.08	0.08	0.08	0.08	
Dibenzothiophene		**184,152**		0.09	0.08	0.08	0.08	0.08	
2/3-Methyldibenzothiophenes		**198,197**		0.71	0.71	0.71	0.71	0.71	
2,4-Dimethyldibenzothiophene		**212,197**		0.52	0.50	0.48	0.47	0.47	
4,6-Dimethyldibenzothiophene		**212,197**		0.15	0.17	0.15	0.14	0.15	
3-Methylphenanthrene		**192,191**							
2-Methylphenanthrene		**192,191**		0.59	0.58	0.58	0.59	0.59	
2-Methylanthracene		**192,191**		0.51	0.50	0.50	0.51	0.50	
9/4-Methylphenanthrene		**192,191**							
1-Methylphenanthrene		**192,191**		0.58	0.61	0.60	0.60	0.60	
3,6-Dimethylphenanthrene		**206,191**		0.35	0.34	0.33	0.32	0.33	
2,6-Dimethylphenanthrene		**206,191**							
1,7-Dimethylphenanthrene		**206,191**		0.33	0.33	0.31	0.31	0.31	

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
1,8-Dimethylphenanthrene		**206,191**							
1,2,6-Trimethylphenanthrene		**220,205**		0.56	0.54	0.54	0.54	0.55	
Retene		**234,219**		1.55	1.52	1.60	1.52	1.54	
3-Methylfluoranthene/Benzo[a]fluorene		**216,215**		1.10	1.05	1.07	1.06	1.07	
5/6-Methylchrysene		**242**							
1-Methylchrysene		**242**							
5,9-Dimethylchrysene		**256**							
7-Methylbenzo[a]pyrene		**266**							
1,4,6,7-Tetramethylnaphthalene		**184,139**		0.03	0.03	0.03	0.03	0.03	
Anthracene d-10		**188,184**		0.13	0.13	0.13	0.13	0.13	
Fluoranthene d-10		**212,208**		0.16	0.16	0.16	0.16	0.16	
Dibenzo[a,h]anthracene d-14		**292,288**		0.22	0.23	0.22	0.23	0.23	

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Form3C.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_09-Sep-2025_PH5H__Form3C_GS117362.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3D

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H3983.D

CS2 Data Filename: PH5H3984.D

CS3 Data Filename: PH5H3985.D

CS4 Data Filename: PH5H3987.D

CS5 Data Filename: PH5H3986.D

CS6 Data Filename: N/A

LABELED COMPOUND	LAB FLAG[1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
Naphthalene d-8		**136,134**		0.09	0.09	0.09	0.09	0.09	
2-Methylnaphthalene d-10		**152,151**		0.19	0.19	0.19	0.19	0.19	
Biphenyl d-10		**164**							
2,6-Dimethylnaphthalene d-12		**168,150**		0.69	0.69	0.68	0.69	0.69	
Acenaphthylene d-8		**160,158**		0.16	0.16	0.16	0.16	0.16	
Dibenzothiophene d-8		**192,160**		0.08	0.08	0.08	0.08	0.08	
Phenanthrene d-10		**188,184**		0.14	0.14	0.14	0.14	0.14	
Benzo[a]anthracene d-12		**240,236**		0.22	0.22	0.22	0.22	0.22	
Chrysene d-12		**240,236**		0.26	0.26	0.26	0.25	0.26	
Benzo[b]fluoranthene d-12		**264,260**		0.19	0.19	0.19	0.19	0.19	
Benzo[k]fluoranthene d-12		**264,260**		0.18	0.19	0.19	0.19	0.19	
Benzo[a]pyrene d-12		**264,260**		0.19	0.19	0.19	0.19	0.19	
Perylene d-12		**264,260**		0.23	0.23	0.23	0.23	0.23	
Indeno[1,2,3-cd]pyrene d-12		**288,284**		0.17	0.17	0.17	0.17	0.17	
Benzo[ghi]perylene d-12		**288,284**		0.19	0.19	0.19	0.19	0.19	

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Form3D.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_09-Sep-2025_PH5H__Form3D_GS117362.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4A

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025 **VER Data Filename:** PH5H4149.D

Instrument ID: LR GC/MS **Analysis Date:** 22-Sep-2025

GC Column ID: RTX5 **Analysis Time:** 16:30:00

COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene	91-20-3		128,102	0.07	0.06-0.08	2010	1480-2470
Acenaphthylene	208-96-8		152,151	0.19	0.15-0.23	2010	1490-2480
Acenaphthene	83-32-9		154,153	1.09	0.87-1.31	2110	1490-2480
2-Methylfluorene	1430-97-3		180,165	1.13	0.90-1.36	2140	1500-2500
Fluorene	86-73-7		166,165	0.94	0.75-1.13	2030	1490-2480
Phenanthrene	85-01-8		178,176	0.18	0.14-0.22	2100	1520-2530
Anthracene	120-12-7		178,176	0.17	0.14-0.20	2060	1500-2510
Fluoranthene	206-44-0		202,200	0.19	0.15-0.23	2080	1480-2470
Pyrene	129-00-0		202,200	0.19	0.15-0.23	2090	1490-2480
Benz[a]anthracene	56-55-3		228,226	0.25	0.20-0.30	2130	1510-2510
Chrysene	218-01-9		228,226	0.27	0.22-0.32	2110	1510-2520
Benzo[b]fluoranthene	205-99-2		252,253	0.21	0.17-0.25	2060	1500-2500
Benzo[j,k]fluoranthenes			252,253	0.21	0.17-0.25	2140	1510-2520
Benzo[e]pyrene	192-97-2		252,253	0.21	0.17-0.25	2150	1500-2500
Benzo[a]pyrene	50-32-8		252,253	0.21	0.17-0.25	2120	1510-2510
Perylene	198-55-0		252,253	0.21	0.17-0.25	2110	1500-2500
Dibenz[a,h]anthracene	53-70-3		278,139	0.12	0.08-0.16	2040	1510-2520
Indeno[1,2,3-cd]pyrene	193-39-5		276,138	0.15	0.10-0.20	2070	1520-2530
Benzo[ghi]perylene	191-24-2		276,138	0.16	0.10-0.22	2070	1500-2510
2-Methylnaphthalene	91-57-6		142,141	0.86	0.69-1.03	2070	1500-2500
1-Methylnaphthalene	90-12-0		142,141	0.89	0.71-1.07	2090	1500-2500
Biphenyl	92-52-4		154,152	0.26	0.21-0.31	2080	1490-2490
1,2-Dimethylnaphthalene	573-98-8		156,141	1.16	0.93-1.39	2120	1500-2490
2,6-Dimethylnaphthalene	581-42-0		156,141	0.61	0.49-0.73	2140	1510-2510
2,3,6-Trimethylnaphthalene	829-26-5		170,155	0.80	0.64-0.96	2150	1500-2490
2,3,5-Trimethylnaphthalene	2245-38-7		170,155	0.81	0.65-0.97	2190	1500-2500
1,7-Dimethylfluorene	442-66-0		194,177	0.07	0.06-0.08	2180	1490-2490
Dibenzothiophene	132-65-0		184,152	0.07	0.06-0.08	1960	1500-2500
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		198,197	0.68	0.54-0.82	2050	1510-2510
2,4-Dimethyldibenzothiophene	31317-18-7		212,197	0.44	0.35-0.53	2170	1500-2500
4,6-Dimethyldibenzothiophene	1207-12-1		212,197	0.13	0.10-0.16	2150	1500-2500
2-Methylphenanthrene	2531-84-2		192,191	0.56	0.45-0.67	2160	1490-2490
2-Methylanthracene	613-12-7		192,191	0.48	0.38-0.58	2150	1500-2500
1-Methylphenanthrene	832-69-9		192,191	0.57	0.46-0.68	2180	1500-2500
3,6-Dimethylphenanthrene	1576-67-6		206,191	0.31	0.25-0.37	2200	1510-2510
1,7-Dimethylphenanthrene	483-87-4		206,191	0.29	0.23-0.35	2130	1460-2440
1,2,6-Trimethylphenanthrene	30436-55-6		220,205	0.52	0.42-0.62	2170	1500-2500
Retene	483-65-8		234,219	1.46	1.17-1.75	2220	1500-2500
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		216,215	1.03	0.82-1.24	2220	1510-2520
5/6-Methylchrysene	3697-24-3/1705-85-7		242	0	N/A	2130	1500-2500
1-Methylchrysene	3351-28-8		242	0	N/A	2130	1500-2490
5,9-Dimethylchrysene	139493-40-6		256	0	N/A	2170	1510-2510
7-Methylbenzo[a]pyrene	63041-77-0		266	0	N/A	2170	1500-2500
1,4,6,7-Tetramethylnaphthalene	13764-18-6		184,139	0.02	0.02-0.02	2210	1500-2490
Anthracene d-10			188,184	0.12	0.10-0.14	1970	1490-2490
Fluoranthene d-10	93951-69-0		212,208	0.15	0.12-0.18	2020	1490-2490

Dibenzo[a,h]anthracene d-14	13250-98-1	292,288	0.23	0.15-0.31	1940	1440-2400

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest4A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62; Report Filename: GENERIC-SPECS_PAH_LO_PH5H4149.D__Form4A_SJ3664701.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4B

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	09-Sep-2025	**VER Data Filename:**	PH5H4149.D
Instrument ID:	LR GC/MS	**Analysis Date:**	22-Sep-2025
GC Column ID:	RTX5	**Analysis Time:**	16:30:00

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene d-8	1146-65-2		136,134	0.09	0.07-0.11	1930	1500-2510
2-Methylnaphthalene d-10	7297-45-2		152,151	0.18	0.14-0.22	2000	1520-2530
Biphenyl d-10	1486-01-7		164	0	N/A	1960	1500-2510
2,6-Dimethylnaphthalene d-12	350820-12-1		168,150	0.66	0.53-0.79	1970	1510-2510
Acenaphthylene d-8	93951-97-4		160,158	0.16	0.13-0.19	1970	1510-2510
Dibenzothiophene d-8	33262-29-2		192,160	0.07	0.06-0.08	2040	1500-2510
Phenanthrene d-10	1517-22-2		188,184	0.13	0.10-0.16	1960	1500-2510
Benzo[a]anthracene d-12	1718-53-2		240,236	0.21	0.17-0.25	1970	1500-2500
Chrysene d-12	1719-03-5		240,236	0.24	0.19-0.29	1630	1210-2010
Benzo[b]fluoranthene d-12	93951-98-5		264,260	0.18	0.14-0.22	1980	1500-2490
Benzo[k]fluoranthene d-12	93952-01-3		264,260	0.18	0.14-0.22	1900	1470-2440
Benzo[a]pyrene d-12	63466-71-7		264,260	0.18	0.14-0.22	1960	1500-2510
Perylene d-12	1520-96-3		264,260	0.22	0.18-0.26	1980	1500-2500
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		288,284	0.16	0.10-0.22	1990	1490-2480
Benzo[ghi]perylene d-12	93951-66-7		288,284	0.18	0.12-0.24	2040	1490-2490

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest4B.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_PH5H4149.D__Form4B_SJ3664701.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4A

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	09-Sep-2025	**VER Data Filename:**	PH5H4163.D
Instrument ID:	LR GC/MS	**Analysis Date:**	23-Sep-2025
GC Column ID:	RTX5	**Analysis Time:**	03:27:00

COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene	91-20-3		128,102	0.07	0.06-0.08	2000	1480-2470
Acenaphthylene	208-96-8		152,151	0.19	0.15-0.23	1980	1490-2480
Acenaphthene	83-32-9		154,153	1.09	0.87-1.31	2070	1490-2480
2-Methylfluorene	1430-97-3		180,165	1.13	0.90-1.36	2170	1500-2500
Fluorene	86-73-7		166,165	0.94	0.75-1.13	2070	1490-2480
Phenanthrene	85-01-8		178,176	0.17	0.14-0.20	2090	1520-2530
Anthracene	120-12-7		178,176	0.17	0.14-0.20	2080	1500-2510
Fluoranthene	206-44-0		202,200	0.18	0.14-0.22	2050	1480-2470
Pyrene	129-00-0		202,200	0.18	0.14-0.22	2060	1490-2480
Benz[a]anthracene	56-55-3		228,226	0.25	0.20-0.30	2070	1510-2510
Chrysene	218-01-9		228,226	0.27	0.22-0.32	2130	1510-2520
Benzo[b]fluoranthene	205-99-2		252,253	0.21	0.17-0.25	2030	1500-2500
Benzo[j,k]fluoranthenes			252,253	0.21	0.17-0.25	2120	1510-2520
Benzo[e]pyrene	192-97-2		252,253	0.21	0.17-0.25	2100	1500-2500
Benzo[a]pyrene	50-32-8		252,253	0.21	0.17-0.25	2120	1510-2510
Perylene	198-55-0		252,253	0.21	0.17-0.25	2110	1500-2500
Dibenz[a,h]anthracene	53-70-3		278,139	0.12	0.08-0.16	2070	1510-2520
Indeno[1,2,3-cd]pyrene	193-39-5		276,138	0.15	0.10-0.20	2030	1520-2530
Benzo[ghi]perylene	191-24-2		276,138	0.16	0.10-0.22	2050	1500-2510
2-Methylnaphthalene	91-57-6		142,141	0.85	0.68-1.02	2070	1500-2500
1-Methylnaphthalene	90-12-0		142,141	0.89	0.71-1.07	2080	1500-2500
Biphenyl	92-52-4		154,152	0.26	0.21-0.31	2070	1490-2490
1,2-Dimethylnaphthalene	573-98-8		156,141	1.16	0.93-1.39	2110	1500-2490
2,6-Dimethylnaphthalene	581-42-0		156,141	0.61	0.49-0.73	2150	1510-2510
2,3,6-Trimethylnaphthalene	829-26-5		170,155	0.81	0.65-0.97	2120	1500-2490
2,3,5-Trimethylnaphthalene	2245-38-7		170,155	0.81	0.65-0.97	2160	1500-2500
1,7-Dimethylfluorene	442-66-0		194,177	0.07	0.06-0.08	2180	1490-2490
Dibenzothiophene	132-65-0		184,152	0.07	0.06-0.08	1960	1500-2500
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		198,197	0.67	0.54-0.80	2070	1510-2510
2,4-Dimethyldibenzothiophene	31317-18-7		212,197	0.44	0.35-0.53	2150	1500-2500
4,6-Dimethyldibenzothiophene	1207-12-1		212,197	0.13	0.10-0.16	2130	1500-2500
2-Methylphenanthrene	2531-84-2		192,191	0.56	0.45-0.67	2150	1490-2490
2-Methylanthracene	613-12-7		192,191	0.47	0.38-0.56	2160	1500-2500
1-Methylphenanthrene	832-69-9		192,191	0.57	0.46-0.68	2160	1500-2500
3,6-Dimethylphenanthrene	1576-67-6		206,191	0.31	0.25-0.37	2180	1510-2510
1,7-Dimethylphenanthrene	483-87-4		206,191	0.29	0.23-0.35	2150	1460-2440
1,2,6-Trimethylphenanthrene	30436-55-6		220,205	0.52	0.42-0.62	2200	1500-2500
Retene	483-65-8		234,219	1.47	1.18-1.76	2220	1500-2500
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		216,215	1.01	0.81-1.21	2210	1510-2520
5/6-Methylchrysene	3697-24-3/1705-85-7		242	0	N/A	2210	1500-2500
1-Methylchrysene	3351-28-8		242	0	N/A	2180	1500-2490
5,9-Dimethylchrysene	139493-40-6		256	0	N/A	2230	1510-2510
7-Methylbenzo[a]pyrene	63041-77-0		266	0	N/A	2230	1500-2500
1,4,6,7-Tetramethylnaphthalene	13764-18-6		184,139	0.02	0.02-0.02	2160	1500-2490
Anthracene d-10			188,184	0.12	0.10-0.14	1980	1490-2490
Fluoranthene d-10	93951-69-0		212,208	0.15	0.12-0.18	1940	1490-2490

Dibenzo[a,h]anthracene d-14	13250-98-1	292,288	0.21	0.14-0.28	1960	1440-2400

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest4A.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_PH5H4163.D__Form4A_SJ3664702.html; Workgroup: WG95247; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4B

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	09-Sep-2025	**VER Data Filename:**	PH5H4163.D
Instrument ID:	LR GC/MS	**Analysis Date:**	23-Sep-2025
GC Column ID:	RTX5	**Analysis Time:**	03:27:00

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene d-8	1146-65-2		136,134	0.09	0.07-0.11	1920	1500-2510
2-Methylnaphthalene d-10	7297-45-2		152,151	0.18	0.14-0.22	2010	1520-2530
Biphenyl d-10	1486-01-7		164	0	N/A	1970	1500-2510
2,6-Dimethylnaphthalene d-12	350820-12-1		168,150	0.66	0.53-0.79	1970	1510-2510
Acenaphthylene d-8	93951-97-4		160,158	0.16	0.13-0.19	1990	1510-2510
Dibenzothiophene d-8	33262-29-2		192,160	0.07	0.06-0.08	2080	1500-2510
Phenanthrene d-10	1517-22-2		188,184	0.13	0.10-0.16	2000	1500-2510
Benzo[a]anthracene d-12	1718-53-2		240,236	0.21	0.17-0.25	2060	1500-2500
Chrysene d-12	1719-03-5		240,236	0.24	0.19-0.29	1630	1210-2010
Benzo[b]fluoranthene d-12	93951-98-5		264,260	0.18	0.14-0.22	2010	1500-2490
Benzo[k]fluoranthene d-12	93952-01-3		264,260	0.17	0.14-0.20	1930	1470-2440
Benzo[a]pyrene d-12	63466-71-7		264,260	0.18	0.14-0.22	2000	1500-2510
Perylene d-12	1520-96-3		264,260	0.22	0.18-0.26	2010	1500-2500
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		288,284	0.16	0.10-0.22	2030	1490-2480
Benzo[ghi]perylene d-12	93951-66-7		288,284	0.18	0.12-0.24	2050	1490-2490

(1) Where applicable, custom lab flags have been used on this report.

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Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest4B.xsl; Created: 10-Oct-2025 09:22:50; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_PH5H4163.D__Form4B_SJ3664702.html; Workgroup: WG95247; Design ID: 5444]

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-103 Rev. 80

				Serum	Solids													Tissue and Tissue Fibra									Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
BFR	BTBPE	SGS AXYS MLA-033	MLA-033					Y											Y						Y															
BFR	DBDPE	SGS AXYS MLA-033	MLA-033					Y											Y						Y															
BFR	HBB	SGS AXYS MLA-033	MLA-033					Y											Y						Y															
BFR	PBEB	SGS AXYS MLA-033	MLA-033					Y											Y						Y															
Bisphenols	Bisphenol A	SGS AXYS MLA-113	MLA-113					Y																	Y															
Bisphenols	Bisphenol AF	SGS AXYS MLA-113	MLA-113					Y																	Y															
Bisphenols	Bisphenol B	SGS AXYS MLA-113	MLA-113					Y																	Y															
Bisphenols	Bisphenol E	SGS AXYS MLA-113	MLA-113					Y																	Y															
Bisphenols	Bisphenol F	SGS AXYS MLA-113	MLA-113					Y																	Y															
Bisphenols	Bisphenol S	SGS AXYS MLA-113	MLA-113					Y																	Y															
BPA and MPE	4,4'-dihydroxy-2,2-diphenylpropane (Bisphenol A) (BPA)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-(3-carboxypropyl) phthalate (MCPP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-2-ethylhexyl phthalate (MEHP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-benzyl phthalate (MBzP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-butyl phthalate (MBP) (n + iso)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-cyclohexyl phthalate (MCHP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-ethyl phthalate (MEP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-iso-nonyl phthalate (MiNP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-methyl phthalate (MMP)	SGS AXYS MLA-059	MLA-059																					Y															
BPA and MPE	Mono-(2-ethyl-5-carboxypentyl) phthalate (MECPP)	SGS AXYS MLA-059	MLA-059																																				
OC Pesticides	2,4'-DDD	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	2,4'-DDE	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	2,4'-DDT	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	4,4'-DDD	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	4,4'-DDE	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	4,4'-DDT	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Aldrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Alpha-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Beta-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	cis-Chlordane (alpha-Chlordane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	cis-Nonachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Delta-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Dieldrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Endosulphan I	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Endosulphan II	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Endosulphan sulphate	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Endrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Endrin aldehyde	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Endrin ketone	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Gamma-HCH (Lindane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Heptachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Heptachlor epoxide	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Hexachlorobenzene	SGS AXYS MLA-228	MLA-228							Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Methoxychlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Mirex	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	Oxychlordane	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	trans-Chlordane (gamma-Chlordane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
OC Pesticides	trans-Nonachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y											Y		Y	Y	
Fluoride	Fluoride	EPA 1621	MLA-119																											Y	Y								
Fluoride	Fluoride	SGS AXYS MLA-119 AOF	MLA-119																												Y								
Fluoride	Fluoride	SGS AXYS MLA-119 EOF	MLA-119							Y																					Y								
Fluoride	Fluoride	SGS AXYS MLA-119 TF	MLA-119							Y																					Y								
PAH	"Extractable Organics" category (CA only)	EPA 8270E	MLA-021						Y																														
PAH	"Semi-volatile Organic Compounds" category (CA only)	EPA 1625	MLA-021																																				
PAH	1,2,6-Trimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	1,2-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	1,4,6,7-Tetramethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	1,7-Dimethylfluorene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	1,7-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	1,8-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	1-Methylchrysene	SGS AXYS MLA-021	MLA-021					Y																	Y															

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-103 Rev. 80

				Serum	Solids													Tissue and Tissue Fibra								Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PAH	1-Methylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	1-Methylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2,3,5-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2,3,6-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2,4-Dimethyldibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2,6-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2-Methylanthracene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2-Methylfluorene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	2-Methylnaphthalene	EPA 8270E	MLA-021							Y										Y																			
PAH		SGS AXYS MLA-021	MLA-021					Y							Y	Y			Y	Y			Y		Y													
PAH	2-Methylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	3,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	3-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	3-Methylfluoranthene/ Benzo(a)fluorene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	3-Methylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	5,9-Dimethylchrysene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	5/6-Methylchrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	7-Methylbenzo(a)pyrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	9/4-Methylphenanthrenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	Acenaphthene	EPA 1625	MLA-021																											Y	Y			Y		Y			
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																			
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y							
PAH	Acenaphthylene	EPA 1625	MLA-021																											Y	Y			Y		Y			
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																			
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y							
PAH	Anthracene	EPA 1625	MLA-021																											Y	Y			Y		Y			
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																			
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y							
PAH	Benz[a]anthracene	EPA 1625	MLA-021																											Y	Y			Y		Y			
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																			
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y							
PAH	Benzo[a]pyrene	EPA 1625	MLA-021																											Y	Y			Y		Y			
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																			
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y							
PAH	Benzo[b]fluoranthene	EPA 1625	MLA-021																											Y	Y	Y		Y		Y			
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																			
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y							
PAH	Benzo[e]pyrene	SGS AXYS MLA-021	MLA-021					Y												Y					Y													
PAH	Benzo[ghi]perylene	EPA 1625	MLA-021																											Y	Y			Y		Y			
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																			
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y							
PAH	Benzo[j/k]fluoranthenes	SGS AXYS MLA-021	MLA-021					Y												Y					Y													
PAH	Benzo[k]fluoranthene	EPA 1625	MLA-021																											Y	Y	Y		Y		Y			
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y						Y																			
PAH		SGS AXYS MLA-021	MLA-021							Y					Y	Y			Y	Y			Y		Y						Y							
PAH	Biphenyl	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Acenaphthenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Benz(a)anthracenes/chrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Biphenyls	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Fluorenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Naphthalenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C1-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C2-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C2-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C2-Biphenyls	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C2-Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C2-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	C2-Fluorenes	SGS AXYS MLA-021	MLA-021					Y																	Y													

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				Serum	Solids			Tissue and Tissue Fibra										Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PAH	C2-Naphthalenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C2-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C3-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C3-Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C3-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C3-Fluorenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C3-Naphthalenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C3-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C4-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C4-Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C4-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C4-Naphthalenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	C4-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	Chrysene	EPA 1625	MLA-021																										Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y		Y						Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Dibenzo[a,h]anthracene	EPA 1625	MLA-021																										Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y		Y						Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y													
PAH	Fluoranthene	EPA 1625	MLA-021																										Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y		Y						Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Fluorene	EPA 1625	MLA-021																										Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y		Y						Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Indeno[1,2,3-cd]pyrene	EPA 1625	MLA-021																										Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021							Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Naphthalene	EPA 1625	MLA-021																										Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y		Y						Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Perylene	SGS AXYS MLA-021	MLA-021				Y												Y						Y													
PAH	Phenanthrene	EPA 1625	MLA-021																										Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y		Y						Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Pyrene	EPA 1625	MLA-021																										Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021							Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Retene	SGS AXYS MLA-021	MLA-021				Y																		Y													
PBDPE	BDE 10 2,6-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 100 2,2',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 105 2,3,3',4,4'-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 11 3,3'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 116 2,3,4,5,6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 119 2,3',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 12 3,4-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 126 3,3',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 13 3,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 140 2,2',3,4,4',6'-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 15 4,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y												Y						Y													
PBDPE	BDE 153 2,2',4,4',5,5'-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y		

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				Serum	Solids												Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 154 2,2',4,4',5',6-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 155 2,2',4,4',6,6'-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 166 2,3,4,4',5,6-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 17 2,2',4-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 181 2,2',3,4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 183 2,2',3,4,4',5',6-heptabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 190 2,3,3',4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 206 2,2',3,3',4,4',5,5',6-nonabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 207 2,2',3,3',4,4',5,6,6'-nonabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 208 2,2',3,3',4,5,5',6,6'-nonabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 209 Decabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 25 2,3',4-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 28 2,4,4'-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 30 2,4,6-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 33 2',3,4-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 35 3,3',4-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 37 3,4,4'-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 47 2,2',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 49 2,2',4,5'-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 66 2,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 7 2,4-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 75 2,4,4',6-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 77 3,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 8 2,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 85 2,2',3,4,4'-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PBDPE	BDE 99 2,2',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y													
PCB Aroclors	PCB Aroclor 1016	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							
PCB Aroclors	PCB Aroclor 1221	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							
PCB Aroclors	PCB Aroclor 1232	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							
PCB Aroclors	PCB Aroclor 1242	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							
PCB Aroclors	PCB Aroclor 1248	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							

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				Serum	Solids												Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable														AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB Aroclors	PCB Aroclor 1254	EPA 1668	MLA-010							Y	Y																			Y	Y										
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y											
PCB Aroclors	PCB Aroclor 1260	EPA 1668	MLA-010							Y	Y																			Y	Y										
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y											
PCB congeners	PCB 1 2-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 10 2,6-Dichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 100 2,2',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 101 2,2',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 102 2,2',4,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 103 2,2',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 104 2,2',4,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 105 2,3,3',4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 106 2,3,3',4,5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 107 2,3,3',4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 108 2,3,3',4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 109 2,3,3',4,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y			

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				Serum	Solids												Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 11 3,3'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 110 2,3,3',4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 111 2,3,3',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 112 2,3,3',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 113 2,3,3',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 114 2,3,4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 115 2,3,4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 116 2,3,4,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 117 2,3,4',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 118 2,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 119 2,3',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 12 3,4-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 120 2,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									

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				Serum	Solids											Tissue and Tissue Fibra										Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 121 2,3',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 122 2,3,3',4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 123 2,3',4,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y					Y			Y							Y						Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 124 2,3',4',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 125 2,3',4',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 126 3,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 127 3,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 129 2,2',3,3',4,5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 13 3,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 130 2,2',3,3',4,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y		Y	Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 131 2,2',3,3',4,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable															AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 132 2,2',3,3',4,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 133 2,2',3,3',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 134 2,2',3,3',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 135 2,2',3,3',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 136 2,2',3,3',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 137 2,2',3,4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 139 2,2',3,4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 14 3,5-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 140 2,2',3,4,4',6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 141 2,2',3,4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 142 2,2',3,4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y														
PCB congeners	PCB 143 2,2',3,4,5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								Y	Y					

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable																	AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 144 2,2',3,4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 145 2,2',3,4,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 146 2,2',3,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 147 2,2',3,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 148 2,2',3,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 149 2,2',3,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 15 4,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 150 2,2',3,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 152 2,2',3,5,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 154 2,2',4,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y										Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																								
PCB congeners	PCB 155 2,2',4,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y										Y	Y		Y	Y	Y	Y	Y		

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 157 2,3,3',4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 159 2,3,3',4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 16 2,2',3-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 160 2,3,3',4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 161 2,3,3',4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 162 2,3,3',4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 163 2,3,3',4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 164 2,3,3',4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 165 2,3,3',5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 166 2,3,4,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							

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				Serum	Solids												Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable														AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 168 2,3',4,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 17 2,2',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 171 2,2',3,3',4,4',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 172 2,2',3,3',4,5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 173 2,2',3,3',4,5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 174 2,2',3,3',4,5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 175 2,2',3,3',4,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 176 2,2',3,3',4,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 177 2,2',3,3',4,5',6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 178 2,2',3,3',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 179 2,2',3,3',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 18 2,2',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 181 2,2',3,4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 182 2,2',3,4,4',5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 183 2,2',3,4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 184 2,2',3,4,4',6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 185 2,2',3,4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 186 2,2',3,4,5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 188 2,2',3,4',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 19 2,2',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 190 2,3,3',4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 191 2,3,3',4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 192 2,3,3',4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 193 2,3,3',4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 195 2,2',3,3',4,4',5,6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 196 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 197 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 198 2,2',3,3',4,5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 199 2,2',3,3',4,5,5',6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 2 3-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 20 2,3,3'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable																AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 200 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 201 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 202 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 203 2,2',3,4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 204 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 205 2,3,3',4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 206 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 207 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 208 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 209 Decachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 21 2,3,4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 22 2,3,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 23 2,3,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable																	AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 24 2,3,6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 25 2,3',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 26 2,3',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 27 2,3',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 28 2,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 29 2,4,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y					Y			Y							Y					Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 3 4-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 30 2,4,6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 31 2,4',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 32 2,4',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 33 2,3',4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																
PCB congeners	PCB 34 2,3',5'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y																
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y				Y	Y	Y	Y	Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y																

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable																	AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 35 3,3',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 36 3,3',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 37 3,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 38 3,4,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 39 3,4',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 4 2,2'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 40 2,2',3,3'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 41 2,2',3,4-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 42 2,2',3,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 43 2,2',3,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 44 2,2',3,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 45 2,2',3,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y									
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																	
PCB congeners	PCB 46 2,2',3,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																					
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y									

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				Serum	Solids												Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable															AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 47 2,2',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 48 2,2',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 49 2,2',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 5 2,3-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 50 2,2',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 51 2,2',4,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 52 2,2',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 53 2,2',5,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 54 2,2',6,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 55 2,3,3',4-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 56 2,3,3',4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 57 2,3,3',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 58 2,3,3',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		

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SGS AXYS Analytical Services Ltd.
file ref.: ACC-103 Rev. 80

				Serum	Solids											Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 59 2,3,3',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 6 2,3'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 60 2,3,4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 61 2,3,4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 62 2,3,4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 63 2,3,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 64 2,3,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 65 2,3,5,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 66 2,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 67 2,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 68 2,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 69 2,3',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		

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				Serum	Solids												Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable														AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 7 2,4-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 70 2,3',4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 71 2,3',4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 72 2,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 73 2,3',5',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 74 2,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 75 2,4,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 76 2,3',4',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 77 3,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 78 3,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 79 3,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y					Y			Y							Y				Y			Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 8 2,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 80 3,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												

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				Serum	Solids											Tissue and Tissue Fibra										Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 81 3,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 82 2,2',3,3',4-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 83 2,2',3,3',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 84 2,2',3,3',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 85 2,2',3,4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 86 2,2',3,4,5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 87 2,2',3,4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 88 2,2',3,4,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 89 2,2',3,4,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 9 2,5-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 90 2,2',3,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 91 2,2',3,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y						Y		Y															
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y						Y		Y															
PCB congeners		EPA 1628	MLA-908							Y												Y																	
PCB congeners	PCB 92 2,2',3,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y						Y		Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y			Y			Y														

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 93 2,2',3,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 94 2,2',3,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 95 2,2',3,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 96 2,2',3,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 97 2,2',3,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 98 2,2',3,4',6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 99 2,2',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB congeners, total	EPA 1668	MLA-010											Y																					Y			
PCB congeners	PCBs, as congeners	EPA 1668	MLA-010																	Y																		
PCB congeners		SGS AXYS MLA-010	MLA-010																	Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210							Y										Y										Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y										Y										Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Heptachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Hexachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Monochlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Nonachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Octachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Pentachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Tetrachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Trichlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCDDF	"Dioxins and Dibenzofurans" category (CA only)	EPA 1613	MLA-017																																		

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				Serum	Solids											Tissue and Tissue Fibra										Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCDDF		EPA 8290A	MLA-017																																				
PCDDF	1,2,3,4,6,7,8-HpCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y		Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,4,6,7,8-HpCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,4,7,8,9-HpCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,4,7,8-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,4,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,6,7,8-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,6,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,7,8,9-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,7,8,9-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,7,8-PeCDD	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	1,2,3,7,8-PeCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	2,3,4,6,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	2,3,4,7,8-PeCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	2,3,7,8-TCDD	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y		Y			Y				Y		Y	Y		
PCDDF	2,3,7,8-TCDF	EPA 1613	MLA-017		Y					Y						Y				Y									Y	Y	Y		Y	Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y						Y				Y			Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y									

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y			Y				Y					Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	OCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y			Y	Y			Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y				Y				Y					Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y						Y					Y								
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y			Y	Y				Y					Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	OCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y			Y	Y			Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y				Y				Y					Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y						Y					Y								
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y			Y	Y				Y					Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total HpCDD	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y			Y					Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total HpCDF	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y			Y	Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total HxCDD	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y			Y	Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total HxCDF	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y			Y	Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total PCDD	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PCDD/F	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PCDF	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PeCDD	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y			Y	Y			Y					Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total PeCDF	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y			Y	Y			Y					Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total TCDD	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y			Y	Y			Y					Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total TCDF	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y			Y	Y			Y					Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y										Y	Y										Y	Y							Y	Y
PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y												
PFAS	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110			Y				Y							Y				Y							Y									Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y							Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y					Y		Y	Y		Y	Y			Y	Y	Y		Y		Y		Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y										Y	Y								Y	Y
PFAS	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	SGS AXYS MLA-110	MLA-110			Y				Y							Y				Y	Y						Y									Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y							Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y					Y		Y	Y		Y	Y			Y	Y	Y		Y		Y		Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y										Y	Y								Y	Y
PFAS	4,8-dioxa-3H-perfluorononanoate (ADONA)	SGS AXYS MLA-110	MLA-110			Y	Y										Y	Y										Y	Y								Y	Y
PFAS		DoD QSM Version 5.3	MLA-110			Y											Y											Y	Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y											Y											Y									Y	

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				Serum	Solids												Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		EPA 1633	MLA-110							Y					Y					Y			Y											Y				
PFAS		EPA 1633 draft	MLA-110			Y											Y										Y										Y	
PFAS	4:2 Fluorotelomersulfonate (4:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	6:2 Fluorotelomersulfonate (6:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	8:2 Fluorotelomersulfonate (8:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y										Y	Y									Y	Y									Y	Y
PFAS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y													
PFAS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110			Y				Y							Y			Y							Y			Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Dodecafluoro-3H-4,8-dioxanonanoate (NaDONA)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y													
		EPA 1633 draft	MLA-110								Y										Y											Y							
PFAS	Hexafluoropropylene oxide dimer acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y									Y		Y						Y		Y										Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Hexafluoropropylene oxide dimer acid, anion and acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Hexaflurorpropylene oxide dimer acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110	Y						Y										Y											Y							
PFAS	N-Ethylperfluorooctane sulfonamide (EtFOSAm)	SGS AXYS MLA-110	MLA-110							Y										Y											Y							
PFAS		DoD QSM Version 5.3	MLA-110						Y																						Y							
PFAS		DoD QSM Version 5.4	MLA-110						Y																						Y							
PFAS		EPA 1633	MLA-110								Y										Y											Y							
PFAS		EPA 1633 draft	MLA-110																																			
PFAS	N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y									Y	Y	Y						Y		Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y											Y									Y	Y										Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y					Y	Y				Y				Y			Y			Y	Y			Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Methylperfluorooctanesulfonamide (N-MeFOSA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perflurorobutane Sulfonate (PFBS)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y		Y										Y	

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y							Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y							Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorobutanoate (PFBA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y									Y	Y				Y			Y			Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y				Y			Y			Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110		Y	Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorodecanoate (PFDA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y				Y			Y			Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110			Y											Y										Y										Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorononanoate (PFNA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorooctanesulfonamide (PFOSA), a.k.a. FOSA	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y				Y			Y	Y		Y							Y	

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		DoD AFFF01 Rev 1.0	MLA-110										Y																					Y			Y	Y
PFAS	Perfluorooctanoate (PFOA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		DoD AFFF01 Rev 1.0	MLA-110																																		Y	Y
PFAS	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	4,4,5,5,6,6,6-heptafluorohexanoic acid (3:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	2H,2H,3H,3H-perfluorooctanoic acid (5:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	2H,2H,3H,3H-perfluorodecanoic acid (7:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoro-3-methoxypropanoic acid (PFMPA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoro-4-methoxybutanoic acid (PFMBA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y									Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y									Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y		Y			Y		Y		Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y										Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y		Y		Y		Y			
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PPCP	1,7-Dimethylxanthine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	10-hydroxy-amitriptyline	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	2-hydroxy-ibuprofen	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epianhydrochlortetracycline (EACTC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epianhydrotetracycline (EATC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epichlortetracycline (ECTC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epioxytetracycline (EOTC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epitetracycline (ETC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Acetaminophen	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Albuterol	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Alprazolam	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amitriptyline	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amlodipine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amphetamine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Anhydrochlortetracycline (ACTC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Anhydrotetracycline (ATC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Atenolol	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Atorvastatin	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Azithromycin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Benzoylecgonine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Benztropine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Betamethasone	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Bisphenol A	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Caffeine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Carbadox	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Carbamazepine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cefotaxime	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Chlortetracycline (CTC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cimetidine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Ciprofloxacin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clarithromycin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clinafloxacin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clonidine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cloxacillin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cocaine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Codeine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cotinine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	DEET (N,N-diethyl-m-toluamide)	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Dehydronifedipine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													

Accreditation Scope
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file ref.: ACC-103 Rev. 80

				Serum	Solids												Tissue and Tissue Fibra									Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PPCP	Demeclocycline	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Desmethyldiltiazem	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Diazepam	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Digoxigenin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Digoxin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Diltiazem	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Diphenhydramine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Doxycycline	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Enalapril	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Enrofloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Erythromycin	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Erythromycin anydrate	EPA 1694	MLA-075								Y																				Y							
PPCP	Flumequine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Fluocinonide	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Fluoxetine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Fluticasone propionate	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Furosemide	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Gemfibrozil	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Glipizide	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Glyburide	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Hydrochlorothiazide	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Hydrocodone	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Hydrocortisone	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Ibuprofen	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Isochlortetracycline (ICTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Lincomycin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Lomefloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Meprobamate	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Metformin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Methylprednisolone	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Metoprolol	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Miconazole	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Minocycline	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Naproxen	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Norfloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Norfluoxetine	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Norgestimate	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Norverapamil	SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Ofloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Ormetoprim	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Oxacillin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Oxolinic acid	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Oxycodone	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Oxytetracycline (OTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													
PPCP	Paroxetine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y													

Accreditation Scope
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				Serum	Solids												Tissue and Tissue Fibra									Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PPCP	Penicillin G	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Penicillin V	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Prednisolone	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Prednisone	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Promethazine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Propoxyphene	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Propranolol	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Ranitidine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Roxithromycin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sarafloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sertraline	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Simvastatin	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfachloropyridazine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfadiazine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfadimethoxine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfamerazine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfamethazine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfamethizole	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfamethoxazole	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfanilamide	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Sulfathiazole	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Tetracycline (TC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Theophylline	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Thiabendazole	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Trenbolone	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Trenbolone acetate	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Triamterene	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Triclocarban	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Triclosan	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Trimethoprim	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Tylosin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Valsartan	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Verapamil	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Virginiamycin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Warfarin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
TOP	Perfluorobutanesulfonate (PFBS)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorobutanoate (PFBA)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorodecanoate (PFDA)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorononanoate (PFNA)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluorooctanoate (PFOA)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-111	MLA-111					Y																	Y													
TOP	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-111	MLA-111					Y																	Y													

Accreditation Scope
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				Serum	Solids												Tissue and Tissue Fibra							Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
TOP	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
TOP	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
TOP	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
AO	6PPD-Quinone	SGS AXYS MLA-118	MLA-118																						Y												
Note **	PFAS by LC-MS/MS compliant with US DoD QSM 5.3 table B-15; US DoD/DOE QSM 5.4 and 6.0 table B-24																																				

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids												Tissue and Tissue Fibra											Urine	Water	Water, Non-Potable												AFFF	
				CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025

Legend

Y	Accreditation scope
AFFF	Aqueous film forming foam
AO	Antiozonants
BFR	Brominated flame retardants (non-PBDPE)
BPA and mPE	Bisphenol A and mono-Phthalate Esters
OC Pesticides	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PBDPE	Polybrominated diphenylethers
PCB	Polychlorinated Biphenyls
PCDDF	Polychlorinated dibenzodioxins/furans
PFAS	Per- and Polyfluoroalkyl Substances
PPCP	Pharmaceutical and Personal Care Products
TOP	Total Oxidizable Precursors
California WB	California Water Boards, Lab ID 2911
Florida DOH	Florida Department of Health, Lab ID E871007, (NELAC Standard)
Pennsylvania DEP	Pennsylvania Department of Environmental Protection
Minnesota DOH	Minnesota Department of Health, Lab ID 232-999-430, (NELAC Standard)
New Jersey DEP	New Jersey Department of Environmental Protection, Lab ID CANA005, (NELAC Standard)
New York DOH	New York Department of Health, Lab ID 11674, (NELAC Standard)
Washington DE	Washington Department of Ecology, Lab ID C404
Virginia DGS	Virginia Department of General Services, Division of Consolidated Laboratory Services, Lab ID 460224, (NELAC Standard)
Alaska DEC	Alaska Department of Environmental Conservation, Contaminated Sites Laboratory Approval 17-014
Maine DOH	Maine Center for Disease Control and Prevention, Department of Health and Human Services, Lab ID CN00003
ANAB DoD	ANSI National Accreditation Board, certificate ADE-1861, (US DoD QSM 5.3, 5.4, US DoD/DOE QSM 6.0 Standard)
CALA	Canadian Association for Laboratory Accreditation Inc., Lab ID A2637, (ISO/IEC 17025:2017 Standard)

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP Certificate ADE-1861

ilac-MRA

ilac-MRA

CALA Testing Accreditation No. A2637

SGS AXYS

2045 Mills Road West
Sidney, BC, Canada V8L5X2

TEL: (250) 655-5800
TOLL-FREE: 1-888-373-0881

SGS AXYS Client No.: 4608

Client Address: Worley Canada Services Ltd
49 Quarry Park BLVD SE
Calgary, AB, CA, T2C 5H9

The SGS AXYS contact for these data is Suma Thomas.

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START SURVEY

BATCH SUMMARY

Batch ID: WG95248	***Date:*** 09-Oct-2025
Analysis Type: PAH	***Matrix Type:*** SPMD

BATCH MAKEUP

Contract: 4608

Samples:

L43152-2	Day Zero 2
L43619-3	Trip Blank 16-AUG-25
L43619-4	Field Blank 16-AUG-25
L43619-19	AEMP-US-01 16-AUG-25
L43619-20	AEMP-US-02 16-AUG-25
L43619-21	AEMP-US-03 16-AUG-25
L43619-22	AEMP-US-04 14-AUG-25
L43619-23	AEMP-US-05 14-AUG-25
L43619-24	AEMP-DS-01 14-AUG-25
L43619-25	AEMP-DS-02 15-AUG-25
L43619-26	AEMP-DS-03 16-AUG-25
L43619-27	AEMP-DS-04 12-AUG-25
L43619-28	AEMP-DS-05 16-AUG-25
L43619-29	AEMP-DS-06 13-AUG-25
L43619-30	AEMP-DS-07 13-AUG-25
L43619-31	AEMP-DS-08 16-AUG-25
L43619-32	AEMP-DS-09 16-AUG-25
L43619-33	Dup 1 14-AUG-25

Blank: WG95248-101

Reference or Spike: WG95248-102

Duplicate:

Comments:

1. Data are considered final.
2. Data are not blank corrected. Blank data should be taken into consideration when evaluating sample data.
3. Blank data should be evaluated against specifications using the same blank sample size as the size of the client samples.

Copyright SGS AXYS Analytical Services Ltd
February 2017

4608

L43152

Client ID	Axys ID
Day Zero 1	L43152-1
Day Zero 2	L43152-2
Day Zero 3	L43152-3

10:40

SGS AXYS

SGS AXYS Analytical Services Chain of Custody

Mills Road West, Sidney, British Columbia, Canada V8L 5X2
TEL: (250) 655-5800 TOLL FREE 1-888-373-0881 FAX: (250) 655-5811

2045 SGS AXYS CLIENT #: 4608

PAGE 1 OF 1

Client / Reporting Information	Invoice to
Company Name Worley Consulting	Same as report to (Y / N). If no, please fill in below YES
Address - 49 Quarry Park BLVD SE, Calgary, AB T2C 5H9	Company - Worley Canada Services Ltd.
	Address - 49 Quarry Park Blvd SE, Calgary AB T2C 5H9
Project Contact Alex Haigh; Stacy Gibb	Contact Stacy Gibb
Phone # 587-897-6249; 587-434-5393	Email stacy.gibb@worley.com
Email alex.haigh@worley.com; stacy.gibb@worley.com	Client Purchase Order # or Quote # 2025 1692
Project Name or Number: Norman Wells AEMP 417085-59897-25200	Sampler Signature: Name: Stacy Gibb

Client Sample Identification	Matrix	Deploy Date/Time (YYYY-MM-DD/HH:MM)	Retrieve Date/Time (YYYY-MM-DD/HH:MM)	Container Type	# Strips	SGS AXYS Lab Sample ID (Lab use only)	PAHs	Alkylated PAHs			
AEMP-US-01	SPMD	2025-06-20/10:45	2025-07-18/14:21	SPMD	3	L43619-17	x	x			
AEMP-US-03	SPMD	2025-06-20/12:15	2025-07-18/12:40	SPMD	3	-18	x	x			
AEMP-US-04	SPMD	2025-06-19/11:40	2025-07-17/15:54	SPMD	3	-5	x	x			
AEMP-US-05	SPMD	2025-06-19/12:15	2025-07-17/15:09	SPMD	3	-6	x	x			
AEMP-DS-01	SPMD	2025-06-19/10:40	2025-07-19/16:54	SPMD	3	-7	x	x			
AEMP-DS-02	SPMD	2025-06-19/13:30	2025-07-19/15:29	SPMD	3	-8	x	x			
AEMP-DS-03	SPMD	2025-06-20/14:15	2025-07-18/11:45	SPMD	3	-9	x	x			
AEMP-DS-04	SPMD	2025-06-21/09:30	2025-07-19/14:54	SPMD	3	-10	x	x			
AEMP-DS-05	SPMD	2025-06-20/13:00	2025-07-18/10:00	SPMD	3	-11	x	x			
AEMP-DS-06	SPMD	2025-06-18/12:25	2025-07-16/11:37	SPMD	3	-12	x	x			
AEMP-DS-07	SPMD	2025-06-18/11:55	2025-07-16/10:37	SPMD	3	-13	x	x			
AEMP-DS-08	SPMD	2025-06-20/13:20	2025-07-18/09:15	SPMD	3	-14	x	x			
AEMP-DS-09	SPMD	2025-06-20/13:50	2025-07-18/10:47	SPMD	3	-15	x	x			
Field Blank	SPMD	NA	2025-07-19/16:54	SPMD	3	-1	x	x			
Day Zero	SPMD	NA	NS	SPMD	3	-2	x	x			
AEMP-Dup-1	SPMD	2025-06-19/10:40	2025-07-19/16:54	SPMD	2	-16	x	x			

Comments/Remarks

Sample Custody

Relinquished by (Signature):	Date: 2025-08-18	Received by (Signature): YNK	Date: 20AUG2025
Brendan Chapman	Time: 12:00		Time: 8:54

SGS AXYS

SGS AXYS

SGS AXYS Analytical Services Chain of Custody

Mills Road West, Sidney, British Columbia, Canada V8L 5X2
TEL: (250) 655-5800 TOLL FREE 1-888-373-0881 FAX: (250) 655-5811

2045 SGS AXYS CLIENT #:

PAGE 1 OF 1

Client / Reporting Information	Invoice to	Analysis Requested
Company Name Worley Consulting	Same as report to (Y / N). If no, please fill in below YES	
Address - 49 Quarry Park BLVD SE, Calgary, AB T2C 5H9	Company - Worley Canada Services Ltd.	
	Address - 49 Quarry Park Blvd SE, Calgary AB T2C 5H9	
Project Contact Alex Haigh; Stacy Gibb	Contact Stacy Gibb	
Phone # 587-897-6249; 587-434-5393	Email stacy.gibb@worley.com	
Email alex.haigh@worley.com; stacy.gibb@worley.com	Client Purchase Order # or Quote # 2025 1692	
Project Name or Number: Norman Wells AEMP 417085-59897-25200	Sampler Signature: Name: Brendan Chapman, Tino Ngulube	

Client Sample Identification	Matrix	Deploy Date/Time (YYYY-MM-DD/HH:MM)	Retrieve Date/Time (YYYY-MM-DD/HH:MM)	Container Type	# Strips	SGS AXYS Lab Sample ID (Lab use only)	PAHs	Alkylated PAHs			
AEMP-US-01	SPMD	2025-07-18/14:21	2025-08-16/14:40	SPMD	3	-19	x	x			
AEMP-US-02	SPMD	2025-07-23/13:13	2025-08-16/16:00	SPMD	2	-20	x	x			
AEMP-US-03	SPMD	2025-07-18/12:40	2025-08-16/16:55	SPMD	3	-21	x	x			
AEMP-US-04	SPMD	2025-07-17/15:54	2025-08-14/11:15	SPMD	3	-22	x	x			
AEMP-US-05	SPMD	2025-07-17/15:09	2025-08-14/10:00	SPMD	3	-23	x	x			
AEMP-DS-01	SPMD	2025-07-19/16:54	2025-08-14/15:05	SPMD	3	-24	x	x			
AEMP-DS-02	SPMD	2025-07-19/15:29	2025-08-15/13:20	SPMD	3	-25	x	x			
AEMP-DS-03	SPMD	2025-07-18/11:45	2025-08-16/12:45	SPMD	3	-26	x	x			
AEMP-DS-04	SPMD	2025-07-19/14:54	2025-08-12/16:10	SPMD	3	-27	x	x			
AEMP-DS-05	SPMD	2025-07-18/10:00	2025-08-16/09:50	SPMD	3	-28	x	x			
AEMP-DS-06	SPMD	2025-07-16/11:37	2025-08-13/12:10	SPMD	3	-29	x	x			
AEMP-DS-07	SPMD	2025-07-16/10:37	2025-08-13/11:10	SPMD	3	-30	x	x			
AEMP-DS-08	SPMD	2025-07-18/09:15	2025-08-16/10:35	SPMD	3	-31	x	x			
AEMP-DS-09	SPMD	2025-07-18/10:47	2025-08-16/11:40	SPMD	3	-32	x	x			
Trip Blank	SPMD	NA	2025-08-16/17:00	SPMD	3	-3	x	x			
Field Blank	SPMD	NA	2025-08-16/16:55	SPMD	3	-4	x	x			
Dup 1	SPMD	2025-07-19/16:54	2025-08-14/15:05	SPMD	2	-33	x	x			

Comments/Remarks

Sample Custody

Relinquished by (Signature):	Date: 2025-08-18	Received by (Signature): YNK	Date: 20 Aug 2025
Brendan Chapman	Time: 12:00		Time: 8:54

SGS AXYS

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
Day Zero 2
Sample Collection:
N/A

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43152-2
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	13-May-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 00:45:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4250.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D

Concentration Units: ng/sample

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		42.6	1.41 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.11 (S)		
Acenaphthene	83-32-9		20.5	2.23 (S)	1.19	1.048
2-Methylfluorene	1430-97-3	ND		1.65 (S)		
C2 Phenanthrenes/Anthracenes			6.14	1.47 (S)		
Fluorene	86-73-7		11.6	1.50 (S)	0.97	0.844
Phenanthrene	85-01-8		62.8	1.03 (S)	0.17	1.004
Anthracene	120-12-7		2.49	1.02 (S)	0.19	1.011
C1 Phenanthrenes/Anthracenes			17.1	1.59 (S)		
Fluoranthene	206-44-0		22.1	0.684 (S)	0.22	1.204
Pyrene	129-00-0	NDR	10.2	0.657 (S)	1.52	1.241
Benz[a]anthracene [3]	56-55-3	ND		0.770 (S)		
Chrysene [4]	218-01-9		2.06	0.793 (S)	0.29	1.002
Benzo[b]fluoranthene	205-99-2	ND		1.33 (S)		
Benzo[j,k]fluoranthenes		ND		1.38 (S)		
Benzo[e]pyrene	192-97-2	ND		1.87 (S)		
Benzo[a]pyrene	50-32-8	ND		1.80 (S)		
Perylene	198-55-0	ND		1.93 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.986 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.32 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.35 (S)		
2-Methylnaphthalene	91-57-6		33.5	1.93 (S)	0.84	1.009
1-Methylnaphthalene	90-12-0		20.7	2.13 (S)	0.89	1.040
C1-Naphthalenes			54.2	1.93 (S)		
Biphenyl	92-52-4		12.2	1.21 (S)	0.25	1.005
C1-Biphenyls			19.6	0.495 (S)		
C2-Biphenyls			32.2	1.08 (S)		
C2-Naphthalenes			76.6	2.59 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		2.59 (S)		

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		14.7	1.97 (S)	0.58	1.011
C3-Naphthalenes			35.6	1.57 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		9.98	1.59 (S)	0.85	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		9.20	1.55 (S)	0.84	1.225
C4-Naphthalenes			7.26	1.92 (S)		
C1-Acenaphthenes		ND		1.14 (S)		
C1-Fluorenes			6.91	1.65 (S)		
1,7-Dimethylfluorene	442-66-0	ND		1.28 (S)		
C2-Fluorenes		ND		1.28 (S)		
C3-Fluorenes		ND		2.13 (S)		
Dibenzothiophene	132-65-0	NDR	3.97	1.22 (S)	0.15	1.003
C1-Dibenzothiophenes		ND		1.45 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		1.45 (S)		
C2-Dibenzothiophenes			10.1	1.44 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		1.44 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		1.16 (S)		
C3-Dibenzothiophenes			20.8	1.32 (S)		
C4-Dibenzothiophenes		ND		1.96 (S)		
3-Methylphenanthrene	832-71-3		4.16	1.62 (S)	0.58	1.087
2-Methylphenanthrene	2531-84-2		6.54	1.59 (S)	0.51	1.091
2-Methylanthracene	613-12-7	ND		1.70 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		2.91	1.62 (S)	0.66	1.106
1-Methylphenanthrene	832-69-9		3.53	1.59 (S)	0.50	1.110
3,6-Dimethylphenanthrene	1576-67-6	ND		1.42 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		1.47 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		1.52 (S)		
1,8-Dimethylphenanthrene	7372-87-4	ND		1.47 (S)		
C3-Phenanthrenes/Anthracenes		ND		2.64 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		2.64 (S)		
Retene	483-65-8	ND		3.33 (S)		
C4-Phenanthrenes/Anthracenes		ND		3.33 (S)		
C1-Fluoranthenes/Pyrenes		ND		1.24 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		1.24 (S)		
C2-Fluoranthenes/Pyrenes		ND		0.799 (S)		
C3-Fluoranthenes/Pyrenes		ND		0.851 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.670 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.902 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		0.944 (S)		
1-Methylchrysene	3351-28-8	ND		0.863 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.48 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.48 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.48 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.48 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		2.46 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		2.46 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		3.10 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		1.92 (S)		
Anthracene d-10			20700	0.999 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		32400	0.825 (S)	0.14	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		2580	1.89 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43152-2_Form1A_PH5H4250.D_SJ3667060.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
Day Zero 2
Sample Collection:
N/A

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43152-2
Sample Receipt Date:	13-May-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 00:45:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4250.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4245.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2290	57.1	0.09	0.610
2-Methylnaphthalene d-10		4040	2680	66.3	0.18	0.756
Biphenyl d-10		4010	2770	69.2		0.869
2,6-Dimethylnaphthalene d-12		4020	2880	71.6	0.64	0.896
Acenaphthylene d-8		4020	2860	71.1	0.16	0.961
Dibenzothiophene d-8		4010	3000	74.9	0.07	0.792
Phenanthrene d-10		4010	3240	80.8	0.13	0.808
Benzo[a]anthracene d-12		4000	3380	84.6	0.20	1.164
Chrysene d-12		3220	2720	84.5	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3490	87.4	0.17	0.957
Benzo[k]fluoranthene d-12		3910	3370	86.1	0.17	0.961
Benzo[a]pyrene d-12		4010	3440	85.7	0.17	1.008
Perylene d-12		4000	3520	88.0	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3390	85.3	0.16	1.205
Benzo[ghi]perylene d-12		3980	3580	89.9	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43152-2_Form2_PH5H4250.D_SJ3667060.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Trip Blank 16-AUG-25
Sample Collection:
16-Aug-2025 17:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-3
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 01:34:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4251.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
		Cal. Ver. Data Filename:	PH5H4245.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		52.7	2.22 (S)	0.07	1.006
Acenaphthylene	208-96-8	ND		2.11 (S)		
Acenaphthene	83-32-9		19.3	3.20 (S)	1.02	1.047
2-Methylfluorene	1430-97-3	ND		3.63 (S)		
C2 Phenanthrenes/Anthracenes			3.88	2.68 (S)		
Fluorene	86-73-7		12.7	1.96 (S)	0.76	0.844
Phenanthrene	85-01-8		66.5	1.29 (S)	0.18	1.003
Anthracene	120-12-7	ND		1.28 (S)		
C1 Phenanthrenes/Anthracenes			18.0	1.31 (S)		
Fluoranthene	206-44-0		25.0	1.31 (S)	0.17	1.204
Pyrene	129-00-0	NDR	13.9	1.25 (S)	2.67	1.240
Benz[a]anthracene [3]	56-55-3	ND		0.775 (S)		
Chrysene [4]	218-01-9		2.34	0.861 (S)	0.24	1.003
Benzo[b]fluoranthene	205-99-2	ND		2.02 (S)		
Benzo[j,k]fluoranthenes		ND		2.21 (S)		
Benzo[e]pyrene	192-97-2	ND		2.82 (S)		
Benzo[a]pyrene	50-32-8	ND		2.72 (S)		
Perylene	198-55-0	ND		2.86 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.48 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.97 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.91 (S)		
2-Methylnaphthalene	91-57-6		46.2	3.68 (S)	0.84	1.009
1-Methylnaphthalene	90-12-0		24.8	4.07 (S)	0.87	1.040
C1-Naphthalenes			71.0	3.68 (S)		
Biphenyl	92-52-4		15.4	2.30 (S)	0.28	1.006
C1-Biphenyls			27.2	1.61 (S)		
C2-Biphenyls			46.5	0.598 (S)		
C2-Naphthalenes			86.3	5.13 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		6.73 (S)		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		19.2	5.13 (S)	0.51	1.011
C3-Naphthalenes			54.0	3.43 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		13.0	3.48 (S)	0.84	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		12.9	3.38 (S)	0.83	1.225
C4-Naphthalenes			9.37	2.67 (S)		
C1-Acenaphthenes		ND		2.85 (S)		
C1-Fluorenes			17.9	3.63 (S)		
1,7-Dimethylfluorene	442-66-0	ND		2.19 (S)		
C2-Fluorenes		ND		2.19 (S)		
C3-Fluorenes		ND		4.69 (S)		
Dibenzothiophene	132-65-0		3.67	0.755 (S)	0.07	1.003
C1-Dibenzothiophenes		ND		2.19 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		2.19 (S)		
C2-Dibenzothiophenes		ND		3.19 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		3.19 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		2.57 (S)		
C3-Dibenzothiophenes		ND		2.42 (S)		
C4-Dibenzothiophenes		ND		3.30 (S)		
3-Methylphenanthrene	832-71-3		6.17	1.34 (S)	0.48	1.088
2-Methylphenanthrene	2531-84-2		5.53	1.31 (S)	0.49	1.091
2-Methylanthracene	613-12-7	NDR	2.70	1.40 (S)	1.02	1.098
9/4-Methylphenanthrene	883-20-5/832-64-4		3.73	1.34 (S)	0.59	1.106
1-Methylphenanthrene	832-69-9		2.53	1.31 (S)	0.48	1.110
3,6-Dimethylphenanthrene	1576-67-6	ND		2.63 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		2.68 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		2.74 (S)		
1,8-Dimethylphenanthrene	7372-87-4	ND		2.68 (S)		
C3-Phenanthrenes/Anthracenes		ND		2.50 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		2.50 (S)		
Retene	483-65-8	ND		3.29 (S)		
C4-Phenanthrenes/Anthracenes		ND		3.29 (S)		
C1-Fluoranthenes/Pyrenes		ND		1.78 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		1.78 (S)		
C2-Fluoranthenes/Pyrenes		ND		1.21 (S)		
C3-Fluoranthenes/Pyrenes		ND		1.32 (S)		
C4-Fluoranthenes/Pyrenes		ND		1.21 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		1.42 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		1.49 (S)		
1-Methylchrysene	3351-28-8	ND		1.36 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		4.43 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		4.43 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		2.74 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		3.58 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.22 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.22 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		5.44 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	3.49	2.67 (S)	0.37	1.376
Anthracene d-10			26400	1.64 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		42100	1.65 (S)	0.14	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		3310	3.07 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-3_Form1A_PH5H4251.D_SJ3667061.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Trip Blank 16-AUG-25
Sample Collection:
16-Aug-2025 17:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-3
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 01:34:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4251.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4245.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1830	45.6	0.09	0.610
2-Methylnaphthalene d-10		4040	2120	52.5	0.18	0.756
Biphenyl d-10		4010	2160	53.9		0.868
2,6-Dimethylnaphthalene d-12		4020	2240	55.8	0.63	0.896
Acenaphthylene d-8		4020	2230	55.5	0.16	0.961
Dibenzothiophene d-8		4010	2270	56.5	0.07	0.792
Phenanthrene d-10		4010	2530	63.0	0.13	0.808
Benzo[a]anthracene d-12		4000	2630	65.7	0.20	1.164
Chrysene d-12		3220	2110	65.6	0.23	1.169
Benzo[b]fluoranthene d-12		3990	2770	69.4	0.18	0.957
Benzo[k]fluoranthene d-12		3910	2600	66.6	0.16	0.961
Benzo[a]pyrene d-12		4010	2680	66.7	0.17	1.008
Perylene d-12		4000	2740	68.6	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	2600	65.6	0.16	1.205
Benzo[ghi]perylene d-12		3980	2750	69.2	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-3_Form2_PH5H4251.D_SJ3667061.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Field Blank 16-AUG-25
Sample Collection:
18-Jul-2025 16:55

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-4
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 02:23:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4252.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D

Concentration Units: ng/sample

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		55.7	1.75 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.93 (S)		
Acenaphthene	83-32-9	NDR	21.6	3.03 (S)	0.85	1.047
2-Methylfluorene	1430-97-3	NDR	3.13	2.19 (S)	0.83	0.939
C2 Phenanthrenes/Anthracenes			11.1	1.45 (S)		
Fluorene	86-73-7		11.7	2.41 (S)	1.02	0.844
Phenanthrene	85-01-8		69.6	0.499 (S)	0.19	1.004
Anthracene	120-12-7		1.60	0.492 (S)	0.19	1.011
C1 Phenanthrenes/Anthracenes			21.7	1.50 (S)		
Fluoranthene	206-44-0		22.6	0.805 (S)	0.18	1.205
Pyrene	129-00-0	NDR	11.5	0.773 (S)	2.19	1.240
Benz[a]anthracene [3]	56-55-3	ND		0.984 (S)		
Chrysene [4]	218-01-9		1.55	1.11 (S)	0.30	1.002
Benzo[b]fluoranthene	205-99-2	ND		2.04 (S)		
Benzo[j,k]fluoranthenes		ND		2.10 (S)		
Benzo[e]pyrene	192-97-2	ND		2.85 (S)		
Benzo[a]pyrene	50-32-8	ND		2.74 (S)		
Perylene	198-55-0	ND		2.93 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.46 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.85 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.87 (S)		
2-Methylnaphthalene	91-57-6		41.7	1.80 (S)	0.82	1.009
1-Methylnaphthalene	90-12-0		25.7	2.00 (S)	0.89	1.040
C1-Naphthalenes			67.5	1.80 (S)		
Biphenyl	92-52-4		16.0	2.33 (S)	0.28	1.005
C1-Biphenyls			27.6	2.48 (S)		
C2-Biphenyls			45.4	2.80 (S)		
C2-Naphthalenes			70.4	3.74 (S)		
1,2-Dimethylnaphthalene	573-98-8	NDR	4.10	3.74 (S)	1.43	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		18.6	2.85 (S)	0.65	1.010
C3-Naphthalenes			54.8	2.72 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		16.6	2.76 (S)	0.85	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		13.5	2.68 (S)	0.90	1.227
C4-Naphthalenes			15.7	3.62 (S)		
C1-Acenaphthenes		ND		3.12 (S)		
C1-Fluorenes			14.0	2.19 (S)		
1,7-Dimethylfluorene	442-66-0	ND		3.94 (S)		
C2-Fluorenes		ND		3.94 (S)		
C3-Fluorenes		ND		2.73 (S)		
Dibenzothiophene	132-65-0		5.36	1.53 (S)	0.08	1.002
C1-Dibenzothiophenes		ND		2.25 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		2.25 (S)		
C2-Dibenzothiophenes		ND		2.56 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		2.56 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		2.07 (S)		
C3-Dibenzothiophenes			36.6	2.16 (S)		
C4-Dibenzothiophenes		ND		2.46 (S)		
3-Methylphenanthrene	832-71-3		5.67	1.53 (S)	0.48	1.088
2-Methylphenanthrene	2531-84-2		8.21	1.50 (S)	0.53	1.092
2-Methylanthracene	613-12-7	NDR	2.24	1.60 (S)	1.28	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		4.09	1.53 (S)	0.67	1.106
1-Methylphenanthrene	832-69-9		3.77	1.50 (S)	0.58	1.110
3,6-Dimethylphenanthrene	1576-67-6	ND		1.41 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		1.45 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		1.50 (S)		
1,8-Dimethylphenanthrene	7372-87-4	ND		5.45 (S)		
C3-Phenanthrenes/Anthracenes		ND		1.92 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		1.92 (S)		
Retene	483-65-8	ND		2.10 (S)		
C4-Phenanthrenes/Anthracenes			5.06	2.10 (S)		
C1-Fluoranthenes/Pyrenes		ND		1.02 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		1.02 (S)		
C2-Fluoranthenes/Pyrenes		ND		1.30 (S)		
C3-Fluoranthenes/Pyrenes		ND		0.859 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.986 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		1.41 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		1.47 (S)		
1-Methylchrysene	3351-28-8	ND		1.35 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		2.20 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.20 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		2.56 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.28 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.89 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.89 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		3.89 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		3.62 (S)		
Anthracene d-10			20100	1.28 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		32000	1.26 (S)	0.14	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2560	3.10 (S)	0.18	1.003

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-4_Form1A_PH5H4252.D_SJ3667062.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Field Blank 16-AUG-25
Sample Collection:
18-Jul-2025 16:55

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-4
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 02:23:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4252.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D
Concentration Units:	ng absolute		

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This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2320	57.9	0.09	0.609
2-Methylnaphthalene d-10		4040	2680	66.4	0.18	0.756
Biphenyl d-10		4010	2770	69.0		0.868
2,6-Dimethylnaphthalene d-12		4020	2880	71.6	0.64	0.896
Acenaphthylene d-8		4020	2920	72.7	0.16	0.961
Dibenzothiophene d-8		4010	3070	76.6	0.07	0.792
Phenanthrene d-10		4010	3380	84.4	0.13	0.808
Benzo[a]anthracene d-12		4000	3440	86.1	0.20	1.164
Chrysene d-12		3220	2750	85.6	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3660	91.7	0.17	0.957
Benzo[k]fluoranthene d-12		3910	3350	85.6	0.17	0.961
Benzo[a]pyrene d-12		4010	3470	86.4	0.17	1.009
Perylene d-12		4000	3580	89.4	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3260	82.2	0.16	1.205
Benzo[ghi]perylene d-12		3980	3500	87.9	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-4_Form2_PH5H4252.D_SJ3667062.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-01 16-AUG-25
Sample Collection:
16-Aug-2025 14:40

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-19
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 04:01:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4254.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		150	1.59 (S)	0.06	1.006
Acenaphthylene	208-96-8		2.39	2.20 (S)	0.22	1.003
Acenaphthene	83-32-9		93.2	2.98 (S)	1.08	1.048
2-Methylfluorene	1430-97-3		10.1	3.87 (S)	0.98	0.939
C2 Phenanthrenes/Anthracenes			220	1.95 (S)		
Fluorene	86-73-7		57.3	3.10 (S)	0.89	0.844
Phenanthrene	85-01-8		276	4.78 (S)	0.17	1.004
Anthracene	120-12-7	NDR	5.78	4.76 (S)	0.15	1.011
C1 Phenanthrenes/Anthracenes			225	3.58 (S)		
Fluoranthene	206-44-0		101	0.943 (S)	0.17	1.204
Pyrene	129-00-0	NDR	81.2	0.905 (S)	0.59	1.240
Benz[a]anthracene [3]	56-55-3	NDR	5.93	1.62 (S)	0.17	1.000
Chrysene [4]	218-01-9		32.6	1.76 (S)	0.29	1.002
Benzo[b]fluoranthene	205-99-2	NDR	2.69	2.28 (S)	0.26	1.004
Benzo[j,k]fluoranthenes		ND		2.27 (S)		
Benzo[e]pyrene	192-97-2		9.11	2.93 (S)	0.21	0.996
Benzo[a]pyrene	50-32-8	ND		2.82 (S)		
Perylene	198-55-0	NDR	38.8	3.03 (S)	0.13	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.60 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.91 (S)		
Benzo[ghi]perylene	191-24-2	ND		2.76 (S)		
2-Methylnaphthalene	91-57-6		61.4	2.22 (S)	0.87	1.009
1-Methylnaphthalene	90-12-0		42.0	2.46 (S)	0.90	1.040
C1-Naphthalenes			103	2.22 (S)		
Biphenyl	92-52-4		21.5	2.14 (S)	0.25	1.005
C1-Biphenyls			18.7	1.50 (S)		
C2-Biphenyls			42.5	1.34 (S)		
C2-Naphthalenes			156	2.98 (S)		
1,2-Dimethylnaphthalene	573-98-8		7.85	2.98 (S)	1.20	1.083

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		26.2	2.27 (S)	0.67	1.011
C3-Naphthalenes			240	2.56 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		68.4	2.60 (S)	0.93	1.203
2,3,5-Trimethylnaphthalene	2245-38-7	NDR	48.9	2.53 (S)	0.96	1.225
C4-Naphthalenes			214	2.64 (S)		
C1-Acenaphthenes		ND		3.15 (S)		
C1-Fluorenes			45.5	3.87 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	3.64	3.08 (S)	0.21	1.034
C2-Fluorenes			81.0	3.08 (S)		
C3-Fluorenes			110	2.83 (S)		
Dibenzothiophene	132-65-0	NDR	13.9	1.44 (S)	0.09	1.003
C1-Dibenzothiophenes			32.4	1.88 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		13.6	1.88 (S)	0.62	1.098
C2-Dibenzothiophenes			86.5	3.00 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		8.31	3.00 (S)	0.45	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		15.7	2.42 (S)	0.11	1.153
C3-Dibenzothiophenes			62.6	2.58 (S)		
C4-Dibenzothiophenes		ND		2.49 (S)		
3-Methylphenanthrene	832-71-3		37.9	3.67 (S)	0.61	1.088
2-Methylphenanthrene	2531-84-2		42.1	3.58 (S)	0.64	1.092
2-Methylanthracene	613-12-7	ND		3.84 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		75.7	3.67 (S)	0.55	1.106
1-Methylphenanthrene	832-69-9		68.8	3.58 (S)	0.53	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	16.4	1.89 (S)	0.75	1.165
2,6-Dimethylphenanthrene	17980-16-4		11.5	1.95 (S)	0.31	1.171
1,7-Dimethylphenanthrene	483-87-4		43.6	2.01 (S)	0.25	1.193
1,8-Dimethylphenanthrene	7372-87-4	NDR	17.9	1.95 (S)	0.88	1.210
C3-Phenanthrenes/Anthracenes			98.5	3.37 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		3.37 (S)		
Retene	483-65-8		233	5.14 (S)	1.37	1.301
C4-Phenanthrenes/Anthracenes			303	5.14 (S)		
C1-Fluoranthenes/Pyrenes			49.9	1.99 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		31.7	1.99 (S)	1.04	1.301
C2-Fluoranthenes/Pyrenes			54.6	1.80 (S)		
C3-Fluoranthenes/Pyrenes			6.69	2.02 (S)		
C4-Fluoranthenes/Pyrenes		ND		2.05 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			9.46	1.86 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		1.94 (S)		
1-Methylchrysene	3351-28-8		2.42	1.78 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		2.20 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.20 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		3.49 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.55 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.67 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.67 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		6.32 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		30.8	2.64 (S)	0.02	1.376
Anthracene d-10			2090	2.13 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		14900	1.45 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2500	2.96 (S)	0.17	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-19_Form1A_PH5H4254.D_SJ3667063.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-01 16-AUG-25
Sample Collection:
16-Aug-2025 14:40

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-19
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 04:01:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4254.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4245.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2620	65.4	0.09	0.610
2-Methylnaphthalene d-10		4040	3080	76.3	0.18	0.756
Biphenyl d-10		4010	3130	78.1		0.869
2,6-Dimethylnaphthalene d-12		4020	3220	80.1	0.64	0.896
Acenaphthylene d-8		4020	3250	80.9	0.15	0.961
Dibenzothiophene d-8		4010	3210	80.2	0.07	0.792
Phenanthrene d-10		4010	3360	83.8	0.13	0.808
Benzo[a]anthracene d-12		4000	3450	86.3	0.20	1.164
Chrysene d-12		3220	2760	86.0	0.23	1.170
Benzo[b]fluoranthene d-12		3990	3630	91.0	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3220	82.3	0.17	0.961
Benzo[a]pyrene d-12		4010	3450	86.1	0.17	1.008
Perylene d-12		4000	3560	89.0	0.20	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3310	83.3	0.16	1.204
Benzo[ghi]perylene d-12		3980	3490	87.7	0.17	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

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Report Filename: PAH_PAH_LO_LPAHF_L43619-19_Form2_PH5H4254.D_SJ3667063.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-02 16-AUG-25
Sample Collection:
16-Aug-2025 16:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-20
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 04:50:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4255.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D

Concentration Units: ng/sample

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		45.1	2.40 (S)	0.06	1.007
Acenaphthylene	208-96-8		1.40	1.34 (S)	0.20	1.003
Acenaphthene	83-32-9		27.6	3.03 (S)	1.14	1.047
2-Methylfluorene	1430-97-3		4.99	3.21 (S)	0.99	0.939
C2 Phenanthrenes/Anthracenes			111	1.94 (S)		
Fluorene	86-73-7		17.7	2.17 (S)	1.04	0.844
Phenanthrene	85-01-8		94.9	2.93 (S)	0.19	1.004
Anthracene	120-12-7	ND		2.92 (S)		
C1 Phenanthrenes/Anthracenes			116	1.75 (S)		
Fluoranthene	206-44-0		31.9	0.757 (S)	0.21	1.204
Pyrene	129-00-0	NDR	33.5	0.727 (S)	0.47	1.240
Benz[a]anthracene [3]	56-55-3	ND		0.955 (S)		
Chrysene [4]	218-01-9		17.9	0.996 (S)	0.32	1.002
Benzo[b]fluoranthene	205-99-2	ND		1.54 (S)		
Benzo[j,k]fluoranthenes		ND		1.63 (S)		
Benzo[e]pyrene	192-97-2	NDR	6.31	2.16 (S)	0.48	0.996
Benzo[a]pyrene	50-32-8	ND		2.08 (S)		
Perylene	198-55-0		17.0	2.19 (S)	0.24	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.80 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.94 (S)		
Benzo[ghi]perylene	191-24-2	NDR	1.96	1.87 (S)	0.57	1.002
2-Methylnaphthalene	91-57-6		25.0	2.24 (S)	0.88	1.008
1-Methylnaphthalene	90-12-0		17.5	2.49 (S)	0.87	1.040
C1-Naphthalenes			42.5	2.24 (S)		
Biphenyl	92-52-4		10.1	1.93 (S)	0.27	1.005
C1-Biphenyls			13.9	0.753 (S)		
C2-Biphenyls			41.6	1.02 (S)		
C2-Naphthalenes			96.9	4.81 (S)		
1,2-Dimethylnaphthalene	573-98-8		5.03	4.81 (S)	1.21	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0	NDR	17.7	3.67 (S)	0.48	1.011
C3-Naphthalenes			142	3.25 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		42.3	3.30 (S)	0.76	1.203
2,3,5-Trimethylnaphthalene	2245-38-7	NDR	25.0	3.21 (S)	0.97	1.225
C4-Naphthalenes			98.5	4.24 (S)		
C1-Acenaphthenes		ND		1.64 (S)		
C1-Fluorenes			13.2	3.21 (S)		
1,7-Dimethylfluorene	442-66-0	ND		4.94 (S)		
C2-Fluorenes			41.6	4.94 (S)		
C3-Fluorenes			53.5	4.94 (S)		
Dibenzothiophene	132-65-0		5.78	1.46 (S)	0.07	1.002
C1-Dibenzothiophenes			17.8	1.71 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		6.45	1.71 (S)	0.55	1.098
C2-Dibenzothiophenes			43.7	2.82 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	4.70	2.82 (S)	0.29	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		8.65	2.28 (S)	0.12	1.152
C3-Dibenzothiophenes			32.1	1.69 (S)		
C4-Dibenzothiophenes		ND		2.54 (S)		
3-Methylphenanthrene	832-71-3		18.9	1.79 (S)	0.56	1.088
2-Methylphenanthrene	2531-84-2		26.4	1.75 (S)	0.49	1.092
2-Methylanthracene	613-12-7	NDR	2.44	1.88 (S)	0.88	1.098
9/4-Methylphenanthrene	883-20-5/832-64-4		40.3	1.79 (S)	0.61	1.106
1-Methylphenanthrene	832-69-9		30.8	1.75 (S)	0.56	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	7.87	1.88 (S)	0.89	1.165
2,6-Dimethylphenanthrene	17980-16-4		5.00	1.94 (S)	0.34	1.171
1,7-Dimethylphenanthrene	483-87-4		23.1	2.01 (S)	0.27	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	7.61	1.94 (S)	0.91	1.209
C3-Phenanthrenes/Anthracenes			48.8	1.95 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	NDR	2.81	1.95 (S)	0.36	1.293
Retene	483-65-8		117	4.13 (S)	1.38	1.301
C4-Phenanthrenes/Anthracenes			159	4.13 (S)		
C1-Fluoranthenes/Pyrenes			27.9	1.91 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		13.6	1.91 (S)	1.13	1.300
C2-Fluoranthenes/Pyrenes			23.8	1.76 (S)		
C3-Fluoranthenes/Pyrenes			1.41	1.17 (S)		
C4-Fluoranthenes/Pyrenes		ND		1.50 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			8.85	1.58 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		1.79	1.65 (S)		1.066
1-Methylchrysene	3351-28-8		2.71	1.51 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.47 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.47 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.83 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		1.64 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.07 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.07 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		2.74 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	11.9	4.24 (S)	0.05	1.376
Anthracene d-10			2150	1.02 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		11500	1.26 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		1600	2.89 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-20_Form1A_PH5H4255.D_SJ3667064.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-02 16-AUG-25
Sample Collection:
16-Aug-2025 16:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-20
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 04:50:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4255.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2420	60.4	0.09	0.610
2-Methylnaphthalene d-10		4040	2920	72.3	0.18	0.757
Biphenyl d-10		4010	3000	74.9		0.869
2,6-Dimethylnaphthalene d-12		4020	3090	76.8	0.64	0.896
Acenaphthylene d-8		4020	3110	77.3	0.15	0.962
Dibenzothiophene d-8		4010	3010	75.0	0.07	0.792
Phenanthrene d-10		4010	3270	81.5	0.13	0.808
Benzo[a]anthracene d-12		4000	3420	85.6	0.21	1.164
Chrysene d-12		3220	2710	84.4	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3510	87.9	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3370	86.1	0.17	0.961
Benzo[a]pyrene d-12		4010	3410	85.0	0.17	1.008
Perylene d-12		4000	3530	88.2	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3250	81.9	0.16	1.205
Benzo[ghi]perylene d-12		3980	3430	86.2	0.17	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-20_Form2_PH5H4255.D_SJ3667064.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-03 16-AUG-25
Sample Collection:
16-Aug-2025 16:55

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-21
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 05:39:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4256.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		96.0	1.76 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		2.61 (S)		
Acenaphthene	83-32-9		56.5	2.62 (S)	1.08	1.047
2-Methylfluorene	1430-97-3		8.71	3.52 (S)	0.91	0.939
C2 Phenanthrenes/Anthracenes			262	1.78 (S)		
Fluorene	86-73-7		33.6	3.07 (S)	0.97	0.844
Phenanthrene	85-01-8		194	4.22 (S)	0.17	1.004
Anthracene	120-12-7		4.69	4.20 (S)	0.18	1.011
C1 Phenanthrenes/Anthracenes			254	2.04 (S)		
Fluoranthene	206-44-0		66.3	1.32 (S)	0.19	1.204
Pyrene	129-00-0	NDR	73.5	1.27 (S)	0.63	1.240
Benz[a]anthracene [3]	56-55-3		3.59	1.22 (S)	0.21	1.002
Chrysene [4]	218-01-9		35.5	1.33 (S)	0.29	1.002
Benzo[b]fluoranthene	205-99-2	NDR	3.56	1.58 (S)	0.28	1.004
Benzo[j,k]fluoranthenes		ND		1.63 (S)		
Benzo[e]pyrene	192-97-2		13.0	2.13 (S)	0.21	0.996
Benzo[a]pyrene	50-32-8	ND		2.05 (S)		
Perylene	198-55-0		34.7	2.25 (S)	0.18	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.60 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.78 (S)		
Benzo[ghi]perylene	191-24-2	NDR	3.08	1.79 (S)	0.28	1.002
2-Methylnaphthalene	91-57-6		46.4	1.85 (S)	0.82	1.008
1-Methylnaphthalene	90-12-0		35.2	2.05 (S)	0.87	1.040
C1-Naphthalenes			81.6	1.85 (S)		
Biphenyl	92-52-4		16.0	1.82 (S)	0.28	1.006
C1-Biphenyls			19.6	1.96 (S)		
C2-Biphenyls			49.6	1.44 (S)		
C2-Naphthalenes			151	3.35 (S)		
1,2-Dimethylnaphthalene	573-98-8		6.91	3.35 (S)	1.33	1.081

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		24.7	2.55 (S)	0.58	1.011
C3-Naphthalenes			304	2.58 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		86.4	2.61 (S)	0.82	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		53.8	2.54 (S)	0.82	1.224
C4-Naphthalenes			268	2.14 (S)		
C1-Acenaphthenes		ND		1.75 (S)		
C1-Fluorenes			40.7	3.52 (S)		
1,7-Dimethylfluorene	442-66-0	ND		8.95 (S)		
C2-Fluorenes			112	8.95 (S)		
C3-Fluorenes			99.3	35.0 (S)		
Dibenzothiophene	132-65-0		12.7	2.60 (S)	0.07	1.003
C1-Dibenzothiophenes			54.1	2.20 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		21.2	2.20 (S)	0.62	1.098
C2-Dibenzothiophenes			92.7	3.75 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		8.80	3.75 (S)	0.35	1.163
4,6-Dimethyldibenzothiophene	1207-12-1		18.1	3.03 (S)	0.14	1.153
C3-Dibenzothiophenes			68.1	2.95 (S)		
C4-Dibenzothiophenes		ND		3.71 (S)		
3-Methylphenanthrene	832-71-3		41.0	2.08 (S)	0.55	1.088
2-Methylphenanthrene	2531-84-2		51.2	2.04 (S)	0.58	1.092
2-Methylanthracene	613-12-7		5.23	2.18 (S)	0.53	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		86.8	2.08 (S)	0.60	1.106
1-Methylphenanthrene	832-69-9		69.7	2.04 (S)	0.57	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	15.4	1.72 (S)	0.84	1.165
2,6-Dimethylphenanthrene	17980-16-4	NDR	13.9	1.78 (S)	0.25	1.171
1,7-Dimethylphenanthrene	483-87-4		52.1	1.84 (S)	0.29	1.193
1,8-Dimethylphenanthrene	7372-87-4		18.0	1.78 (S)	0.38	1.209
C3-Phenanthrenes/Anthracenes			93.5	8.13 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		8.13 (S)		
Retene	483-65-8		247	4.69 (S)	1.33	1.301
C4-Phenanthrenes/Anthracenes			361	4.69 (S)		
C1-Fluoranthenes/Pyrenes			56.0	2.28 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		33.1	2.28 (S)	1.11	1.300
C2-Fluoranthenes/Pyrenes			52.9	1.87 (S)		
C3-Fluoranthenes/Pyrenes			22.2	1.37 (S)		
C4-Fluoranthenes/Pyrenes			3.77	2.34 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			19.0	2.15 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		2.25 (S)		
1-Methylchrysene	3351-28-8		4.63	2.05 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		2.13 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.13 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		4.79 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		4.19 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.26 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.26 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		2.81 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		43.7	2.14 (S)	0.02	1.376
Anthracene d-10			1670	1.58 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		13800	1.15 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2560	2.59 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

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Report Filename: PAH_PAH_LO_LPAHF_L43619-21_Form1A_PH5H4256.D_SJ3667065.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-03 16-AUG-25
Sample Collection:
16-Aug-2025 16:55

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-21
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 05:39:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4256.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2100	52.3	0.09	0.610
2-Methylnaphthalene d-10		4040	2450	60.5	0.18	0.757
Biphenyl d-10		4010	2560	63.8		0.869
2,6-Dimethylnaphthalene d-12		4020	2640	65.6	0.64	0.896
Acenaphthylene d-8		4020	2700	67.1	0.16	0.962
Dibenzothiophene d-8		4010	2930	73.1	0.07	0.792
Phenanthrene d-10		4010	3090	77.2	0.13	0.808
Benzo[a]anthracene d-12		4000	3310	82.6	0.20	1.164
Chrysene d-12		3220	2620	81.4	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3410	85.4	0.17	0.957
Benzo[k]fluoranthene d-12		3910	3260	83.3	0.17	0.961
Benzo[a]pyrene d-12		4010	3340	83.3	0.17	1.008
Perylene d-12		4000	3420	85.4	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3330	83.8	0.15	1.204
Benzo[ghi]perylene d-12		3980	3480	87.4	0.17	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

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Report Filename: PAH_PAH_LO_LPAHF_L43619-21_Form2_PH5H4256.D_SJ3667065.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-04 14-AUG-25
Sample Collection:
14-Aug-2025 11:15

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-22
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 06:28:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4257.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		76.3	2.26 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.75 (S)		
Acenaphthene	83-32-9		42.6	3.99 (S)	1.06	1.047
2-Methylfluorene	1430-97-3		11.8	4.89 (S)	1.21	0.939
C2 Phenanthrenes/Anthracenes			1310	4.77 (S)		
Fluorene	86-73-7		27.8	3.80 (S)	0.93	0.844
Phenanthrene	85-01-8		244	2.93 (S)	0.17	1.004
Anthracene	120-12-7	NDR	3.46	2.89 (S)	0.20	1.011
C1 Phenanthrenes/Anthracenes			601	4.00 (S)		
Fluoranthene	206-44-0		45.5	2.54 (S)	0.21	1.204
Pyrene	129-00-0	NDR	48.8	2.43 (S)	0.35	1.240
Benz[a]anthracene [3]	56-55-3		5.79	2.49 (S)	0.21	1.002
Chrysene [4]	218-01-9		84.9	2.55 (S)	0.31	1.002
Benzo[b]fluoranthene	205-99-2	ND		3.94 (S)		
Benzo[j,k]fluoranthenes		ND		4.09 (S)		
Benzo[e]pyrene	192-97-2		14.9	5.18 (S)	0.23	0.996
Benzo[a]pyrene	50-32-8	ND		5.00 (S)		
Perylene	198-55-0	ND		5.48 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.25 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.05 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.94 (S)		
2-Methylnaphthalene	91-57-6		37.9	2.09 (S)	0.94	1.009
1-Methylnaphthalene	90-12-0		30.0	2.31 (S)	0.89	1.040
C1-Naphthalenes			68.0	2.09 (S)		
Biphenyl	92-52-4		14.0	2.36 (S)	0.28	1.005
C1-Biphenyls			19.3	1.64 (S)		
C2-Biphenyls			55.2	1.40 (S)		
C2-Naphthalenes			234	5.13 (S)		
1,2-Dimethylnaphthalene	573-98-8		14.8	5.13 (S)	1.32	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		33.9	3.91 (S)	0.72	1.011
C3-Naphthalenes			766	4.85 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		241	4.92 (S)	0.76	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		156	4.78 (S)	0.89	1.224
C4-Naphthalenes			1150	2.29 (S)		
C1-Acenaphthenes		ND		2.02 (S)		
C1-Fluorenes			82.4	4.89 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	31.6	6.36 (S)	0.09	1.034
C2-Fluorenes			385	6.36 (S)		
C3-Fluorenes			772	6.79 (S)		
Dibenzothiophene	132-65-0	NDR	20.8	1.15 (S)	0.15	1.003
C1-Dibenzothiophenes			104	4.20 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	65.6	4.20 (S)	0.45	1.098
C2-Dibenzothiophenes			778	2.14 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		76.1	2.14 (S)	0.46	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		146	1.73 (S)	0.15	1.153
C3-Dibenzothiophenes			762	4.79 (S)		
C4-Dibenzothiophenes			258	5.53 (S)		
3-Methylphenanthrene	832-71-3		105	4.09 (S)	0.57	1.088
2-Methylphenanthrene	2531-84-2		122	4.00 (S)	0.52	1.092
2-Methylanthracene	613-12-7	ND		4.28 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		215	4.09 (S)	0.54	1.106
1-Methylphenanthrene	832-69-9		159	4.00 (S)	0.58	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	80.0	4.63 (S)	0.74	1.165
2,6-Dimethylphenanthrene	17980-16-4	NDR	81.8	4.77 (S)	0.22	1.171
1,7-Dimethylphenanthrene	483-87-4		212	4.93 (S)	0.31	1.193
1,8-Dimethylphenanthrene	7372-87-4		60.8	4.77 (S)	0.31	1.209
C3-Phenanthrenes/Anthracenes			1210	4.83 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		62.7	4.83 (S)	0.61	1.292
Retene	483-65-8		92.9	12.7 (S)	1.18	1.301
C4-Phenanthrenes/Anthracenes			1900	12.7 (S)		
C1-Fluoranthenes/Pyrenes			102	4.16 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		48.0	4.16 (S)	0.84	1.301
C2-Fluoranthenes/Pyrenes			292	1.98 (S)		
C3-Fluoranthenes/Pyrenes			169	4.34 (S)		
C4-Fluoranthenes/Pyrenes			63.2	3.65 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			117	2.96 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		17.9	3.10 (S)		1.066
1-Methylchrysene	3351-28-8		15.7	2.84 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			88.0	3.23 (S)		
5,9-Dimethylchrysene	139493-40-6		24.9	3.23 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		3.04 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		3.31 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		6.75 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		6.75 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		6.89 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		174	2.29 (S)	0.02	1.376
Anthracene d-10			3100	3.28 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		17200	3.09 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2190	2.83 (S)	0.21	1.003

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-22_Form1A_PH5H4257.D_SJ3667066.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-04 14-AUG-25
Sample Collection:
14-Aug-2025 11:15

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-22
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 06:28:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4257.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2220	55.5	0.09	0.610
2-Methylnaphthalene d-10		4040	2730	67.7	0.18	0.757
Biphenyl d-10		4010	2880	71.7		0.869
2,6-Dimethylnaphthalene d-12		4020	2980	74.0	0.64	0.896
Acenaphthylene d-8		4020	3000	74.5	0.16	0.962
Dibenzothiophene d-8		4010	3020	75.4	0.07	0.792
Phenanthrene d-10		4010	3180	79.4	0.13	0.808
Benzo[a]anthracene d-12		4000	3380	84.6	0.20	1.164
Chrysene d-12		3220	2710	84.2	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3450	86.4	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3240	82.8	0.17	0.961
Benzo[a]pyrene d-12		4010	3340	83.2	0.17	1.008
Perylene d-12		4000	3440	86.0	0.21	1.023
Indeno[1,2,3-cd]pyrene d-12		3970	3250	81.8	0.16	1.204
Benzo[ghi]perylene d-12		3980	3420	85.9	0.17	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-22_Form2_PH5H4257.D_SJ3667066.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-US-05 14-AUG-25
Sample Collection:
14-Aug-2025 10:00

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-23
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 07:17:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4258.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		102	2.34 (S)	0.05	1.007
Acenaphthylene	208-96-8	ND		2.73 (S)		
Acenaphthene	83-32-9		54.4	4.84 (S)	1.09	1.047
2-Methylfluorene	1430-97-3		16.2	3.28 (S)	0.90	0.939
C2 Phenanthrenes/Anthracenes			981	4.21 (S)		
Fluorene	86-73-7		38.0	5.88 (S)	0.80	0.844
Phenanthrene	85-01-8		280	3.88 (S)	0.17	1.003
Anthracene	120-12-7	NDR	4.29	3.83 (S)	0.35	1.008
C1 Phenanthrenes/Anthracenes			509	4.32 (S)		
Fluoranthene	206-44-0		52.9	3.36 (S)	0.22	1.204
Pyrene	129-00-0	NDR	48.6	3.22 (S)	0.55	1.240
Benz[a]anthracene [3]	56-55-3		9.99	3.46 (S)	0.28	1.002
Chrysene [4]	218-01-9		76.3	3.83 (S)	0.29	1.002
Benzo[b]fluoranthene	205-99-2		11.5	5.04 (S)	0.23	1.004
Benzo[j,k]fluoranthenes		ND		5.10 (S)		
Benzo[e]pyrene	192-97-2		22.8	6.54 (S)	0.20	0.996
Benzo[a]pyrene	50-32-8	ND		6.31 (S)		
Perylene	198-55-0	ND		7.06 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.29 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		4.03 (S)		
Benzo[ghi]perylene	191-24-2		6.81	3.95 (S)	0.13	1.003
2-Methylnaphthalene	91-57-6		42.9	3.67 (S)	0.88	1.009
1-Methylnaphthalene	90-12-0		33.8	4.06 (S)	0.84	1.040
C1-Naphthalenes			76.7	3.67 (S)		
Biphenyl	92-52-4		17.8	3.01 (S)	0.27	1.006
C1-Biphenyls			20.8	2.35 (S)		
C2-Biphenyls			64.7	3.41 (S)		
C2-Naphthalenes			961	6.87 (S)		
1,2-Dimethylnaphthalene	573-98-8	NDR	761	6.87 (S)		1.072

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		32.9	5.23 (S)	0.64	1.010
C3-Naphthalenes			575	5.60 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		183	5.67 (S)	0.80	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		122	5.52 (S)	0.86	1.224
C4-Naphthalenes			794	5.76 (S)		
C1-Acenaphthenes		ND		2.89 (S)		
C1-Fluorenes			76.8	3.28 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	33.9	8.87 (S)	0.02	1.033
C2-Fluorenes			294	8.87 (S)		
C3-Fluorenes			693	8.87 (S)		
Dibenzothiophene	132-65-0		18.9	4.09 (S)	0.08	1.003
C1-Dibenzothiophenes			55.0	5.70 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		55.0	5.70 (S)	0.64	1.098
C2-Dibenzothiophenes			640	7.84 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	56.8	7.84 (S)	0.64	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		124	6.34 (S)	0.15	1.153
C3-Dibenzothiophenes			929	7.45 (S)		
C4-Dibenzothiophenes			646	7.45 (S)		
3-Methylphenanthrene	832-71-3		89.4	4.42 (S)	0.57	1.087
2-Methylphenanthrene	2531-84-2		100	4.32 (S)	0.57	1.091
2-Methylanthracene	613-12-7	ND		4.63 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		188	4.42 (S)	0.56	1.106
1-Methylphenanthrene	832-69-9		132	4.32 (S)	0.58	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	63.2	4.08 (S)	0.73	1.164
2,6-Dimethylphenanthrene	17980-16-4		56.4	4.21 (S)	0.39	1.171
1,7-Dimethylphenanthrene	483-87-4		171	4.35 (S)	0.33	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	4.70	4.21 (S)	1.05	1.207
C3-Phenanthrenes/Anthracenes			1250	6.32 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		69.9	6.32 (S)	0.55	1.292
Retene	483-65-8	NDR	171	16.3 (S)	0.89	1.301
C4-Phenanthrenes/Anthracenes			2980	16.3 (S)		
C1-Fluoranthenes/Pyrenes			82.5	5.67 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		48.9	5.67 (S)	1.13	1.301
C2-Fluoranthenes/Pyrenes			404	3.79 (S)		
C3-Fluoranthenes/Pyrenes			334	5.10 (S)		
C4-Fluoranthenes/Pyrenes			250	5.10 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			171	3.33 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		27.7	3.48 (S)		1.066
1-Methylchrysene	3351-28-8		27.3	3.19 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			253	5.99 (S)		
5,9-Dimethylchrysene	139493-40-6		73.9	5.99 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			52.1	5.91 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		5.51 (S)		
C1-Benzofluoranthenes/Benzopyrenes			20.7	9.19 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		9.19 (S)		
C2-Benzofluoranthenes/Benzopyrenes			10.2	8.51 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	123	5.76 (S)	0.03	1.375
Anthracene d-10			6560	4.27 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		25200	3.82 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		3000	4.95 (S)	0.20	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-23_Form1A_PH5H4258.D_SJ3667067.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-05 14-AUG-25
Sample Collection:
14-Aug-2025 10:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-23
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 07:17:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4258.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4245.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1980	49.4	0.09	0.610
2-Methylnaphthalene d-10		4040	2320	57.3	0.18	0.756
Biphenyl d-10		4010	2340	58.4		0.868
2,6-Dimethylnaphthalene d-12		4020	2410	60.1	0.64	0.896
Acenaphthylene d-8		4020	2440	60.7	0.16	0.961
Dibenzothiophene d-8		4010	2490	62.2	0.07	0.792
Phenanthrene d-10		4010	2700	67.2	0.13	0.809
Benzo[a]anthracene d-12		4000	2820	70.5	0.20	1.164
Chrysene d-12		3220	2240	69.8	0.24	1.170
Benzo[b]fluoranthene d-12		3990	2880	72.2	0.18	0.957
Benzo[k]fluoranthene d-12		3910	2750	70.4	0.16	0.961
Benzo[a]pyrene d-12		4010	2840	70.9	0.17	1.009
Perylene d-12		4000	2890	72.3	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	2790	70.3	0.16	1.204
Benzo[ghi]perylene d-12		3980	2920	73.3	0.17	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-23_Form2_PH5H4258.D_SJ3667067.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-01 14-AUG-25
Sample Collection:
14-Aug-2025 15:05

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-24
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 10:09:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4262.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4260.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		83.8	3.68 (S)	0.06	1.007
Acenaphthylene	208-96-8	ND		3.10 (S)		
Acenaphthene	83-32-9		67.6	3.62 (S)	1.05	1.047
2-Methylfluorene	1430-97-3		175	8.44 (S)	1.12	0.938
C2 Phenanthrenes/Anthracenes			4840	5.41 (S)		
Fluorene	86-73-7		139	6.32 (S)	0.91	0.843
Phenanthrene	85-01-8		825	3.12 (S)	0.17	1.003
Anthracene	120-12-7	NDR	17.9	3.08 (S)	0.20	1.016
C1 Phenanthrenes/Anthracenes			3320	7.48 (S)		
Fluoranthene	206-44-0		221	2.93 (S)	0.19	1.204
Pyrene	129-00-0	NDR	214	2.81 (S)	0.25	1.240
Benz[a]anthracene [3]	56-55-3		20.4	2.85 (S)	0.24	1.002
Chrysene [4]	218-01-9		131	3.20 (S)	0.29	1.002
Benzo[b]fluoranthene	205-99-2		7.61	4.70 (S)	0.18	1.004
Benzo[j,k]fluoranthenes		ND		4.91 (S)		
Benzo[e]pyrene	192-97-2		19.8	6.50 (S)	0.21	0.996
Benzo[a]pyrene	50-32-8	ND		6.26 (S)		
Perylene	198-55-0	ND		6.61 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		4.12 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.96 (S)		
Benzo[ghi]perylene	191-24-2	NDR	3.07	2.99 (S)	0.51	1.002
2-Methylnaphthalene	91-57-6		321	4.39 (S)	0.86	1.009
1-Methylnaphthalene	90-12-0		330	4.86 (S)	0.86	1.040
C1-Naphthalenes			651	4.39 (S)		
Biphenyl	92-52-4		36.3	2.84 (S)	0.26	1.005
C1-Biphenyls			137	1.66 (S)		
C2-Biphenyls			293	1.99 (S)		
C2-Naphthalenes			4490	7.04 (S)		
1,2-Dimethylnaphthalene	573-98-8		287	7.04 (S)	1.14	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		807	5.36 (S)	0.59	1.011
C3-Naphthalenes			8270	7.76 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		2700	7.87 (S)	0.82	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		1760	7.66 (S)	0.89	1.225
C4-Naphthalenes			6360	6.63 (S)		
C1-Acenaphthenes			15.8	1.99 (S)		
C1-Fluorenes			928	8.44 (S)		
1,7-Dimethylfluorene	442-66-0		295	4.95 (S)	0.06	1.034
C2-Fluorenes			2500	4.95 (S)		
C3-Fluorenes			2820	7.23 (S)		
Dibenzothiophene	132-65-0	NDR	359	3.43 (S)	0.10	1.003
C1-Dibenzothiophenes			1930	4.48 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		590	4.48 (S)	0.64	1.094
C2-Dibenzothiophenes			3630	6.16 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		329	6.16 (S)	0.49	1.163
4,6-Dimethyldibenzothiophene	1207-12-1		630	4.98 (S)	0.13	1.152
C3-Dibenzothiophenes			2220	6.16 (S)		
C4-Dibenzothiophenes			755	6.16 (S)		
3-Methylphenanthrene	832-71-3		702	7.60 (S)	0.54	1.087
2-Methylphenanthrene	2531-84-2		773	7.48 (S)	0.55	1.092
2-Methylanthracene	613-12-7	ND		7.87 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		1100	7.60 (S)	0.54	1.106
1-Methylphenanthrene	832-69-9		746	7.48 (S)	0.60	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	297	5.25 (S)	0.73	1.164
2,6-Dimethylphenanthrene	17980-16-4		298	5.41 (S)	0.26	1.171
1,7-Dimethylphenanthrene	483-87-4		726	5.59 (S)	0.29	1.193
1,8-Dimethylphenanthrene	7372-87-4		183	5.41 (S)	0.31	1.209
C3-Phenanthrenes/Anthracenes			2820	5.52 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		157	5.52 (S)	0.54	1.292
Retene	483-65-8	NDR	113	14.3 (S)	0.65	1.301
C4-Phenanthrenes/Anthracenes			3310	14.3 (S)		
C1-Fluoranthenes/Pyrenes			199	4.55 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		120	4.55 (S)	0.95	1.301
C2-Fluoranthenes/Pyrenes			597	3.19 (S)		
C3-Fluoranthenes/Pyrenes			374	5.09 (S)		
C4-Fluoranthenes/Pyrenes			157	5.67 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			248	4.45 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		30.0	4.65 (S)		1.066
1-Methylchrysene	3351-28-8		33.9	4.26 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			246	4.94 (S)		
5,9-Dimethylchrysene	139493-40-6		56.7	4.94 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			56.8	5.55 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		4.98 (S)		
C1-Benzofluoranthenes/Benzopyrenes			11.9	9.61 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		9.61 (S)		
C2-Benzofluoranthenes/Benzopyrenes			12.1	4.83 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		914	6.63 (S)	0.03	1.376
Anthracene d-10			12600	3.39 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		27900	3.17 (S)	0.14	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2390	4.76 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-24_Form1A_PH5H4262.D_SJ3667068.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-01 14-AUG-25
Sample Collection:
14-Aug-2025 15:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-24
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 10:09:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4262.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4260.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2040	50.8	0.09	0.610
2-Methylnaphthalene d-10		4040	2390	59.1	0.18	0.756
Biphenyl d-10		4010	2510	62.6		0.869
2,6-Dimethylnaphthalene d-12		4020	2610	64.9	0.64	0.896
Acenaphthylene d-8		4020	2690	66.9	0.15	0.961
Dibenzothiophene d-8		4010	2920	72.9	0.07	0.792
Phenanthrene d-10		4010	3190	79.5	0.13	0.808
Benzo[a]anthracene d-12		4000	3390	84.9	0.21	1.164
Chrysene d-12		3220	2700	83.9	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3440	86.2	0.17	0.957
Benzo[k]fluoranthene d-12		3910	3260	83.5	0.17	0.961
Benzo[a]pyrene d-12		4010	3340	83.3	0.17	1.009
Perylene d-12		4000	3430	85.9	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3260	82.1	0.15	1.205
Benzo[ghi]perylene d-12		3980	3410	85.6	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-24_Form2_PH5H4262.D_SJ3667068.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-02 15-AUG-25
Sample Collection:
15-Aug-2025 13:20

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-25
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 11:47:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4264.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
		Cal. Ver. Data Filename:	PH5H4260.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		112	3.13 (S)	0.06	1.006
Acenaphthylene	208-96-8		2.93	2.41 (S)	0.19	1.003
Acenaphthene	83-32-9		66.1	4.88 (S)	1.13	1.047
2-Methylfluorene	1430-97-3		407	7.81 (S)	0.99	0.939
C2 Phenanthrenes/Anthracenes			20600	5.56 (S)		
Fluorene	86-73-7		213	5.05 (S)	0.96	0.844
Phenanthrene	85-01-8		1840	53.4 (S)	0.17	1.004
Anthracene	120-12-7		87.1	53.4 (S)	0.15	1.016
C1 Phenanthrenes/Anthracenes			13800	24.7 (S)		
Fluoranthene	206-44-0		106	3.01 (S)	0.19	1.205
Pyrene	129-00-0		320	2.89 (S)	0.20	1.240
Benz[a]anthracene [3]	56-55-3	ND		17.1 (S)		
Chrysene [4]	218-01-9		357	17.3 (S)	0.29	1.002
Benzo[b]fluoranthene	205-99-2		10.1	5.42 (S)	0.20	1.004
Benzo[j,k]fluoranthenes		ND		5.72 (S)		
Benzo[e]pyrene	192-97-2		35.5	7.34 (S)	0.23	0.996
Benzo[a]pyrene	50-32-8	ND		7.08 (S)		
Perylene	198-55-0		40.6	7.80 (S)	0.24	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.28 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		3.61 (S)		
Benzo[ghi]perylene	191-24-2		6.92	3.57 (S)	0.18	1.003
2-Methylnaphthalene	91-57-6		359	4.78 (S)	0.84	1.009
1-Methylnaphthalene	90-12-0		390	5.30 (S)	0.86	1.040
C1-Naphthalenes			749	4.78 (S)		
Biphenyl	92-52-4		56.8	2.85 (S)	0.25	1.005
C1-Biphenyls			210	1.67 (S)		
C2-Biphenyls			496	3.71 (S)		
C2-Naphthalenes			5980	5.12 (S)		
1,2-Dimethylnaphthalene	573-98-8		343	5.12 (S)	1.11	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		1080	3.90 (S)	0.59	1.010
C3-Naphthalenes			13900	6.74 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		4790	6.83 (S)	0.82	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		2930	6.64 (S)	0.88	1.225
C4-Naphthalenes			12800	7.40 (S)		
C1-Acenaphthenes			13.5	2.07 (S)		
C1-Fluorenes			2370	7.81 (S)		
1,7-Dimethylfluorene	442-66-0		1080	8.06 (S)	0.07	1.034
C2-Fluorenes			9120	8.06 (S)		
C3-Fluorenes			11500	8.06 (S)		
Dibenzothiophene	132-65-0		821	23.6 (S)	0.08	1.003
C1-Dibenzothiophenes			6440	4.96 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		1900	4.96 (S)	0.67	1.094
C2-Dibenzothiophenes			13500	6.82 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	1320	6.82 (S)	0.51	1.163
4,6-Dimethyldibenzothiophene	1207-12-1		2150	5.51 (S)	0.13	1.152
C3-Dibenzothiophenes			5840	7.07 (S)		
C4-Dibenzothiophenes			1230	7.61 (S)		
3-Methylphenanthrene	832-71-3		2680	24.8 (S)	0.57	1.088
2-Methylphenanthrene	2531-84-2		3060	24.7 (S)	0.55	1.092
2-Methylanthracene	613-12-7	ND		25.0 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		4990	24.8 (S)	0.54	1.106
1-Methylphenanthrene	832-69-9		3050	24.7 (S)	0.59	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	1160	5.39 (S)	0.86	1.165
2,6-Dimethylphenanthrene	17980-16-4		1220	5.56 (S)	0.28	1.171
1,7-Dimethylphenanthrene	483-87-4		3190	5.74 (S)	0.29	1.193
1,8-Dimethylphenanthrene	7372-87-4		812	5.56 (S)	0.35	1.209
C3-Phenanthrenes/Anthracenes			9590	5.67 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		469	5.67 (S)	0.52	1.292
Retene	483-65-8	NDR	407	16.5 (S)	0.78	1.302
C4-Phenanthrenes/Anthracenes			7800	16.5 (S)		
C1-Fluoranthenes/Pyrenes			833	4.88 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		406	4.88 (S)	0.92	1.301
C2-Fluoranthenes/Pyrenes			1570	5.40 (S)		
C3-Fluoranthenes/Pyrenes			552	4.94 (S)		
C4-Fluoranthenes/Pyrenes			206	5.23 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			457	4.62 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		56.2	4.83 (S)		1.066
1-Methylchrysene	3351-28-8		59.0	4.42 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			367	5.82 (S)		
5,9-Dimethylchrysene	139493-40-6		82.9	5.82 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			81.9	5.30 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		3.61 (S)		
C1-Benzofluoranthenes/Benzopyrenes			57.2	9.94 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		9.94 (S)		
C2-Benzofluoranthenes/Benzopyrenes			19.9	8.61 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		1850	7.40 (S)	0.02	1.376
Anthracene d-10			2800	4.46 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		16600	4.32 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2570	4.41 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-25_Form1A_PH5H4264.D_SJ3667070.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-02 15-AUG-25
Sample Collection:
15-Aug-2025 13:20

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-25
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 11:47:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4264.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4260.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2390	59.6	0.08	0.610
2-Methylnaphthalene d-10		4040	2810	69.6	0.18	0.757
Biphenyl d-10		4010	2850	71.0		0.869
2,6-Dimethylnaphthalene d-12		4020	2930	72.8	0.64	0.896
Acenaphthylene d-8		4020	3000	74.7	0.15	0.962
Dibenzothiophene d-8		4010	3030	75.6	0.07	0.792
Phenanthrene d-10		4010	3150	78.5	0.13	0.808
Benzo[a]anthracene d-12		4000	3290	82.3	0.21	1.164
Chrysene d-12		3220	2650	82.3	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3410	85.4	0.17	0.957
Benzo[k]fluoranthene d-12		3910	3250	83.1	0.17	0.961
Benzo[a]pyrene d-12		4010	3350	83.4	0.17	1.008
Perylene d-12		4000	3420	85.6	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3310	83.3	0.16	1.205
Benzo[ghi]perylene d-12		3980	3460	86.9	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-25_Form2_PH5H4264.D_SJ3667070.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-03 16-AUG-25
Sample Collection:
16-Aug-2025 12:45

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-26
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 12:36:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4265.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
		Cal. Ver. Data Filename:	PH5H4260.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		95.3	2.43 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		1.74 (S)		
Acenaphthene	83-32-9		50.2	3.95 (S)	1.03	1.048
2-Methylfluorene	1430-97-3		6.34	2.72 (S)	1.02	0.938
C2 Phenanthrenes/Anthracenes			267	3.39 (S)		
Fluorene	86-73-7		36.4	3.94 (S)	0.82	0.844
Phenanthrene	85-01-8		180	3.35 (S)	0.17	1.003
Anthracene	120-12-7		3.87	3.31 (S)	0.18	1.011
C1 Phenanthrenes/Anthracenes			222	3.10 (S)		
Fluoranthene	206-44-0		61.3	1.75 (S)	0.20	1.204
Pyrene	129-00-0	NDR	69.3	1.68 (S)	0.56	1.240
Benz[a]anthracene [3]	56-55-3	ND		1.73 (S)		
Chrysene [4]	218-01-9		35.3	1.82 (S)	0.31	1.002
Benzo[b]fluoranthene	205-99-2	NDR	2.90	2.74 (S)	0.33	1.004
Benzo[j,k]fluoranthenes		ND		2.79 (S)		
Benzo[e]pyrene	192-97-2	NDR	10.9	3.69 (S)	0.90	0.996
Benzo[a]pyrene	50-32-8	ND		3.56 (S)		
Perylene	198-55-0		33.8	3.84 (S)	0.23	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.07 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.71 (S)		
Benzo[ghi]perylene	191-24-2	NDR	4.56	2.74 (S)	0.35	1.003
2-Methylnaphthalene	91-57-6		35.3	2.82 (S)	0.85	1.009
1-Methylnaphthalene	90-12-0		26.8	3.12 (S)	0.91	1.040
C1-Naphthalenes			62.1	2.82 (S)		
Biphenyl	92-52-4		12.8	1.81 (S)	0.27	1.005
C1-Biphenyls			15.6	1.77 (S)		
C2-Biphenyls			40.3	1.63 (S)		
C2-Naphthalenes			120	8.60 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		8.60 (S)		

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		18.4	6.55 (S)	0.50	1.011
C3-Naphthalenes			270	7.26 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		81.6	7.37 (S)	0.78	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		45.3	7.16 (S)	0.93	1.225
C4-Naphthalenes			317	4.08 (S)		
C1-Acenaphthenes		ND		2.73 (S)		
C1-Fluorenes			30.8	2.72 (S)		
1,7-Dimethylfluorene	442-66-0	ND		7.36 (S)		
C2-Fluorenes			90.3	7.36 (S)		
C3-Fluorenes			79.7	7.59 (S)		
Dibenzothiophene	132-65-0	NDR	8.76	3.65 (S)	0.14	1.003
C1-Dibenzothiophenes			26.0	3.13 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	18.4	3.13 (S)	0.33	1.098
C2-Dibenzothiophenes			101	3.28 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		9.18	3.28 (S)	0.50	1.162
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	14.6	2.65 (S)	0.22	1.152
C3-Dibenzothiophenes			60.4	5.38 (S)		
C4-Dibenzothiophenes		ND		3.28 (S)		
3-Methylphenanthrene	832-71-3		35.5	3.17 (S)	0.62	1.088
2-Methylphenanthrene	2531-84-2		44.0	3.10 (S)	0.57	1.092
2-Methylanthracene	613-12-7	ND		3.32 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		79.2	3.17 (S)	0.55	1.106
1-Methylphenanthrene	832-69-9		63.0	3.10 (S)	0.57	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	16.0	3.29 (S)	0.71	1.165
2,6-Dimethylphenanthrene	17980-16-4		13.3	3.39 (S)	0.37	1.171
1,7-Dimethylphenanthrene	483-87-4		50.5	3.51 (S)	0.26	1.193
1,8-Dimethylphenanthrene	7372-87-4		13.9	3.39 (S)	0.31	1.209
C3-Phenanthrenes/Anthracenes			120	4.85 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		5.72	4.85 (S)	0.52	1.292
Retene	483-65-8		254	4.85 (S)	1.50	1.301
C4-Phenanthrenes/Anthracenes			369	4.85 (S)		
C1-Fluoranthenes/Pyrenes			64.4	2.37 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		33.9	2.37 (S)	1.03	1.300
C2-Fluoranthenes/Pyrenes			57.5	3.09 (S)		
C3-Fluoranthenes/Pyrenes			14.3	2.51 (S)		
C4-Fluoranthenes/Pyrenes			1.77	1.48 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			20.6	1.72 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		2.12	1.80 (S)		1.066
1-Methylchrysene	3351-28-8		3.57	1.64 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		4.46 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		4.46 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		2.34 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.83 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		5.13 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		5.13 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		4.77 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		39.9	4.08 (S)	0.02	1.376
Anthracene d-10			713	3.84 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		9970	2.06 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2490	4.32 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-26_Form1A_PH5H4265.D_SJ3667071.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-03 16-AUG-25
Sample Collection:
16-Aug-2025 12:45

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-26
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 12:36:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4265.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4260.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2050	51.1	0.09	0.610
2-Methylnaphthalene d-10		4040	2430	60.0	0.18	0.756
Biphenyl d-10		4010	2550	63.5		0.869
2,6-Dimethylnaphthalene d-12		4020	2640	65.6	0.64	0.896
Acenaphthylene d-8		4020	2720	67.6	0.15	0.961
Dibenzothiophene d-8		4010	3020	75.4	0.07	0.792
Phenanthrene d-10		4010	3120	77.9	0.13	0.808
Benzo[a]anthracene d-12		4000	3340	83.5	0.20	1.164
Chrysene d-12		3220	2660	82.8	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3350	84.0	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3180	81.4	0.17	0.961
Benzo[a]pyrene d-12		4010	3260	81.3	0.17	1.009
Perylene d-12		4000	3360	83.9	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3080	77.7	0.16	1.205
Benzo[ghi]perylene d-12		3980	3240	81.5	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-26_Form2_PH5H4265.D_SJ3667071.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-04 12-AUG-25
Sample Collection:
12-Aug-2025 16:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-27
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 13:25:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4266.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
		Cal. Ver. Data Filename:	PH5H4260.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		151	3.03 (S)	0.05	1.006
Acenaphthylene	208-96-8	ND		4.12 (S)		
Acenaphthene	83-32-9		97.8	4.43 (S)	1.05	1.047
2-Methylfluorene	1430-97-3		213	8.14 (S)	1.08	0.939
C2 Phenanthrenes/Anthracenes			9120	6.50 (S)		
Fluorene	86-73-7		146	3.13 (S)	1.03	0.844
Phenanthrene	85-01-8		1040	25.4 (S)	0.16	1.004
Anthracene	120-12-7	ND		25.4 (S)		
C1 Phenanthrenes/Anthracenes			6170	4.89 (S)		
Fluoranthene	206-44-0		101	3.52 (S)	0.18	1.204
Pyrene	129-00-0		177	3.38 (S)	0.17	1.240
Benz[a]anthracene [3]	56-55-3		9.60	3.78 (S)	0.20	1.002
Chrysene [4]	218-01-9		156	3.75 (S)	0.28	1.002
Benzo[b]fluoranthene	205-99-2		7.12	3.57 (S)	0.22	1.004
Benzo[j,k]fluoranthenes		ND		3.70 (S)		
Benzo[e]pyrene	192-97-2		22.0	4.85 (S)	0.25	0.996
Benzo[a]pyrene	50-32-8	ND		4.67 (S)		
Perylene	198-55-0		42.8	5.08 (S)	0.21	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.23 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		3.53 (S)		
Benzo[ghi]perylene	191-24-2	NDR	5.70	3.44 (S)	0.30	1.002
2-Methylnaphthalene	91-57-6		344	2.26 (S)	0.87	1.009
1-Methylnaphthalene	90-12-0		364	2.50 (S)	0.87	1.040
C1-Naphthalenes			707	2.26 (S)		
Biphenyl	92-52-4		50.3	3.15 (S)	0.27	1.005
C1-Biphenyls			171	2.50 (S)		
C2-Biphenyls			357	3.64 (S)		
C2-Naphthalenes			5330	6.96 (S)		
1,2-Dimethylnaphthalene	573-98-8		288	6.96 (S)	1.13	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		990	5.30 (S)	0.60	1.011
C3-Naphthalenes			11700	6.66 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		4000	6.76 (S)	0.84	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		2340	6.57 (S)	0.86	1.224
C4-Naphthalenes			8230	9.44 (S)		
C1-Acenaphthenes			10.1	7.42 (S)		
C1-Fluorenes			1260	8.14 (S)		
1,7-Dimethylfluorene	442-66-0		480	5.04 (S)	0.06	1.034
C2-Fluorenes			4220	5.04 (S)		
C3-Fluorenes			4880	8.40 (S)		
Dibenzothiophene	132-65-0		414	14.4 (S)	0.07	1.003
C1-Dibenzothiophenes			2930	4.76 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		851	4.76 (S)	0.66	1.094
C2-Dibenzothiophenes			5590	7.84 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		527	7.84 (S)	0.50	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		919	6.33 (S)	0.13	1.152
C3-Dibenzothiophenes			2570	7.12 (S)		
C4-Dibenzothiophenes			623	7.22 (S)		
3-Methylphenanthrene	832-71-3		1200	15.0 (S)	0.56	1.088
2-Methylphenanthrene	2531-84-2		1360	14.9 (S)	0.54	1.092
2-Methylanthracene	613-12-7	ND		15.2 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		2240	15.0 (S)	0.54	1.106
1-Methylphenanthrene	832-69-9		1360	14.9 (S)	0.59	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	522	6.30 (S)	0.63	1.165
2,6-Dimethylphenanthrene	17980-16-4		512	6.50 (S)	0.29	1.171
1,7-Dimethylphenanthrene	483-87-4		1360	6.71 (S)	0.28	1.193
1,8-Dimethylphenanthrene	7372-87-4		347	6.50 (S)	0.37	1.209
C3-Phenanthrenes/Anthracenes			4410	5.91 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		206	5.91 (S)	0.53	1.292
Retene	483-65-8		307	15.3 (S)	1.23	1.301
C4-Phenanthrenes/Anthracenes			3400	15.3 (S)		
C1-Fluoranthenes/Pyrenes			368	5.21 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		187	5.21 (S)	0.92	1.301
C2-Fluoranthenes/Pyrenes			693	5.48 (S)		
C3-Fluoranthenes/Pyrenes			218	5.85 (S)		
C4-Fluoranthenes/Pyrenes			90.0	4.93 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			197	2.13 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		25.3	2.23 (S)		1.066
1-Methylchrysene	3351-28-8		25.7	2.04 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			133	3.28 (S)		
5,9-Dimethylchrysene	139493-40-6		37.6	3.28 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			5.40	4.88 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		3.99 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		4.46 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		4.46 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		7.44 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		1180	9.44 (S)	0.02	1.376
Anthracene d-10			3130	4.11 (S)	0.13	1.008
Fluoranthene d-10	93951-69-0		17000	4.44 (S)	0.14	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2690	4.43 (S)	0.20	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-27_Form1A_PH5H4266.D_SJ3667072.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-04 12-AUG-25
Sample Collection:
12-Aug-2025 16:10

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-27
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 13:25:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4266.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4260.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1930	48.0	0.09	0.611
2-Methylnaphthalene d-10		4040	2240	55.4	0.18	0.757
Biphenyl d-10		4010	2320	57.9		0.869
2,6-Dimethylnaphthalene d-12		4020	2410	59.9	0.64	0.896
Acenaphthylene d-8		4020	2480	61.6	0.16	0.962
Dibenzothiophene d-8		4010	2650	66.1	0.07	0.792
Phenanthrene d-10		4010	2840	70.7	0.13	0.808
Benzo[a]anthracene d-12		4000	3210	80.2	0.21	1.164
Chrysene d-12		3220	2570	80.0	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3300	82.7	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3130	80.0	0.17	0.961
Benzo[a]pyrene d-12		4010	3250	81.0	0.17	1.009
Perylene d-12		4000	3330	83.3	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3280	82.6	0.16	1.205
Benzo[ghi]perylene d-12		3980	3470	87.3	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-27_Form2_PH5H4266.D_SJ3667072.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-05 16-AUG-25
Sample Collection:
16-Aug-2025 09:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-28
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 14:14:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4267.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4260.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		76.3	2.14 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		2.06 (S)		
Acenaphthene	83-32-9		44.8	3.21 (S)	1.12	1.047
2-Methylfluorene	1430-97-3		9.35	8.80 (S)	0.91	0.939
C2 Phenanthrenes/Anthracenes			517	3.06 (S)		
Fluorene	86-73-7		27.2	2.46 (S)	0.91	0.844
Phenanthrene	85-01-8		166	4.19 (S)	0.17	1.004
Anthracene	120-12-7		5.12	4.13 (S)	0.17	1.011
C1 Phenanthrenes/Anthracenes			331	4.22 (S)		
Fluoranthene	206-44-0		62.4	2.22 (S)	0.19	1.204
Pyrene	129-00-0	NDR	81.4	2.13 (S)	0.26	1.240
Benz[a]anthracene [3]	56-55-3		3.00	2.57 (S)	0.19	1.002
Chrysene [4]	218-01-9		44.7	2.55 (S)	0.28	1.002
Benzo[b]fluoranthene	205-99-2	ND		3.23 (S)		
Benzo[j,k]fluoranthenes		ND		3.34 (S)		
Benzo[e]pyrene	192-97-2	NDR	15.2	4.43 (S)	0.71	0.996
Benzo[a]pyrene	50-32-8	ND		4.27 (S)		
Perylene	198-55-0		39.2	4.57 (S)	0.23	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.18 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.29 (S)		
Benzo[ghi]perylene	191-24-2		5.75	2.22 (S)	0.17	1.002
2-Methylnaphthalene	91-57-6		33.9	3.20 (S)	0.83	1.009
1-Methylnaphthalene	90-12-0		27.1	3.55 (S)	0.91	1.040
C1-Naphthalenes			61.1	3.20 (S)		
Biphenyl	92-52-4		13.3	2.66 (S)	0.26	1.005
C1-Biphenyls			18.4	1.29 (S)		
C2-Biphenyls			51.4	2.37 (S)		
C2-Naphthalenes			174	6.80 (S)		
1,2-Dimethylnaphthalene	573-98-8		9.24	6.80 (S)	1.22	1.081

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		26.7	5.18 (S)	0.60	1.010
C3-Naphthalenes			418	4.53 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		119	4.60 (S)	0.82	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		72.4	4.47 (S)	0.92	1.225
C4-Naphthalenes			474	6.05 (S)		
C1-Acenaphthenes		ND		2.03 (S)		
C1-Fluorenes			46.6	8.80 (S)		
1,7-Dimethylfluorene	442-66-0		19.4	8.87 (S)	0.06	1.033
C2-Fluorenes			193	8.87 (S)		
C3-Fluorenes			296	8.61 (S)		
Dibenzothiophene	132-65-0		11.3	3.18 (S)	0.08	1.003
C1-Dibenzothiophenes			85.7	3.90 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		26.3	3.90 (S)	0.57	1.098
C2-Dibenzothiophenes			211	3.57 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		21.6	3.57 (S)	0.47	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		37.3	2.89 (S)	0.15	1.152
C3-Dibenzothiophenes			149	7.10 (S)		
C4-Dibenzothiophenes			15.5	5.63 (S)		
3-Methylphenanthrene	832-71-3		55.1	4.32 (S)	0.60	1.088
2-Methylphenanthrene	2531-84-2		63.8	4.22 (S)	0.59	1.092
2-Methylanthracene	613-12-7	ND		4.52 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		127	4.32 (S)	0.61	1.106
1-Methylphenanthrene	832-69-9		85.1	4.22 (S)	0.62	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	30.6	2.97 (S)	0.71	1.165
2,6-Dimethylphenanthrene	17980-16-4		26.5	3.06 (S)	0.32	1.171
1,7-Dimethylphenanthrene	483-87-4		92.7	3.16 (S)	0.30	1.193
1,8-Dimethylphenanthrene	7372-87-4		27.2	3.06 (S)	0.40	1.209
C3-Phenanthrenes/Anthracenes			320	5.06 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		15.6	5.06 (S)	0.42	1.292
Retene	483-65-8		330	15.7 (S)	1.39	1.301
C4-Phenanthrenes/Anthracenes			569	15.7 (S)		
C1-Fluoranthenes/Pyrenes			87.1	4.11 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		43.8	4.11 (S)	1.08	1.301
C2-Fluoranthenes/Pyrenes			91.4	3.57 (S)		
C3-Fluoranthenes/Pyrenes			19.1	2.91 (S)		
C4-Fluoranthenes/Pyrenes		ND		2.94 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			37.3	1.63 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		3.35	1.70 (S)		1.066
1-Methylchrysene	3351-28-8		5.52	1.56 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		3.23 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		3.23 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		4.38 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		5.31 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		7.94 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		7.94 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		5.80 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		71.3	6.05 (S)	0.02	1.376
Anthracene d-10			805	1.30 (S)	0.13	1.008
Fluoranthene d-10	93951-69-0		10100	3.50 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2520	3.67 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-28_Form1A_PH5H4267.D_SJ3667073.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-05 16-AUG-25
Sample Collection:
16-Aug-2025 09:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-28
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 14:14:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4267.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4260.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2090	52.1	0.09	0.611
2-Methylnaphthalene d-10		4040	2450	60.6	0.18	0.757
Biphenyl d-10		4010	2540	63.2		0.869
2,6-Dimethylnaphthalene d-12		4020	2620	65.1	0.64	0.896
Acenaphthylene d-8		4020	2640	65.7	0.16	0.962
Dibenzothiophene d-8		4010	2870	71.6	0.07	0.792
Phenanthrene d-10		4010	3020	75.2	0.13	0.808
Benzo[a]anthracene d-12		4000	3370	84.2	0.20	1.164
Chrysene d-12		3220	2680	83.5	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3390	85.0	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3200	81.9	0.17	0.961
Benzo[a]pyrene d-12		4010	3290	82.0	0.17	1.008
Perylene d-12		4000	3400	85.1	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3220	81.1	0.16	1.205
Benzo[ghi]perylene d-12		3980	3410	85.6	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-28_Form2_PH5H4267.D_SJ3667073.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-06 13-AUG-25
Sample Collection:
13-Aug-2025 12:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-29
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 15:03:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4268.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
		Cal. Ver. Data Filename:	PH5H4260.D

Concentration Units: ng/sample

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		65.4	2.33 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		0.870 (S)		
Acenaphthene	83-32-9		43.6	3.30 (S)	1.14	1.047
2-Methylfluorene	1430-97-3	NDR	9.38	3.03 (S)	0.84	0.939
C2 Phenanthrenes/Anthracenes			247	3.43 (S)		
Fluorene	86-73-7		25.2	3.64 (S)	1.06	0.844
Phenanthrene	85-01-8		152	4.47 (S)	0.17	1.004
Anthracene	120-12-7	ND		4.43 (S)		
C1 Phenanthrenes/Anthracenes			253	2.33 (S)		
Fluoranthene	206-44-0		58.7	1.81 (S)	0.18	1.204
Pyrene	129-00-0		74.3	1.73 (S)	0.15	1.240
Benz[a]anthracene [3]	56-55-3		3.79	1.12 (S)	0.21	1.002
Chrysene [4]	218-01-9		37.1	1.15 (S)	0.26	1.002
Benzo[b]fluoranthene	205-99-2		5.17	2.48 (S)	0.17	1.004
Benzo[j,k]fluoranthenes		ND		2.70 (S)		
Benzo[e]pyrene	192-97-2	NDR	15.7	3.49 (S)	0.58	0.996
Benzo[a]pyrene	50-32-8	ND		3.36 (S)		
Perylene	198-55-0		40.2	3.63 (S)	0.19	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.40 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.954 (S)		
Benzo[ghi]perylene	191-24-2		5.93	0.915 (S)	0.15	1.002
2-Methylnaphthalene	91-57-6		34.5	2.17 (S)	0.85	1.010
1-Methylnaphthalene	90-12-0		28.2	2.40 (S)	0.76	1.040
C1-Naphthalenes			62.7	2.17 (S)		
Biphenyl	92-52-4		12.9	2.45 (S)	0.26	1.005
C1-Biphenyls			18.4	1.85 (S)		
C2-Biphenyls			53.7	1.41 (S)		
C2-Naphthalenes			169	5.44 (S)		
1,2-Dimethylnaphthalene	573-98-8	NDR	10.8	5.44 (S)	0.84	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		25.8	4.14 (S)	0.60	1.011
C3-Naphthalenes			325	7.20 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		84.2	7.30 (S)	0.76	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		61.3	7.10 (S)	0.86	1.225
C4-Naphthalenes			263	2.19 (S)		
C1-Acenaphthenes		ND		3.13 (S)		
C1-Fluorenes			51.0	3.03 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	12.0	3.86 (S)	0.09	1.032
C2-Fluorenes			116	3.86 (S)		
C3-Fluorenes			103	5.91 (S)		
Dibenzothiophene	132-65-0		9.81	4.16 (S)	0.08	1.002
C1-Dibenzothiophenes			43.1	2.70 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		15.5	2.70 (S)	0.72	1.098
C2-Dibenzothiophenes			87.6	6.21 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		10.2	6.21 (S)	0.48	1.163
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	14.3	5.02 (S)	0.25	1.152
C3-Dibenzothiophenes			45.3	4.08 (S)		
C4-Dibenzothiophenes		ND		3.36 (S)		
3-Methylphenanthrene	832-71-3		42.4	2.38 (S)	0.61	1.088
2-Methylphenanthrene	2531-84-2		54.1	2.33 (S)	0.53	1.092
2-Methylanthracene	613-12-7	NDR	4.45	2.49 (S)	0.67	1.098
9/4-Methylphenanthrene	883-20-5/832-64-4		91.0	2.38 (S)	0.56	1.106
1-Methylphenanthrene	832-69-9		65.6	2.33 (S)	0.62	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	19.1	3.33 (S)	0.52	1.165
2,6-Dimethylphenanthrene	17980-16-4		11.1	3.43 (S)	0.30	1.171
1,7-Dimethylphenanthrene	483-87-4		43.3	3.55 (S)	0.31	1.193
1,8-Dimethylphenanthrene	7372-87-4		13.1	3.43 (S)	0.29	1.209
C3-Phenanthrenes/Anthracenes			119	2.95 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		6.09	2.95 (S)	0.43	1.292
Retene	483-65-8		185	4.61 (S)	1.36	1.301
C4-Phenanthrenes/Anthracenes			252	4.61 (S)		
C1-Fluoranthenes/Pyrenes			62.0	2.42 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		35.0	2.42 (S)	1.02	1.300
C2-Fluoranthenes/Pyrenes			64.4	2.07 (S)		
C3-Fluoranthenes/Pyrenes			13.5	2.22 (S)		
C4-Fluoranthenes/Pyrenes		ND		2.36 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			23.3	1.97 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		2.51	2.06 (S)		1.066
1-Methylchrysene	3351-28-8		3.98	1.88 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		2.64 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.64 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		3.14 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.58 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		7.38 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		7.38 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		7.17 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		32.4	2.19 (S)	0.02	1.376
Anthracene d-10			2180	1.26 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		15700	2.21 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2500	2.90 (S)	0.20	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-29_Form1A_PH5H4268.D_SJ3667074.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-06 13-AUG-25
Sample Collection:
13-Aug-2025 12:10

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-29
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 15:03:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4268.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4260.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2260	56.4	0.08	0.611
2-Methylnaphthalene d-10		4040	2650	65.5	0.18	0.757
Biphenyl d-10		4010	2720	67.9		0.869
2,6-Dimethylnaphthalene d-12		4020	2800	69.6	0.65	0.896
Acenaphthylene d-8		4020	2820	70.1	0.16	0.962
Dibenzothiophene d-8		4010	2900	72.4	0.07	0.792
Phenanthrene d-10		4010	3040	75.8	0.13	0.808
Benzo[a]anthracene d-12		4000	3260	81.5	0.20	1.164
Chrysene d-12		3220	2610	81.1	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3350	83.9	0.17	0.957
Benzo[k]fluoranthene d-12		3910	3150	80.6	0.17	0.961
Benzo[a]pyrene d-12		4010	3220	80.2	0.17	1.008
Perylene d-12		4000	3330	83.3	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	2990	75.2	0.16	1.205
Benzo[ghi]perylene d-12		3980	3200	80.4	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-29_Form2_PH5H4268.D_SJ3667074.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-07 13-AUG-25
Sample Collection:
13-Aug-2025 11:10

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-30
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 15:52:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4269.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4260.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		56.6	2.79 (S)	0.06	1.007
Acenaphthylene	208-96-8	ND		1.98 (S)		
Acenaphthene	83-32-9		30.6	4.43 (S)	1.16	1.048
2-Methylfluorene	1430-97-3		8.77	5.36 (S)	1.22	0.939
C2 Phenanthrenes/Anthracenes			468	3.05 (S)		
Fluorene	86-73-7		18.7	2.28 (S)	0.99	0.844
Phenanthrene	85-01-8		132	5.07 (S)	0.16	1.003
Anthracene	120-12-7	ND		5.03 (S)		
C1 Phenanthrenes/Anthracenes			359	6.96 (S)		
Fluoranthene	206-44-0		55.3	3.59 (S)	0.21	1.203
Pyrene	129-00-0		93.4	3.53 (S)	0.20	1.240
Benz[a]anthracene [3]	56-55-3		3.99	1.74 (S)	0.21	1.002
Chrysene [4]	218-01-9		51.4	1.92 (S)	0.28	1.002
Benzo[b]fluoranthene	205-99-2		6.06	2.86 (S)	0.20	1.004
Benzo[j,k]fluoranthenes		ND		3.08 (S)		
Benzo[e]pyrene	192-97-2	NDR	16.8	3.99 (S)	1.16	0.996
Benzo[a]pyrene	50-32-8	ND		3.85 (S)		
Perylene	198-55-0		49.0	4.17 (S)	0.20	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.69 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	NDR	1.37	1.13 (S)	2.76	1.003
Benzo[ghi]perylene	191-24-2		5.33	1.09 (S)	0.15	1.002
2-Methylnaphthalene	91-57-6		26.4	3.63 (S)	0.86	1.009
1-Methylnaphthalene	90-12-0		22.1	4.02 (S)	0.89	1.040
C1-Naphthalenes			48.4	3.63 (S)		
Biphenyl	92-52-4		9.12	3.01 (S)	0.29	1.006
C1-Biphenyls			14.3	1.64 (S)		
C2-Biphenyls			57.3	2.33 (S)		
C2-Naphthalenes			137	8.63 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		8.63 (S)		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		18.2	6.58 (S)	0.69	1.010
C3-Naphthalenes			409	4.47 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		124	4.53 (S)	0.79	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		74.0	4.41 (S)	0.88	1.224
C4-Naphthalenes			364	8.59 (S)		
C1-Acenaphthenes		ND		2.60 (S)		
C1-Fluorenes			36.9	5.36 (S)		
1,7-Dimethylfluorene	442-66-0		12.9	9.70 (S)	0.05	1.033
C2-Fluorenes			173	9.70 (S)		
C3-Fluorenes			178	8.65 (S)		
Dibenzothiophene	132-65-0	NDR	6.89	3.39 (S)	0.17	1.003
C1-Dibenzothiophenes			79.5	3.01 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		28.0	3.01 (S)	0.55	1.098
C2-Dibenzothiophenes			171	4.65 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		20.2	4.65 (S)	0.49	1.163
4,6-Dimethyldibenzothiophene	1207-12-1		30.2	3.76 (S)	0.14	1.153
C3-Dibenzothiophenes			103	6.47 (S)		
C4-Dibenzothiophenes		ND		3.86 (S)		
3-Methylphenanthrene	832-71-3		57.2	7.05 (S)	0.56	1.088
2-Methylphenanthrene	2531-84-2		60.2	6.96 (S)	0.54	1.092
2-Methylanthracene	613-12-7	ND		7.24 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		147	7.05 (S)	0.51	1.106
1-Methylphenanthrene	832-69-9		88.5	6.96 (S)	0.65	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	30.4	2.96 (S)	0.85	1.165
2,6-Dimethylphenanthrene	17980-16-4		23.4	3.05 (S)	0.30	1.171
1,7-Dimethylphenanthrene	483-87-4		77.8	3.15 (S)	0.31	1.192
1,8-Dimethylphenanthrene	7372-87-4		21.5	3.05 (S)	0.36	1.209
C3-Phenanthrenes/Anthracenes			222	7.78 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		15.0	7.78 (S)	0.51	1.291
Retene	483-65-8		320	13.8 (S)	1.38	1.301
C4-Phenanthrenes/Anthracenes			465	13.8 (S)		
C1-Fluoranthenes/Pyrenes			98.7	3.03 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		51.3	3.03 (S)	1.03	1.300
C2-Fluoranthenes/Pyrenes			90.2	4.91 (S)		
C3-Fluoranthenes/Pyrenes			32.1	2.52 (S)		
C4-Fluoranthenes/Pyrenes			3.80	2.39 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			38.0	1.71 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		4.95	1.79 (S)		1.066
1-Methylchrysene	3351-28-8		6.40	1.63 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		3.10 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		3.10 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		3.06 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		5.96 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		7.32 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		7.32 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		6.79 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	67.6	8.59 (S)	0.03	1.375
Anthracene d-10			706	3.41 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		9770	3.26 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2520	4.64 (S)	0.20	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

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Report Filename: PAH_PAH_LO_LPAHF_L43619-30_Form1A_PH5H4269.D_SJ3667075.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-07 13-AUG-25
Sample Collection:
13-Aug-2025 11:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-30
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 15:52:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4269.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4260.D

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This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1990	49.6	0.09	0.611
2-Methylnaphthalene d-10		4040	2360	58.5	0.18	0.757
Biphenyl d-10		4010	2460	61.3		0.869
2,6-Dimethylnaphthalene d-12		4020	2530	62.8	0.64	0.896
Acenaphthylene d-8		4020	2560	63.7	0.16	0.961
Dibenzothiophene d-8		4010	2880	71.8	0.07	0.792
Phenanthrene d-10		4010	3010	75.0	0.13	0.808
Benzo[a]anthracene d-12		4000	3370	84.2	0.20	1.164
Chrysene d-12		3220	2710	84.2	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3440	86.2	0.17	0.957
Benzo[k]fluoranthene d-12		3910	3220	82.2	0.17	0.961
Benzo[a]pyrene d-12		4010	3340	83.3	0.17	1.008
Perylene d-12		4000	3430	85.7	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3240	81.5	0.16	1.205
Benzo[ghi]perylene d-12		3980	3470	87.1	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

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Report Filename: PAH_PAH_LO_LPAHF_L43619-30_Form2_PH5H4269.D_SJ3667075.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-08 16-AUG-25
Sample Collection:
16-Aug-2025 10:35

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-31
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 16:41:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4270.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
		Cal. Ver. Data Filename:	PH5H4260.D

Concentration Units: ng/sample

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		80.5	2.34 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		3.84 (S)		
Acenaphthene	83-32-9		39.1	2.82 (S)	1.11	1.048
2-Methylfluorene	1430-97-3		10.0	5.94 (S)	0.98	0.939
C2 Phenanthrenes/Anthracenes			535	3.29 (S)		
Fluorene	86-73-7		34.3	3.48 (S)	0.75	0.844
Phenanthrene	85-01-8		158	4.53 (S)	0.17	1.003
Anthracene	120-12-7	ND		4.49 (S)		
C1 Phenanthrenes/Anthracenes			316	4.07 (S)		
Fluoranthene	206-44-0		60.5	2.47 (S)	0.17	1.204
Pyrene	129-00-0		81.3	2.37 (S)	0.18	1.240
Benz[a]anthracene [3]	56-55-3	NDR	2.84	1.71 (S)	0.29	1.002
Chrysene [4]	218-01-9		46.7	1.88 (S)	0.28	1.002
Benzo[b]fluoranthene	205-99-2		4.73	1.93 (S)	0.20	1.004
Benzo[j,k]fluoranthenes		ND		2.06 (S)		
Benzo[e]pyrene	192-97-2	NDR	15.1	2.58 (S)	0.46	0.996
Benzo[a]pyrene	50-32-8	ND		2.48 (S)		
Perylene	198-55-0		41.7	2.69 (S)	0.19	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.64 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.53 (S)		
Benzo[ghi]perylene	191-24-2		4.20	1.52 (S)	0.16	1.003
2-Methylnaphthalene	91-57-6		35.4	4.94 (S)	0.88	1.008
1-Methylnaphthalene	90-12-0		30.7	5.47 (S)	0.97	1.040
C1-Naphthalenes			66.1	4.94 (S)		
Biphenyl	92-52-4	NDR	13.0	3.26 (S)	0.34	1.006
C1-Biphenyls			20.6	1.76 (S)		
C2-Biphenyls			60.0	2.60 (S)		
C2-Naphthalenes			160	8.26 (S)		
1,2-Dimethylnaphthalene	573-98-8		8.70	8.26 (S)	1.26	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		24.3	6.29 (S)	0.61	1.010
C3-Naphthalenes			418	6.12 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		121	6.21 (S)	0.82	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		71.7	6.04 (S)	0.88	1.224
C4-Naphthalenes			439	6.09 (S)		
C1-Acenaphthenes		ND		2.09 (S)		
C1-Fluorenes			48.7	5.94 (S)		
1,7-Dimethylfluorene	442-66-0		13.6	8.14 (S)	0.07	1.033
C2-Fluorenes			208	8.14 (S)		
C3-Fluorenes			257	10.1 (S)		
Dibenzothiophene	132-65-0		10.7	3.80 (S)	0.08	1.003
C1-Dibenzothiophenes			76.4	3.04 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		26.2	3.04 (S)	0.54	1.098
C2-Dibenzothiophenes			210	5.91 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	22.5	5.91 (S)	0.52	1.163
4,6-Dimethyldibenzothiophene	1207-12-1		39.1	4.77 (S)	0.11	1.153
C3-Dibenzothiophenes			134	3.84 (S)		
C4-Dibenzothiophenes			5.08	3.55 (S)		
3-Methylphenanthrene	832-71-3		51.4	4.16 (S)	0.69	1.088
2-Methylphenanthrene	2531-84-2		59.4	4.07 (S)	0.61	1.092
2-Methylanthracene	613-12-7	NDR	4.56	4.36 (S)	0.69	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		123	4.16 (S)	0.56	1.106
1-Methylphenanthrene	832-69-9		82.1	4.07 (S)	0.64	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	31.3	3.19 (S)	0.63	1.165
2,6-Dimethylphenanthrene	17980-16-4		19.3	3.29 (S)	0.28	1.171
1,7-Dimethylphenanthrene	483-87-4		94.0	3.40 (S)	0.32	1.192
1,8-Dimethylphenanthrene	7372-87-4		28.1	3.29 (S)	0.31	1.209
C3-Phenanthrenes/Anthracenes			366	4.96 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		16.5	4.96 (S)	0.60	1.292
Retene	483-65-8		366	16.2 (S)	1.34	1.301
C4-Phenanthrenes/Anthracenes			591	16.2 (S)		
C1-Fluoranthenes/Pyrenes			90.4	2.33 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		48.5	2.33 (S)	1.09	1.300
C2-Fluoranthenes/Pyrenes			88.5	1.71 (S)		
C3-Fluoranthenes/Pyrenes			26.0	3.12 (S)		
C4-Fluoranthenes/Pyrenes		ND		2.23 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			27.6	2.10 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		3.43	2.20 (S)		1.066
1-Methylchrysene	3351-28-8		4.71	2.01 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			7.14	2.86 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.86 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		3.60 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		4.17 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		6.33 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		6.33 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		5.39 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		66.7	6.09 (S)	0.02	1.375
Anthracene d-10			681	1.25 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		9290	3.33 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2550	4.03 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-31_Form1A_PH5H4270.D_SJ3667076.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-08 16-AUG-25
Sample Collection:
16-Aug-2025 10:35

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-31
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 16:41:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4270.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4260.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2080	51.9	0.09	0.611
2-Methylnaphthalene d-10		4040	2440	60.5	0.18	0.757
Biphenyl d-10		4010	2520	62.8		0.869
2,6-Dimethylnaphthalene d-12		4020	2600	64.6	0.64	0.896
Acenaphthylene d-8		4020	2650	65.9	0.15	0.961
Dibenzothiophene d-8		4010	2650	66.0	0.07	0.792
Phenanthrene d-10		4010	2980	74.4	0.13	0.808
Benzo[a]anthracene d-12		4000	3290	82.3	0.21	1.164
Chrysene d-12		3220	2640	82.0	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3380	84.6	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3250	83.2	0.17	0.961
Benzo[a]pyrene d-12		4010	3320	82.9	0.17	1.008
Perylene d-12		4000	3420	85.4	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3330	83.8	0.16	1.205
Benzo[ghi]perylene d-12		3980	3530	88.7	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-31_Form2_PH5H4270.D_SJ3667076.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-09 16-AUG-25
Sample Collection:
16-Aug-2025 11:40

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-32
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 17:30:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4271.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
		Cal. Ver. Data Filename:	PH5H4260.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		78.4	3.25 (S)	0.07	1.007
Acenaphthylene	208-96-8	ND		1.70 (S)		
Acenaphthene	83-32-9		41.5	3.75 (S)	1.07	1.047
2-Methylfluorene	1430-97-3		7.22	5.45 (S)	0.95	0.939
C2 Phenanthrenes/Anthracenes			217	6.16 (S)		
Fluorene	86-73-7		27.8	2.54 (S)	0.87	0.844
Phenanthrene	85-01-8		144	2.79 (S)	0.17	1.004
Anthracene	120-12-7		4.27	2.75 (S)	0.14	1.011
C1 Phenanthrenes/Anthracenes			203	3.94 (S)		
Fluoranthene	206-44-0		49.3	2.69 (S)	0.20	1.204
Pyrene	129-00-0		63.9	2.58 (S)	0.18	1.241
Benz[a]anthracene [3]	56-55-3		1.82	1.57 (S)	0.20	1.002
Chrysene [4]	218-01-9		29.8	1.74 (S)	0.31	1.002
Benzo[b]fluoranthene	205-99-2	ND		2.92 (S)		
Benzo[j,k]fluoranthenes		ND		3.10 (S)		
Benzo[e]pyrene	192-97-2	NDR	12.4	3.99 (S)	0.92	0.996
Benzo[a]pyrene	50-32-8	ND		3.85 (S)		
Perylene	198-55-0		31.4	4.23 (S)	0.20	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.43 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.59 (S)		
Benzo[ghi]perylene	191-24-2		4.80	2.45 (S)	0.11	1.002
2-Methylnaphthalene	91-57-6		33.4	2.53 (S)	0.88	1.008
1-Methylnaphthalene	90-12-0		25.5	2.80 (S)	0.88	1.039
C1-Naphthalenes			58.9	2.53 (S)		
Biphenyl	92-52-4		12.0	2.17 (S)	0.23	1.005
C1-Biphenyls			15.0	1.79 (S)		
C2-Biphenyls			39.1	1.44 (S)		
C2-Naphthalenes			112	5.28 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		5.28 (S)		

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		19.2	4.02 (S)	0.54	1.010
C3-Naphthalenes			247	5.85 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		68.4	5.93 (S)	0.84	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		45.7	5.77 (S)	0.83	1.225
C4-Naphthalenes			226	4.94 (S)		
C1-Acenaphthenes		ND		2.31 (S)		
C1-Fluorenes			29.3	5.45 (S)		
1,7-Dimethylfluorene	442-66-0	ND		8.04 (S)		
C2-Fluorenes			74.1	8.04 (S)		
C3-Fluorenes			50.6	5.36 (S)		
Dibenzothiophene	132-65-0	NDR	8.45	1.97 (S)	0.11	1.003
C1-Dibenzothiophenes			35.1	4.09 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		12.5	4.09 (S)	0.54	1.098
C2-Dibenzothiophenes			71.5	5.45 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		9.31	5.45 (S)	0.46	1.163
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	12.1	4.40 (S)	0.30	1.152
C3-Dibenzothiophenes			36.2	3.59 (S)		
C4-Dibenzothiophenes		ND		3.85 (S)		
3-Methylphenanthrene	832-71-3		32.1	4.03 (S)	0.64	1.088
2-Methylphenanthrene	2531-84-2		40.3	3.95 (S)	0.54	1.092
2-Methylanthracene	613-12-7	NDR	5.51	4.22 (S)	0.93	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		73.2	4.03 (S)	0.57	1.106
1-Methylphenanthrene	832-69-9		57.7	3.94 (S)	0.58	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	13.3	5.98 (S)	0.81	1.165
2,6-Dimethylphenanthrene	17980-16-4		9.19	6.16 (S)	0.36	1.171
1,7-Dimethylphenanthrene	483-87-4		35.7	6.36 (S)	0.30	1.193
1,8-Dimethylphenanthrene	7372-87-4		14.4	6.16 (S)	0.28	1.209
C3-Phenanthrenes/Anthracenes			96.5	4.51 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		7.22	4.51 (S)	0.47	1.293
Retene	483-65-8		213	8.79 (S)	1.34	1.302
C4-Phenanthrenes/Anthracenes			250	8.79 (S)		
C1-Fluoranthenes/Pyrenes			49.1	2.23 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		28.7	2.23 (S)	1.01	1.301
C2-Fluoranthenes/Pyrenes			40.0	2.58 (S)		
C3-Fluoranthenes/Pyrenes			7.61	2.42 (S)		
C4-Fluoranthenes/Pyrenes		ND		1.81 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			15.9	2.51 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		2.62 (S)		
1-Methylchrysene	3351-28-8		2.54	2.40 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		4.18 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		4.18 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		3.66 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		4.25 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		7.36 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		7.36 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		6.12 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		30.5	4.94 (S)	0.02	1.376
Anthracene d-10			1540	1.36 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		13400	1.75 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2410	3.66 (S)	0.20	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

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Report Filename: PAH_PAH_LO_LPAHF_L43619-32_Form1A_PH5H4271.D_SJ3667077.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-09 16-AUG-25
Sample Collection:
16-Aug-2025 11:40

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43619-32
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	20-Aug-2025	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Sep-2025 **Time:** 17:30:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4271.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4260.D
Concentration Units:	ng absolute		

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LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	2220	55.3	0.09	0.611
2-Methylnaphthalene d-10		4040	2610	64.6	0.18	0.757
Biphenyl d-10		4010	2730	68.2		0.869
2,6-Dimethylnaphthalene d-12		4020	2820	70.1	0.64	0.896
Acenaphthylene d-8		4020	2860	71.2	0.15	0.961
Dibenzothiophene d-8		4010	2900	72.3	0.07	0.792
Phenanthrene d-10		4010	3070	76.5	0.13	0.808
Benzo[a]anthracene d-12		4000	3330	83.3	0.20	1.164
Chrysene d-12		3220	2660	82.7	0.24	1.169
Benzo[b]fluoranthene d-12		3990	3360	84.3	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3190	81.5	0.17	0.961
Benzo[a]pyrene d-12		4010	3200	79.9	0.17	1.009
Perylene d-12		4000	3340	83.4	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	2980	75.2	0.16	1.205
Benzo[ghi]perylene d-12		3980	3220	80.9	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

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Report Filename: PAH_PAH_LO_LPAHF_L43619-32_Form2_PH5H4271.D_SJ3667077.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Dup 1 14-AUG-25
Sample Collection:
14-Aug-2025 15:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-33
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 10:58:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4263.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
		Cal. Ver. Data Filename:	PH5H4260.D

Concentration Units: ng/sample

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		65.3	2.29 (S)	0.06	1.006
Acenaphthylene	208-96-8	ND		3.42 (S)		
Acenaphthene	83-32-9		50.7	4.61 (S)	1.14	1.047
2-Methylfluorene	1430-97-3		99.5	7.14 (S)	1.02	0.939
C2 Phenanthrenes/Anthracenes			3770	5.08 (S)		
Fluorene	86-73-7		87.1	3.71 (S)	1.06	0.844
Phenanthrene	85-01-8		519	3.18 (S)	0.17	1.004
Anthracene	120-12-7	NDR	9.43	3.14 (S)	0.66	1.011
C1 Phenanthrenes/Anthracenes			2200	4.29 (S)		
Fluoranthene	206-44-0		140	2.75 (S)	0.18	1.204
Pyrene	129-00-0		137	2.64 (S)	0.17	1.240
Benz[a]anthracene [3]	56-55-3		13.9	2.71 (S)	0.20	1.002
Chrysene [4]	218-01-9		98.9	2.82 (S)	0.26	1.002
Benzo[b]fluoranthene	205-99-2		6.09	3.57 (S)	0.19	1.004
Benzo[j,k]fluoranthenes		ND		3.72 (S)		
Benzo[e]pyrene	192-97-2		21.2	4.81 (S)	0.20	0.996
Benzo[a]pyrene	50-32-8	ND		4.64 (S)		
Perylene	198-55-0	ND		5.04 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.84 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		3.47 (S)		
Benzo[ghi]perylene	191-24-2		4.35	3.29 (S)	0.16	1.002
2-Methylnaphthalene	91-57-6		202	3.90 (S)	0.89	1.009
1-Methylnaphthalene	90-12-0		216	4.32 (S)	0.83	1.040
C1-Naphthalenes			418	3.90 (S)		
Biphenyl	92-52-4		25.7	5.42 (S)	0.27	1.005
C1-Biphenyls			84.3	1.82 (S)		
C2-Biphenyls			191	2.44 (S)		
C2-Naphthalenes			2620	3.58 (S)		
1,2-Dimethylnaphthalene	573-98-8		176	3.58 (S)	1.09	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		461	2.73 (S)	0.62	1.011
C3-Naphthalenes			4930	8.43 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		1660	8.55 (S)	0.81	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		1060	8.31 (S)	0.90	1.224
C4-Naphthalenes			4380	8.68 (S)		
C1-Acenaphthenes			9.13	1.28 (S)		
C1-Fluorenes			565	7.14 (S)		
1,7-Dimethylfluorene	442-66-0		185	5.05 (S)	0.07	1.034
C2-Fluorenes			1740	5.05 (S)		
C3-Fluorenes			2310	7.37 (S)		
Dibenzothiophene	132-65-0	NDR	201	3.89 (S)	0.09	1.003
C1-Dibenzothiophenes			1260	5.37 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		373	5.37 (S)	0.62	1.094
C2-Dibenzothiophenes			2760	6.94 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		244	6.94 (S)	0.50	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		503	5.61 (S)	0.13	1.153
C3-Dibenzothiophenes			1920	7.39 (S)		
C4-Dibenzothiophenes			785	7.39 (S)		
3-Methylphenanthrene	832-71-3		452	4.38 (S)	0.56	1.088
2-Methylphenanthrene	2531-84-2		530	4.29 (S)	0.52	1.092
2-Methylanthracene	613-12-7	ND		4.59 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		712	4.38 (S)	0.54	1.106
1-Methylphenanthrene	832-69-9		508	4.29 (S)	0.60	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	226	4.93 (S)	0.79	1.165
2,6-Dimethylphenanthrene	17980-16-4		230	5.08 (S)	0.27	1.171
1,7-Dimethylphenanthrene	483-87-4		580	5.25 (S)	0.30	1.193
1,8-Dimethylphenanthrene	7372-87-4	NDR	140	5.08 (S)	0.25	1.209
C3-Phenanthrenes/Anthracenes			2900	5.18 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		135	5.18 (S)	0.59	1.292
Retene	483-65-8	NDR	203	13.4 (S)	0.16	1.304
C4-Phenanthrenes/Anthracenes			3740	13.4 (S)		
C1-Fluoranthenes/Pyrenes			202	4.46 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		79.5	4.46 (S)	0.98	1.301
C2-Fluoranthenes/Pyrenes			615	1.97 (S)		
C3-Fluoranthenes/Pyrenes			378	4.46 (S)		
C4-Fluoranthenes/Pyrenes			215	4.46 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			236	2.44 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		29.1	2.56 (S)		1.065
1-Methylchrysene	3351-28-8		33.6	2.34 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			259	4.63 (S)		
5,9-Dimethylchrysene	139493-40-6		62.9	4.63 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			62.2	4.38 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		4.63 (S)		
C1-Benzofluoranthenes/Benzopyrenes			37.2	7.82 (S)		
7-Methylbenzo[a]pyrene	63041-77-0		8.20	7.82 (S)		1.109
C2-Benzofluoranthenes/Benzopyrenes		ND		6.02 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		607	8.68 (S)	0.02	1.376
Anthracene d-10			9330	3.27 (S)	0.14	1.008
Fluoranthene d-10	93951-69-0		18700	3.02 (S)	0.15	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		1680	3.12 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

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Report Filename: PAH_PAH_LO_LPAHF_L43619-33_Form1A_PH5H4263.D_SJ3667069.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Dup 1 14-AUG-25
Sample Collection:
14-Aug-2025 15:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43619-33
Sample Receipt Date:	20-Aug-2025	**Sample Size:**	1 sample
Extraction Date:	24-Sep-2025	**Initial Calibration Date:**	09-Sep-2025
Analysis Date:	26-Sep-2025 **Time:** 10:58:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H4263.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H4249.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H4260.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1880	46.8	0.09	0.610
2-Methylnaphthalene d-10		4040	2180	53.9	0.18	0.757
Biphenyl d-10		4010	2310	57.6		0.869
2,6-Dimethylnaphthalene d-12		4020	2400	59.8	0.64	0.896
Acenaphthylene d-8		4020	2480	61.8	0.16	0.962
Dibenzothiophene d-8		4010	2700	67.2	0.07	0.792
Phenanthrene d-10		4010	3050	76.1	0.13	0.808
Benzo[a]anthracene d-12		4000	3400	84.9	0.21	1.164
Chrysene d-12		3220	2710	84.2	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3460	86.8	0.18	0.957
Benzo[k]fluoranthene d-12		3910	3290	84.2	0.17	0.961
Benzo[a]pyrene d-12		4010	3380	84.3	0.17	1.008
Perylene d-12		4000	3480	87.0	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3380	85.0	0.16	1.205
Benzo[ghi]perylene d-12		3980	3580	90.1	0.17	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43619-33_Form2_PH5H4263.D_SJ3667069.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4608	**Lab Sample I.D.:**	WG95248-101
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	N/A	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	25-Sep-2025 **Time:** 23:56:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4249.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		3.21	2.34 (S)	0.07	1.006
Acenaphthylene	208-96-8	ND		1.32 (S)		
Acenaphthene	83-32-9	ND		2.95 (S)		
2-Methylfluorene	1430-97-3	ND		2.90 (S)		
C2 Phenanthrenes/Anthracenes		ND		2.00 (S)		
Fluorene	86-73-7	ND		1.31 (S)		
Phenanthrene	85-01-8	ND		1.49 (S)		
Anthracene	120-12-7	ND		1.47 (S)		
C1 Phenanthrenes/Anthracenes		ND		1.69 (S)		
Fluoranthene	206-44-0	ND		0.610 (S)		
Pyrene	129-00-0		1.17	0.586 (S)	0.18	1.241
Benz[a]anthracene [3]	56-55-3	ND		0.435 (S)		
Chrysene [4]	218-01-9		0.696	0.458 (S)	0.29	1.003
Benzo[b]fluoranthene	205-99-2	ND		1.21 (S)		
Benzo[j,k]fluoranthenes		ND		1.28 (S)		
Benzo[e]pyrene	192-97-2	ND		1.71 (S)		
Benzo[a]pyrene	50-32-8	ND		1.65 (S)		
Perylene	198-55-0	ND		1.84 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.41 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.909 (S)		
Benzo[ghi]perylene	191-24-2	ND		0.805 (S)		
2-Methylnaphthalene	91-57-6		4.04	2.45 (S)	0.83	1.008
1-Methylnaphthalene	90-12-0		2.91	2.72 (S)	0.88	1.040
C1-Naphthalenes			6.94	2.45 (S)		
Biphenyl	92-52-4	ND		1.61 (S)		
C1-Biphenyls			7.12	1.98 (S)		
C2-Biphenyls			30.4	2.16 (S)		
C2-Naphthalenes		ND		4.11 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		4.11 (S)		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0	ND		3.13 (S)		
C3-Naphthalenes		ND		2.52 (S)		
2,3,6-Trimethylnaphthalene	829-26-5	ND		2.56 (S)		
2,3,5-Trimethylnaphthalene	2245-38-7	ND		2.49 (S)		
C4-Naphthalenes		ND		1.56 (S)		
C1-Acenaphthenes		ND		1.77 (S)		
C1-Fluorenes		ND		2.90 (S)		
1,7-Dimethylfluorene	442-66-0	ND		2.00 (S)		
C2-Fluorenes		ND		2.00 (S)		
C3-Fluorenes		ND		6.44 (S)		
Dibenzothiophene	132-65-0	ND		0.851 (S)		
C1-Dibenzothiophenes		ND		1.78 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		1.78 (S)		
C2-Dibenzothiophenes		ND		0.994 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		0.994 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		0.803 (S)		
C3-Dibenzothiophenes		ND		1.38 (S)		
C4-Dibenzothiophenes		ND		2.37 (S)		
3-Methylphenanthrene	832-71-3	ND		1.73 (S)		
2-Methylphenanthrene	2531-84-2	ND		1.69 (S)		
2-Methylanthracene	613-12-7	ND		1.81 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4	ND		1.73 (S)		
1-Methylphenanthrene	832-69-9	ND		1.69 (S)		
3,6-Dimethylphenanthrene	1576-67-6	ND		1.94 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		2.00 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		2.07 (S)		
1,8-Dimethylphenanthrene	7372-87-4	ND		2.00 (S)		
C3-Phenanthrenes/Anthracenes		ND		2.42 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		2.42 (S)		
Retene	483-65-8	ND		3.96 (S)		
C4-Phenanthrenes/Anthracenes		ND		3.96 (S)		
C1-Fluoranthenes/Pyrenes		ND		1.15 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		1.15 (S)		
C2-Fluoranthenes/Pyrenes		ND		0.988 (S)		
C3-Fluoranthenes/Pyrenes		ND		1.04 (S)		
C4-Fluoranthenes/Pyrenes		ND		1.87 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.671 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		0.702 (S)		
1-Methylchrysene	3351-28-8	ND		0.642 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.31 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.31 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.27 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.22 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.73 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.73 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		3.18 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		1.56 (S)		
Anthracene d-10		ND		1.92 (S)		
Fluoranthene d-10	93951-69-0		4.46	0.971 (S)	0.12	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1	ND		1.73 (S)		

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_WG95248-101_Form1A_PH5H4249.D_SJ3667058.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4608	**Lab Sample I.D.:**	WG95248-101
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	N/A	**Initial Calibration Date:**	09-Sep-2025
Extraction Date:	24-Sep-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	25-Sep-2025 **Time:** 23:56:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H4249.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H4249.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H4245.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1860	46.4	0.09	0.610
2-Methylnaphthalene d-10		4040	2030	50.2	0.18	0.756
Biphenyl d-10		4010	2050	51.0		0.869
2,6-Dimethylnaphthalene d-12		4020	2080	51.7	0.63	0.896
Acenaphthylene d-8		4020	2030	50.5	0.15	0.961
Dibenzothiophene d-8		4010	2100	52.5	0.07	0.792
Phenanthrene d-10		4010	2270	56.6	0.13	0.808
Benzo[a]anthracene d-12		4000	2900	72.6	0.21	1.164
Chrysene d-12		3220	2570	79.9	0.23	1.169
Benzo[b]fluoranthene d-12		3990	3020	75.8	0.18	0.957
Benzo[k]fluoranthene d-12		3910	2990	76.5	0.17	0.961
Benzo[a]pyrene d-12		4010	2940	73.3	0.17	1.008
Perylene d-12		4000	3000	75.0	0.21	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	2930	73.8	0.16	1.205
Benzo[ghi]perylene d-12		3980	3160	79.4	0.17	1.237

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_WG95248-101_Form2_PH5H4249.D_SJ3667058.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 8A

POLYAROMATIC HYDROCARBON ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4608 **OPR Data Filename:** **PH5H4246.D**

Matrix: SPMD **Lab Sample I.D.:** WG95248-102

Extraction Date: 24-Sep-2025 **Analysis Date:** 25-Sep-2025 **Time:** 21:29:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON 100 uL EXTRACT.

COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
Naphthalene	91-20-3		0.06	39500	39700	27700 - 51400	100
Acenaphthylene	208-96-8		0.18	39700	39400	27800 - 55600	99.2
Acenaphthene	83-32-9		1.08	39700	42800	27800 - 51600	108
2-Methylfluorene	1430-97-3		1.10	40000	43400	20000 - 60000	108
Fluorene	86-73-7		0.92	39700	37300	23800 - 55600	94.1
Phenanthrene	85-01-8		0.17	40400	42100	28300 - 52600	104
Anthracene	120-12-7		0.17	40100	42900	28100 - 52100	107
Fluoranthene	206-44-0		0.18	39400	48500	27600 - 51300	123
Pyrene	129-00-0		0.19	39600	49300	27700 - 51500	124
Benz[a]anthracene	56-55-3		0.24	40200	42400	28100 - 52300	105
Chrysene	218-01-9		0.27	40400	41800	28300 - 52500	103
Benzo[b]fluoranthene	205-99-2		0.21	40000	41600	28000 - 52100	104
Benzo[j,k]fluoranthenes			0.21	40300	43400	28200 - 52400	108
Benzo[e]pyrene	192-97-2		0.21	40000	44600	28000 - 52000	112
Benzo[a]pyrene	50-32-8		0.21	40200	43000	28100 - 52200	107
Perylene	198-55-0		0.21	40000	41700	28000 - 52000	104
Dibenz[a,h]anthracene	53-70-3		0.11	40400	42400	28300 - 52500	105
Indeno[1,2,3-cd]pyrene	193-39-5		0.14	40400	42000	28300 - 52500	104
Benzo[ghi]perylene	191-24-2		0.14	40100	42000	28100 - 52100	105
2-Methylnaphthalene	91-57-6		0.83	40000	41200	28000 - 52000	103
1-Methylnaphthalene	90-12-0		0.88	40100	41900	28000 - 52100	105
Biphenyl	92-52-4		0.25	39800	41500	27900 - 51800	104
1,2-Dimethylnaphthalene	573-98-8		1.14	39900	42900	23900 - 55900	108
2,6-Dimethylnaphthalene	581-42-0		0.60	40100	42300	28100 - 52200	105
2,3,6-Trimethylnaphthalene	829-26-5		0.78	39900	46700	20000 - 59900	117
2,3,5-Trimethylnaphthalene	2245-38-7		0.79	40000	47200	20000 - 60100	118
1,7-Dimethylfluorene	442-66-0		0.07	39800	47500	19900 - 59700	119
Dibenzothiophene	132-65-0		0.07	40000	39200	24000 - 55900	98.1
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		0.67	40200	42100	20100 - 60200	105
4,6-Dimethyldibenzothiophene	1207-12-1		0.13	40000	48600	20000 - 59900	122
2-Methylphenanthrene	2531-84-2		0.55	39800	47000	19900 - 59700	118
2-Methylanthracene	613-12-7		0.47	40000	46300	20000 - 60000	116
1-Methylphenanthrene	832-69-9		0.57	40000	48400	20000 - 60100	121
3,6-Dimethylphenanthrene	1576-67-6		0.30	40200	51800	20100 - 60200	129
1,7-Dimethylphenanthrene	483-87-4		0.28	39000	51000	19500 - 58500	131

COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
1,2,6-Trimethylphenanthrene	30436-55-6		0.50	40000	56800	20000 - 60000	142
Retene	483-65-8		1.43	40000	57900	20000 - 60000	145
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		1.01	40300	54600	20100 - 60400	136
5/6-Methylchrysene	3697-24-3/1705-85-7			40000	44000	20000 - 60100	110
1-Methylchrysene	3351-28-8			39900	43100	19900 - 59800	108
5,9-Dimethylchrysene	139493-40-6			40200	44700	20100 - 60200	111
7-Methylbenzo[a]pyrene	63041-77-0			40000	44100	20000 - 59900	110
1,4,6,7-Tetramethylnaphthalene	13764-18-6		0.02	39900	50800	19900 - 79800	127
Anthracene d-10			0.12	40800	36100	28600 - 53000	88.4
Fluoranthene d-10	93951-69-0		0.15	39700	37700	27800 - 51600	94.9
Dibenzo[a,h]anthracene d-14	13250-98-1		0.22	38300	37600	26800 - 49800	98.1

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Pest8A.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62; Report Filename: PAH_PAH_LO_LPAHF_WG95248-102_Form8A_SJ3667056.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 8B

POLYAROMATIC HYDROCARBON ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4608 **OPR Data Filename:** **PH5H4246.D**

Matrix: SPMD **Lab Sample I.D.:** WG95248-102

Extraction Date: 24-Sep-2025 **Analysis Date:** 25-Sep-2025 **Time:** 21:29:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON 100 uL EXTRACT.

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
Naphthalene d-8	1146-65-2		0.09	40100	17600	6020-52100	43.8
2-Methylnaphthalene d-10	7297-45-2		0.18	40400	19400	8080-52500	47.9
Biphenyl d-10	1486-01-7			40100	19800	6020-52100	49.4
2,6-Dimethylnaphthalene d-12	350820-12-1		0.63	40200	20200	8040-52300	50.3
Acenaphthylene d-8	93951-97-4		0.15	40200	20400	8040-52300	50.6
Dibenzothiophene d-8	33262-29-2		0.07	40100	23900	12000-52100	59.7
Phenanthrene d-10	1517-22-2		0.13	40100	25100	12000-52100	62.6
Benzo[a]anthracene d-12	1718-53-2		0.21	40000	30400	12000-52000	75.9
Chrysene d-12	1719-03-5		0.24	32200	25300	9650-41800	78.6
Benzo[b]fluoranthene d-12	93951-98-5		0.18	39900	31400	12000-51900	78.8
Benzo[k]fluoranthene d-12	93952-01-3		0.17	39100	30600	11700-50800	78.2
Benzo[a]pyrene d-12	63466-71-7		0.17	40100	30800	12000-52100	76.9
Perylene d-12	1520-96-3		0.21	40000	31600	12000-52000	78.9
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		0.16	39700	30600	11900-51600	77.2
Benzo[ghi]perylene d-12	93951-66-7		0.17	39800	32400	11900-51700	81.4

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Brian Watson

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Pest8B.xsl; Created: 08-Oct-2025 16:37:08; Application: XMLTransformer-1.18.62; Report Filename: PAH_PAH_LO_LPAHF_WG95248-102_Form8B_SJ3667056.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3A

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H3983.D

CS2 Data Filename: PH5H3984.D

CS3 Data Filename: PH5H3985.D

CS4 Data Filename: PH5H3987.D

CS5 Data Filename: PH5H3986.D

CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
COMPOUND	**LAB FLAG 1**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
Naphthalene			1.07	1.11	1.17	1.16	1.20		1.14	4.47
Acenaphthylene			1.13	1.17	1.22	1.23	1.29		1.21	5.06
Acenaphthene			0.61	0.64	0.68	0.68	0.70		0.66	5.39
2-Methylfluorene			0.47	0.52	0.55	0.55	0.58		0.53	8.06
Fluorene			0.70	0.76	0.82	0.80	0.86		0.79	7.82
Phenanthrene			1.09	1.15	1.22	1.23	1.28		1.19	6.05
Anthracene			1.12	1.16	1.22	1.25	1.30		1.21	5.90
Fluoranthene			1.31	1.31	1.36	1.45	1.47		1.38	5.61
Pyrene			1.35	1.39	1.42	1.50	1.52		1.44	5.19
Benz[a]anthracene			1.08	1.14	1.18	1.22	1.26		1.18	5.81
Chrysene			1.03	1.08	1.14	1.18	1.21		1.13	6.60
Benzo[b]fluoranthene			1.25	1.33	1.35	1.38	1.39		1.34	4.11
Benzo[j,k]fluoranthenes			1.10	1.16	1.25	1.30	1.33		1.23	7.72
Benzo[e]pyrene			1.08	1.11	1.19	1.24	1.24		1.17	6.16
Benzo[a]pyrene			1.09	1.16	1.22	1.30	1.31		1.22	7.78
Perylene			1.02	1.09	1.15	1.21	1.24		1.14	7.89
Dibenz[a,h]anthracene			1.03	1.09	1.17	1.24	1.28		1.16	8.87
Indeno[1,2,3-cd]pyrene			1.09	1.15	1.20	1.24	1.26		1.19	5.70
Benzo[ghi]perylene			1.15	1.21	1.30	1.33	1.36		1.27	6.74
2-Methylnaphthalene			1.10	1.15	1.20	1.22	1.26		1.19	5.32
1-Methylnaphthalene			0.99	1.03	1.09	1.10	1.14		1.07	5.74
Biphenyl			1.00	1.04	1.09	1.11	1.15		1.08	5.59
C1-Biphenyls			1.00	1.04	1.09	1.11	1.15		1.08	5.59
C2-Biphenyls			1.00	1.04	1.09	1.11	1.15		1.08	5.59
1,2-Dimethylnaphthalene			0.82	0.86	0.87	0.90	0.92		0.87	4.47
2,6-Dimethylnaphthalene			1.05	1.10	1.16	1.19	1.22		1.15	6.03
C3-Naphthalenes			1.02	1.05	1.08	1.16	1.16		1.09	5.90
2,3,6-Trimethylnaphthalene			1.01	1.06	1.06	1.13	1.14		1.08	5.12
2,3,5-Trimethylnaphthalene			1.02	1.05	1.10	1.19	1.18		1.11	6.76
C4-Naphthalenes			1.01	1.03	1.02	1.14	1.12		1.06	5.64
C1-Acenaphthenes			0.61	0.64	0.68	0.68	0.70		0.66	5.39
C1-Fluorenes			0.47	0.52	0.55	0.55	0.58		0.53	8.06
1,7-Dimethylfluorene			0.47	0.48	0.52	0.54	0.56		0.51	7.25
C2-Fluorenes			0.47	0.48	0.52	0.54	0.56		0.51	7.25
C3-Fluorenes			0.47	0.48	0.52	0.54	0.56		0.51	7.25
Dibenzothiophene			1.05	1.09	1.12	1.10	1.16		1.10	3.71
2/3-Methyldibenzothiophenes			0.79	0.82	0.85	0.88	0.90		0.85	5.05
C2-Dibenzothiophenes			0.57	0.58	0.60	0.66	0.66		0.61	7.00

COMPOUND	LAB FLAG 1	RELATIVE RESPONSE (RR) CS0	CS1	CS2	CS3	CS4	CS5	CS6	MEAN RR	CV (%RSD)[2]
2,4-Dimethyldibenzothiophene			0.57	0.58	0.60	0.66	0.66		0.61	7.00
4,6-Dimethyldibenzothiophene			0.72	0.72	0.76	0.80	0.81		0.76	5.57
C3-Dibenzothiophenes			0.57	0.58	0.60	0.66	0.66		0.61	7.00
C4-Dibenzothiophenes			0.57	0.58	0.60	0.66	0.66		0.61	7.00
3-Methylphenanthrene			0.79	0.82	0.87	0.91	0.95		0.87	7.50
2-Methylphenanthrene			0.80	0.84	0.88	0.94	0.97		0.88	7.62
2-Methylanthracene			0.74	0.78	0.83	0.87	0.91		0.83	8.44
9/4-Methylphenanthrene			0.79	0.82	0.87	0.91	0.95		0.87	7.50
1-Methylphenanthrene			0.82	0.84	0.89	0.93	0.96		0.88	6.63
3,6-Dimethylphenanthrene			0.70	0.74	0.76	0.82	0.83		0.77	7.05
2,6-Dimethylphenanthrene			0.68	0.71	0.74	0.79	0.81		0.75	7.05
1,7-Dimethylphenanthrene			0.67	0.68	0.72	0.77	0.78		0.72	7.05
1,8-Dimethylphenanthrene			0.68	0.71	0.74	0.79	0.81		0.75	7.05
C3-Phenanthrenes/Anthracenes			0.66	0.70	0.73	0.78	0.79		0.73	7.49
1,2,6-Trimethylphenanthrene			0.66	0.70	0.73	0.78	0.79		0.73	7.49
Retene			0.27	0.26	0.27	0.31	0.31		0.28	7.38
C4-Phenanthrenes/Anthracenes			0.27	0.26	0.27	0.31	0.31		0.28	7.38
3-Methylfluoranthene/Benzo[a]fluorene			0.76	0.80	0.84	0.92	0.94		0.85	8.95
C2-Fluoranthenes/Pyrenes			0.76	0.80	0.84	0.92	0.94		0.85	8.95
C3-Fluoranthenes/Pyrenes			0.76	0.80	0.84	0.92	0.94		0.85	8.95
C4-Fluoranthenes/Pyrenes			0.76	0.80	0.84	0.92	0.94		0.85	8.95
C1-Benzo[a]anthracenes/Chrysenes			0.73	0.75	0.82	0.86	0.88		0.81	8.09
5/6-Methylchrysene			0.71	0.72	0.79	0.81	0.84		0.77	7.49
1-Methylchrysene			0.76	0.78	0.86	0.91	0.93		0.85	8.62
C2-Benzo[a]anthracenes/Chrysenes			0.63	0.64	0.68	0.72	0.75		0.68	7.13
5,9-Dimethylchrysene			0.63	0.64	0.68	0.72	0.75		0.68	7.13
C3-Benzo[a]anthracenes/Chrysenes			0.63	0.64	0.68	0.72	0.75		0.68	7.13
C4-Benzo[a]anthracenes/Chrysenes			0.63	0.64	0.68	0.72	0.75		0.68	7.13
C1-Benzofluoranthenes/Benzopyrenes			0.79	0.83	0.90	0.95	0.98		0.89	9.19
7-Methylbenzo[a]pyrene			0.79	0.83	0.90	0.95	0.98		0.89	9.19
C2-Benzofluoranthenes/Benzopyrenes			0.79	0.83	0.90	0.95	0.98		0.89	9.19
1,4,6,7-Tetramethylnaphthalene			1.01	1.03	1.02	1.14	1.12		1.06	5.64
Anthracene d-10			1.09	1.09	1.10	1.09	1.11		1.10	0.91
Fluoranthene d-10			0.98	1.00	1.01	0.99	1.01		1.00	1.46
Dibenzo[a,h]anthracene d-14			0.91	0.91	0.92	0.94	0.94		0.92	1.71

(1) Where applicable, custom lab flags have been used on this report.
(2) QC limit is 20% for native compounds with a labeled analog, 35% for those without a labeled analog.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

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Report Filename: GENERIC-SPECS_PAH_LO_09-Sep-2025_PH5H__Form3A_GS117409.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3B

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H3983.D

CS2 Data Filename: PH5H3984.D

CS3 Data Filename: PH5H3985.D

CS4 Data Filename: PH5H3987.D

CS5 Data Filename: PH5H3986.D

CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)							
LABELED COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
Naphthalene d-8			1.62	1.61	1.69	1.65	1.65		1.64	1.88
2-Methylnaphthalene d-10			1.06	1.05	1.08	1.06	1.06		1.06	1.13
Biphenyl d-10			1.42	1.41	1.43	1.41	1.42		1.42	0.66
2,6-Dimethylnaphthalene d-12			1.00	0.99	1.00	0.98	0.99		0.99	0.92
Acenaphthylene d-8			1.76	1.74	1.76	1.77	1.77		1.76	0.71
Dibenzothiophene d-8			0.84	0.86	0.87	0.85	0.88		0.86	1.73
Phenanthrene d-10			0.83	0.85	0.86	0.84	0.85		0.85	1.40
Benzo[a]anthracene d-12			1.03	1.00	0.99	1.01	1.01		1.01	1.39
Chrysene d-12			1.03	1.01	1.00	1.03	1.03		1.02	1.37
Benzo[b]fluoranthene d-12			1.00	1.00	1.00	0.99	1.01		1.00	0.63
Benzo[k]fluoranthene d-12			1.07	1.05	1.06	1.07	1.09		1.07	1.17
Benzo[a]pyrene d-12			1.02	1.01	1.02	1.00	1.04		1.02	1.44
Perylene d-12			1.04	1.03	1.03	1.03	1.05		1.03	0.61
Indeno[1,2,3-cd]pyrene d-12			1.10	1.08	1.09	1.07	1.13		1.09	2.00
Benzo[ghi]perylene d-12			1.02	1.00	1.00	1.00	1.04		1.01	1.80

(1) Where applicable, custom lab flags have been used on this report.
(2) QC limit is 35% for labeled compounds.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

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Report Filename: GENERIC-SPECS_PAH_LO_09-Sep-2025_PH5H__Form3B_GS117409.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3C

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H3983.D

CS2 Data Filename: PH5H3984.D

CS3 Data Filename: PH5H3985.D

CS4 Data Filename: PH5H3987.D

CS5 Data Filename: PH5H3986.D

CS6 Data Filename: N/A

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
Naphthalene		128,102		0.08	0.08	0.07	0.07	0.07	
Acenaphthylene		152,151		0.19	0.20	0.20	0.20	0.20	
Acenaphthene		154,153		1.14	1.17	1.14	1.14	1.15	
2-Methylfluorene		180,165		1.24	1.20	1.21	1.20	1.21	
Fluorene		166,165		0.99	1.00	0.98	0.98	0.98	
Phenanthrene		178,176		0.19	0.19	0.18	0.18	0.18	
Anthracene		178,176		0.18	0.19	0.18	0.18	0.18	
Fluoranthene		202,200		0.20	0.20	0.19	0.20	0.19	
Pyrene		202,200		0.19	0.19	0.20	0.20	0.20	
Benz[a]anthracene		228,226		0.26	0.26	0.25	0.26	0.26	
Chrysene		228,226		0.29	0.28	0.28	0.29	0.28	
Benzo[b]fluoranthene		252,253		0.22	0.21	0.21	0.21	0.21	
Benzo[j,k]fluoranthenes		252,253		0.23	0.22	0.21	0.21	0.21	
Benzo[e]pyrene		252,253		0.21	0.21	0.21	0.21	0.21	
Benzo[a]pyrene		252,253		0.20	0.20	0.21	0.21	0.21	
Perylene		252,253		0.23	0.21	0.21	0.21	0.21	
Dibenz[a,h]anthracene		278,139		0.14	0.13	0.14	0.14	0.14	
Indeno[1,2,3-cd]pyrene		276,138		0.23	0.20	0.17	0.17	0.17	
Benzo[ghi]perylene		276,138		0.21	0.18	0.18	0.19	0.19	
2-Methylnaphthalene		142,141		0.90	0.89	0.89	0.90	0.90	
1-Methylnaphthalene		142,141		0.93	0.94	0.93	0.93	0.94	
Biphenyl		154,152		0.27	0.27	0.27	0.27	0.27	
1,2-Dimethylnaphthalene		156,141		1.20	1.24	1.24	1.24	1.25	
2,6-Dimethylnaphthalene		156,141		0.67	0.66	0.66	0.65	0.65	
2,3,6-Trimethylnaphthalene		170,155		0.82	0.84	0.85	0.86	0.85	
2,3,5-Trimethylnaphthalene		170,155		0.88	0.88	0.86	0.84	0.86	
1,7-Dimethylfluorene		194,177		0.08	0.08	0.08	0.08	0.08	
Dibenzothiophene		184,152		0.09	0.08	0.08	0.08	0.08	
2/3-Methyldibenzothiophenes		198,197		0.71	0.71	0.71	0.71	0.71	
2,4-Dimethyldibenzothiophene		212,197		0.52	0.50	0.48	0.47	0.47	
4,6-Dimethyldibenzothiophene		212,197		0.15	0.17	0.15	0.14	0.15	
3-Methylphenanthrene		192,191							
2-Methylphenanthrene		192,191		0.59	0.58	0.58	0.59	0.59	
2-Methylanthracene		192,191		0.51	0.50	0.50	0.51	0.50	
9/4-Methylphenanthrene		192,191							
1-Methylphenanthrene		192,191		0.58	0.61	0.60	0.60	0.60	
3,6-Dimethylphenanthrene		206,191		0.35	0.34	0.33	0.32	0.33	
2,6-Dimethylphenanthrene		206,191							
1,7-Dimethylphenanthrene		206,191		0.33	0.33	0.31	0.31	0.31	

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
1,8-Dimethylphenanthrene		**206,191**							
1,2,6-Trimethylphenanthrene		**220,205**		0.56	0.54	0.54	0.54	0.55	
Retene		**234,219**		1.55	1.52	1.60	1.52	1.54	
3-Methylfluoranthene/Benzo[a]fluorene		**216,215**		1.10	1.05	1.07	1.06	1.07	
5/6-Methylchrysene		**242**							
1-Methylchrysene		**242**							
5,9-Dimethylchrysene		**256**							
7-Methylbenzo[a]pyrene		**266**							
1,4,6,7-Tetramethylnaphthalene		**184,139**		0.03	0.03	0.03	0.03	0.03	
Anthracene d-10		**188,184**		0.13	0.13	0.13	0.13	0.13	
Fluoranthene d-10		**212,208**		0.16	0.16	0.16	0.16	0.16	
Dibenzo[a,h]anthracene d-14		**292,288**		0.22	0.23	0.22	0.23	0.23	

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

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Report Filename: GENERIC-SPECS_PAH_LO_09-Sep-2025_PH5H__Form3C_GS117409.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3D

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 09-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H3983.D

CS2 Data Filename: PH5H3984.D

CS3 Data Filename: PH5H3985.D

CS4 Data Filename: PH5H3987.D

CS5 Data Filename: PH5H3986.D

CS6 Data Filename: N/A

LABELED COMPOUND	LAB FLAG[1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
Naphthalene d-8		**136,134**		0.09	0.09	0.09	0.09	0.09	
2-Methylnaphthalene d-10		**152,151**		0.19	0.19	0.19	0.19	0.19	
Biphenyl d-10		**164**							
2,6-Dimethylnaphthalene d-12		**168,150**		0.69	0.69	0.68	0.69	0.69	
Acenaphthylene d-8		**160,158**		0.16	0.16	0.16	0.16	0.16	
Dibenzothiophene d-8		**192,160**		0.08	0.08	0.08	0.08	0.08	
Phenanthrene d-10		**188,184**		0.14	0.14	0.14	0.14	0.14	
Benzo[a]anthracene d-12		**240,236**		0.22	0.22	0.22	0.22	0.22	
Chrysene d-12		**240,236**		0.26	0.26	0.26	0.25	0.26	
Benzo[b]fluoranthene d-12		**264,260**		0.19	0.19	0.19	0.19	0.19	
Benzo[k]fluoranthene d-12		**264,260**		0.18	0.19	0.19	0.19	0.19	
Benzo[a]pyrene d-12		**264,260**		0.19	0.19	0.19	0.19	0.19	
Perylene d-12		**264,260**		0.23	0.23	0.23	0.23	0.23	
Indeno[1,2,3-cd]pyrene d-12		**288,284**		0.17	0.17	0.17	0.17	0.17	
Benzo[ghi]perylene d-12		**288,284**		0.19	0.19	0.19	0.19	0.19	

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

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Report Filename: GENERIC-SPECS_PAH_LO_09-Sep-2025_PH5H__Form3D_GS117409.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4A

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	09-Sep-2025	**VER Data Filename:**	PH5H4245.D
Instrument ID:	LR GC/MS	**Analysis Date:**	25-Sep-2025
GC Column ID:	RTX5	**Analysis Time:**	20:40:00

COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene	91-20-3		128,102	0.07	0.06-0.08	2050	1480-2470
Acenaphthylene	208-96-8		152,151	0.19	0.15-0.23	2000	1490-2480
Acenaphthene	83-32-9		154,153	1.09	0.87-1.31	2140	1490-2480
2-Methylfluorene	1430-97-3		180,165	1.11	0.89-1.33	2190	1500-2500
Fluorene	86-73-7		166,165	0.93	0.74-1.12	2040	1490-2480
Phenanthrene	85-01-8		178,176	0.17	0.14-0.20	2110	1520-2530
Anthracene	120-12-7		178,176	0.17	0.14-0.20	2060	1500-2510
Fluoranthene	206-44-0		202,200	0.18	0.14-0.22	2120	1480-2470
Pyrene	129-00-0		202,200	0.18	0.14-0.22	2170	1490-2480
Benz[a]anthracene	56-55-3		228,226	0.24	0.19-0.29	2100	1510-2510
Chrysene	218-01-9		228,226	0.27	0.22-0.32	2110	1510-2520
Benzo[b]fluoranthene	205-99-2		252,253	0.21	0.17-0.25	2050	1500-2500
Benzo[j,k]fluoranthenes			252,253	0.21	0.17-0.25	2180	1510-2520
Benzo[e]pyrene	192-97-2		252,253	0.21	0.17-0.25	2150	1500-2500
Benzo[a]pyrene	50-32-8		252,253	0.21	0.17-0.25	2160	1510-2510
Perylene	198-55-0		252,253	0.21	0.17-0.25	2130	1500-2500
Dibenz[a,h]anthracene	53-70-3		278,139	0.11	0.07-0.15	2110	1510-2520
Indeno[1,2,3-cd]pyrene	193-39-5		276,138	0.14	0.09-0.19	2110	1520-2530
Benzo[ghi]perylene	191-24-2		276,138	0.15	0.10-0.20	2110	1500-2510
2-Methylnaphthalene	91-57-6		142,141	0.84	0.67-1.01	2070	1500-2500
1-Methylnaphthalene	90-12-0		142,141	0.86	0.69-1.03	2100	1500-2500
Biphenyl	92-52-4		154,152	0.26	0.21-0.31	2070	1490-2490
1,2-Dimethylnaphthalene	573-98-8		156,141	1.14	0.91-1.37	2110	1500-2490
2,6-Dimethylnaphthalene	581-42-0		156,141	0.61	0.49-0.73	2120	1510-2510
2,3,6-Trimethylnaphthalene	829-26-5		170,155	0.78	0.62-0.94	2170	1500-2490
2,3,5-Trimethylnaphthalene	2245-38-7		170,155	0.78	0.62-0.94	2240	1500-2500
1,7-Dimethylfluorene	442-66-0		194,177	0.07	0.06-0.08	2240	1490-2490
Dibenzothiophene	132-65-0		184,152	0.07	0.06-0.08	2000	1500-2500
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		198,197	0.66	0.53-0.79	2130	1510-2510
2,4-Dimethyldibenzothiophene	31317-18-7		212,197	0.43	0.34-0.52	2280	1500-2500
4,6-Dimethyldibenzothiophene	1207-12-1		212,197	0.13	0.10-0.16	2230	1500-2500
2-Methylphenanthrene	2531-84-2		192,191	0.55	0.44-0.66	2200	1490-2490
2-Methylanthracene	613-12-7		192,191	0.47	0.38-0.56	2170	1500-2500
1-Methylphenanthrene	832-69-9		192,191	0.57	0.46-0.68	2230	1500-2500
3,6-Dimethylphenanthrene	1576-67-6		206,191	0.30	0.24-0.36	2280	1510-2510
1,7-Dimethylphenanthrene	483-87-4		206,191	0.28	0.22-0.34	2200	1460-2440
1,2,6-Trimethylphenanthrene	30436-55-6		220,205	0.51	0.41-0.61	2340	1500-2500
Retene	483-65-8		234,219	1.43	1.14-1.72	2360	1500-2500
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		216,215	1.01	0.81-1.21	2280	1510-2520
5/6-Methylchrysene	3697-24-3/1705-85-7		242	0	N/A	2160	1500-2500
1-Methylchrysene	3351-28-8		242	0	N/A	2120	1500-2490
5,9-Dimethylchrysene	139493-40-6		256	0	N/A	2200	1510-2510
7-Methylbenzo[a]pyrene	63041-77-0		266	0	N/A	2210	1500-2500
1,4,6,7-Tetramethylnaphthalene	13764-18-6		184,139	0.02	0.02-0.02	2270	1500-2490
Anthracene d-10			188,184	0.12	0.10-0.14	1930	1490-2490
Fluoranthene d-10	93951-69-0		212,208	0.15	0.12-0.18	1970	1490-2490

Dibenzo[a,h]anthracene d-14	13250-98-1	292,288	0.20	0.13-0.27	1950	1440-2400

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

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Report Filename: GENERIC-SPECS_PAH_LO_PH5H4245.D__Form4A_SJ3666518.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4B

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	09-Sep-2025	**VER Data Filename:**	PH5H4245.D
Instrument ID:	LR GC/MS	**Analysis Date:**	25-Sep-2025
GC Column ID:	RTX5	**Analysis Time:**	20:40:00

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene d-8	1146-65-2		136,134	0.09	0.07-0.11	1860	1500-2510
2-Methylnaphthalene d-10	7297-45-2		152,151	0.18	0.14-0.22	1970	1520-2530
Biphenyl d-10	1486-01-7		164	0	N/A	1960	1500-2510
2,6-Dimethylnaphthalene d-12	350820-12-1		168,150	0.63	0.50-0.76	1970	1510-2510
Acenaphthylene d-8	93951-97-4		160,158	0.15	0.12-0.18	1940	1510-2510
Dibenzothiophene d-8	33262-29-2		192,160	0.07	0.06-0.08	2010	1500-2510
Phenanthrene d-10	1517-22-2		188,184	0.13	0.10-0.16	1930	1500-2510
Benzo[a]anthracene d-12	1718-53-2		240,236	0.20	0.16-0.24	2030	1500-2500
Chrysene d-12	1719-03-5		240,236	0.23	0.18-0.28	1640	1210-2010
Benzo[b]fluoranthene d-12	93951-98-5		264,260	0.18	0.14-0.22	2000	1500-2490
Benzo[k]fluoranthene d-12	93952-01-3		264,260	0.17	0.14-0.20	1930	1470-2440
Benzo[a]pyrene d-12	63466-71-7		264,260	0.17	0.14-0.20	1990	1500-2510
Perylene d-12	1520-96-3		264,260	0.21	0.17-0.25	1990	1500-2500
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		288,284	0.16	0.10-0.22	2020	1490-2480
Benzo[ghi]perylene d-12	93951-66-7		288,284	0.17	0.11-0.23	2050	1490-2490

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

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Report Filename: GENERIC-SPECS_PAH_LO_PH5H4245.D__Form4B_SJ3666518.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4A

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	09-Sep-2025	**VER Data Filename:**	PH5H4260.D
Instrument ID:	LR GC/MS	**Analysis Date:**	26-Sep-2025
GC Column ID:	RTX5	**Analysis Time:**	08:26:00

COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene	91-20-3		128,102	0.06	0.05-0.07	2010	1480-2470
Acenaphthylene	208-96-8		152,151	0.18	0.14-0.22	2000	1490-2480
Acenaphthene	83-32-9		154,153	1.08	0.86-1.30	2110	1490-2480
2-Methylfluorene	1430-97-3		180,165	1.09	0.87-1.31	2210	1500-2500
Fluorene	86-73-7		166,165	0.92	0.74-1.10	2050	1490-2480
Phenanthrene	85-01-8		178,176	0.17	0.14-0.20	2110	1520-2530
Anthracene	120-12-7		178,176	0.16	0.13-0.19	2190	1500-2510
Fluoranthene	206-44-0		202,200	0.18	0.14-0.22	2140	1480-2470
Pyrene	129-00-0		202,200	0.18	0.14-0.22	2160	1490-2480
Benz[a]anthracene	56-55-3		228,226	0.24	0.19-0.29	2100	1510-2510
Chrysene	218-01-9		228,226	0.27	0.22-0.32	2160	1510-2520
Benzo[b]fluoranthene	205-99-2		252,253	0.21	0.17-0.25	2050	1500-2500
Benzo[j,k]fluoranthenes			252,253	0.21	0.17-0.25	2190	1510-2520
Benzo[e]pyrene	192-97-2		252,253	0.21	0.17-0.25	2130	1500-2500
Benzo[a]pyrene	50-32-8		252,253	0.21	0.17-0.25	2150	1510-2510
Perylene	198-55-0		252,253	0.21	0.17-0.25	2140	1500-2500
Dibenz[a,h]anthracene	53-70-3		278,139	0.11	0.07-0.15	2130	1510-2520
Indeno[1,2,3-cd]pyrene	193-39-5		276,138	0.14	0.09-0.19	2090	1520-2530
Benzo[ghi]perylene	191-24-2		276,138	0.14	0.09-0.19	2110	1500-2510
2-Methylnaphthalene	91-57-6		142,141	0.84	0.67-1.01	2070	1500-2500
1-Methylnaphthalene	90-12-0		142,141	0.87	0.70-1.04	2100	1500-2500
Biphenyl	92-52-4		154,152	0.25	0.20-0.30	2070	1490-2490
1,2-Dimethylnaphthalene	573-98-8		156,141	1.13	0.90-1.36	2140	1500-2490
2,6-Dimethylnaphthalene	581-42-0		156,141	0.60	0.48-0.72	2140	1510-2510
2,3,6-Trimethylnaphthalene	829-26-5		170,155	0.79	0.63-0.95	2210	1500-2490
2,3,5-Trimethylnaphthalene	2245-38-7		170,155	0.78	0.62-0.94	2230	1500-2500
1,7-Dimethylfluorene	442-66-0		194,177	0.07	0.06-0.08	2270	1490-2490
Dibenzothiophene	132-65-0		184,152	0.07	0.06-0.08	1980	1500-2500
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		198,197	0.67	0.54-0.80	2120	1510-2510
2,4-Dimethyldibenzothiophene	31317-18-7		212,197	0.43	0.34-0.52	2270	1500-2500
4,6-Dimethyldibenzothiophene	1207-12-1		212,197	0.13	0.10-0.16	2210	1500-2500
2-Methylphenanthrene	2531-84-2		192,191	0.55	0.44-0.66	2200	1490-2490
2-Methylanthracene	613-12-7		192,191	0.46	0.37-0.55	2230	1500-2500
1-Methylphenanthrene	832-69-9		192,191	0.56	0.45-0.67	2230	1500-2500
3,6-Dimethylphenanthrene	1576-67-6		206,191	0.30	0.24-0.36	2290	1510-2510
1,7-Dimethylphenanthrene	483-87-4		206,191	0.28	0.22-0.34	2230	1460-2440
1,2,6-Trimethylphenanthrene	30436-55-6		220,205	0.51	0.41-0.61	2360	1500-2500
Retene	483-65-8		234,219	1.41	1.13-1.69	2380	1500-2500
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		216,215	0.99	0.79-1.19	2290	1510-2520
5/6-Methylchrysene	3697-24-3/1705-85-7		242	0	N/A	2250	1500-2500
1-Methylchrysene	3351-28-8		242	0	N/A	2230	1500-2490
5,9-Dimethylchrysene	139493-40-6		256	0	N/A	2300	1510-2510
7-Methylbenzo[a]pyrene	63041-77-0		266	0	N/A	2260	1500-2500
1,4,6,7-Tetramethylnaphthalene	13764-18-6		184,139	0.02	0.02-0.02	2300	1500-2490
Anthracene d-10			188,184	0.12	0.10-0.14	1960	1490-2490
Fluoranthene d-10	93951-69-0		212,208	0.15	0.12-0.18	1950	1490-2490

Dibenzo[a,h]anthracene d-14	13250-98-1	292,288	0.19	0.12-0.26	1930	1440-2400

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

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Report Filename: GENERIC-SPECS_PAH_LO_PH5H4260.D__Form4A_SJ3666629.html; Workgroup: WG95248; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4B

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	09-Sep-2025	**VER Data Filename:**	PH5H4260.D
Instrument ID:	LR GC/MS	**Analysis Date:**	26-Sep-2025
GC Column ID:	RTX5	**Analysis Time:**	08:26:00

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene d-8	1146-65-2		136,134	0.09	0.07-0.11	1860	1500-2510
2-Methylnaphthalene d-10	7297-45-2		152,151	0.18	0.14-0.22	1960	1520-2530
Biphenyl d-10	1486-01-7		164	0	N/A	1950	1500-2510
2,6-Dimethylnaphthalene d-12	350820-12-1		168,150	0.64	0.51-0.77	1960	1510-2510
Acenaphthylene d-8	93951-97-4		160,158	0.15	0.12-0.18	1970	1510-2510
Dibenzothiophene d-8	33262-29-2		192,160	0.07	0.06-0.08	2030	1500-2510
Phenanthrene d-10	1517-22-2		188,184	0.13	0.10-0.16	1940	1500-2510
Benzo[a]anthracene d-12	1718-53-2		240,236	0.20	0.16-0.24	2040	1500-2500
Chrysene d-12	1719-03-5		240,236	0.24	0.19-0.29	1600	1210-2010
Benzo[b]fluoranthene d-12	93951-98-5		264,260	0.17	0.14-0.20	1990	1500-2490
Benzo[k]fluoranthene d-12	93952-01-3		264,260	0.17	0.14-0.20	1900	1470-2440
Benzo[a]pyrene d-12	63466-71-7		264,260	0.17	0.14-0.20	1990	1500-2510
Perylene d-12	1520-96-3		264,260	0.21	0.17-0.25	2000	1500-2500
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		288,284	0.16	0.10-0.22	2020	1490-2480
Benzo[ghi]perylene d-12	93951-66-7		288,284	0.17	0.11-0.23	2050	1490-2490

(1) Where applicable, custom lab flags have been used on this report.

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Report Filename: GENERIC-SPECS_PAH_LO_PH5H4260.D__Form4B_SJ3666629.html; Workgroup: WG95248; Design ID: 5444]

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-103 Rev. 80

				Serum	Solids												Tissue and Tissue Fibra								Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
BFR	BTBPE	SGS AXYS MLA-033	MLA-033					Y											Y						Y													
BFR	DBDPE	SGS AXYS MLA-033	MLA-033					Y											Y						Y													
BFR	HBB	SGS AXYS MLA-033	MLA-033					Y											Y						Y													
BFR	PBEB	SGS AXYS MLA-033	MLA-033					Y											Y						Y													
Bisphenols	Bisphenol A	SGS AXYS MLA-113	MLA-113					Y																	Y													
Bisphenols	Bisphenol AF	SGS AXYS MLA-113	MLA-113					Y																	Y													
Bisphenols	Bisphenol B	SGS AXYS MLA-113	MLA-113					Y																	Y													
Bisphenols	Bisphenol E	SGS AXYS MLA-113	MLA-113					Y																	Y													
Bisphenols	Bisphenol F	SGS AXYS MLA-113	MLA-113					Y																	Y													
Bisphenols	Bisphenol S	SGS AXYS MLA-113	MLA-113					Y																	Y													
BPA and MPE	4,4'-dihydroxy-2,2-diphenylpropane (Bisphenol A) (BPA)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-(3-carboxypropyl) phthalate (MCPP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-2-ethylhexyl phthalate (MEHP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-benzyl phthalate (MBzP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-butyl phthalate (MBP) (n + iso)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-cyclohexyl phthalate (MCHP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-ethyl phthalate (MEP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-iso-nonyl phthalate (MiNP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-methyl phthalate (MMP)	SGS AXYS MLA-059	MLA-059																					Y													
BPA and MPE	Mono-(2-ethyl-5-carboxypentyl) phthalate (MECPP)	SGS AXYS MLA-059	MLA-059																																		
OC Pesticides	2,4'-DDD	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	2,4'-DDE	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	2,4'-DDT	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	4,4'-DDD	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	4,4'-DDE	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	4,4'-DDT	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Aldrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Alpha-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Beta-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	cis-Chlordane (alpha-Chlordane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	cis-Nonachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Delta-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Dieldrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Endosulphan I	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Endosulphan II	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Endosulphan sulphate	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Endrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Endrin aldehyde	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Endrin ketone	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Gamma-HCH (Lindane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Heptachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Heptachlor epoxide	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Hexachlorobenzene	SGS AXYS MLA-228	MLA-228							Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Methoxychlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Mirex	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	Oxychlordane	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	trans-Chlordane (gamma-Chlordane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
OC Pesticides	trans-Nonachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y		
Fluoride	Fluoride	EPA 1621	MLA-119																										Y	Y							
Fluoride	Fluoride	SGS AXYS MLA-119 AOF	MLA-119																											Y							
Fluoride	Fluoride	SGS AXYS MLA-119 EOF	MLA-119							Y																				Y							
Fluoride	Fluoride	SGS AXYS MLA-119 TF	MLA-119							Y																				Y							
PAH	"Extractable Organics" category (CA only)	EPA 8270E	MLA-021						Y																												
PAH	"Semi-volatile Organic Compounds" category (CA only)	EPA 1625	MLA-021																																		
PAH	1,2,6-Trimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	1,2-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	1,4,6,7-Tetramethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	1,7-Dimethylfluorene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	1,7-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	1,8-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y													
PAH	1-Methylchrysene	SGS AXYS MLA-021	MLA-021					Y																	Y													

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				Serum	Solids			Tissue and Tissue Fibra									Urine	Water	Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PAH	1-Methylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1-Methylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2,3,5-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2,3,6-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2,4-Dimethyldibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2,6-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2-Methylanthracene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2-Methylfluorene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	2-Methylnaphthalene	EPA 8270E	MLA-021							Y										Y																	
PAH		SGS AXYS MLA-021	MLA-021					Y							Y	Y			Y	Y			Y		Y					Y						Y		
PAH	2-Methylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	3,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	3-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	3-Methylfluoranthene/ Benzo(a)fluorene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	3-Methylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	5,9-Dimethylchrysene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	5/6-Methylchrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	7-Methylbenzo(a)pyrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	9/4-Methylphenanthrenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	Acenaphthene	EPA 1625	MLA-021																											Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y					Y	
PAH	Acenaphthylene	EPA 1625	MLA-021																											Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y					Y	
PAH	Anthracene	EPA 1625	MLA-021																											Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y					Y	
PAH	Benz[a]anthracene	EPA 1625	MLA-021																											Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y					Y	
PAH	Benzo[a]pyrene	EPA 1625	MLA-021																											Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y					Y	
PAH	Benzo[b]fluoranthene	EPA 1625	MLA-021																											Y	Y	Y			Y		Y	
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y					Y	
PAH	Benzo[e]pyrene	SGS AXYS MLA-021	MLA-021					Y												Y					Y												
PAH	Benzo[ghi]perylene	EPA 1625	MLA-021																											Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y						Y					Y	
PAH	Benzo[j/k]fluoranthenes	SGS AXYS MLA-021	MLA-021					Y												Y					Y												
PAH	Benzo[k]fluoranthene	EPA 1625	MLA-021																											Y	Y	Y			Y		Y	
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y						Y																	
PAH		SGS AXYS MLA-021	MLA-021							Y					Y	Y			Y	Y			Y		Y						Y					Y	
PAH	Biphenyl	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Acenaphthenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Benz(a)anthracenes/chrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Biphenyls	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Fluorenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Naphthalenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C1-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C2-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C2-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C2-Biphenyls	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C2-Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C2-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C2-Fluorenes	SGS AXYS MLA-021	MLA-021					Y																	Y												

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				Serum	Solids												Tissue and Tissue Fibra										Urine		Water	Water, Non-Potable													AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PAH	C2-Naphthalenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C2-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C3-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C3-Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C3-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C3-Fluorenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C3-Naphthalenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C3-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C4-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C4-Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C4-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C4-Naphthalenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	C4-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	Chrysene	EPA 1625	MLA-021																										Y	Y				Y		Y				
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																				
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y				
PAH	Dibenzo[a,h]anthracene	EPA 1625	MLA-021																										Y	Y				Y		Y				
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																				
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y				
PAH	Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PAH	Fluoranthene	EPA 1625	MLA-021																										Y	Y				Y		Y				
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																				
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y				
PAH	Fluorene	EPA 1625	MLA-021																										Y	Y				Y		Y				
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																				
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y				
PAH	Indeno[1,2,3-cd]pyrene	EPA 1625	MLA-021																										Y	Y				Y		Y				
PAH		EPA 8270E	MLA-021							Y	Y			Y	Y					Y																				
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y				
PAH	Naphthalene	EPA 1625	MLA-021																										Y	Y				Y		Y				
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																				
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y				
PAH	Perylene	SGS AXYS MLA-021	MLA-021					Y												Y					Y															
PAH	Phenanthrene	EPA 1625	MLA-021																										Y	Y				Y		Y				
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																				
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y				
PAH	Pyrene	EPA 1625	MLA-021																										Y	Y				Y		Y				
PAH		EPA 8270E	MLA-021							Y	Y			Y	Y					Y																				
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y				
PAH	Retene	SGS AXYS MLA-021	MLA-021					Y																	Y															
PBDPE	BDE 10 2,6-dibromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 100 2,2',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 105 2,3,3',4,4'-pentabromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 11 3,3'-dibromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 116 2,3,4,5,6-pentabromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 119 2,3',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 12 3,4-dibromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 126 3,3',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 13 3,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 140 2,2',3,4,4',6'-hexabromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 15 4,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																						Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y															
PBDPE	BDE 153 2,2',4,4',5,5'-hexabromodiphenylether	EPA 1614	MLA-033													Y																						Y	

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				Serum	Solids												Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 154 2,2',4,4',5',6-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 155 2,2',4,4',6,6'-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 166 2,3,4,4',5,6-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 17 2,2',4-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 181 2,2',3,4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 183 2,2',3,4,4',5',6-heptabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 190 2,3,3',4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 206 2,2',3,3',4,4',5,5',6-nonabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 207 2,2',3,3',4,4',5,6,6'-nonabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 208 2,2',3,3',4,5,5',6,6'-nonabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 209 Decabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 25 2,3',4-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 28 2,4,4'-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 30 2,4,6-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 33 2',3,4-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 35 3,3',4-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 37 3,4,4'-tribromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 47 2,2',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 49 2,2',4,5'-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 66 2,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 7 2,4-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 75 2,4,4',6-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 77 3,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 8 2,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 85 2,2',3,4,4'-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 99 2,2',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PCB Aroclors	PCB Aroclor 1016	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							
PCB Aroclors	PCB Aroclor 1221	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							
PCB Aroclors	PCB Aroclor 1232	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							
PCB Aroclors	PCB Aroclor 1242	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							
PCB Aroclors	PCB Aroclor 1248	EPA 1668	MLA-010							Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																					Y							

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				Serum	Solids												Tissue and Tissue Fibra						Urine		Water	Water, Non-Potable													AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB Aroclors	PCB Aroclor 1254	EPA 1668	MLA-010							Y	Y																			Y	Y									
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y										
PCB Aroclors	PCB Aroclor 1260	EPA 1668	MLA-010							Y	Y																			Y	Y									
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y										
PCB congeners	PCB 1 2-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 10 2,6-Dichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 100 2,2',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 101 2,2',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 102 2,2',4,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 103 2,2',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 104 2,2',4,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 105 2,3,3',4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 106 2,3,3',4,5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 107 2,3,3',4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 108 2,3,3',4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 109 2,3,3',4,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 11 3,3'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 110 2,3,3',4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 111 2,3,3',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 112 2,3,3',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 113 2,3,3',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 114 2,3,4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 115 2,3,4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 116 2,3,4,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 117 2,3,4',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 118 2,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 119 2,3',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 12 3,4-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 120 2,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								

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				Serum	Solids											Tissue and Tissue Fibra										Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 121 2,3',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 122 2,3,3',4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 123 2,3',4,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y					Y			Y							Y							Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 124 2,3',4',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 125 2,3',4',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 126 3,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 127 3,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 129 2,2',3,3',4,5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 13 3,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 130 2,2',3,3',4,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y							Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 131 2,2',3,3',4,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y				Y						Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 132 2,2',3,3',4,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 133 2,2',3,3',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 134 2,2',3,3',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 135 2,2',3,3',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 136 2,2',3,3',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 137 2,2',3,4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 139 2,2',3,4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 14 3,5-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 140 2,2',3,4,4',6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 141 2,2',3,4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 142 2,2',3,4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 143 2,2',3,4,5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y							Y	Y		

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable															AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 144 2,2',3,4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 145 2,2',3,4,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 146 2,2',3,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 147 2,2',3,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 148 2,2',3,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 149 2,2',3,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 15 4,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 150 2,2',3,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 152 2,2',3,5,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 154 2,2',4,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 155 2,2',4,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		

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				Serum	Solids											Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 157 2,3,3',4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 159 2,3,3',4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 16 2,2',3-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 160 2,3,3',4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 161 2,3,3',4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 162 2,3,3',4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 163 2,3,3',4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 164 2,3,3',4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 165 2,3,3',5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y										
PCB congeners	PCB 166 2,3,4,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		

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				Serum	Solids												Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable														AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 168 2,3',4,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 17 2,2',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 171 2,2',3,3',4,4',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 172 2,2',3,3',4,5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y				Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 173 2,2',3,3',4,5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y				Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 174 2,2',3,3',4,5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 175 2,2',3,3',4,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 176 2,2',3,3',4,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 177 2,2',3,3',4,5',6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y			
PCB congeners		EPA 1628	MLA-908							Y										Y										Y											
PCB congeners	PCB 178 2,2',3,3',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y			
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y											

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 179 2,2',3,3',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 18 2,2',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 181 2,2',3,4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 182 2,2',3,4,4',5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 183 2,2',3,4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 184 2,2',3,4,4',6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 185 2,2',3,4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 186 2,2',3,4,5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 188 2,2',3,4',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable																AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 19 2,2',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 190 2,3,3',4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 191 2,3,3',4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 192 2,3,3',4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 193 2,3,3',4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 195 2,2',3,3',4,4',5,6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 196 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 197 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y																
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 198 2,2',3,3',4,5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 199 2,2',3,3',4,5,5',6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y																
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 2 3-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y																
PCB congeners	PCB 20 2,3,3'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y								
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y																				
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y								

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable																	AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 200 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 201 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 202 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 203 2,2',3,4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 204 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 205 2,3,3',4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 206 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 207 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 208 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 209 Decachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 21 2,3,4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 22 2,3,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 23 2,3,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y	Y			Y	Y	Y	Y	Y		

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				Serum	Solids											Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 24 2,3,6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 25 2,3',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 26 2,3',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 27 2,3',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 28 2,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 29 2,4,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y					Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 3 4-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 30 2,4,6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 31 2,4',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 32 2,4',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 33 2,3',4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									
PCB congeners	PCB 34 2,3',5'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y									

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 35 3,3',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 36 3,3',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 37 3,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 38 3,4,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 39 3,4',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 4 2,2'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 40 2,2',3,3'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 41 2,2',3,4-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 42 2,2',3,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 43 2,2',3,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 44 2,2',3,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 45 2,2',3,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 46 2,2',3,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		

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				Serum	Solids												Tissue and Tissue Fibra												Urine		Water	Water, Non-Potable																						AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 47 2,2',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 48 2,2',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 49 2,2',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 5 2,3-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 50 2,2',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 51 2,2',4,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 52 2,2',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 53 2,2',5,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 54 2,2',6,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 55 2,3,3',4-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 56 2,3,3',4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 57 2,3,3',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y										
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y					Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y											Y										
PCB congeners	PCB 58 2,3,3',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y		

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y							
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 59 2,3,3',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 6 2,3'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 60 2,3,4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 61 2,3,4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 62 2,3,4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 63 2,3,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 64 2,3,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 65 2,3,5,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 66 2,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 67 2,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 68 2,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y							
PCB congeners	PCB 69 2,3',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y					Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y			Y							Y			Y	Y	Y	Y	Y	

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				Serum	Solids												Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable														AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 7 2,4-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 70 2,3',4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 71 2,3',4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 72 2,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 73 2,3',5',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 74 2,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 75 2,4,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 76 2,3',4',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 77 3,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 78 3,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 79 3,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y					Y			Y							Y				Y			Y					
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 8 2,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y				
PCB congeners		EPA 1628	MLA-908							Y										Y										Y												
PCB congeners	PCB 80 3,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y				
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y												

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				Serum	Solids											Tissue and Tissue Fibra										Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 81 3,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 82 2,2',3,3',4-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 83 2,2',3,3',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 84 2,2',3,3',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 85 2,2',3,4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 86 2,2',3,4,5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 87 2,2',3,4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 88 2,2',3,4,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 89 2,2',3,4,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 9 2,5-Dichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 90 2,2',3,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 91 2,2',3,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 92 2,2',3,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 93 2,2',3,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 94 2,2',3,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 95 2,2',3,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 96 2,2',3,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 97 2,2',3,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 98 2,2',3,4',6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 99 2,2',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB congeners, total	EPA 1668	MLA-010											Y																					Y			
PCB congeners	PCBs, as congeners	EPA 1668	MLA-010																	Y																		
PCB congeners		SGS AXYS MLA-010	MLA-010																	Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210							Y										Y										Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y										Y										Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Heptachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Hexachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Monochlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Nonachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Octachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Pentachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Tetrachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners	Total Trichlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCDDF	"Dioxins and Dibenzofurans" category (CA only)	EPA 1613	MLA-017																																		

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				Serum	Solids											Tissue and Tissue Fibra										Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCDDF		EPA 8290A	MLA-017																																				
PCDDF	1,2,3,4,6,7,8-HpCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,4,6,7,8-HpCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,4,7,8,9-HpCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,4,7,8-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,4,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,6,7,8-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,6,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,7,8,9-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,7,8,9-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,7,8-PeCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	1,2,3,7,8-PeCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	2,3,4,6,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	2,3,4,7,8-PeCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF		ATM 16130	MLA-217							Y										Y										Y										
PCDDF	2,3,7,8-TCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y			Y	Y		Y	Y			Y				Y		Y	Y			
PCDDF	2,3,7,8-TCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y			
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y			Y	Y			Y			Y				Y		Y				
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y										

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y			Y				Y					Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y									
PCDDF	OCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y			Y	Y			Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y				Y				Y					Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y						Y					Y								
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y			Y	Y				Y					Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	OCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y			Y	Y			Y		Y	Y		
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y				Y				Y					Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y						Y					Y								
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y			Y	Y				Y					Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total HpCDD	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y			Y					Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total HpCDF	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y			Y	Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total HxCDD	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y			Y	Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total HxCDF	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y			Y	Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total PCDD	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PCDD/F	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PCDF	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PeCDD	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y							Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total PeCDF	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y							Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total TCDD	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y							Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PCDDF	Total TCDF	EPA 1613	MLA-017		Y					Y										Y							Y			Y	Y								
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y						Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y								
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y							Y				Y					Y			
PCDDF		ATM 16130	MLA-217							Y										Y											Y								
PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y										Y	Y										Y	Y							Y	Y
PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y												
PFAS	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110			Y				Y							Y				Y							Y									Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y							Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y							Y	Y
PFAS		EPA 1633	MLA-110		Y					Y		Y	Y		Y	Y			Y	Y	Y		Y		Y		Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y										Y	Y								Y	Y
PFAS	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	SGS AXYS MLA-110	MLA-110			Y				Y							Y				Y	Y						Y									Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y							Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y							Y	Y
PFAS		EPA 1633	MLA-110		Y					Y		Y	Y		Y	Y			Y	Y	Y		Y		Y		Y			Y	Y		Y	Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y										Y	Y								Y	Y
PFAS	4,8-dioxa-3H-perfluorononanoate (ADONA)	SGS AXYS MLA-110	MLA-110			Y	Y										Y	Y										Y	Y								Y	Y
PFAS		DoD QSM Version 5.3	MLA-110			Y											Y											Y	Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y											Y											Y									Y	

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				Serum	Solids												Tissue and Tissue Fibra											Urine		Water	Water, Non-Potable													AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		EPA 1633	MLA-110							Y					Y					Y			Y												Y				
PFAS		EPA 1633 draft	MLA-110			Y											Y										Y											Y	
PFAS	4:2 Fluorotelomersulfonate (4:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y						Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y																		Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	6:2 Fluorotelomersulfonate (6:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y						Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	8:2 Fluorotelomersulfonate (8:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y						Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y										Y	Y								Y		Y	Y								Y	Y
PFAS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y														
PFAS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110			Y				Y							Y			Y							Y			Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	Dodecafluoro-3H-4,8-dioxanonanoate (NaDONA)	SGS AXYS MLA-110	MLA-110	Y				Y											Y							Y													
		EPA 1633 draft	MLA-110									Y									Y											Y								
PFAS	Hexafluoropropylene oxide dimer acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y									Y		Y							Y		Y										Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	Hexafluoropropylene oxide dimer acid, anion and acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	Hexaflurorpropylene oxide dimer acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110	Y						Y										Y											Y									
PFAS	N-Ethylperfluorooctane sulfonamide (EtFOSAm)	SGS AXYS MLA-110	MLA-110							Y										Y											Y									
PFAS		DoD QSM Version 5.3	MLA-110						Y																					Y										
PFAS		DoD QSM Version 5.4	MLA-110						Y																					Y										
PFAS		EPA 1633	MLA-110								Y										Y										Y									
PFAS		EPA 1633 draft	MLA-110																																					
PFAS	N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y									Y	Y	Y							Y		Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y											Y										Y	Y											Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y																					Y	Y										Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y					Y	Y				Y				Y			Y			Y	Y			Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y						Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y						Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	N-Methylperfluorooctanesulfonamide (N-MeFOSA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y						Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y						Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y						Y		Y	Y		Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y										Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y										Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y				Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																				Y	Y
PFAS	Perflurorobutane Sulfonate (PFBS)	SGS AXYS MLA-042	MLA-042	Y																																			
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y						Y		Y			Y							Y	

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorobutanoate (PFBA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y									Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorodecanoate (PFDA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	Y
PFAS		DoD QSM Version 5.3	MLA-110			Y											Y											Y										Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y										Y										Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorononanoate (PFNA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorooctanesulfonamide (PFOSA), a.k.a. FOSA	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y			Y						Y	

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		DoD AFFF01 Rev 1.0	MLA-110										Y																					Y			Y	Y
PFAS	Perfluorooctanoate (PFOA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		DoD AFFF01 Rev 1.0	MLA-110																																		Y	Y
PFAS	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	4,4,5,5,6,6,6-heptafluorohexanoic acid (3:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	2H,2H,3H,3H-perfluorooctanoic acid (5:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	2H,2H,3H,3H-perfluorodecanoic acid (7:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoro-3-methoxypropanoic acid (PFMPA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoro-4-methoxybutanoic acid (PFMBA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y								Y	

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				Serum	Solids											Tissue and Tissue Fibra							Urine		Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y									Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y									Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y		Y			Y		Y			Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y										Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y		Y			Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PPCP	1,7-Dimethylxanthine	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	10-hydroxy-amitriptyline	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	2-hydroxy-ibuprofen	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epianhydrochlortetracycline (EACTC)	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epianhydrotetracycline (EATC)	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epichlortetracycline (ECTC)	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epioxytetracycline (EOTC)	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epitetracycline (ETC)	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Acetaminophen	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Albuterol	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Alprazolam	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amitriptyline	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amlodipine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amphetamine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Anhydrochlortetracycline (ACTC)	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Anhydrotetracycline (ATC)	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Atenolol	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Atorvastatin	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Azithromycin	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Benzoylecgonine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Benztropine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Betamethasone	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Bisphenol A	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Caffeine	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Carbadox	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Carbamazepine	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cefotaxime	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Chlortetracycline (CTC)	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cimetidine	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Ciprofloxacin	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clarithromycin	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clinafloxacin	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clonidine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cloxacillin	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cocaine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Codeine	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cotinine	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	DEET (N,N-diethyl-m-toluamide)	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Dehydronifedipine	EPA 1694	MLA-075								Y																			Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													

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PPCP	Demeclocycline	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Desmethyldiltiazem	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Diazepam	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Digoxigenin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Digoxin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Diltiazem	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Diphenhydramine	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Doxycycline	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Enalapril	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Enrofloxacin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Erythromycin	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Erythromycin anydrate	EPA 1694	MLA-075								Y																				Y										
PPCP	Flumequine	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Fluocinonide	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Fluoxetine	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Fluticasone propionate	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Furosemide	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Gemfibrozil	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Glipizide	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Glyburide	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Hydrochlorothiazide	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Hydrocodone	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Hydrocortisone	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Ibuprofen	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Isochlortetracycline (ICTC)	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Lincomycin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Lomefloxacin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Meprobamate	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Metformin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Methylprednisolone	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Metoprolol	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Miconazole	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Minocycline	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Naproxen	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Norfloxacin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Norfluoxetine	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Norgestimate	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Norverapamil	SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Ofloxacin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Ormetoprim	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Oxacillin	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Oxolinic acid	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Oxycodone	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Oxytetracycline (OTC)	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																
PPCP	Paroxetine	EPA 1694	MLA-075								Y																				Y										
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y																

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-103 Rev. 80

				Serum	Solids												Tissue and Tissue Fibra									Urine		Water	Water, Non-Potable													AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PPCP	Penicillin G	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Penicillin V	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Prednisolone	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Prednisone	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Promethazine	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Propoxyphene	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Propranolol	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Ranitidine	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Roxithromycin	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sarafloxacin	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sertraline	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Simvastatin	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfachloropyridazine	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfadiazine	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfadimethoxine	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfamerazine	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfamethazine	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfamethizole	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfamethoxazole	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfanilamide	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Sulfathiazole	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Tetracycline (TC)	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Theophylline	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Thiabendazole	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Trenbolone	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Trenbolone acetate	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Triamterene	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Triclocarban	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Triclosan	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Trimethoprim	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Tylosin	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Valsartan	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Verapamil	SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Virginiamycin	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
PPCP	Warfarin	EPA 1694	MLA-075								Y																					Y								
PPCP		SGS AXYS MLA-075	MLA-075					Y																		Y														
TOP	Perfluorobutanesulfonate (PFBS)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorobutanoate (PFBA)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorodecanoate (PFDA)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorononanoate (PFNA)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluorooctanoate (PFOA)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-111	MLA-111					Y																		Y														
TOP	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-111	MLA-111					Y																		Y														

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-103 Rev. 80

				Serum	Solids												Tissue and Tissue Fibra						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
TOP	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-111	MLA-111					Y																	Y											
TOP	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-111	MLA-111					Y																	Y											
TOP	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-111	MLA-111					Y																	Y											
AO	6PPD-Quinone	SGS AXYS MLA-118	MLA-118																						Y											
Note **	PFAS by LC-MS/MS compliant with US DoD QSM 5.3 table B-15; US DoD/DOE QSM 5.4 and 6.0 table B-24																																			

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-103 Rev. 80

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids												Tissue and Tissue Fibra												Urine	Water	Water, Non-Potable													AFFF	
				CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025

Legend

Y	Accreditation scope
AFFF	Aqueous film forming foam
AO	Antiozonants
BFR	Brominated flame retardants (non-PBDPE)
BPA and mPE	Bisphenol A and mono-Phthalate Esters
OC Pesticides	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PBDPE	Polybrominated diphenylethers
PCB	Polychlorinated Biphenyls
PCDDF	Polychlorinated dibenzodioxins/furans
PFAS	Per- and Polyfluoroalkyl Substances
PPCP	Pharmaceutical and Personal Care Products
TOP	Total Oxidizable Precursors
California WB	California Water Boards, Lab ID 2911
Florida DOH	Florida Department of Health, Lab ID E871007, (NELAC Standard)
Pennsylvania DEP	Pennsylvania Department of Environmental Protection
Minnesota DOH	Minnesota Department of Health, Lab ID 232-999-430, (NELAC Standard)
New Jersey DEP	New Jersey Department of Environmental Protection, Lab ID CANA005, (NELAC Standard)
New York DOH	New York Department of Health, Lab ID 11674, (NELAC Standard)
Washington DE	Washington Department of Ecology, Lab ID C404
Virginia DGS	Virginia Department of General Services, Division of Consolidated Laboratory Services, Lab ID 460224, (NELAC Standard)
Alaska DEC	Alaska Department of Environmental Conservation, Contaminated Sites Laboratory Approval 17-014
Maine DOH	Maine Center for Disease Control and Prevention, Department of Health and Human Services, Lab ID CN00003
ANAB DoD	ANSI National Accreditation Board, certificate ADE-1861, (US DoD QSM 5.3, 5.4, US DoD/DOE QSM 6.0 Standard)
CALA	Canadian Association for Laboratory Accreditation Inc., Lab ID A2637, (ISO/IEC 17025:2017 Standard)

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP Certificate ADE-1861

ilac-MRA

ilac-MRA

CALA Testing Accreditation No. A2637

SGS AXYS

2045 Mills Road West
Sidney, BC, Canada V8L5X2

TEL: (250) 655-5800
TOLL-FREE: 1-888-373-0881

SGS AXYS Client No.: 4608

Client Address: Worley Canada Services Ltd
49 Quarry Park BLVD SE
Calgary, AB, CA, T2C 5H9

The SGS AXYS contact for these data is Suma Thomas.

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START SURVEY

BATCH SUMMARY

Batch ID: WG95677	***Date:*** 01-Dec-2025
Analysis Type: PAH	***Matrix Type:*** Tissue

BATCH MAKEUP

Contract: 4608

Samples:

L43910-1	AEMP-FS-01
L43910-2	AEMP-FS-02
L43910-3	AEMP-FS-03
L43910-4	FGH-INCONNU
L43910-5	FGH-WHITEFISH

Blank: WG95677-101

Reference or Spike: WG95677-102

Duplicate:

Comments:

1. Data are considered final.
2. Data are not blank corrected. Blank data should be taken into consideration when evaluating sample data.
3. Blank data should be evaluated against specifications using the same blank sample size as the size of the client samples.

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February 2017

SGS AXYS

SGS AXYS Analytical Services Chain of Custody

2045 Mills Road West, Sidney, British Columbia, Canada V8L 5X2
TEL: (250) 655-5800 TOLL FREE 1-888-373-0881 FAX: (250) 655-5811

SGS AXYS CLIENT #:

PAGE 1 OF 1

Client / Reporting Information	Invoice to
Company Name Worley Consulting	Same as report to (Y / N). If no, please fill in below Yes
Address 49 Quarry Park Blvd SE, Calgary, AB T2C 5H9	Company
	Address
Project Contact Graham Young; Stacy Gibb	Contact
Phone # 403-968-1545	Email stacy.gibb@worley.com; SSCAPinv-AMERICAS@worley.com
Email graham.young@worley.com; stacy.gibb@worley.com	Client Purchase Order # or Quote # 2024 730
Project Name or Number:	Sampler Name: Signature:

Client Sample Identification	Matrix	Sampling Date	Sampling Time	Container Type	# bottles	SGS AXYS Lab Sample ID (Lab use only)	Analysis Requested: Parent and Alkylated PAHs by EPA 8270/EPA 162	Homogenization	Moisture %		
AEMP-FS-01	Tissue	15-Sep-25	12:00	Aluminum foil/sealed bag	1	LL3910 - 1	X	X	X		
AEMP-FS-02	Tissue	17-Sep-25	12:00	Aluminum foil/sealed bag	1	-2	X	X	X		
AEMP-FS-03	Tissue	12-Sep-25	12:00	Aluminum foil/sealed bag	1	-3	X	X	X		
FGH-INCONNU	Tissue	10-Sep-25	8:30	sealed bag	1	-4	X	X	X		
FGH-WHITEFISH	Tissue	10-Sep-25	8:30	sealed bag	1	-5	X	X	X		

Comments/Remarks

Sample Custody

Relinquished by (Signature):	Date: OCT 7/25 Time: 17:00	Received by (Signature):	Date: 09-OCT-2025 Time: 09:20

SGS AXYS

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-FS-01
Sample Collection:
15-Sep-2025 12:00

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43910-1
Matrix:	TISSUE	**Sample Size:**	10.1 g (wet)
Sample Receipt Date:	09-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Extraction Date:	31-Oct-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	13-Nov-2025 **Time:** 22:27:00	**GC Column ID:**	RTX5
Extract Volume (uL):	100	**Sample Data Filename:**	**PH5S3793.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5S3790.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5S3786.D
Concentration Units:	ng/g (wet weight basis)	**% Moisture:**	72.9
		% Lipid:	5.63

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		2.87	0.0230 (S)	0.06	1.006
Acenaphthylene	208-96-8		0.064	0.0115 (S)	0.19	1.003
Acenaphthene	83-32-9		0.365	0.0324 (S)	1.04	1.048
2-Methylfluorene	1430-97-3	NDR	0.103	0.0314 (S)	0.68	0.939
C2 Phenanthrenes/Anthracenes			1.22	0.0389 (S)		
Fluorene	86-73-7		0.334	0.0246 (S)	0.97	0.844
Phenanthrene	85-01-8		0.899	0.0351 (S)	0.20	1.004
Anthracene	120-12-7	NDR	0.050	0.0363 (S)	0.33	1.012
C1 Phenanthrenes/Anthracenes			0.807	0.0385 (S)		
Fluoranthene	206-44-0	NDR	0.212	0.0178 (S)	0.42	1.002
Pyrene	129-00-0		0.146	0.0172 (S)	0.22	1.032
Benz[a]anthracene [3]	56-55-3	ND		0.0380 (S)		
Chrysene [4]	218-01-9		0.093	0.0444 (S)	0.28	1.003
Benzo[b]fluoranthene	205-99-2	ND		0.0523 (S)		
Benzo[j,k]fluoranthenes		ND		0.0600 (S)		
Benzo[e]pyrene	192-97-2	ND		0.0834 (S)		
Benzo[a]pyrene	50-32-8	ND		0.0895 (S)		
Perylene	198-55-0	ND		0.0835 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.0610 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.0384 (S)		
Benzo[ghi]perylene	191-24-2		0.046	0.0342 (S)	0.21	1.002
2-Methylnaphthalene	91-57-6		1.99	0.0253 (S)	0.89	1.008
1-Methylnaphthalene	90-12-0		1.24	0.0276 (S)	0.91	1.040
C1-Naphthalenes			3.23	0.0253 (S)		
Biphenyl	92-52-4		0.953	0.0175 (S)	0.30	1.005
C1-Biphenyls			0.673	0.0202 (S)		
C2-Biphenyls			1.03	0.0202 (S)		
C2-Naphthalenes			3.34	0.0474 (S)		
1,2-Dimethylnaphthalene	573-98-8		0.238	0.0474 (S)	1.38	1.082

This page is part of a total report that contains information necessary for accreditation compliance.
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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		0.533	0.0364 (S)	0.63	1.011
C3-Naphthalenes			2.85	0.0335 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		0.776	0.0344 (S)	0.81	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		0.549	0.0326 (S)	0.82	1.225
C4-Naphthalenes			2.10	0.0430 (S)		
C1-Acenaphthenes			0.037	0.0275 (S)		
C1-Fluorenes			0.514	0.0314 (S)		
1,7-Dimethylfluorene	442-66-0	ND		0.0523 (S)		
C2-Fluorenes			0.561	0.0523 (S)		
C3-Fluorenes			4.94	0.0411 (S)		
Dibenzothiophene	132-65-0	NDR	0.147	0.0115 (S)	0.44	1.003
C1-Dibenzothiophenes			0.369	0.0379 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		0.069	0.0379 (S)	0.77	1.095
C2-Dibenzothiophenes			1.30	0.0517 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	0.099	0.0517 (S)	1.95	1.163
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	0.126	0.0416 (S)	0.29	1.153
C3-Dibenzothiophenes			1.26	0.0529 (S)		
C4-Dibenzothiophenes			1.12	0.0505 (S)		
3-Methylphenanthrene	832-71-3		0.138	0.0400 (S)	0.49	1.088
2-Methylphenanthrene	2531-84-2		0.167	0.0386 (S)	0.59	1.092
2-Methylanthracene	613-12-7	ND		0.0432 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		0.328	0.0400 (S)	0.68	1.106
1-Methylphenanthrene	832-69-9		0.174	0.0385 (S)	0.53	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	0.059	0.0371 (S)	1.31	0.970
2,6-Dimethylphenanthrene	17980-16-4	ND		0.0389 (S)		
1,7-Dimethylphenanthrene	483-87-4	NDR	0.438	0.0409 (S)	0.20	0.993
1,8-Dimethylphenanthrene	7372-87-4	NDR	0.101	0.0389 (S)	1.69	1.008
C3-Phenanthrenes/Anthracenes			4.81	0.0205 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	NDR	0.091	0.0205 (S)	0.28	1.078
Retene	483-65-8	NDR	1.02	0.0633 (S)	0.54	1.083
C4-Phenanthrenes/Anthracenes			13.0	0.0633 (S)		
C1-Fluoranthenes/Pyrenes			0.509	0.0274 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		0.112	0.0274 (S)	0.85	1.083
C2-Fluoranthenes/Pyrenes			0.509	0.0312 (S)		
C3-Fluoranthenes/Pyrenes			0.550	0.0228 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.0285 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			0.603	0.0358 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		0.0368 (S)		
1-Methylchrysene	3351-28-8		0.043	0.0348 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			0.514	0.0453 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		0.0453 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0399 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			0.341	0.0527 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		0.0751 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		0.0751 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		0.0469 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	0.331	0.0430 (S)	0.56	1.375

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-1_Form1A_PH5S3793.D_SJ3687582.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-FS-01
Sample Collection:
15-Sep-2025 12:00

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43910-1
Matrix:	TISSUE	**Sample Size:**	10.1 g (wet)
Sample Receipt Date:	09-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Extraction Date:	31-Oct-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	13-Nov-2025 **Time:** 22:27:00	**GC Column ID:**	RTX5
Extract Volume (uL):	100	**Sample Data Filename:**	**PH5S3793.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5S3790.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5S3786.D
Concentration Units:	ng absolute	**% Moisture:** **% Lipid:**	72.9 5.63

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		200	72.5	36.2	0.09	0.611
2-Methylnaphthalene d-10		202	84.0	41.6	0.19	0.757
Biphenyl d-10		200	86.6	43.2		0.869
2,6-Dimethylnaphthalene d-12		201	92.1	45.8	0.71	0.896
Acenaphthylene d-8		201	87.2	43.4	0.17	0.961
Dibenzothiophene d-8		200	98.2	49.0	0.08	0.792
Phenanthrene d-10		200	111	55.3	0.15	0.808
Fluoranthene d-10		199	131	66.0	0.17	0.971
Benzo[a]anthracene d-12		200	112	56.1	0.23	1.164
Chrysene d-12		161	89.5	55.7	0.25	1.169
Benzo[b]fluoranthene d-12		199	136	68.1	0.20	0.956
Benzo[k]fluoranthene d-12		195	132	67.6	0.18	0.960
Benzo[a]pyrene d-12		200	121	60.2	0.18	1.009
Perylene d-12		200	129	64.4	0.25	1.025
Dibenzo[a,h]anthracene d-14		192	88.4	46.0	0.23	1.207
Indeno[1,2,3-cd]pyrene d-12		198	92.5	46.6	0.17	1.203
Benzo[ghi]perylene d-12		199	101	50.7	0.19	1.234

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-1_Form2_PH5S3793.D_SJ3687582.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-FS-02
Sample Collection:
17-Sep-2025 12:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	TISSUE	**Lab Sample I.D.:**	L43910-2
Sample Receipt Date:	09-Oct-2025	**Sample Size:**	10.0 g (wet)
Extraction Date:	31-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Analysis Date:	13-Nov-2025 **Time:** 23:15:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	100	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5S3794.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5S3790.D
		Cal. Ver. Data Filename:	PH5S3786.D
Concentration Units:	ng/g (wet weight basis)	**% Moisture:**	71.4
		% Lipid:	4.91

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Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		2.15	0.0227 (S)	0.07	1.006
Acenaphthylene	208-96-8		0.055	0.0180 (S)	0.20	1.003
Acenaphthene	83-32-9		0.489	0.0452 (S)	0.96	1.048
2-Methylfluorene	1430-97-3	NDR	0.156	0.0313 (S)	1.80	0.939
C2 Phenanthrenes/Anthracenes			3.06	0.0449 (S)		
Fluorene	86-73-7		0.407	0.0224 (S)	0.99	0.844
Phenanthrene	85-01-8		1.14	0.0626 (S)	0.19	1.004
Anthracene	120-12-7		0.112	0.0648 (S)	0.21	1.012
C1 Phenanthrenes/Anthracenes			0.917	0.0552 (S)		
Fluoranthene	206-44-0	NDR	0.358	0.0200 (S)	0.39	1.002
Pyrene	129-00-0	NDR	0.200	0.0194 (S)	0.30	1.032
Benz[a]anthracene [3]	56-55-3	ND		0.0410 (S)		
Chrysene [4]	218-01-9		0.133	0.0440 (S)	0.34	1.002
Benzo[b]fluoranthene	205-99-2	ND		0.0364 (S)		
Benzo[j,k]fluoranthenes		ND		0.0443 (S)		
Benzo[e]pyrene	192-97-2	ND		0.0560 (S)		
Benzo[a]pyrene	50-32-8	ND		0.0601 (S)		
Perylene	198-55-0	ND		0.0593 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.0584 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.0466 (S)		
Benzo[ghi]perylene	191-24-2	ND		0.0398 (S)		
2-Methylnaphthalene	91-57-6		2.12	0.0505 (S)	0.90	1.009
1-Methylnaphthalene	90-12-0		1.49	0.0552 (S)	0.90	1.040
C1-Naphthalenes			3.61	0.0505 (S)		
Biphenyl	92-52-4		0.800	0.0282 (S)	0.33	1.005
C1-Biphenyls			0.814	0.0182 (S)		
C2-Biphenyls			1.13	0.0219 (S)		
C2-Naphthalenes			7.51	0.0657 (S)		
1,2-Dimethylnaphthalene	573-98-8		0.628	0.0657 (S)	1.29	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		1.09	0.0504 (S)	0.69	1.011
C3-Naphthalenes			7.09	0.0709 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		2.11	0.0729 (S)	0.80	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		1.56	0.0691 (S)	0.84	1.225
C4-Naphthalenes			5.06	0.0605 (S)		
C1-Acenaphthenes			0.051	0.0256 (S)		
C1-Fluorenes			0.721	0.0313 (S)		
1,7-Dimethylfluorene	442-66-0		0.161	0.0235 (S)	0.08	1.032
C2-Fluorenes			1.40	0.0235 (S)		
C3-Fluorenes			1.35	0.0859 (S)		
Dibenzothiophene	132-65-0	NDR	0.392	0.0436 (S)	0.89	1.003
C1-Dibenzothiophenes			0.523	0.0377 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	0.221	0.0377 (S)	1.15	1.094
C2-Dibenzothiophenes			3.88	0.0587 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	0.391	0.0587 (S)	1.85	1.163
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	0.305	0.0472 (S)		1.152
C3-Dibenzothiophenes			3.36	0.0635 (S)		
C4-Dibenzothiophenes			2.56	0.0659 (S)		
3-Methylphenanthrene	832-71-3		0.202	0.0574 (S)	0.57	1.088
2-Methylphenanthrene	2531-84-2	NDR	0.231	0.0554 (S)	0.78	1.093
2-Methylanthracene	613-12-7	ND		0.0620 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		0.566	0.0574 (S)	0.69	1.106
1-Methylphenanthrene	832-69-9		0.150	0.0552 (S)	0.62	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	0.103	0.0428 (S)	1.38	0.970
2,6-Dimethylphenanthrene	17980-16-4	NDR	0.076	0.0449 (S)	0.49	0.975
1,7-Dimethylphenanthrene	483-87-4	NDR	0.926	0.0472 (S)	0.15	0.992
1,8-Dimethylphenanthrene	7372-87-4	NDR	0.100	0.0449 (S)	1.85	1.005
C3-Phenanthrenes/Anthracenes			17.9	0.0701 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	NDR	0.098	0.0701 (S)	0.21	1.078
Retene	483-65-8	NDR	1.68	0.0527 (S)	0.20	1.084
C4-Phenanthrenes/Anthracenes			28.8	0.0527 (S)		
C1-Fluoranthenes/Pyrenes			0.980	0.0284 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	NDR	0.059	0.0284 (S)	0.73	1.084
C2-Fluoranthenes/Pyrenes			0.562	0.0309 (S)		
C3-Fluoranthenes/Pyrenes		ND		0.0340 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.0420 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			0.697	0.0334 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		0.141	0.0343 (S)		1.065
1-Methylchrysene	3351-28-8		0.288	0.0325 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0510 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		0.0510 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]			0.063	0.0520 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0478 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		0.102 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		0.102 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		0.0859 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	0.743	0.0605 (S)	0.09	1.374

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-2_Form1A_PH5S3794.D_SJ3687583.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-FS-02
Sample Collection:
17-Sep-2025 12:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	TISSUE	**Lab Sample I.D.:**	L43910-2
Sample Receipt Date:	09-Oct-2025	**Sample Size:**	10.0 g (wet)
Extraction Date:	31-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Analysis Date:	13-Nov-2025 **Time:** 23:15:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	100	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5S3794.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5S3790.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5S3786.D
		% Moisture:	71.4
		% Lipid:	4.91

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		200	75.4	37.6	0.09	0.611
2-Methylnaphthalene d-10		202	86.0	42.6	0.19	0.757
Biphenyl d-10		200	87.6	43.7		0.869
2,6-Dimethylnaphthalene d-12		201	92.0	45.8	0.70	0.896
Acenaphthylene d-8		201	87.8	43.7	0.18	0.961
Dibenzothiophene d-8		200	76.2	38.0	0.08	0.792
Phenanthrene d-10		200	105	52.6	0.15	0.808
Fluoranthene d-10		199	125	62.7	0.18	0.971
Benzo[a]anthracene d-12		200	101	50.5	0.23	1.164
Chrysene d-12		161	80.5	50.0	0.26	1.169
Benzo[b]fluoranthene d-12		199	123	61.9	0.19	0.958
Benzo[k]fluoranthene d-12		195	119	60.6	0.18	0.962
Benzo[a]pyrene d-12		200	114	57.0	0.18	1.009
Perylene d-12		200	121	60.5	0.24	1.024
Dibenzo[a,h]anthracene d-14		192	92.4	48.2	0.23	1.210
Indeno[1,2,3-cd]pyrene d-12		198	96.5	48.6	0.17	1.206
Benzo[ghi]perylene d-12		199	104	52.5	0.19	1.237

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-2_Form2_PH5S3794.D_SJ3687583.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-FS-03
Sample Collection:
12-Sep-2025 12:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	TISSUE	**Lab Sample I.D.:**	L43910-3
Sample Receipt Date:	09-Oct-2025	**Sample Size:**	10.0 g (wet)
Extraction Date:	31-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Analysis Date:	14-Nov-2025 **Time:** 00:04:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	100	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5S3795.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5S3790.D
		Cal. Ver. Data Filename:	PH5S3786.D
Concentration Units:	ng/g (wet weight basis)	**% Moisture:**	73.8
		% Lipid:	5.33

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		3.60	0.0585 (S)	0.07	1.006
Acenaphthylene	208-96-8		0.065	0.0136 (S)	0.18	1.002
Acenaphthene	83-32-9		0.257	0.0539 (S)	0.97	1.047
2-Methylfluorene	1430-97-3	NDR	0.153	0.0323 (S)	0.60	0.939
C2 Phenanthrenes/Anthracenes			0.323	0.0551 (S)		
Fluorene	86-73-7		0.312	0.0342 (S)	0.97	0.844
Phenanthrene	85-01-8		0.805	0.0522 (S)	0.19	1.004
Anthracene	120-12-7	NDR	0.064	0.0540 (S)	0.30	1.012
C1 Phenanthrenes/Anthracenes			0.452	0.0460 (S)		
Fluoranthene	206-44-0		0.214	0.0280 (S)	0.19	1.002
Pyrene	129-00-0		0.213	0.0271 (S)	0.19	1.032
Benz[a]anthracene [3]	56-55-3	ND		0.0303 (S)		
Chrysene [4]	218-01-9		0.098	0.0355 (S)	0.32	1.002
Benzo[b]fluoranthene	205-99-2	ND		0.0459 (S)		
Benzo[j,k]fluoranthenes		ND		0.0538 (S)		
Benzo[e]pyrene	192-97-2	ND		0.0703 (S)		
Benzo[a]pyrene	50-32-8	ND		0.0754 (S)		
Perylene	198-55-0	ND		0.0754 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.0810 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.0552 (S)		
Benzo[ghi]perylene	191-24-2	ND		0.0507 (S)		
2-Methylnaphthalene	91-57-6		2.08	0.0467 (S)	0.91	1.009
1-Methylnaphthalene	90-12-0		1.19	0.0510 (S)	0.94	1.040
C1-Naphthalenes			3.27	0.0467 (S)		
Biphenyl	92-52-4		1.07	0.0368 (S)	0.30	1.006
C1-Biphenyls			0.853	0.0342 (S)		
C2-Biphenyls			2.05	0.0490 (S)		
C2-Naphthalenes			2.91	0.0842 (S)		
1,2-Dimethylnaphthalene	573-98-8		0.195	0.0842 (S)	1.11	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		0.481	0.0647 (S)	0.60	1.011
C3-Naphthalenes			2.01	0.0446 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		0.402	0.0458 (S)	0.84	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		0.351	0.0434 (S)	0.94	1.224
C4-Naphthalenes			1.01	0.0490 (S)		
C1-Acenaphthenes		ND		0.0269 (S)		
C1-Fluorenes			0.648	0.0323 (S)		
1,7-Dimethylfluorene	442-66-0	ND		0.0374 (S)		
C2-Fluorenes			0.260	0.0374 (S)		
C3-Fluorenes			1.73	0.0522 (S)		
Dibenzothiophene	132-65-0	NDR	0.142	0.0252 (S)	1.16	1.003
C1-Dibenzothiophenes			0.257	0.0356 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		0.052	0.0356 (S)	0.67	1.097
C2-Dibenzothiophenes			0.961	0.0733 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		0.0733 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		0.0590 (S)		
C3-Dibenzothiophenes		ND		0.0567 (S)		
C4-Dibenzothiophenes			0.426	0.0471 (S)		
3-Methylphenanthrene	832-71-3		0.099	0.0478 (S)	0.54	1.089
2-Methylphenanthrene	2531-84-2	NDR	0.105	0.0462 (S)	1.16	1.093
2-Methylanthracene	613-12-7	ND		0.0517 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		0.202	0.0478 (S)	0.69	1.106
1-Methylphenanthrene	832-69-9		0.151	0.0460 (S)	0.57	1.110
3,6-Dimethylphenanthrene	1576-67-6	ND		0.0526 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		0.0551 (S)		
1,7-Dimethylphenanthrene	483-87-4		0.178	0.0579 (S)	0.29	0.992
1,8-Dimethylphenanthrene	7372-87-4	ND		0.0551 (S)		
C3-Phenanthrenes/Anthracenes			3.73	0.0467 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		0.0467 (S)		
Retene	483-65-8	NDR	0.658	0.0917 (S)	0.43	1.083
C4-Phenanthrenes/Anthracenes			9.15	0.0917 (S)		
C1-Fluoranthenes/Pyrenes			0.042	0.0323 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		0.0323 (S)		
C2-Fluoranthenes/Pyrenes		ND		0.0516 (S)		
C3-Fluoranthenes/Pyrenes			0.090	0.0315 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.0218 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0651 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		0.0669 (S)		
1-Methylchrysene	3351-28-8	ND		0.0634 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0450 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		0.0450 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0348 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0566 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		0.0912 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		0.0912 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		0.0684 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	0.127	0.0490 (S)	0.24	1.374

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: Simin Yassari

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-3_Form1A_PH5S3795.D_SJ3687584.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-FS-03
Sample Collection:
12-Sep-2025 12:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43910-3
Matrix:	TISSUE	**Sample Size:**	10.0 g (wet)
Sample Receipt Date:	09-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Extraction Date:	31-Oct-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	14-Nov-2025 **Time:** 00:04:00	**GC Column ID:**	RTX5
Extract Volume (uL):	100	**Sample Data Filename:**	**PH5S3795.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5S3790.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5S3786.D
Concentration Units:	ng absolute	**% Moisture:** **% Lipid:**	73.8 5.33

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		200	65.3	32.6	0.09	0.612
2-Methylnaphthalene d-10		202	71.7	35.5	0.19	0.757
Biphenyl d-10		200	70.9	35.4		0.869
2,6-Dimethylnaphthalene d-12		201	75.1	37.4	0.70	0.896
Acenaphthylene d-8		201	69.0	34.3	0.18	0.962
Dibenzothiophene d-8		200	75.0	37.4	0.08	0.792
Phenanthrene d-10		200	86.9	43.4	0.14	0.808
Fluoranthene d-10		199	100	50.4	0.17	0.971
Benzo[a]anthracene d-12		200	85.1	42.6	0.23	1.164
Chrysene d-12		161	68.4	42.6	0.25	1.169
Benzo[b]fluoranthene d-12		199	102	51.0	0.20	0.958
Benzo[k]fluoranthene d-12		195	99.0	50.7	0.19	0.962
Benzo[a]pyrene d-12		200	90.6	45.2	0.18	1.009
Perylene d-12		200	97.6	48.8	0.27	1.024
Dibenzo[a,h]anthracene d-14		192	70.3	36.6	0.24	1.210
Indeno[1,2,3-cd]pyrene d-12		198	74.3	37.4	0.18	1.206
Benzo[ghi]perylene d-12		199	80.7	40.5	0.18	1.237

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-3_Form2_PH5S3795.D_SJ3687584.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
FGH-INCONNU
Sample Collection:
10-Sep-2025 08:30

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	TISSUE	**Lab Sample I.D.:**	L43910-4
Sample Receipt Date:	09-Oct-2025	**Sample Size:**	10.1 g (wet)
Extraction Date:	31-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Analysis Date:	14-Nov-2025 **Time:** 00:53:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	100	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5S3796.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5S3790.D
		Cal. Ver. Data Filename:	PH5S3786.D
Concentration Units:	ng/g (wet weight basis)	**% Moisture:**	74.9
		% Lipid:	5.06

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Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		0.999	0.0129 (S)	0.07	1.006
Acenaphthylene	208-96-8		0.088	0.0124 (S)	0.18	1.003
Acenaphthene	83-32-9		0.073	0.0238 (S)	1.02	1.047
2-Methylfluorene	1430-97-3	NDR	0.138	0.0258 (S)	0.92	0.939
C2 Phenanthrenes/Anthracenes			0.423	0.0212 (S)		
Fluorene	86-73-7		0.319	0.0169 (S)	1.02	0.844
Phenanthrene	85-01-8		1.68	0.0368 (S)	0.19	1.004
Anthracene	120-12-7	ND		0.0381 (S)		
C1 Phenanthrenes/Anthracenes			1.24	0.0179 (S)		
Fluoranthene	206-44-0		0.196	0.0097 (S)	0.24	1.002
Pyrene	129-00-0		0.195	0.0094 (S)	0.21	1.032
Benz[a]anthracene [3]	56-55-3	ND		0.0113 (S)		
Chrysene [4]	218-01-9		0.152	0.0123 (S)	0.28	1.002
Benzo[b]fluoranthene	205-99-2	ND		0.0360 (S)		
Benzo[j,k]fluoranthenes		ND		0.0407 (S)		
Benzo[e]pyrene	192-97-2	ND		0.0534 (S)		
Benzo[a]pyrene	50-32-8	ND		0.0573 (S)		
Perylene	198-55-0	ND		0.0569 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.0347 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.0206 (S)		
Benzo[ghi]perylene	191-24-2	ND		0.0175 (S)		
2-Methylnaphthalene	91-57-6		0.530	0.0197 (S)	0.86	1.009
1-Methylnaphthalene	90-12-0		0.557	0.0216 (S)	0.90	1.040
C1-Naphthalenes			1.09	0.0197 (S)		
Biphenyl	92-52-4		0.634	0.0237 (S)	0.29	1.005
C1-Biphenyls			0.490	0.0221 (S)		
C2-Biphenyls			1.92	0.0127 (S)		
C2-Naphthalenes			2.10	0.0393 (S)		
1,2-Dimethylnaphthalene	573-98-8		0.142	0.0393 (S)	1.33	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		0.205	0.0302 (S)	0.63	1.011
C3-Naphthalenes			3.46	0.0394 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		0.772	0.0405 (S)	0.90	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		0.519	0.0383 (S)	1.03	1.225
C4-Naphthalenes			1.88	0.0201 (S)		
C1-Acenaphthenes		ND		0.0208 (S)		
C1-Fluorenes			0.689	0.0258 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	0.053	0.0405 (S)	0.17	1.037
C2-Fluorenes			0.362	0.0405 (S)		
C3-Fluorenes			0.635	0.0317 (S)		
Dibenzothiophene	132-65-0		0.097	0.0226 (S)	0.07	1.003
C1-Dibenzothiophenes			0.197	0.0306 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		0.0306 (S)		
C2-Dibenzothiophenes			0.383	0.0373 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		0.0373 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	0.040	0.0301 (S)	0.32	1.153
C3-Dibenzothiophenes			0.040	0.0195 (S)		
C4-Dibenzothiophenes			0.189	0.0311 (S)		
3-Methylphenanthrene	832-71-3		0.158	0.0186 (S)	0.56	1.088
2-Methylphenanthrene	2531-84-2	NDR	0.150	0.0179 (S)	1.52	1.093
2-Methylanthracene	613-12-7	ND		0.0201 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		0.771	0.0186 (S)	0.60	1.106
1-Methylphenanthrene	832-69-9		0.309	0.0179 (S)	0.61	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	0.108	0.0202 (S)	1.72	0.970
2,6-Dimethylphenanthrene	17980-16-4	ND		0.0212 (S)		
1,7-Dimethylphenanthrene	483-87-4	NDR	0.042	0.0223 (S)	0.78	0.993
1,8-Dimethylphenanthrene	7372-87-4	NDR	0.024	0.0212 (S)	1.83	1.005
C3-Phenanthrenes/Anthracenes			0.542	0.0272 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		0.0272 (S)		
Retene	483-65-8		0.272	0.0602 (S)	1.66	1.083
C4-Phenanthrenes/Anthracenes			1.24	0.0602 (S)		
C1-Fluoranthenes/Pyrenes			0.223	0.0296 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		0.081	0.0296 (S)	1.09	1.082
C2-Fluoranthenes/Pyrenes			0.035	0.0125 (S)		
C3-Fluoranthenes/Pyrenes		ND		0.0145 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.0130 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0212 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		0.0218 (S)		
1-Methylchrysene	3351-28-8	ND		0.0207 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0324 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		0.0324 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0324 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0339 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		0.0566 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		0.0566 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		0.0429 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		0.264	0.0201 (S)	0.02	1.375

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-4_Form1A_PH5S3796.D_SJ3687585.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
FGH-INCONNU
Sample Collection:
10-Sep-2025 08:30

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	TISSUE	**Lab Sample I.D.:**	L43910-4
Sample Receipt Date:	09-Oct-2025	**Sample Size:**	10.1 g (wet)
Extraction Date:	31-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Analysis Date:	14-Nov-2025 **Time:** 00:53:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	100	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5S3796.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5S3790.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5S3786.D
		% Moisture:	74.9
		% Lipid:	5.06

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Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		200	80.7	40.3	0.09	0.612
2-Methylnaphthalene d-10		202	92.1	45.6	0.20	0.757
Biphenyl d-10		200	95.7	47.7		0.869
2,6-Dimethylnaphthalene d-12		201	100	49.9	0.71	0.896
Acenaphthylene d-8		201	97.0	48.3	0.16	0.962
Dibenzothiophene d-8		200	101	50.5	0.08	0.792
Phenanthrene d-10		200	114	56.7	0.14	0.808
Fluoranthene d-10		199	128	64.2	0.16	0.971
Benzo[a]anthracene d-12		200	123	61.6	0.23	1.164
Chrysene d-12		161	98.8	61.5	0.26	1.169
Benzo[b]fluoranthene d-12		199	129	64.5	0.20	0.957
Benzo[k]fluoranthene d-12		195	124	63.3	0.19	0.961
Benzo[a]pyrene d-12		200	117	58.1	0.19	1.008
Perylene d-12		200	124	62.0	0.24	1.024
Dibenzo[a,h]anthracene d-14		192	77.2	40.2	0.24	1.210
Indeno[1,2,3-cd]pyrene d-12		198	87.0	43.8	0.17	1.205
Benzo[ghi]perylene d-12		199	102	51.0	0.18	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-4_Form2_PH5S3796.D_SJ3687585.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
FGH-WHITEFISH
Sample Collection:
10-Sep-2025 08:30

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43910-5
Matrix:	TISSUE	**Sample Size:**	9.92 g (wet)
Sample Receipt Date:	09-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Extraction Date:	31-Oct-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	14-Nov-2025 **Time:** 01:42:00	**GC Column ID:**	RTX5
Extract Volume (uL):	100	**Sample Data Filename:**	**PH5S3797.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5S3790.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5S3786.D
Concentration Units:	ng/g (wet weight basis)	**% Moisture:**	68.8
		% Lipid:	10.3

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		1.27	0.0273 (S)	0.07	1.006
Acenaphthylene	208-96-8		0.114	0.0087 (S)	0.22	1.003
Acenaphthene	83-32-9		0.120	0.0378 (S)	1.15	1.047
2-Methylfluorene	1430-97-3		0.183	0.0195 (S)	1.01	0.939
C2 Phenanthrenes/Anthracenes			0.396	0.0195 (S)		
Fluorene	86-73-7		0.428	0.0225 (S)	0.97	0.844
Phenanthrene	85-01-8		2.10	0.0283 (S)	0.19	1.004
Anthracene	120-12-7		0.043	0.0293 (S)	0.20	1.012
C1 Phenanthrenes/Anthracenes			1.10	0.0155 (S)		
Fluoranthene	206-44-0		0.191	0.0182 (S)	0.20	1.002
Pyrene	129-00-0		0.223	0.0177 (S)	0.19	1.032
Benz[a]anthracene [3]	56-55-3	ND		0.0139 (S)		
Chrysene [4]	218-01-9	NDR	0.070	0.0154 (S)	0.12	1.002
Benzo[b]fluoranthene	205-99-2	ND		0.0341 (S)		
Benzo[j,k]fluoranthenes		ND		0.0406 (S)		
Benzo[e]pyrene	192-97-2	ND		0.0546 (S)		
Benzo[a]pyrene	50-32-8	ND		0.0585 (S)		
Perylene	198-55-0	ND		0.0574 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.0630 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.0500 (S)		
Benzo[ghi]perylene	191-24-2	ND		0.0396 (S)		
2-Methylnaphthalene	91-57-6		0.633	0.0238 (S)	0.96	1.008
1-Methylnaphthalene	90-12-0		0.736	0.0260 (S)	0.89	1.040
C1-Naphthalenes			1.37	0.0238 (S)		
Biphenyl	92-52-4		0.697	0.0256 (S)	0.28	1.005
C1-Biphenyls			0.362	0.0279 (S)		
C2-Biphenyls			0.714	0.0148 (S)		
C2-Naphthalenes			2.68	0.0555 (S)		
1,2-Dimethylnaphthalene	573-98-8		0.230	0.0555 (S)	1.15	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		0.326	0.0426 (S)	0.61	1.011
C3-Naphthalenes			3.90	0.0445 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		0.798	0.0457 (S)	0.92	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		0.705	0.0433 (S)	1.02	1.224
C4-Naphthalenes			1.69	0.0271 (S)		
C1-Acenaphthenes		ND		0.0406 (S)		
C1-Fluorenes			0.938	0.0195 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	0.055	0.0404 (S)	0.19	1.032
C2-Fluorenes			0.821	0.0404 (S)		
C3-Fluorenes			0.603	0.0244 (S)		
Dibenzothiophene	132-65-0	NDR	0.125	0.0112 (S)	0.23	1.003
C1-Dibenzothiophenes			0.179	0.0326 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	NDR	0.052	0.0326 (S)	1.31	1.096
C2-Dibenzothiophenes			0.484	0.0390 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		0.044	0.0390 (S)	0.56	1.163
4,6-Dimethyldibenzothiophene	1207-12-1	NDR	0.052	0.0314 (S)	0.39	1.153
C3-Dibenzothiophenes			0.056	0.0439 (S)		
C4-Dibenzothiophenes			0.212	0.0473 (S)		
3-Methylphenanthrene	832-71-3		0.208	0.0161 (S)	0.57	1.088
2-Methylphenanthrene	2531-84-2	NDR	0.158	0.0155 (S)	0.94	1.092
2-Methylanthracene	613-12-7	ND		0.0174 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		0.563	0.0161 (S)	0.61	1.106
1-Methylphenanthrene	832-69-9		0.328	0.0155 (S)	0.63	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	0.097	0.0186 (S)	6.24	0.969
2,6-Dimethylphenanthrene	17980-16-4	ND		0.0195 (S)		
1,7-Dimethylphenanthrene	483-87-4	NDR	0.070	0.0205 (S)	1.27	0.993
1,8-Dimethylphenanthrene	7372-87-4	ND		0.0195 (S)		
C3-Phenanthrenes/Anthracenes			0.846	0.0187 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		0.0187 (S)		
Retene	483-65-8		0.319	0.0674 (S)	1.81	1.083
C4-Phenanthrenes/Anthracenes			1.51	0.0674 (S)		
C1-Fluoranthenes/Pyrenes			0.212	0.0281 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		0.075	0.0281 (S)	1.12	1.082
C2-Fluoranthenes/Pyrenes		ND		0.0118 (S)		
C3-Fluoranthenes/Pyrenes		ND		0.0107 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.0208 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0252 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		0.0259 (S)		
1-Methylchrysene	3351-28-8	ND		0.0245 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0324 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		0.0324 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0398 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0370 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		0.0692 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		0.0692 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		0.0716 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		0.222	0.0271 (S)	0.02	1.375

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43910-5_Form1A_PH5S3797.D_SJ3687586.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
FGH-WHITEFISH
Sample Collection:
10-Sep-2025 08:30

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	TISSUE	**Lab Sample I.D.:**	L43910-5
Sample Receipt Date:	09-Oct-2025	**Sample Size:**	9.92 g (wet)
Extraction Date:	31-Oct-2025	**Initial Calibration Date:**	23-Sep-2025
Analysis Date:	14-Nov-2025 **Time:** 01:42:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	100	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5S3797.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5S3790.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5S3786.D
		% Moisture:	68.8
		% Lipid:	10.3

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Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		200	83.8	41.8	0.09	0.611
2-Methylnaphthalene d-10		202	105	52.2	0.19	0.757
Biphenyl d-10		200	116	57.8		0.869
2,6-Dimethylnaphthalene d-12		201	121	60.2	0.72	0.896
Acenaphthylene d-8		201	119	59.2	0.17	0.961
Dibenzothiophene d-8		200	120	59.7	0.08	0.792
Phenanthrene d-10		200	140	70.0	0.14	0.808
Fluoranthene d-10		199	149	74.8	0.16	0.971
Benzo[a]anthracene d-12		200	131	65.3	0.24	1.164
Chrysene d-12		161	105	65.0	0.28	1.169
Benzo[b]fluoranthene d-12		199	145	72.9	0.20	0.958
Benzo[k]fluoranthene d-12		195	140	71.8	0.18	0.962
Benzo[a]pyrene d-12		200	126	62.7	0.19	1.009
Perylene d-12		200	139	69.7	0.25	1.024
Dibenzo[a,h]anthracene d-14		192	81.3	42.3	0.23	1.210
Indeno[1,2,3-cd]pyrene d-12		198	91.1	45.9	0.18	1.206
Benzo[ghi]perylene d-12		199	109	54.8	0.18	1.237

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

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Report Filename: PAH_PAH_LO_LPAHF_L43910-5_Form2_PH5S3797.D_SJ3687586.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4608	**Lab Sample I.D.:**	WG95677-101
Matrix:	CANOLA OIL	**Sample Size:**	10.0 g
Sample Receipt Date:	N/A	**Initial Calibration Date:**	23-Sep-2025
Extraction Date:	31-Oct-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	13-Nov-2025 **Time:** 20:00:00	**GC Column ID:**	RTX5
Extract Volume (uL):	100	**Sample Data Filename:**	**PH5S3790.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5S3790.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5S3786.D

Concentration Units: ng/g

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Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		0.396	0.0262 (S)	0.07	1.007
Acenaphthylene	208-96-8	ND		0.0212 (S)		
Acenaphthene	83-32-9	ND		0.0216 (S)		
2-Methylfluorene	1430-97-3	ND		0.0159 (S)		
C2 Phenanthrenes/Anthracenes			0.159	0.0159 (S)		
Fluorene	86-73-7	ND		0.0120 (S)		
Phenanthrene	85-01-8		0.099	0.0165 (S)	0.22	1.004
Anthracene	120-12-7	ND		0.0171 (S)		
C1 Phenanthrenes/Anthracenes		ND		0.0299 (S)		
Fluoranthene	206-44-0		0.051	0.0107 (S)	0.22	1.002
Pyrene	129-00-0		0.071	0.0103 (S)	0.23	1.032
Benz[a]anthracene [3]	56-55-3	ND		0.0166 (S)		
Chrysene [4]	218-01-9	ND		0.0171 (S)		
Benzo[b]fluoranthene	205-99-2	ND		0.0374 (S)		
Benzo[j,k]fluoranthenes		ND		0.0428 (S)		
Benzo[e]pyrene	192-97-2	ND		0.0573 (S)		
Benzo[a]pyrene	50-32-8	ND		0.0615 (S)		
Perylene	198-55-0	ND		0.0615 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		0.0332 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		0.0234 (S)		
Benzo[ghi]perylene	191-24-2	ND		0.0208 (S)		
2-Methylnaphthalene	91-57-6		0.239	0.0320 (S)	0.99	1.008
1-Methylnaphthalene	90-12-0		0.147	0.0350 (S)	0.88	1.040
C1-Naphthalenes			0.386	0.0320 (S)		
Biphenyl	92-52-4		0.156	0.0138 (S)	0.29	1.005
C1-Biphenyls			0.397	0.0143 (S)		
C2-Biphenyls			1.97	0.0350 (S)		
C2-Naphthalenes			0.402	0.0479 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		0.0479 (S)		

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		0.080	0.0368 (S)	0.55	1.011
C3-Naphthalenes			0.250	0.0344 (S)		
2,3,6-Trimethylnaphthalene	829-26-5	ND		0.0354 (S)		
2,3,5-Trimethylnaphthalene	2245-38-7	ND		0.0335 (S)		
C4-Naphthalenes		ND		0.0431 (S)		
C1-Acenaphthenes		ND		0.0173 (S)		
C1-Fluorenes			0.127	0.0159 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	0.098	0.0333 (S)	0.26	1.032
C2-Fluorenes			0.308	0.0333 (S)		
C3-Fluorenes		ND		0.0316 (S)		
Dibenzothiophene	132-65-0	ND		0.0279 (S)		
C1-Dibenzothiophenes		ND		0.0308 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		0.0308 (S)		
C2-Dibenzothiophenes		ND		0.0332 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		0.0332 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		0.0268 (S)		
C3-Dibenzothiophenes		ND		0.0332 (S)		
C4-Dibenzothiophenes		ND		0.0391 (S)		
3-Methylphenanthrene	832-71-3	ND		0.0311 (S)		
2-Methylphenanthrene	2531-84-2	ND		0.0300 (S)		
2-Methylanthracene	613-12-7	ND		0.0336 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4	ND		0.0311 (S)		
1-Methylphenanthrene	832-69-9	ND		0.0299 (S)		
3,6-Dimethylphenanthrene	1576-67-6	ND		0.0152 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		0.0159 (S)		
1,7-Dimethylphenanthrene	483-87-4		0.083	0.0168 (S)	0.28	0.992
1,8-Dimethylphenanthrene	7372-87-4	ND		0.0159 (S)		
C3-Phenanthrenes/Anthracenes		ND		0.0169 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		0.0169 (S)		
Retene	483-65-8	ND		0.0864 (S)		
C4-Phenanthrenes/Anthracenes		ND		0.0864 (S)		
C1-Fluoranthenes/Pyrenes			0.031	0.0218 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		0.0218 (S)		
C2-Fluoranthenes/Pyrenes		ND		0.0157 (S)		
C3-Fluoranthenes/Pyrenes		ND		0.0111 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.0157 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0208 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		0.0214 (S)		
1-Methylchrysene	3351-28-8	ND		0.0202 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0373 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		0.0373 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0519 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		0.0381 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		0.0715 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		0.0715 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		0.0640 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		0.0431 (S)		

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_WG95677-101_Form1A_PH5S3790.D_SJ3687578.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4608	**Lab Sample I.D.:**	WG95677-101
Matrix:	CANOLA OIL	**Sample Size:**	10.0 g
Sample Receipt Date:	N/A	**Initial Calibration Date:**	23-Sep-2025
Extraction Date:	31-Oct-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	13-Nov-2025 **Time:** 20:00:00	**GC Column ID:**	RTX5
Extract Volume (uL):	100	**Sample Data Filename:**	**PH5S3790.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5S3790.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5S3786.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with CALA accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		200	78.5	39.2	0.09	0.612
2-Methylnaphthalene d-10		202	86.6	42.9	0.19	0.757
Biphenyl d-10		200	90.9	45.3		0.869
2,6-Dimethylnaphthalene d-12		201	92.2	45.9	0.72	0.896
Acenaphthylene d-8		201	88.5	44.0	0.16	0.962
Dibenzothiophene d-8		200	80.1	40.0	0.08	0.792
Phenanthrene d-10		200	109	54.3	0.14	0.808
Fluoranthene d-10		199	132	66.4	0.16	0.971
Benzo[a]anthracene d-12		200	111	55.3	0.23	1.164
Chrysene d-12		161	93.4	58.1	0.26	1.169
Benzo[b]fluoranthene d-12		199	135	67.4	0.20	0.957
Benzo[k]fluoranthene d-12		195	132	67.6	0.19	0.962
Benzo[a]pyrene d-12		200	123	61.2	0.19	1.008
Perylene d-12		200	128	64.1	0.23	1.024
Dibenzo[a,h]anthracene d-14		192	102	53.1	0.23	1.210
Indeno[1,2,3-cd]pyrene d-12		198	111	56.0	0.17	1.206
Benzo[ghi]perylene d-12		199	123	61.9	0.19	1.237

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_WG95677-101_Form2_PH5S3790.D_SJ3687578.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 8A

POLYAROMATIC HYDROCARBON ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4608 **OPR Data Filename:** **PH5S3787.D**

Matrix: TISSUE **Lab Sample I.D.:** WG95677-102

Extraction Date: 31-Oct-2025 **Analysis Date:** 13-Nov-2025 **Time:** 17:34:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON 100 uL EXTRACT.

COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
Naphthalene	91-20-3		0.06	1980	2070	1380 - 2570	105
Acenaphthylene	208-96-8		0.20	1990	1950	1390 - 2780	98.0
Acenaphthene	83-32-9		1.12	1990	2110	1390 - 2580	106
2-Methylfluorene	1430-97-3		1.19	2000	1990	1000 - 3000	99.3
Fluorene	86-73-7		0.98	1980	1690	1190 - 2780	85.0
Phenanthrene	85-01-8		0.18	2020	2000	1420 - 2630	99.1
Anthracene	120-12-7		0.17	2000	2030	1400 - 2610	101
Fluoranthene	206-44-0		0.20	1970	1970	1380 - 2560	99.8
Pyrene	129-00-0		0.20	1980	1960	1390 - 2580	98.8
Benz[a]anthracene	56-55-3		0.27	2010	1970	1410 - 2610	98.1
Chrysene	218-01-9		0.29	2020	2060	1410 - 2620	102
Benzo[b]fluoranthene	205-99-2		0.21	2000	1960	1400 - 2600	98.0
Benzo[j,k]fluoranthenes			0.21	2010	2060	1410 - 2620	102
Benzo[e]pyrene	192-97-2		0.22	2000	2310	1400 - 2600	115
Benzo[a]pyrene	50-32-8		0.22	2010	2040	1410 - 2610	101
Perylene	198-55-0		0.22	2000	2040	1400 - 2600	102
Dibenz[a,h]anthracene	53-70-3		0.14	2020	2110	1410 - 2620	104
Indeno[1,2,3-cd]pyrene	193-39-5		0.18	2020	2070	1410 - 2630	103
Benzo[ghi]perylene	191-24-2		0.19	2000	2020	1400 - 2610	101
2-Methylnaphthalene	91-57-6		0.89	2000	2050	1400 - 2600	103
1-Methylnaphthalene	90-12-0		0.90	2000	2090	1400 - 2600	105
Biphenyl	92-52-4		0.28	1990	2040	1390 - 2590	103
1,2-Dimethylnaphthalene	573-98-8		1.22	2000	2030	1200 - 2790	102
2,6-Dimethylnaphthalene	581-42-0		0.65	2010	2010	1410 - 2610	100
2,3,6-Trimethylnaphthalene	829-26-5		0.86	2000	2340	998 - 2990	117
2,3,5-Trimethylnaphthalene	2245-38-7		0.87	2000	2310	1000 - 3000	115
1,7-Dimethylfluorene	442-66-0		0.08	1990	2280	995 - 2980	114
Dibenzothiophene	132-65-0		0.08	2000	2000	1200 - 2800	100
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		0.70	2010	1950	1000 - 3010	97.2
4,6-Dimethyldibenzothiophene	1207-12-1		0.18	2000	2470	999 - 3000	124
2-Methylphenanthrene	2531-84-2		0.57	1990	2240	996 - 2990	113
2-Methylanthracene	613-12-7		0.49	2000	2100	1000 - 3000	105
1-Methylphenanthrene	832-69-9		0.64	2000	2270	1000 - 3000	114
3,6-Dimethylphenanthrene	1576-67-6		0.35	2010	2260	1000 - 3010	113
1,7-Dimethylphenanthrene	483-87-4		0.33	1950	2180	975 - 2930	112

COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
1,2,6-Trimethylphenanthrene	30436-55-6		0.59	2000	2370	1000 - 3000	119
Retene	483-65-8		1.63	2000	2420	999 - 3000	121
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		1.05	2010	2090	1010 - 3020	104
5/6-Methylchrysene	3697-24-3/1705-85-7			2000	2240	1000 - 3000	112
1-Methylchrysene	3351-28-8			1990	2070	997 - 2990	104
5,9-Dimethylchrysene	139493-40-6			2010	2220	1000 - 3010	111
7-Methylbenzo[a]pyrene	63041-77-0			2000	2110	999 - 3000	105
1,4,6,7-Tetramethylnaphthalene	13764-18-6		0.02	1990	2650	997 - 3990	133

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Pest8A.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62; Report Filename: PAH_PAH_LO_LPAHF_WG95677-102_Form8A_SJ3687575.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 8B

POLYAROMATIC HYDROCARBON ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4608 **OPR Data Filename:** **PH5S3787.D**

Matrix: TISSUE **Lab Sample I.D.:** WG95677-102

Extraction Date: 31-Oct-2025 **Analysis Date:** 13-Nov-2025 **Time:** 17:34:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON 100 uL EXTRACT.

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
Naphthalene d-8	1146-65-2		0.09	2000	729	301-2610	36.4
2-Methylnaphthalene d-10	7297-45-2		0.20	2020	881	404-2630	43.6
Biphenyl d-10	1486-01-7			2000	947	301-2610	47.2
2,6-Dimethylnaphthalene d-12	350820-12-1		0.72	2010	979	402-2610	48.7
Acenaphthylene d-8	93951-97-4		0.17	2010	947	402-2610	47.1
Dibenzothiophene d-8	33262-29-2		0.08	2000	987	601-2610	49.2
Phenanthrene d-10	1517-22-2		0.14	2000	1300	601-2610	64.8
Fluoranthene d-10	93951-69-0		0.17	1990	1440	597-2590	72.6
Benzo[a]anthracene d-12	1718-53-2		0.23	2000	1170	600-2600	58.7
Chrysene d-12	1719-03-5		0.27	1610	934	482-2090	58.1
Benzo[b]fluoranthene d-12	93951-98-5		0.20	1990	1470	598-2590	73.8
Benzo[k]fluoranthene d-12	93952-01-3		0.19	1950	1430	586-2540	73.2
Benzo[a]pyrene d-12	63466-71-7		0.19	2000	1320	601-2610	65.6
Perylene d-12	1520-96-3		0.27	2000	1400	600-2600	70.2
Dibenzo[a,h]anthracene d-14	13250-98-1		0.23	1920	1070	576-2500	55.8
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		0.18	1980	1110	595-2580	56.1
Benzo[ghi]perylene d-12	93951-66-7		0.19	1990	1200	597-2590	60.3

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Pest8B.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62; Report Filename: PAH_PAH_LO_LPAHF_WG95677-102_Form8B_SJ3687575.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 3A

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 23-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5S3029.D

CS2 Data Filename: PH5S3030.D

CS3 Data Filename: PH5S3031.D

CS4 Data Filename: PH5S3032.D

CS5 Data Filename: PH5S3033.D

CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
COMPOUND	**LAB FLAG 1**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
Naphthalene			1.13	1.18	1.20	1.18	1.17		1.17	2.33
Acenaphthylene			1.23	1.27	1.29	1.26	1.26		1.26	1.87
Acenaphthene			0.67	0.70	0.72	0.71	0.71		0.70	2.60
2-Methylfluorene			0.54	0.55	0.58	0.59	0.61		0.58	4.80
Fluorene			0.84	0.86	0.89	0.89	0.91		0.88	3.08
Phenanthrene			1.26	1.31	1.32	1.31	1.30		1.30	1.78
Anthracene			1.21	1.27	1.28	1.28	1.25		1.26	2.43
Fluoranthene			1.23	1.28	1.30	1.28	1.26		1.27	1.87
Pyrene			1.28	1.33	1.33	1.32	1.29		1.31	1.90
Benz[a]anthracene			1.31	1.35	1.34	1.34	1.35		1.34	1.08
Chrysene			1.20	1.24	1.27	1.27	1.26		1.25	2.26
Benzo[b]fluoranthene			1.57	1.57	1.53	1.52	1.53		1.54	1.55
Benzo[j,k]fluoranthenes			1.31	1.35	1.42	1.40	1.42		1.38	3.60
Benzo[e]pyrene			1.39	1.43	1.49	1.46	1.47		1.45	2.50
Benzo[a]pyrene			1.28	1.31	1.37	1.38	1.42		1.35	4.20
Perylene			1.19	1.25	1.31	1.33	1.37		1.29	5.26
Dibenz[a,h]anthracene			1.31	1.35	1.40	1.41	1.43		1.38	3.38
Indeno[1,2,3-cd]pyrene			1.28	1.32	1.35	1.32	1.35		1.32	1.97
Benzo[ghi]perylene			1.37	1.42	1.45	1.45	1.46		1.43	2.59
2-Methylnaphthalene			1.20	1.25	1.27	1.25	1.25		1.24	2.14
1-Methylnaphthalene			1.09	1.14	1.16	1.14	1.15		1.14	2.49
Biphenyl			1.10	1.16	1.17	1.15	1.16		1.15	2.56
C1-Biphenyls			1.10	1.16	1.17	1.15	1.16		1.15	2.56
C2-Biphenyls			1.10	1.16	1.17	1.15	1.16		1.15	2.56
1,2-Dimethylnaphthalene			0.94	0.97	0.98	0.96	0.96		0.96	1.53
2,6-Dimethylnaphthalene			1.20	1.26	1.28	1.26	1.26		1.25	2.25
C3-Naphthalenes			1.11	1.17	1.20	1.20	1.20		1.18	3.47
2,3,6-Trimethylnaphthalene			1.08	1.13	1.17	1.17	1.17		1.14	3.64
2,3,5-Trimethylnaphthalene			1.14	1.20	1.23	1.22	1.24		1.21	3.29
C4-Naphthalenes			1.07	1.12	1.16	1.14	1.17		1.13	3.64
C1-Acenaphthenes			0.67	0.70	0.72	0.71	0.71		0.70	2.60
C1-Fluorenes			0.54	0.55	0.58	0.59	0.61		0.58	4.80
1,7-Dimethylfluorene			0.50	0.52	0.54	0.55	0.57		0.53	5.08
C2-Fluorenes			0.50	0.52	0.54	0.55	0.57		0.53	5.08
C3-Fluorenes			0.50	0.52	0.54	0.55	0.57		0.53	5.08
Dibenzothiophene			1.12	1.17	1.18	1.16	1.15		1.15	1.97
2/3-Methyldibenzothiophenes			0.78	0.83	0.86	0.86	0.86		0.84	3.89
C2-Dibenzothiophenes			0.57	0.58	0.59	0.63	0.63		0.60	4.42

COMPOUND	LAB FLAG 1	RELATIVE RESPONSE (RR) CS0	CS1	CS2	CS3	CS4	CS5	CS6	MEAN RR	CV (%RSD)[2]
2,4-Dimethyldibenzothiophene			0.57	0.58	0.59	0.63	0.63		0.60	4.42
4,6-Dimethyldibenzothiophene			0.69	0.73	0.76	0.77	0.78		0.75	4.80
C3-Dibenzothiophenes			0.57	0.58	0.59	0.63	0.63		0.60	4.42
C4-Dibenzothiophenes			0.57	0.58	0.59	0.63	0.63		0.60	4.42
3-Methylphenanthrene			0.81	0.85	0.88	0.91	0.89		0.87	4.61
2-Methylphenanthrene			0.84	0.89	0.91	0.93	0.92		0.90	4.24
2-Methylanthracene			0.75	0.78	0.81	0.85	0.83		0.80	5.07
9/4-Methylphenanthrene			0.81	0.85	0.88	0.91	0.89		0.87	4.61
1-Methylphenanthrene			0.83	0.88	0.92	0.94	0.93		0.90	4.70
3,6-Dimethylphenanthrene			0.66	0.67	0.71	0.71	0.75		0.70	4.98
2,6-Dimethylphenanthrene			0.63	0.65	0.68	0.68	0.70		0.67	4.28
1,7-Dimethylphenanthrene			0.60	0.62	0.64	0.65	0.66		0.63	3.69
1,8-Dimethylphenanthrene			0.63	0.65	0.68	0.68	0.70		0.67	4.28
C3-Phenanthrenes/Anthracenes			0.54	0.58	0.59	0.61	0.61		0.59	4.90
1,2,6-Trimethylphenanthrene			0.54	0.58	0.59	0.61	0.61		0.59	4.90
Retene			0.21	0.22	0.23	0.24	0.25		0.23	6.64
C4-Phenanthrenes/Anthracenes			0.21	0.22	0.23	0.24	0.25		0.23	6.64
3-Methylfluoranthene/Benzo[a]fluorene			0.66	0.72	0.74	0.76	0.73		0.72	5.08
C2-Fluoranthenes/Pyrenes			0.66	0.72	0.74	0.76	0.73		0.72	5.08
C3-Fluoranthenes/Pyrenes			0.66	0.72	0.74	0.76	0.73		0.72	5.08
C4-Fluoranthenes/Pyrenes			0.66	0.72	0.74	0.76	0.73		0.72	5.08
C1-Benzo[a]anthracenes/Chrysenes			0.81	0.85	0.87	0.91	0.90		0.87	4.61
5/6-Methylchrysene			0.80	0.83	0.85	0.87	0.87		0.84	3.84
1-Methylchrysene			0.82	0.87	0.89	0.94	0.92		0.89	5.38
C2-Benzo[a]anthracenes/Chrysenes			0.64	0.67	0.69	0.74	0.73		0.69	5.52
5,9-Dimethylchrysene			0.64	0.67	0.69	0.74	0.73		0.69	5.52
C3-Benzo[a]anthracenes/Chrysenes			0.64	0.67	0.69	0.74	0.73		0.69	5.52
C4-Benzo[a]anthracenes/Chrysenes			0.64	0.67	0.69	0.74	0.73		0.69	5.52
C1-Benzofluoranthenes/Benzopyrenes			0.85	0.87	0.92	0.96	0.99		0.92	6.63
7-Methylbenzo[a]pyrene			0.85	0.87	0.92	0.96	0.99		0.92	6.63
C2-Benzofluoranthenes/Benzopyrenes			0.85	0.87	0.92	0.96	0.99		0.92	6.63
1,4,6,7-Tetramethylnaphthalene			1.07	1.12	1.16	1.14	1.17		1.13	3.64

(1) Where applicable, custom lab flags have been used on this report.
(2) QC limit is 20% for native compounds with a labeled analog, 35% for those without a labeled analog.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Anita Riggs

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Report Filename: GENERIC-SPECS_PAH_LO_23-Sep-2025_PH5S__Form3A_GS118081.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 3B

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 23-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5S3029.D

CS2 Data Filename: PH5S3030.D

CS3 Data Filename: PH5S3031.D

CS4 Data Filename: PH5S3032.D

CS5 Data Filename: PH5S3033.D

CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
LABELED COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
Naphthalene d-8			1.65	1.63	1.64	1.63	1.62		1.63	0.60
2-Methylnaphthalene d-10			1.07	1.05	1.05	1.06	1.06		1.06	0.53
Biphenyl d-10			1.42	1.39	1.40	1.40	1.39		1.40	0.67
2,6-Dimethylnaphthalene d-12			0.94	0.92	0.93	0.93	0.93		0.93	0.60
Acenaphthylene d-8			1.78	1.76	1.76	1.77	1.76		1.77	0.55
Dibenzothiophene d-8			1.07	1.02	1.04	1.02	1.09		1.05	3.23
Phenanthrene d-10			0.96	0.93	0.94	0.92	0.99		0.95	3.14
Fluoranthene d-10			1.02	1.02	1.02	1.02	1.04		1.02	1.00
Benzo[a]anthracene d-12			0.79	0.84	0.79	0.84	0.71		0.79	6.61
Chrysene d-12			0.81	0.86	0.81	0.86	0.74		0.82	6.13
Benzo[b]fluoranthene d-12			0.99	0.98	0.98	0.98	1.00		0.98	0.98
Benzo[k]fluoranthene d-12			1.00	1.00	1.00	1.02	1.05		1.01	2.27
Benzo[a]pyrene d-12			0.93	0.93	0.92	0.94	0.97		0.94	1.81
Perylene d-12			0.97	0.97	0.96	0.97	0.98		0.97	0.76
Dibenzo[a,h]anthracene d-14			0.75	0.76	0.76	0.75	0.82		0.77	3.80
Indeno[1,2,3-cd]pyrene d-12			0.92	0.92	0.91	0.92	0.95		0.92	1.75
Benzo[ghi]perylene d-12			0.90	0.90	0.88	0.89	0.91		0.89	1.16

(1) Where applicable, custom lab flags have been used on this report.
(2) QC limit is 35% for labeled compounds.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Anita Riggs

For Axys Internal Use Only [XSL Template: Form3B.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_23-Sep-2025_PH5S__Form3B_GS118081.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 3C

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 23-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5S3029.D

CS2 Data Filename: PH5S3030.D

CS3 Data Filename: PH5S3031.D

CS4 Data Filename: PH5S3032.D

CS5 Data Filename: PH5S3033.D

CS6 Data Filename: N/A

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
Naphthalene		**128,102**		0.07	0.07	0.07	0.07	0.07	
Acenaphthylene		**152,151**		0.20	0.20	0.20	0.20	0.20	
Acenaphthene		**154,153**		1.12	1.15	1.14	1.14	1.14	
2-Methylfluorene		**180,165**		1.27	1.26	1.27	1.26	1.26	
Fluorene		**166,165**		0.98	0.98	0.98	0.98	0.99	
Phenanthrene		**178,176**		0.19	0.19	0.19	0.19	0.19	
Anthracene		**178,176**		0.18	0.18	0.18	0.19	0.19	
Fluoranthene		**202,200**		0.20	0.20	0.20	0.20	0.21	
Pyrene		**202,200**		0.21	0.20	0.20	0.21	0.21	
Benz[a]anthracene		**228,226**		0.26	0.26	0.27	0.27	0.27	
Chrysene		**228,226**		0.30	0.30	0.30	0.30	0.30	
Benzo[b]fluoranthene		**252,253**		0.23	0.21	0.22	0.22	0.22	
Benzo[j,k]fluoranthenes		**252,253**		0.22	0.22	0.22	0.22	0.22	
Benzo[e]pyrene		**252,253**		0.22	0.22	0.21	0.22	0.22	
Benzo[a]pyrene		**252,253**		0.24	0.22	0.22	0.22	0.22	
Perylene		**252,253**		0.23	0.22	0.22	0.22	0.22	
Dibenz[a,h]anthracene		**278,139**		0.17	0.18	0.17	0.17	0.17	
Indeno[1,2,3-cd]pyrene		**276,138**		0.23	0.22	0.21	0.21	0.21	
Benzo[ghi]perylene		**276,138**		0.23	0.23	0.23	0.23	0.23	
2-Methylnaphthalene		**142,141**		0.88	0.89	0.89	0.89	0.89	
1-Methylnaphthalene		**142,141**		0.92	0.92	0.92	0.92	0.92	
Biphenyl		**154,152**		0.29	0.28	0.28	0.29	0.29	
1,2-Dimethylnaphthalene		**156,141**		1.24	1.24	1.27	1.27	1.27	
2,6-Dimethylnaphthalene		**156,141**		0.67	0.68	0.67	0.68	0.68	
2,3,6-Trimethylnaphthalene		**170,155**		0.90	0.90	0.88	0.89	0.90	
2,3,5-Trimethylnaphthalene		**170,155**		0.88	0.89	0.89	0.89	0.89	
1,7-Dimethylfluorene		**194,177**		0.08	0.08	0.08	0.08	0.08	
Dibenzothiophene		**184,152**		0.09	0.08	0.08	0.08	0.08	
2/3-Methyldibenzothiophenes		**198,197**		0.71	0.71	0.71	0.71	0.71	
2,4-Dimethyldibenzothiophene		**212,197**		0.53	0.52	0.51	0.51	0.51	
4,6-Dimethyldibenzothiophene		**212,197**		0.17	0.16	0.16	0.16	0.16	
3-Methylphenanthrene		**192,191**							
2-Methylphenanthrene		**192,191**		0.59	0.57	0.57	0.58	0.58	
2-Methylanthracene		**192,191**		0.50	0.49	0.50	0.50	0.50	
9/4-Methylphenanthrene		**192,191**							
1-Methylphenanthrene		**192,191**		0.60	0.60	0.60	0.60	0.60	
3,6-Dimethylphenanthrene		**206,191**		0.37	0.37	0.36	0.36	0.36	
2,6-Dimethylphenanthrene		**206,191**							
1,7-Dimethylphenanthrene		**206,191**		0.34	0.34	0.34	0.34	0.34	

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
1,8-Dimethylphenanthrene		**206,191**							
1,2,6-Trimethylphenanthrene		**220,205**		0.61	0.60	0.60	0.60	0.61	
Retene		**234,219**		1.70	1.66	1.64	1.65	1.65	
3-Methylfluoranthene/Benzo[a]fluorene		**216,215**		1.05	1.06	1.07	1.07	1.06	
5/6-Methylchrysene		**242**							
1-Methylchrysene		**242**							
5,9-Dimethylchrysene		**256**							
7-Methylbenzo[a]pyrene		**266**							
1,4,6,7-Tetramethylnaphthalene		**184,139**		0.03	0.03	0.03	0.03	0.03	

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Anita Riggs

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Report Filename: GENERIC-SPECS_PAH_LO_23-Sep-2025_PH5S__Form3C_GS118081.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 3D

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 23-Sep-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5S3029.D

CS2 Data Filename: PH5S3030.D

CS3 Data Filename: PH5S3031.D

CS4 Data Filename: PH5S3032.D

CS5 Data Filename: PH5S3033.D

CS6 Data Filename: N/A

LABELED COMPOUND	LAB FLAG[1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
Naphthalene d-8		**136,134**		0.09	0.09	0.09	0.09	0.09	
2-Methylnaphthalene d-10		**152,151**		0.19	0.19	0.19	0.19	0.19	
Biphenyl d-10		**164**							
2,6-Dimethylnaphthalene d-12		**168,150**		0.75	0.75	0.75	0.75	0.75	
Acenaphthylene d-8		**160,158**		0.16	0.16	0.16	0.16	0.16	
Dibenzothiophene d-8		**192,160**		0.08	0.08	0.08	0.09	0.09	
Phenanthrene d-10		**188,184**		0.15	0.15	0.15	0.15	0.14	
Fluoranthene d-10		**212,208**		0.17	0.17	0.17	0.17	0.17	
Benzo[a]anthracene d-12		**240,236**		0.24	0.24	0.24	0.24	0.24	
Chrysene d-12		**240,236**		0.27	0.27	0.27	0.27	0.27	
Benzo[b]fluoranthene d-12		**264,260**		0.20	0.20	0.20	0.20	0.20	
Benzo[k]fluoranthene d-12		**264,260**		0.20	0.20	0.20	0.20	0.20	
Benzo[a]pyrene d-12		**264,260**		0.20	0.20	0.20	0.20	0.20	
Perylene d-12		**264,260**		0.25	0.24	0.24	0.24	0.24	
Dibenzo[a,h]anthracene d-14		**292,288**		0.23	0.23	0.23	0.23	0.23	
Indeno[1,2,3-cd]pyrene d-12		**288,284**		0.18	0.18	0.18	0.18	0.18	
Benzo[ghi]perylene d-12		**288,284**		0.20	0.20	0.20	0.20	0.20	

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Anita Riggs

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Report Filename: GENERIC-SPECS_PAH_LO_23-Sep-2025_PH5S__Form3D_GS118081.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 4A

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	23-Sep-2025	**VER Data Filename:**	PH5S3786.D
Instrument ID:	LR GC/MS	**Analysis Date:**	13-Nov-2025
GC Column ID:	RTX5	**Analysis Time:**	16:45:00

COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene	91-20-3		128,102	0.07	0.06-0.08	1970	1480-2470
Acenaphthylene	208-96-8		152,151	0.20	0.16-0.24	1960	1490-2480
Acenaphthene	83-32-9		154,153	1.12	0.90-1.34	2020	1490-2480
2-Methylfluorene	1430-97-3		180,165	1.20	0.96-1.44	2100	1500-2500
Fluorene	86-73-7		166,165	0.98	0.78-1.18	1970	1490-2480
Phenanthrene	85-01-8		178,176	0.19	0.15-0.23	2010	1520-2530
Anthracene	120-12-7		178,176	0.18	0.14-0.22	1990	1500-2510
Fluoranthene	206-44-0		202,200	0.20	0.16-0.24	1980	1480-2470
Pyrene	129-00-0		202,200	0.20	0.16-0.24	1980	1490-2480
Benz[a]anthracene	56-55-3		228,226	0.26	0.21-0.31	2040	1510-2510
Chrysene	218-01-9		228,226	0.29	0.23-0.35	2050	1510-2520
Benzo[b]fluoranthene	205-99-2		252,253	0.22	0.18-0.26	1970	1500-2500
Benzo[j,k]fluoranthenes			252,253	0.21	0.17-0.25	2080	1510-2520
Benzo[e]pyrene	192-97-2		252,253	0.22	0.18-0.26	2020	1500-2500
Benzo[a]pyrene	50-32-8		252,253	0.22	0.18-0.26	2070	1510-2510
Perylene	198-55-0		252,253	0.22	0.18-0.26	2080	1500-2500
Dibenz[a,h]anthracene	53-70-3		278,139	0.14	0.09-0.19	2120	1510-2520
Indeno[1,2,3-cd]pyrene	193-39-5		276,138	0.18	0.12-0.24	2070	1520-2530
Benzo[ghi]perylene	191-24-2		276,138	0.19	0.12-0.26	2060	1500-2510
2-Methylnaphthalene	91-57-6		142,141	0.87	0.70-1.04	2000	1500-2500
1-Methylnaphthalene	90-12-0		142,141	0.91	0.73-1.09	2000	1500-2500
Biphenyl	92-52-4		154,152	0.28	0.22-0.34	1980	1490-2490
1,2-Dimethylnaphthalene	573-98-8		156,141	1.23	0.98-1.48	1990	1500-2490
2,6-Dimethylnaphthalene	581-42-0		156,141	0.66	0.53-0.79	2020	1510-2510
2,3,6-Trimethylnaphthalene	829-26-5		170,155	0.85	0.68-1.02	2090	1500-2490
2,3,5-Trimethylnaphthalene	2245-38-7		170,155	0.87	0.70-1.04	2070	1500-2500
1,7-Dimethylfluorene	442-66-0		194,177	0.08	0.06-0.10	2140	1490-2490
Dibenzothiophene	132-65-0		184,152	0.08	0.06-0.10	2010	1500-2500
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		198,197	0.70	0.56-0.84	2130	1510-2510
2,4-Dimethyldibenzothiophene	31317-18-7		212,197	0.49	0.39-0.59	2220	1500-2500
4,6-Dimethyldibenzothiophene	1207-12-1		212,197	0.16	0.13-0.19	2170	1500-2500
2-Methylphenanthrene	2531-84-2		192,191	0.57	0.46-0.68	2090	1490-2490
2-Methylanthracene	613-12-7		192,191	0.49	0.39-0.59	2120	1500-2500
1-Methylphenanthrene	832-69-9		192,191	0.59	0.47-0.71	2140	1500-2500
3,6-Dimethylphenanthrene	1576-67-6		206,191	0.36	0.29-0.43	2120	1510-2510
1,7-Dimethylphenanthrene	483-87-4		206,191	0.34	0.27-0.41	2050	1460-2440
1,2,6-Trimethylphenanthrene	30436-55-6		220,205	0.59	0.47-0.71	2190	1500-2500
Retene	483-65-8		234,219	1.60	1.28-1.92	2260	1500-2500
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		216,215	1.05	0.84-1.26	2130	1510-2520
5/6-Methylchrysene	3697-24-3/1705-85-7		242	0	N/A	2080	1500-2500
1-Methylchrysene	3351-28-8		242	0	N/A	2090	1500-2490
5,9-Dimethylchrysene	139493-40-6		256	0	N/A	2130	1510-2510
7-Methylbenzo[a]pyrene	63041-77-0		266	0	N/A	2140	1500-2500
1,4,6,7-Tetramethylnaphthalene	13764-18-6		184,139	0.02	0.02-0.02	2130	1500-2490

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Simin Yassari_____

For Axys Internal Use Only [XSL Template: Pest4A.xsl; Created: 01-Dec-2025 13:45:04; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_PH5S3786.D__Form4A_SJ3687147.html; Workgroup: WG95677; Design ID: 5445]

SGS AXYS METHOD MLA-021 Rev 12

Form 4B

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	23-Sep-2025	**VER Data Filename:**	PH5S3786.D
Instrument ID:	LR GC/MS	**Analysis Date:**	13-Nov-2025
GC Column ID:	RTX5	**Analysis Time:**	16:45:00

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene d-8	1146-65-2		136,134	0.09	0.07-0.11	1960	1500-2510
2-Methylnaphthalene d-10	7297-45-2		152,151	0.19	0.15-0.23	2020	1520-2530
Biphenyl d-10	1486-01-7		164	0	N/A	2010	1500-2510
2,6-Dimethylnaphthalene d-12	350820-12-1		168,150	0.73	0.58-0.88	2030	1510-2510
Acenaphthylene d-8	93951-97-4		160,158	0.16	0.13-0.19	1980	1510-2510
Dibenzothiophene d-8	33262-29-2		192,160	0.08	0.06-0.10	1920	1500-2510
Phenanthrene d-10	1517-22-2		188,184	0.14	0.11-0.17	1920	1500-2510
Fluoranthene d-10	93951-69-0		212,208	0.17	0.14-0.20	1970	1490-2490
Benzo[a]anthracene d-12	1718-53-2		240,236	0.23	0.18-0.28	1900	1500-2500
Chrysene d-12	1719-03-5		240,236	0.27	0.22-0.32	1550	1210-2010
Benzo[b]fluoranthene d-12	93951-98-5		264,260	0.20	0.16-0.24	2020	1500-2490
Benzo[k]fluoranthene d-12	93952-01-3		264,260	0.19	0.15-0.23	1970	1470-2440
Benzo[a]pyrene d-12	63466-71-7		264,260	0.20	0.16-0.24	2040	1500-2510
Perylene d-12	1520-96-3		264,260	0.24	0.19-0.29	2000	1500-2500
Dibenzo[a,h]anthracene d-14	13250-98-1		292,288	0.24	0.16-0.32	2040	1440-2400
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		288,284	0.18	0.12-0.24	2070	1490-2480
Benzo[ghi]perylene d-12	93951-66-7		288,284	0.20	0.13-0.27	2050	1490-2490

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Simin Yassari

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Report Filename: GENERIC-SPECS_PAH_LO_PH5S3786.D__Form4B_SJ3687147.html; Workgroup: WG95677; Design ID: 5445]

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
BFR	BTBPE	SGS AXYS MLA-033	MLA-033					Y											Y						Y												
BFR	DBDPE	SGS AXYS MLA-033	MLA-033					Y											Y						Y												
BFR	HBB	SGS AXYS MLA-033	MLA-033					Y											Y						Y												
BFR	PBEB	SGS AXYS MLA-033	MLA-033					Y											Y						Y												
Bisphenols	Bisphenol A	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol AF	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol B	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol E	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol F	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol S	SGS AXYS MLA-113	MLA-113					Y																	Y												
BPA and MPE	4,4'-dihydroxy-2,2-diphenylpropane (Bisphenol A) (BPA)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-(3-carboxypropyl) phthalate (MCPP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-2-ethylhexyl phthalate (MEHP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-benzyl phthalate (MBzP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-butyl phthalate (MBP) (n + iso)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-cyclohexyl phthalate (MCHP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-ethyl phthalate (MEP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-iso-nonyl phthalate (MiNP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-methyl phthalate (MMP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-(2-ethyl-5-carboxypentyl) phthalate (MECPP)	SGS AXYS MLA-059	MLA-059																																	
OC Pesticides	2,4'-DDD	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	2,4'-DDE	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	2,4'-DDT	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	4,4'-DDD	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	4,4'-DDE	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	4,4'-DDT	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Aldrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Alpha-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Beta-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	cis-Chlordane (alpha-Chlordane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	cis-Nonachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Delta-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Dieldrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endosulphan I	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endosulphan II	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endosulphan sulphate	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endrin aldehyde	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endrin ketone	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Gamma-HCH (Lindane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Heptachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Heptachlor epoxide	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Hexachlorobenzene	SGS AXYS MLA-228	MLA-228							Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Methoxychlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Mirex	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Oxychlordane	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	trans-Chlordane (gamma-Chlordane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	trans-Nonachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
Fluoride	Fluoride	EPA 1621	MLA-119																										Y	Y							
Fluoride	Fluoride	SGS AXYS MLA-119 AOF	MLA-119																											Y							
Fluoride	Fluoride	SGS AXYS MLA-119 EOF	MLA-119							Y																				Y							
Fluoride	Fluoride	SGS AXYS MLA-119 TF	MLA-119							Y																				Y							
Fluoride	Adsorbable Organic Fluorine	EPA 1621	MLA-119																										Y								
PAH	"Extractable Organics" category (CA only)	EPA 8270E	MLA-021						Y																												
PAH	"Semi-volatile Organic Compounds" category (CA only)	EPA 1625	MLA-021																																		
PAH	1,2,6-Trimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,2-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,4,6,7-Tetramethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,7-Dimethylfluorene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,7-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,8-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												

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				Serum	Solids												Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PAH	1-Methylchrysene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	1-Methylnaphthalene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	1-Methylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,3,5-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,3,6-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,4-Dimethyldibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,6-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2-Methylanthracene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2-Methylfluorene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2-Methylnaphthalene	EPA 8270E	MLA-021						Y											Y										Y								
PAH		SGS AXYS MLA-021	MLA-021				Y								Y	Y			Y	Y			Y		Y					Y						Y		
PAH	2-Methylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	3,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	3-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	3-Methylfluoranthene/ Benzo(a)fluorene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	3-Methylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	5,9-Dimethylchrysene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	5/6-Methylchrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	7-Methylbenzo(a)pyrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	9/4-Methylphenanthrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	Acenaphthene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Acenaphthylene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Anthracene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benz[a]anthracene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benzo[a]pyrene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benzo[b]fluoranthene	EPA 1625	MLA-021																										Y	Y	Y			Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benzo[e]pyrene	SGS AXYS MLA-021	MLA-021				Y													Y					Y												
PAH	Benzo[ghi]perylene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benzo[j/k]fluoranthenes	SGS AXYS MLA-021	MLA-021				Y													Y					Y												
PAH	Benzo[k]fluoranthene	EPA 1625	MLA-021																										Y	Y	Y			Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y						Y																		
PAH		SGS AXYS MLA-021	MLA-021						Y						Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Biphenyl	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Acenaphthenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Benz(a)anthracenes/chrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Biphenyls	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Fluorenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Naphthalenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Biphenyls	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												

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				Serum	Solids												Tissue and Tissue Flora							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PAH	C2-Fluorenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C2-Naphthalenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C2-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C3-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C3-Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C3-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C3-Fluorenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C3-Naphthalenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C3-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C4-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C4-Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C4-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C4-Naphthalenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	C4-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	Chrysene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Dibenzo[a,h]anthracene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Dibenzothiophene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	Fluoranthene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Fluorene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Indeno[1,2,3-cd]pyrene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021							Y	Y			Y	Y						Y																
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Naphthalene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Perylene	SGS AXYS MLA-021	MLA-021					Y											Y						Y												
PAH	Phenanthrene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Pyrene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Retene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PBDPE	BDE 10 2,6-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 100 2,2',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 105 2,3,3',4,4'-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 11 3,3'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 116 2,3,4,5,6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 119 2,3',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 12 3,4-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 126 3,3',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 13 3,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 140 2,2',3,4,4',6'-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												
PBDPE	BDE 15 4,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y											Y						Y												

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PBDPE	BDE 153 2,2',4,4',5,5'-hexabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 154 2,2',4,4',5',6-hexabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 155 2,2',4,4',6,6'-hexabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 166 2,3,4,4',5,6-hexabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 17 2,2',4-tribromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 181 2,2',3,4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 183 2,2',3,4,4',5',6-heptabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 190 2,3,3',4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 206 2,2',3,3',4,4',5,5',6-nonabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 207 2,2',3,3',4,4',5,6,6'-nonabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 208 2,2',3,3',4,5,5',6,6'-nonabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 209 Decabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 25 2,3',4-tribromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 28 2,4,4'-tribromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 30 2,4,6-tribromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 33 2',3,4-tribromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 35 3,3',4-tribromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 37 3,4,4'-tribromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 47 2,2',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 49 2,2',4,5'-tetrabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 66 2,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 7 2,4-dibromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 75 2,4,4',6-tetrabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 77 3,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 8 2,4'-dibromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 85 2,2',3,4,4'-pentabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PBDPE	BDE 99 2,2',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033												Y																				Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y												
PCB Aroclors	PCB Aroclor 1016	EPA 1668	MLA-010						Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010						Y																					Y							
PCB Aroclors	PCB Aroclor 1221	EPA 1668	MLA-010						Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010						Y																					Y							
PCB Aroclors	PCB Aroclor 1232	EPA 1668	MLA-010						Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010						Y																					Y							
PCB Aroclors	PCB Aroclor 1242	EPA 1668	MLA-010						Y	Y																				Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010						Y																					Y							
PCB Aroclors	PCB Aroclor 1248	EPA 1668	MLA-010						Y	Y																				Y	Y						

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				Serum	Solids												Tissue and Tissue Flora							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y									
PCB Aroclors	PCB Aroclor 1254	EPA 1668	MLA-010							Y	Y																			Y	Y								
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y									
PCB Aroclors	PCB Aroclor 1260	EPA 1668	MLA-010							Y	Y																			Y	Y								
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y									
PCB congeners	PCB 1 2-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 10 2,6-Dichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 100 2,2',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 101 2,2',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 102 2,2',4,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 103 2,2',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 104 2,2',4,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 105 2,3,3',4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 106 2,3,3',4,5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 107 2,3,3',4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 108 2,3,3',4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y							Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 109 2,3,3',4,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y								Y	

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 11 3,3'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 110 2,3,3',4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 111 2,3,3',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 112 2,3,3',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 113 2,3,3',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 114 2,3,4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 115 2,3,4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 116 2,3,4,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 117 2,3,4',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 118 2,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 119 2,3',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 12 3,4-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 120 2,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		

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				Serum	Solids												Tissue and Tissue Flora							Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 121 2,3',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 122 2,3,3',4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 123 2,3',4,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y						Y					Y		Y								Y						Y		
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 124 2,3',4',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 125 2,3',4',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 126 3,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 127 3,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 129 2,2',3,3',4,5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 13 3,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 130 2,2',3,3',4,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y					Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y											Y										Y								
PCB congeners	PCB 131 2,2',3,3',4,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y					Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y										Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y	Y				Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y					Y		Y								Y						Y	Y	

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 132 2,2',3,3',4,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 133 2,2',3,3',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 134 2,2',3,3',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 135 2,2',3,3',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 136 2,2',3,3',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 137 2,2',3,4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 139 2,2',3,4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 14 3,5-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 140 2,2',3,4,4',6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 141 2,2',3,4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 142 2,2',3,4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 143 2,2',3,4,5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 144 2,2',3,4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 145 2,2',3,4,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 146 2,2',3,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 147 2,2',3,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 148 2,2',3,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 149 2,2',3,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 15 4,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 150 2,2',3,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 152 2,2',3,5,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 154 2,2',4,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									

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SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 155 2,2',4,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 157 2,3,3',4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 159 2,3,3',4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 16 2,2',3-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 160 2,3,3',4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 161 2,3,3',4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 162 2,3,3',4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 163 2,3,3',4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 164 2,3,3',4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 165 2,3,3',5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 166 2,3,4,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y												
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	

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SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 168 2,3',4,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 17 2,2',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 171 2,2',3,3',4,4',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 172 2,2',3,3',4,5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 173 2,2',3,3',4,5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 174 2,2',3,3',4,5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 175 2,2',3,3',4,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 176 2,2',3,3',4,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 177 2,2',3,3',4,5',6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 178 2,2',3,3',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 179 2,2',3,3',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 18 2,2',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 181 2,2',3,4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 182 2,2',3,4,4',5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 183 2,2',3,4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 184 2,2',3,4,4',6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 185 2,2',3,4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 186 2,2',3,4,5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 188 2,2',3,4',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 19 2,2',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 190 2,3,3',4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 191 2,3,3',4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 192 2,3,3',4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 193 2,3,3',4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 195 2,2',3,3',4,4',5,6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 196 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 197 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 198 2,2',3,3',4,5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 199 2,2',3,3',4,5,5',6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 2 3-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 20 2,3,3'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 200 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 201 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 202 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 203 2,2',3,4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 204 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 205 2,3,3',4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 206 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 207 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 208 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 209 Decachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 21 2,3,4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 22 2,3,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										

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SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 23 2,3,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y				Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 24 2,3,6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 25 2,3',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 26 2,3',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 27 2,3',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 28 2,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 29 2,4,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 3 4-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 30 2,4,6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 31 2,4',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 32 2,4',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 33 2,3',4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 34 2,3',5'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		

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SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue and Tissue Flora						Urine		Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 35 3,3',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 36 3,3',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 37 3,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 38 3,4,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 39 3,4',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 4 2,2'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 40 2,2',3,3'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 41 2,2',3,4-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 42 2,2',3,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 43 2,2',3,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 44 2,2',3,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 45 2,2',3,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 46 2,2',3,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 47 2,2',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 48 2,2',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 49 2,2',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 5 2,3-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 50 2,2',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 51 2,2',4,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 52 2,2',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 53 2,2',5,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 54 2,2',6,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 55 2,3,3',4-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 56 2,3,3',4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 57 2,3,3',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 58 2,3,3',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 59 2,3,3',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 6 2,3'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 60 2,3,4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 61 2,3,4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 62 2,3,4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 63 2,3,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 64 2,3,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 65 2,3,5,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 66 2,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 67 2,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 68 2,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y											Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																			
PCB congeners	PCB 69 2,3',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y											Y	Y	Y	Y	Y		

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 7 2,4-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 70 2,3',4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 71 2,3',4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 72 2,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 73 2,3',5',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 74 2,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 75 2,4,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 76 2,3',4',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 77 3,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 78 3,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 79 3,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y					Y		Y								Y						Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 8 2,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 80 3,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 81 3,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 82 2,2',3,3',4-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 83 2,2',3,3',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 84 2,2',3,3',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 85 2,2',3,4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 86 2,2',3,4,5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 87 2,2',3,4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 88 2,2',3,4,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 89 2,2',3,4,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 9 2,5-Dichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 90 2,2',3,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 91 2,2',3,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 92 2,2',3,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	

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SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 93 2,2',3,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 94 2,2',3,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 95 2,2',3,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 96 2,2',3,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 97 2,2',3,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 98 2,2',3,4',6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 99 2,2',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB congeners, total	EPA 1668	MLA-010											Y																					Y			
PCB congeners	PCBs, as congeners	EPA 1668	MLA-010																	Y																		
PCB congeners		SGS AXYS MLA-010	MLA-010																	Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210							Y										Y										Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y										Y										Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Heptachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Hexachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Monochlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Nonachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Octachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Pentachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Tetrachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Trichlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCDDF	"Dioxins and Dibenzofurans" category (CA only)	EPA 1613	MLA-017																																
PCDDF		EPA 8290A	MLA-017																																
PCDDF	1,2,3,4,6,7,8-HpCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,4,6,7,8-HpCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,4,7,8,9-HpCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,4,7,8-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,4,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,6,7,8-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,6,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,7,8,9-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,7,8,9-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,7,8-PeCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,7,8-PeCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	2,3,4,6,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	2,3,4,7,8-PeCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	2,3,7,8-TCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF	2,3,7,8-TCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y					Y						Y							
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y		Y	Y					Y				Y	Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	OCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y				Y				Y			Y		Y		
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y		Y	Y					Y				Y	Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	OCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y				Y				Y			Y		Y		
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y					Y						Y							
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y		Y	Y					Y				Y	Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total HpCDD	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y		Y	Y					Y				Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total HpCDF	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y		Y	Y					Y				Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total HxCDD	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y		Y	Y					Y				Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total HxCDF	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y		Y	Y					Y				Y	Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total PCDD	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PCDD/F	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PCDF	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PeCDD	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y		Y	Y				Y				Y				Y		Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total PeCDF	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y		Y	Y				Y				Y				Y		Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total TCDD	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y		Y	Y				Y				Y				Y		Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total TCDF	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y		Y	Y				Y				Y				Y		Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y										Y	Y								Y	Y									Y	Y
PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110	Y			Y											Y						Y													
PFAS	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110			Y				Y							Y			Y							Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y									Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y					Y		Y	Y		Y	Y		Y		Y	Y	Y		Y	Y		Y			Y	Y		Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																		Y	Y
PFAS	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	SGS AXYS MLA-110	MLA-110			Y				Y		Y					Y			Y	Y						Y			Y		Y				Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y									Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y					Y		Y	Y		Y	Y		Y		Y	Y	Y		Y	Y		Y			Y	Y		Y		Y	Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y																		Y	Y
PFAS	4,8-dioxa-3H-perfluorononanoate (ADONA)	SGS AXYS MLA-110	MLA-110			Y	Y										Y	Y																		Y	Y
PFAS		DoD QSM Version 5.3	MLA-110			Y											Y										Y	Y									Y	

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		DoD QSM Version 5.4	MLA-110			Y											Y										Y										Y	
PFAS		EPA 1633	MLA-110							Y					Y					Y			Y												Y			
PFAS		EPA 1633 draft	MLA-110			Y											Y										Y										Y	
PFAS	4:2 Fluorotelomersulfonate (4:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	6:2 Fluorotelomersulfonate (6:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	8:2 Fluorotelomersulfonate (8:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y										Y	Y									Y	Y									Y	Y
PFAS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y													
PFAS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110			Y				Y							Y			Y							Y										Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	Dodecafluoro-3H-4,8-dioxanonanoate (NaDONA)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y													
		EPA 1633 draft	MLA-110									Y									Y											Y							
PFAS	Hexafluoropropylene oxide dimer acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y									Y		Y						Y		Y										Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	Hexafluoropropylene oxide dimer acid, anion and acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Hexaflurorpropylene oxide dimer acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110	Y						Y										Y											Y							
PFAS	N-Ethylperfluorooctane sulfonamide (EtFOSAm)	SGS AXYS MLA-110	MLA-110							Y										Y											Y							
PFAS		DoD QSM Version 5,3	MLA-110						Y																					Y								
PFAS		DoD QSM Version 5,4	MLA-110						Y																					Y								
PFAS		EPA 1633	MLA-110									Y										Y									Y			Y				
PFAS		EPA 1633 draft	MLA-110																																			
PFAS	N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y									Y	Y	Y						Y		Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y											Y									Y	Y										Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y					Y	Y				Y				Y			Y			Y	Y			Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Methylperfluorooctanesulfonamide (N-MeFOSA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perflurorobutane Sulfonate (PFBS)	SGS AXYS MLA-042	MLA-042	Y																																		

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water	Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y		Y				Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorobutanoate (PFBA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y									Y	Y					Y		Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y		Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110		Y	Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorodecanoate (PFDA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y		Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	Y
PFAS		DoD QSM Version 5.3	MLA-110			Y											Y										Y										Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorononanoate (PFNA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorooctanesulfonamide (PFOSA), a.k.a. FOSA	SGS AXYS MLA-042	MLA-042	Y																																	

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS		DoD AFFF01 Rev 1,0	MLA-110										Y																								Y	Y
PFAS	Perfluorooctanoate (PFOA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS		DoD AFFF01 Rev 1,0	MLA-110																																	Y	Y
PFAS	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y	Y	Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	4,4,5,5,6,6,6-heptafluorohexanoic acid (3:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	2H,2H,3H,3H-perfluorooctanoic acid (5:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	2H,2H,3H,3H-perfluorodecanoic acid (7:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoro-3-methoxypropanoic acid (PFMPA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoro-4-methoxybutanoic acid (PFMBA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y

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				Serum	Solids											Tissue and Tissue Flora										Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y			Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y										Y	Y								Y	Y	Y										Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y	Y				
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y			Y							Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y										Y	Y								Y	Y	Y										Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y	Y				
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PPCP	1,7-Dimethylxanthine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	10-hydroxy-amitriptyline	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	2-hydroxy-ibuprofen	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	4-Epianhydrochlortetracycline (EACTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	4-Epianhydrotetracycline (EATC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	4-Epichlortetracycline (ECTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	4-Epioxytetracycline (EOTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	4-Epitetracycline (ETC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Acetaminophen	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Albuterol	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Alprazolam	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Amitriptyline	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Amlodipine	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Amphetamine	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Anhydrochlortetracycline (ACTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Anhydrotetracycline (ATC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Atenolol	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Atorvastatin	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Azithromycin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Benzoylecgonine	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Benztropine	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Betamethasone	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Bisphenol A	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Caffeine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Carbadox	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Carbamazepine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Cefotaxime	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Chlortetracycline (CTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Cimetidine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Ciprofloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Clarithromycin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Clinafloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Clonidine	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Cloxacillin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Cocaine	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Codeine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Cotinine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	DEET (N,N-diethyl-m-toluamide)	SGS AXYS MLA-075	MLA-075					Y																	Y														
PPCP	Dehydronifedipine	EPA 1694	MLA-075								Y																				Y							

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PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Demeclocycline	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Desmethyldiltiazem	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Diazepam	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Digoxigenin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Digoxin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Diltiazem	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Diphenhydramine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Doxycycline	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Enalapril	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Enrofloxacin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Erythromycin	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Erythromycin anydrate	EPA 1694	MLA-075								Y																				Y						
PPCP	Flumequine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Flucinonide	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Fluoxetine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Fluticasone propionate	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Furosemide	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Gemfibrozil	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Glipizide	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Glyburide	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Hydrochlorothiazide	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Hydrocodone	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Hydrocortisone	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Ibuprofen	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Isochlortetracycline (ICTC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Lincomycin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Lomefloxacin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Meprobamate	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Metformin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Methylprednisolone	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Metoprolol	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Miconazole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Minocycline	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Naproxen	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Norfloxacin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Norfluoxetine	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Norgestimate	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Norverapamil	SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Ofloxacin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Ormetoprim	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Oxacillin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Oxolinic acid	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Oxycodone	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Oxytetracycline (OTC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y												
PPCP	Paroxetine	EPA 1694	MLA-075								Y																				Y						

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora							Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Penicillin G	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Penicillin V	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Prednisolone	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Prednisone	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Promethazine	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Propoxyphene	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Propranolol	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Ranitidine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Roxithromycin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sarafloxacin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sertraline	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Simvastatin	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfachloropyridazine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfadiazine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfadimethoxine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfamerazine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfamethazine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfamethizole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfamethoxazole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfanilamide	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfathiazole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Tetracycline (TC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Theophylline	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Thiabendazole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Trenbolone	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Trenbolone acetate	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Triamterene	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Triclocarban	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Triclosan	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Trimethoprim	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Tylosin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Valsartan	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Verapamil	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Virginiamycin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Warfarin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
TOP	Perfluorobutanesulfonate (PFBS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorobutanoate (PFBA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorodecanoate (PFDA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorononanoate (PFNA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorooctanoate (PFOA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-111	MLA-111				Y																		Y											

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora							Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
TOP	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
TOP	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
TOP	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
TOP	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
AO	6PPD-Quinone	SGS AXYS MLA-118	MLA-118																						Y												
Note **	PFAS by LC-MS/MS compliant with US DoD QSM 5.3 table B-15; US DoD/DOE QSM 5.4 and 6.0 table B-24																																			

Legend

Y	Accreditation scope
AFFF	Aqueous film forming foam
AO	Antiozonants
BFR	Brominated flame retardants (non-PBDPE)
BPA and mPE	Bisphenol A and mono-Phthalate Esters
OC Pesticides	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PBDPE	Polybrominated diphenylethers
PCB	Polychlorinated Biphenyls
PCDDF	Polychlorinated dibenzodioxins/furans
PFAS	Per- and Polyfluoroalkyl Substances
PPCP	Pharmaceutical and Personal Care Products
TOP	Total Oxidizable Precursors
California WB	California Water Boards, Lab ID 2911
Florida DOH	Florida Department of Health, Lab ID E871007, (NELAC Standard)
Pennsylvania DEP	Pennsylvania Department of Environmental Protection
Minnesota DOH	Minnesota Department of Health, Lab ID 232-999-430, (NELAC Standard)
New Jersey DEP	New Jersey Department of Environmental Protection, Lab ID CANA005, (NELAC Standard)
New York DOH	New York Department of Health, Lab ID 11674, (NELAC Standard)
Washington DE	Washington Department of Ecology, Lab ID C404
Virginia DGS	Virginia Department of General Services, Division of Consolidated Laboratory Services, Lab ID 460224, (NELAC Standard)
Alaska DEC	Alaska Department of Environmental Conservation, Contaminated Sites Laboratory Approval 17-014
Maine DOH	Maine Center for Disease Control and Prevention, Department of Health and Human Services, Lab ID CN00003
ANAB DoD	ANSI National Accreditation Board, certificate ADE-1861, (US DoD QSM 5.3, 5.4, US DoD/DOE QSM 6.0 Standard)
CALA	Canadian Association for Laboratory Accreditation Inc., Lab ID A2637, (ISO/IEC 17025:2017 Standard)

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP Certificate ADE-1861

CALA Testing Accreditation No. A2637

SGS AXYS

2045 Mills Road West
Sidney, BC, Canada V8L5X2

TEL: (250) 655-5800
TOLL-FREE: 1-888-373-0881

SGS AXYS Client No.: 4608

Client Address: Worley Canada Services Ltd
49 Quarry Park BLVD SE
Calgary, AB, CA, T2C 5H9

The SGS AXYS contact for these data is Suma Thomas.

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Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law."
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START SURVEY

BATCH SUMMARY

Batch ID: WG95726	***Date:*** 09-Dec-2025
Analysis Type: PAH	***Matrix Type:*** SPMD

BATCH MAKEUP

Contract: 4608

Samples:

L43152-3	Day Zero 3
L43770-1	Field Blank 13-SEP-2025
L43770-2	AEMP-US-03 16-SEP-25
L43770-3	AEMP-US-04 13-SEP-25
L43770-4	AEMP-US-05 13-SEP-25
L43770-5	AEMP-DS-01 13-SEP-25
L43770-6	AEMP-DS-04 13-SEP-25
L43770-7	AEMP-DS-05 16-SEP-25
L43770-8	AEMP-DS-06 10-SEP-25
L43770-9	AEMP-DS-08 16-SEP-25
L43770-10	DUP 1 13-SEP-25

Blank: WG95726-101

Reference or Spike: WG95726-103

Duplicate:

Comments:

1. Data are considered final.
2. Data are not blank corrected. Blank data should be taken into consideration when evaluating sample data.
3. Blank data should be evaluated against specifications using the same blank sample size as the size of the client samples.
4. For the OPR (AXYS ID WG95726-103), the percent recoveries of the native compounds Fluoranthene, Pyrene, 1,2,6-Trimethylphenanthrene, Retene and 3-Methylfluoranthene exceeded the upper method control limits and are flagged with 'N'. Client sample data may be similarly over-estimated.

Copyright SGS AXYS Analytical Services Ltd
February 2017

4608

L43152

Client ID	Axys ID
Day Zero 1	L43152-1
Day Zero 2	L43152-2
Day Zero 3	L43152-3

10:40

SGS AXYS

SGS AXYS Analytical Services Chain of Custody

Mills Road West, Sidney, British Columbia, Canada V8L 5X2
TEL: (250) 655-5800 TOLL FREE 1-888-373-0881 FAX: (250) 655-5811

2045 SGS AXYS CLIENT #:

PAGE 1 OF 1

Client / Reporting Information	Invoice to
Company Name Worley Consulting	Same as report to (Y / N). If no, please fill in below YES
Address - 49 Quarry Park BLVD SE, Calgary, AB T2C 5H9	Company - Worley Canada Services Ltd.
	Address - 49 Quarry Park Blvd SE, Calgary AB T2C 5H9
Project Contact Alex Haigh; Stacy Gibb	Contact Stacy Gibb
Phone # 587-897-6249; 587-434-5393	Email stacy.gibb@worley.com
Email alex.haigh@worley.com; stacy.gibb@worley.com	Client Purchase Order # or Quote # 2025 1692
Project Name or Number: Norman Wells AEMP 417085-59897-25200	Sampler Signature: Name: Brendan Chapman, Tino Ngulube

Client Sample Identification	Matrix	Deploy Date/Time (YYYY-MM-DD/HH:MM)	Retrieve Date/Time (YYYY-MM-DD/HH:MM)	Container Type	# Strips	SGS AXYS Lab Sample ID (Lab use only)	Analysis Requested: PAHs	Analysis Requested: Alkylated PAHs			
AEMP-US-03	SPMD	2025-08-16/17:10	2025-09-16/11:31	SPMD	3	L437702	x	x			
AEMP-US-04	SPMD	2025-08-14/11:50	2025-09-13/15:30	SPMD	3	-3	x	x			
AEMP-US-05	SPMD	2025-08-14/10:45	2025-09-13/14:10	SPMD	3	-4	x	x			
AEMP-DS-01	SPMD	2025-08-14/15:35	2025-09-13/16:11	SPMD	3	-5	x	x			
AEMP-DS-04	SPMD	2025-08-12/17:20	2025-09-13/16:45	SPMD	3	-6	x	x			
AEMP-DS-05	SPMD	2025-08-16/10:05	2025-09-16/12:25	SPMD	3	-7	x	x			
AEMP-DS-06	SPMD	2025-08-13/12:40	2025-09-10/12:00	SPMD	3	-8	x	x			
AEMP-DS-08	SPMD	2025-08-16/10:50	2025-09-16/12:50	SPMD	3	-9	x	x			
Field Blank	SPMD	NA	2025-09-13/16:45	SPMD	3	~~L437619~~ + L437701	x	x			
Dup 1	SPMD	2025-08-14/15:35	2025-09-13/16:11	SPMD	2	-10	x	x			

Comments/Remarks

Sample Custody

Relinquished by (Signature):	Date: 2025-09-30	Received by (Signature): YNK	Date: 02 Oct 2025
Stacy Gibb	Time: 9:00		Time: 10:14

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
Day Zero 3
Sample Collection:
N/A

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43152-3
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	13-May-2025	**Initial Calibration Date:**	03-Nov-2025
Extraction Date:	19-Nov-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	25-Nov-2025 **Time:** 12:19:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H5010.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H5008.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H5004.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		38.3	3.23 (S)	0.08	1.006
Acenaphthylene	208-96-8	ND		1.69 (S)		
Acenaphthene	83-32-9		19.3	3.18 (S)	1.13	1.048
2-Methylfluorene	1430-97-3	ND		3.57 (S)		
C2 Phenanthrenes/Anthracenes			42.2	3.84 (S)		
Fluorene	86-73-7		6.65	1.34 (S)	1.10	0.844
Phenanthrene	85-01-8		46.4	1.75 (S)	0.18	1.003
Anthracene	120-12-7		2.86	1.74 (S)	0.19	1.011
C1 Phenanthrenes/Anthracenes			12.3	0.849 (S)		
Fluoranthene	206-44-0		19.7	1.24 (S)	0.23	1.204
Pyrene	129-00-0		11.5	1.20 (S)	0.21	1.240
Benz[a]anthracene [3]	56-55-3	ND		0.558 (S)		
Chrysene [4]	218-01-9		1.82	0.544 (S)	0.24	1.002
Benzo[b]fluoranthene	205-99-2	ND		2.18 (S)		
Benzo[j,k]fluoranthenes		ND		2.16 (S)		
Benzo[e]pyrene	192-97-2	ND		2.88 (S)		
Benzo[a]pyrene	50-32-8	ND		2.82 (S)		
Perylene	198-55-0	ND		3.06 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.12 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.89 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.93 (S)		
2-Methylnaphthalene	91-57-6		25.8	2.58 (S)	0.90	1.008
1-Methylnaphthalene	90-12-0		15.3	2.80 (S)	0.98	1.040
C1-Naphthalenes			41.1	2.58 (S)		
Biphenyl	92-52-4		10.0	3.70 (S)	0.31	1.005
C1-Biphenyls			19.6	2.31 (S)		
C2-Biphenyls			50.4	2.70 (S)		
C2-Naphthalenes			60.0	2.63 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		2.63 (S)		

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		10.7	1.99 (S)	0.59	1.010
C3-Naphthalenes			25.7	1.68 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		7.38	1.71 (S)	0.76	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		6.52	1.65 (S)	1.02	1.228
C4-Naphthalenes		ND		3.05 (S)		
C1-Acenaphthenes		ND		2.81 (S)		
C1-Fluorenes			8.90	3.57 (S)		
1,7-Dimethylfluorene	442-66-0	ND		2.74 (S)		
C2-Fluorenes			13.2	2.74 (S)		
C3-Fluorenes			362	2.77 (S)		
Dibenzothiophene	132-65-0		3.38	0.550 (S)	0.10	1.003
C1-Dibenzothiophenes		ND		2.44 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		2.44 (S)		
C2-Dibenzothiophenes			20.3	2.67 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		2.67 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		2.17 (S)		
C3-Dibenzothiophenes			26.8	0.878 (S)		
C4-Dibenzothiophenes			9.34	2.70 (S)		
3-Methylphenanthrene	832-71-3		4.40	0.861 (S)	0.51	1.088
2-Methylphenanthrene	2531-84-2		4.11	0.835 (S)	0.61	1.092
2-Methylanthracene	613-12-7	NDR	1.79	0.901 (S)	0.95	1.098
9/4-Methylphenanthrene	883-20-5/832-64-4		1.66	0.861 (S)	0.55	1.106
1-Methylphenanthrene	832-69-9		2.14	0.849 (S)	0.68	1.110
3,6-Dimethylphenanthrene	1576-67-6	ND		3.73 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		3.84 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		3.96 (S)		
1,8-Dimethylphenanthrene	7372-87-4	ND		3.84 (S)		
C3-Phenanthrenes/Anthracenes			89.8	1.89 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		1.89 (S)		
Retene	483-65-8		2.55	2.52 (S)	1.75	1.300
C4-Phenanthrenes/Anthracenes			14.8	2.52 (S)		
C1-Fluoranthenes/Pyrenes		ND		1.46 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		1.46 (S)		
C2-Fluoranthenes/Pyrenes			2.69	1.55 (S)		
C3-Fluoranthenes/Pyrenes		ND		1.18 (S)		
C4-Fluoranthenes/Pyrenes		ND		1.41 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.641 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		0.761	0.669 (S)		1.067
1-Methylchrysene	3351-28-8	ND		0.616 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		2.28 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.28 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.57 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.83 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		2.78 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		2.78 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		2.16 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		3.05 (S)		
Anthracene d-10			20700	4.04 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		29700	1.58 (S)	0.16	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		2950	2.28 (S)	0.24	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43152-3_Form1A_PH5H5010.D_SJ3695737.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Day Zero 3
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43152-3
Sample Receipt Date:	13-May-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 12:19:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5010.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5004.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1430	35.7	0.09	0.611
2-Methylnaphthalene d-10		4040	1760	43.7	0.19	0.757
Biphenyl d-10		4010	2020	50.4		0.869
2,6-Dimethylnaphthalene d-12		4020	2130	53.0	0.71	0.896
Acenaphthylene d-8		4020	2140	53.3	0.17	0.961
Dibenzothiophene d-8		4010	2470	61.5	0.09	0.792
Phenanthrene d-10		4010	2750	68.5	0.14	0.808
Benzo[a]anthracene d-12		4000	3340	83.5	0.22	1.164
Chrysene d-12		3220	2830	87.9	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3530	88.5	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3500	89.5	0.18	0.961
Benzo[a]pyrene d-12		4010	3450	86.1	0.19	1.008
Perylene d-12		4000	3500	87.5	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3270	82.3	0.17	1.205
Benzo[ghi]perylene d-12		3980	3450	86.8	0.19	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43152-3_Form2_PH5H5010.D_SJ3695737.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Field Blank 13-SEP-2025
Sample Collection:
13-Sep-2025 16:45

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-1
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 13:08:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5011.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5004.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		49.6	4.30 (S)	0.08	1.006
Acenaphthylene	208-96-8		1.98	1.58 (S)	0.20	1.003
Acenaphthene	83-32-9		17.6	7.99 (S)	1.06	1.047
2-Methylfluorene	1430-97-3	ND		2.77 (S)		
C2 Phenanthrenes/Anthracenes			45.8	0.830 (S)		
Fluorene	86-73-7		9.96	4.15 (S)	1.06	0.844
Phenanthrene	85-01-8		53.8	1.31 (S)	0.19	1.004
Anthracene	120-12-7		2.84	1.30 (S)	0.20	1.011
C1 Phenanthrenes/Anthracenes			16.5	1.97 (S)		
Fluoranthene	206-44-0		21.3	1.25 (S)	0.20	1.204
Pyrene	129-00-0		11.6	1.20 (S)	0.22	1.240
Benz[a]anthracene [3]	56-55-3	ND		0.715 (S)		
Chrysene [4]	218-01-9	NDR	1.68	0.764 (S)	0.40	1.002
Benzo[b]fluoranthene	205-99-2	ND		3.05 (S)		
Benzo[j,k]fluoranthenes		ND		3.18 (S)		
Benzo[e]pyrene	192-97-2	ND		4.31 (S)		
Benzo[a]pyrene	50-32-8	ND		4.23 (S)		
Perylene	198-55-0	ND		4.45 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.06 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.72 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.66 (S)		
2-Methylnaphthalene	91-57-6		34.3	10.9 (S)	0.93	1.009
1-Methylnaphthalene	90-12-0		21.8	11.8 (S)	1.03	1.040
C1-Naphthalenes			56.1	10.9 (S)		
Biphenyl	92-52-4		13.8	2.87 (S)	0.31	1.005
C1-Biphenyls			23.1	2.38 (S)		
C2-Biphenyls			41.3	1.17 (S)		
C2-Naphthalenes			74.9	7.73 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		7.73 (S)		

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		12.7	5.85 (S)	0.56	1.010
C3-Naphthalenes			53.7	3.16 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		12.7	3.22 (S)	0.95	1.207
2,3,5-Trimethylnaphthalene	2245-38-7		10.9	3.10 (S)	1.06	1.225
C4-Naphthalenes			19.8	1.45 (S)		
C1-Acenaphthenes		ND		1.65 (S)		
C1-Fluorenes			10.3	2.77 (S)		
1,7-Dimethylfluorene	442-66-0	ND		3.61 (S)		
C2-Fluorenes			13.6	3.61 (S)		
C3-Fluorenes			386	(S)		
Dibenzothiophene	132-65-0		4.53	3.45 (S)	0.09	1.003
C1-Dibenzothiophenes		ND		1.87 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		1.87 (S)		
C2-Dibenzothiophenes			27.3	4.52 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		4.52 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		3.68 (S)		
C3-Dibenzothiophenes			32.9	1.51 (S)		
C4-Dibenzothiophenes			9.69	2.68 (S)		
3-Methylphenanthrene	832-71-3		4.40	2.00 (S)	0.67	1.088
2-Methylphenanthrene	2531-84-2		5.90	1.94 (S)	0.55	1.092
2-Methylanthracene	613-12-7	ND		2.09 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		2.75	2.00 (S)	0.67	1.106
1-Methylphenanthrene	832-69-9		3.40	1.97 (S)	0.66	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	1.60	0.806 (S)	0.65	1.164
2,6-Dimethylphenanthrene	17980-16-4	ND		0.830 (S)		
1,7-Dimethylphenanthrene	483-87-4	NDR	1.65	0.856 (S)	0.75	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	1.66	0.830 (S)	0.46	1.209
C3-Phenanthrenes/Anthracenes			288	3.76 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		3.76 (S)		
Retene	483-65-8		3.08	2.53 (S)	1.63	1.300
C4-Phenanthrenes/Anthracenes			9.89	2.53 (S)		
C1-Fluoranthenes/Pyrenes			1.15	1.01 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		1.25	1.01 (S)	0.91	1.300
C2-Fluoranthenes/Pyrenes		ND		3.42 (S)		
C3-Fluoranthenes/Pyrenes		ND		1.26 (S)		
C4-Fluoranthenes/Pyrenes		ND		0.989 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		1.22 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		1.27 (S)		
1-Methylchrysene	3351-28-8	ND		1.17 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		2.01 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.01 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		2.13 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.89 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		4.36 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		4.36 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		4.92 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	NDR	4.01	1.45 (S)	0.30	1.376
Anthracene d-10			20700	11100 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		31900	1.81 (S)	0.16	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		2880	3.28 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-1_Form1A_PH5H5011.D_SJ3695738.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Field Blank 13-SEP-2025
Sample Collection:
13-Sep-2025 16:45

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-1
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 13:08:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5011.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5004.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1400	34.9	0.10	0.611
2-Methylnaphthalene d-10		4040	1930	47.8	0.19	0.757
Biphenyl d-10		4010	2310	57.5		0.869
2,6-Dimethylnaphthalene d-12		4020	2450	60.8	0.71	0.896
Acenaphthylene d-8		4020	2490	62.0	0.17	0.961
Dibenzothiophene d-8		4010	2700	67.3	0.09	0.792
Phenanthrene d-10		4010	3110	77.5	0.14	0.808
Benzo[a]anthracene d-12		4000	3280	82.0	0.22	1.164
Chrysene d-12		3220	2730	84.8	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3660	91.6	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3570	91.2	0.18	0.961
Benzo[a]pyrene d-12		4010	3440	85.7	0.19	1.009
Perylene d-12		4000	3490	87.3	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3030	76.3	0.17	1.204
Benzo[ghi]perylene d-12		3980	3190	80.1	0.19	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-1_Form2_PH5H5011.D_SJ3695738.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-US-03 16-SEP-25
Sample Collection:
16-Sep-2025 11:31

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43770-2
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	02-Oct-2025	**Initial Calibration Date:**	03-Nov-2025
Extraction Date:	19-Nov-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	25-Nov-2025 **Time:** 14:46:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H5013.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H5008.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H5004.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		115	1.60 (S)	0.07	1.006
Acenaphthylene	208-96-8		14.4	1.01 (S)	0.21	1.002
Acenaphthene	83-32-9		82.8	1.06 (S)	1.17	1.047
2-Methylfluorene	1430-97-3		109	3.77 (S)	1.31	0.939
C2 Phenanthrenes/Anthracenes			617	2.80 (S)		
Fluorene	86-73-7		134	4.11 (S)	0.97	0.844
Phenanthrene	85-01-8		966	4.48 (S)	0.19	1.003
Anthracene	120-12-7		21.7	4.46 (S)	0.17	1.011
C1 Phenanthrenes/Anthracenes			720	1.68 (S)		
Fluoranthene	206-44-0		184	2.21 (S)	0.21	1.204
Pyrene	129-00-0		122	2.12 (S)	0.21	1.239
Benz[a]anthracene [3]	56-55-3	NDR	2.53	2.50 (S)	0.53	1.002
Chrysene [4]	218-01-9		43.6	2.67 (S)	0.31	1.002
Benzo[b]fluoranthene	205-99-2		4.06	1.98 (S)	0.24	1.004
Benzo[j,k]fluoranthenes		ND		1.98 (S)		
Benzo[e]pyrene	192-97-2	NDR	11.2	2.67 (S)	0.09	0.996
Benzo[a]pyrene	50-32-8	ND		2.62 (S)		
Perylene	198-55-0		36.2	2.77 (S)	0.19	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.85 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.97 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.95 (S)		
2-Methylnaphthalene	91-57-6		47.1	1.25 (S)	0.90	1.008
1-Methylnaphthalene	90-12-0		64.9	1.35 (S)	0.97	1.039
C1-Naphthalenes			112	1.25 (S)		
Biphenyl	92-52-4		89.8	1.19 (S)	0.29	1.005
C1-Biphenyls			41.2	2.14 (S)		
C2-Biphenyls			70.0	3.68 (S)		
C2-Naphthalenes			331	3.33 (S)		
1,2-Dimethylnaphthalene	573-98-8		31.5	3.33 (S)	1.35	1.082

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		40.3	2.52 (S)	0.66	1.011
C3-Naphthalenes			682	1.90 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		122	1.94 (S)	0.98	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		162	1.87 (S)	1.06	1.222
C4-Naphthalenes			530	3.06 (S)		
C1-Acenaphthenes			2.83	1.58 (S)		
C1-Fluorenes			244	3.77 (S)		
1,7-Dimethylfluorene	442-66-0	NDR	11.1	3.42 (S)	0.11	1.034
C2-Fluorenes			390	3.42 (S)		
C3-Fluorenes			523	4.78 (S)		
Dibenzothiophene	132-65-0		35.6	2.89 (S)	0.08	1.003
C1-Dibenzothiophenes			62.0	2.60 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		14.0	2.60 (S)	0.84	1.094
C2-Dibenzothiophenes			188	4.64 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		15.2	4.64 (S)	0.59	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		24.7	3.78 (S)	0.18	1.153
C3-Dibenzothiophenes			91.1	1.32 (S)		
C4-Dibenzothiophenes			30.1	4.12 (S)		
3-Methylphenanthrene	832-71-3		97.0	1.70 (S)	0.61	1.087
2-Methylphenanthrene	2531-84-2		157	1.65 (S)	0.60	1.092
2-Methylanthracene	613-12-7	NDR	5.34	1.78 (S)	0.94	1.097
9/4-Methylphenanthrene	883-20-5/832-64-4		181	1.70 (S)	0.61	1.106
1-Methylphenanthrene	832-69-9		285	1.68 (S)	0.62	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	33.7	2.72 (S)	1.25	1.164
2,6-Dimethylphenanthrene	17980-16-4		16.4	2.80 (S)	0.43	1.171
1,7-Dimethylphenanthrene	483-87-4		232	2.89 (S)	0.34	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	39.3	2.80 (S)	0.95	1.209
C3-Phenanthrenes/Anthracenes			482	3.05 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		15.0	3.05 (S)	0.62	1.291
Retene	483-65-8		954	6.60 (S)	1.64	1.300
C4-Phenanthrenes/Anthracenes			1190	6.60 (S)		
C1-Fluoranthenes/Pyrenes			130	1.49 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		55.1	1.49 (S)	1.24	1.300
C2-Fluoranthenes/Pyrenes			83.3	0.980 (S)		
C3-Fluoranthenes/Pyrenes			29.8	4.18 (S)		
C4-Fluoranthenes/Pyrenes			11.0	1.17 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			23.6	1.01 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		2.37	1.06 (S)		1.066
1-Methylchrysene	3351-28-8		4.06	0.975 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			8.32	3.77 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		3.77 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.96 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		3.47 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.63 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.63 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		3.33 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		56.3	3.06 (S)	0.02	1.375
Anthracene d-10			1930	2.91 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		13900	1.96 (S)	0.16	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2900	4.51 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-2_Form1A_PH5H5013.D_SJ3695739.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-03 16-SEP-25
Sample Collection:
16-Sep-2025 11:31

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-2
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 14:46:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5013.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5004.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1930	48.2	0.10	0.611
2-Methylnaphthalene d-10		4040	2410	59.7	0.19	0.757
Biphenyl d-10		4010	2640	65.8		0.869
2,6-Dimethylnaphthalene d-12		4020	2760	68.7	0.71	0.896
Acenaphthylene d-8		4020	2780	69.1	0.17	0.962
Dibenzothiophene d-8		4010	2620	65.3	0.09	0.792
Phenanthrene d-10		4010	3130	78.1	0.14	0.809
Benzo[a]anthracene d-12		4000	3490	87.2	0.22	1.164
Chrysene d-12		3220	2890	89.9	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3570	89.5	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3570	91.2	0.18	0.961
Benzo[a]pyrene d-12		4010	3520	87.7	0.19	1.008
Perylene d-12		4000	3560	89.1	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3440	86.6	0.17	1.204
Benzo[ghi]perylene d-12		3980	3560	89.5	0.19	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-2_Form2_PH5H5013.D_SJ3695739.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-04 13-SEP-25
Sample Collection:
13-Sep-2025 15:30

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-3
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 15:35:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5014.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5004.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		94.3	3.36 (S)	0.07	1.007
Acenaphthylene	208-96-8	ND		4.76 (S)		
Acenaphthene	83-32-9		71.3	3.10 (S)	1.20	1.047
2-Methylfluorene	1430-97-3		40.4	1.92 (S)	1.33	0.939
C2 Phenanthrenes/Anthracenes			990	1.94 (S)		
Fluorene	86-73-7		58.8	1.44 (S)	1.10	0.844
Phenanthrene	85-01-8		328	2.99 (S)	0.19	1.004
Anthracene	120-12-7	NDR	6.57	2.98 (S)	0.43	1.011
C1 Phenanthrenes/Anthracenes			496	1.87 (S)		
Fluoranthene	206-44-0		73.5	0.894 (S)	0.21	1.204
Pyrene	129-00-0		55.0	0.861 (S)	0.25	1.240
Benz[a]anthracene [3]	56-55-3		4.48	1.26 (S)	0.25	1.002
Chrysene [4]	218-01-9		55.6	1.25 (S)	0.30	1.002
Benzo[b]fluoranthene	205-99-2		4.13	3.53 (S)	0.20	1.004
Benzo[j,k]fluoranthenes		ND		3.55 (S)		
Benzo[e]pyrene	192-97-2		10.3	4.74 (S)	0.25	0.996
Benzo[a]pyrene	50-32-8	ND		4.64 (S)		
Perylene	198-55-0	ND		5.12 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.52 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.81 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.92 (S)		
2-Methylnaphthalene	91-57-6		47.9	2.99 (S)	0.89	1.008
1-Methylnaphthalene	90-12-0		42.4	3.24 (S)	0.97	1.039
C1-Naphthalenes			90.3	2.99 (S)		
Biphenyl	92-52-4		69.2	3.54 (S)	0.30	1.005
C1-Biphenyls			24.8	2.07 (S)		
C2-Biphenyls			51.0	3.48 (S)		
C2-Naphthalenes			273	4.48 (S)		
1,2-Dimethylnaphthalene	573-98-8		21.0	4.48 (S)	1.16	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		38.8	3.39 (S)	0.71	1.011
C3-Naphthalenes			757	4.92 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		213	5.02 (S)	0.91	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		155	4.83 (S)	1.00	1.224
C4-Naphthalenes			922	2.43 (S)		
C1-Acenaphthenes		ND		3.82 (S)		
C1-Fluorenes			109	1.92 (S)		
1,7-Dimethylfluorene	442-66-0		22.7	3.66 (S)	0.08	1.034
C2-Fluorenes			323	3.66 (S)		
C3-Fluorenes			764	5.83 (S)		
Dibenzothiophene	132-65-0		20.7	4.70 (S)	0.09	1.003
C1-Dibenzothiophenes			120	1.57 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		29.1	1.57 (S)	0.74	1.094
C2-Dibenzothiophenes			585	4.24 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		48.1	4.24 (S)	0.48	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		108	3.45 (S)	0.15	1.152
C3-Dibenzothiophenes			539	2.45 (S)		
C4-Dibenzothiophenes			213	4.27 (S)		
3-Methylphenanthrene	832-71-3		86.9	1.90 (S)	0.59	1.087
2-Methylphenanthrene	2531-84-2		105	1.84 (S)	0.62	1.092
2-Methylanthracene	613-12-7	ND		1.98 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		168	1.90 (S)	0.61	1.106
1-Methylphenanthrene	832-69-9		136	1.87 (S)	0.66	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	59.1	1.88 (S)	0.92	1.164
2,6-Dimethylphenanthrene	17980-16-4		55.3	1.94 (S)	0.30	1.171
1,7-Dimethylphenanthrene	483-87-4		164	2.00 (S)	0.33	1.193
1,8-Dimethylphenanthrene	7372-87-4	NDR	50.5	1.94 (S)	0.53	1.209
C3-Phenanthrenes/Anthracenes			1090	2.97 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		45.0	2.97 (S)	0.63	1.292
Retene	483-65-8		252	5.58 (S)	1.38	1.300
C4-Phenanthrenes/Anthracenes			1670	5.58 (S)		
C1-Fluoranthenes/Pyrenes			114	2.08 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		39.2	2.08 (S)	1.00	1.300
C2-Fluoranthenes/Pyrenes			195	2.01 (S)		
C3-Fluoranthenes/Pyrenes			162	1.90 (S)		
C4-Fluoranthenes/Pyrenes			59.2	2.61 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			64.6	3.31 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		9.27	3.45 (S)		1.066
1-Methylchrysene	3351-28-8		9.35	3.18 (S)		1.073
C2-Benzo[a]anthracenes/Chrysenes [4]			49.5	1.29 (S)		
5,9-Dimethylchrysene	139493-40-6		14.6	1.29 (S)		1.129
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		3.39 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.60 (S)		
C1-Benzofluoranthenes/Benzopyrenes			9.61	3.28 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.28 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		4.49 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		133	2.43 (S)	0.02	1.374
Anthracene d-10			4640	3.87 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		19200	3.88 (S)	0.16	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2650	2.84 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-3_Form1A_PH5H5014.D_SJ3695740.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-US-04 13-SEP-25
Sample Collection:
13-Sep-2025 15:30

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-3
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 15:35:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5014.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5004.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1740	43.4	0.09	0.612
2-Methylnaphthalene d-10		4040	2270	56.1	0.19	0.757
Biphenyl d-10		4010	2580	64.3		0.869
2,6-Dimethylnaphthalene d-12		4020	2710	67.5	0.71	0.896
Acenaphthylene d-8		4020	2750	68.4	0.17	0.961
Dibenzothiophene d-8		4010	2790	69.7	0.09	0.792
Phenanthrene d-10		4010	3150	78.6	0.14	0.808
Benzo[a]anthracene d-12		4000	3480	86.9	0.22	1.164
Chrysene d-12		3220	2840	88.3	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3630	90.9	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3590	91.7	0.18	0.961
Benzo[a]pyrene d-12		4010	3500	87.3	0.19	1.009
Perylene d-12		4000	3540	88.6	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3290	82.8	0.17	1.204
Benzo[ghi]perylene d-12		3980	3420	85.8	0.19	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-3_Form2_PH5H5014.D_SJ3695740.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-05 13-SEP-25
Sample Collection:
13-Sep-2025 14:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43770-4
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	02-Oct-2025	**Initial Calibration Date:**	03-Nov-2025
Extraction Date:	19-Nov-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	25-Nov-2025 **Time:** 16:25:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H5015.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H5008.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H5004.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		73.0	4.09 (S)	0.08	1.006
Acenaphthylene	208-96-8	ND		2.04 (S)		
Acenaphthene	83-32-9		46.7	2.75 (S)	1.25	1.047
2-Methylfluorene	1430-97-3		38.3	2.21 (S)	1.04	0.939
C2 Phenanthrenes/Anthracenes			731	1.89 (S)		
Fluorene	86-73-7		45.8	3.57 (S)	1.02	0.844
Phenanthrene	85-01-8		260	4.64 (S)	0.19	1.004
Anthracene	120-12-7		6.73	4.62 (S)	0.21	1.011
C1 Phenanthrenes/Anthracenes			401	1.67 (S)		
Fluoranthene	206-44-0		46.4	2.84 (S)	0.20	1.204
Pyrene	129-00-0		36.5	2.74 (S)	0.18	1.240
Benz[a]anthracene [3]	56-55-3	ND		2.85 (S)		
Chrysene [4]	218-01-9		45.3	2.85 (S)	0.31	1.002
Benzo[b]fluoranthene	205-99-2	ND		3.51 (S)		
Benzo[j,k]fluoranthenes		ND		3.65 (S)		
Benzo[e]pyrene	192-97-2		9.37	4.70 (S)	0.18	0.996
Benzo[a]pyrene	50-32-8	ND		4.60 (S)		
Perylene	198-55-0	ND		5.06 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.75 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		3.64 (S)		
Benzo[ghi]perylene	191-24-2	ND		3.60 (S)		
2-Methylnaphthalene	91-57-6		37.5	1.97 (S)	0.96	1.009
1-Methylnaphthalene	90-12-0		38.9	2.13 (S)	0.93	1.040
C1-Naphthalenes			76.3	1.97 (S)		
Biphenyl	92-52-4		70.2	4.34 (S)	0.29	1.005
C1-Biphenyls			23.5	2.15 (S)		
C2-Biphenyls			49.5	3.01 (S)		
C2-Naphthalenes			236	4.57 (S)		
1,2-Dimethylnaphthalene	573-98-8		19.6	4.57 (S)	1.10	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		29.0	3.46 (S)	0.77	1.011
C3-Naphthalenes			566	1.06 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		156	1.09 (S)	0.87	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		119	1.05 (S)	0.99	1.225
C4-Naphthalenes			726	2.79 (S)		
C1-Acenaphthenes		ND		4.61 (S)		
C1-Fluorenes			79.2	2.21 (S)		
1,7-Dimethylfluorene	442-66-0		18.1	2.65 (S)	0.09	1.033
C2-Fluorenes			236	2.65 (S)		
C3-Fluorenes			553	4.82 (S)		
Dibenzothiophene	132-65-0		14.9	4.01 (S)	0.10	1.003
C1-Dibenzothiophenes			84.5	1.34 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		20.5	1.34 (S)	0.85	1.094
C2-Dibenzothiophenes			413	7.31 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		38.9	7.31 (S)	0.49	1.161
4,6-Dimethyldibenzothiophene	1207-12-1		81.8	5.95 (S)	0.16	1.152
C3-Dibenzothiophenes			410	2.54 (S)		
C4-Dibenzothiophenes			278	5.28 (S)		
3-Methylphenanthrene	832-71-3		68.8	1.70 (S)	0.64	1.087
2-Methylphenanthrene	2531-84-2		87.2	1.64 (S)	0.57	1.092
2-Methylanthracene	613-12-7	ND		1.77 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		134	1.70 (S)	0.62	1.106
1-Methylphenanthrene	832-69-9		111	1.67 (S)	0.65	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	46.2	1.84 (S)	0.91	1.164
2,6-Dimethylphenanthrene	17980-16-4		36.6	1.89 (S)	0.33	1.171
1,7-Dimethylphenanthrene	483-87-4		121	1.95 (S)	0.37	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	57.9	1.89 (S)	1.37	1.209
C3-Phenanthrenes/Anthracenes			1050	2.87 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		35.3	2.87 (S)	0.64	1.292
Retene	483-65-8		228	7.31 (S)	1.35	1.300
C4-Phenanthrenes/Anthracenes			1600	7.31 (S)		
C1-Fluoranthenes/Pyrenes			76.6	2.63 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		31.1	2.63 (S)	1.07	1.300
C2-Fluoranthenes/Pyrenes			192	1.82 (S)		
C3-Fluoranthenes/Pyrenes			174	3.17 (S)		
C4-Fluoranthenes/Pyrenes			92.2	3.38 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			61.9	3.29 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		9.03	3.43 (S)		1.066
1-Methylchrysene	3351-28-8		9.51	3.16 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			69.8	1.83 (S)		
5,9-Dimethylchrysene	139493-40-6		13.7	1.83 (S)		1.127
C3-Benzo[a]anthracenes/Chrysenes [4]			24.3	4.12 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			10.2	3.70 (S)		
C1-Benzofluoranthenes/Benzopyrenes			17.4	3.70 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.70 (S)		
C2-Benzofluoranthenes/Benzopyrenes			9.80	2.94 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		93.9	2.79 (S)	0.03	1.375
Anthracene d-10			5780	2.33 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		20900	5.22 (S)	0.16	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2920	4.06 (S)	0.22	1.003

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-4_Form1A_PH5H5015.D_SJ3695741.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-US-05 13-SEP-25
Sample Collection:
13-Sep-2025 14:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43770-4
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	02-Oct-2025	**Initial Calibration Date:**	03-Nov-2025
Extraction Date:	19-Nov-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	25-Nov-2025 **Time:** 16:25:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H5015.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H5008.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H5004.D
Concentration Units:	ng absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1720	42.8	0.09	0.611
2-Methylnaphthalene d-10		4040	2120	52.4	0.19	0.757
Biphenyl d-10		4010	2380	59.3		0.868
2,6-Dimethylnaphthalene d-12		4020	2510	62.5	0.71	0.896
Acenaphthylene d-8		4020	2570	63.9	0.17	0.961
Dibenzothiophene d-8		4010	2790	69.6	0.09	0.792
Phenanthrene d-10		4010	3090	77.1	0.14	0.808
Benzo[a]anthracene d-12		4000	3490	87.3	0.22	1.164
Chrysene d-12		3220	2850	88.6	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3640	91.3	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3520	90.1	0.18	0.961
Benzo[a]pyrene d-12		4010	3480	86.8	0.18	1.008
Perylene d-12		4000	3520	88.1	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3220	81.2	0.17	1.204
Benzo[ghi]perylene d-12		3980	3330	83.6	0.19	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-4_Form2_PH5H5015.D_SJ3695741.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-01 13-SEP-25
Sample Collection:
13-Sep-2025 16:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-5
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 17:14:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5016.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5004.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		108	2.88 (S)	0.08	1.007
Acenaphthylene	208-96-8	ND		5.33 (S)		
Acenaphthene	83-32-9		96.5	3.64 (S)	1.11	1.047
2-Methylfluorene	1430-97-3		235	5.39 (S)	1.36	0.939
C2 Phenanthrenes/Anthracenes			3820	6.16 (S)		
Fluorene	86-73-7		129	2.48 (S)	1.02	0.844
Phenanthrene	85-01-8		676	9.12 (S)	0.19	1.004
Anthracene	120-12-7	NDR	11.4	9.08 (S)	0.71	1.011
C1 Phenanthrenes/Anthracenes			2370	5.92 (S)		
Fluoranthene	206-44-0		236	7.29 (S)	0.20	1.204
Pyrene	129-00-0		237	7.02 (S)	0.19	1.240
Benz[a]anthracene [3]	56-55-3		19.3	2.92 (S)	0.26	1.002
Chrysene [4]	218-01-9		114	3.15 (S)	0.33	1.002
Benzo[b]fluoranthene	205-99-2		8.50	2.51 (S)	0.25	1.004
Benzo[j,k]fluoranthenes		ND		2.50 (S)		
Benzo[e]pyrene	192-97-2		15.6	3.38 (S)	0.23	0.996
Benzo[a]pyrene	50-32-8	ND		3.31 (S)		
Perylene	198-55-0	ND		3.42 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.69 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.59 (S)		
Benzo[ghi]perylene	191-24-2	ND		2.64 (S)		
2-Methylnaphthalene	91-57-6		280	3.66 (S)	0.93	1.008
1-Methylnaphthalene	90-12-0		280	3.96 (S)	0.95	1.039
C1-Naphthalenes			559	3.66 (S)		
Biphenyl	92-52-4		78.7	2.55 (S)	0.31	1.006
C1-Biphenyls			120	1.21 (S)		
C2-Biphenyls			259	1.11 (S)		
C2-Naphthalenes			3670	7.67 (S)		
1,2-Dimethylnaphthalene	573-98-8		240	7.67 (S)	1.26	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		658	5.80 (S)	0.70	1.011
C3-Naphthalenes			7010	4.85 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		2160	4.94 (S)	0.97	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		1360	4.76 (S)	1.06	1.224
C4-Naphthalenes			5530	5.33 (S)		
C1-Acenaphthenes			12.9	4.28 (S)		
C1-Fluorenes			682	5.39 (S)		
1,7-Dimethylfluorene	442-66-0		175	1.68 (S)	0.09	1.033
C2-Fluorenes			1960	1.68 (S)		
C3-Fluorenes			2510	5.96 (S)		
Dibenzothiophene	132-65-0		269	6.49 (S)	0.10	1.003
C1-Dibenzothiophenes			1400	3.61 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		400	3.61 (S)	0.76	1.095
C2-Dibenzothiophenes			2960	2.67 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		273	2.67 (S)	0.57	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		529	2.18 (S)	0.15	1.153
C3-Dibenzothiophenes			1720	3.53 (S)		
C4-Dibenzothiophenes			653	5.37 (S)		
3-Methylphenanthrene	832-71-3		486	6.00 (S)	0.61	1.087
2-Methylphenanthrene	2531-84-2		550	5.82 (S)	0.59	1.091
2-Methylanthracene	613-12-7	ND		6.28 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		779	6.00 (S)	0.60	1.105
1-Methylphenanthrene	832-69-9		554	5.92 (S)	0.65	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	267	5.98 (S)	0.85	1.164
2,6-Dimethylphenanthrene	17980-16-4		239	6.16 (S)	0.35	1.170
1,7-Dimethylphenanthrene	483-87-4		566	6.35 (S)	0.35	1.192
1,8-Dimethylphenanthrene	7372-87-4		183	6.16 (S)	0.32	1.209
C3-Phenanthrenes/Anthracenes			2870	5.04 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		127	5.04 (S)	0.65	1.291
Retene	483-65-8		92.2	2.63 (S)	1.39	1.300
C4-Phenanthrenes/Anthracenes			3500	2.63 (S)		
C1-Fluoranthenes/Pyrenes			302	1.64 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		94.7	1.64 (S)	0.92	1.300
C2-Fluoranthenes/Pyrenes			537	2.28 (S)		
C3-Fluoranthenes/Pyrenes			398	2.50 (S)		
C4-Fluoranthenes/Pyrenes			183	4.54 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			168	1.09 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		20.8	1.14 (S)		1.066
1-Methylchrysene	3351-28-8		26.5	1.05 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			168	3.52 (S)		
5,9-Dimethylchrysene	139493-40-6		42.8	3.52 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			34.3	5.84 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			9.08	5.15 (S)		
C1-Benzofluoranthenes/Benzopyrenes			34.3	4.39 (S)		
7-Methylbenzo[a]pyrene	63041-77-0		6.88	4.39 (S)		1.108
C2-Benzofluoranthenes/Benzopyrenes			11.0	5.11 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		774	5.33 (S)	0.03	1.375
Anthracene d-10			12700	3.15 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		27400	2.75 (S)	0.16	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		2930	4.70 (S)	0.21	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-5_Form1A_PH5H5016.D_SJ3695742.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-01 13-SEP-25
Sample Collection:
13-Sep-2025 16:11

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-5
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 17:14:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5016.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5004.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1650	41.3	0.09	0.612
2-Methylnaphthalene d-10		4040	2020	50.1	0.19	0.757
Biphenyl d-10		4010	2290	57.0		0.868
2,6-Dimethylnaphthalene d-12		4020	2420	60.1	0.71	0.896
Acenaphthylene d-8		4020	2510	62.5	0.17	0.961
Dibenzothiophene d-8		4010	2480	61.9	0.09	0.792
Phenanthrene d-10		4010	3020	75.2	0.14	0.808
Benzo[a]anthracene d-12		4000	3420	85.4	0.22	1.163
Chrysene d-12		3220	2820	87.6	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3530	88.5	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3440	88.1	0.18	0.961
Benzo[a]pyrene d-12		4010	3460	86.2	0.19	1.009
Perylene d-12		4000	3490	87.2	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3440	86.7	0.17	1.204
Benzo[ghi]perylene d-12		3980	3520	88.5	0.19	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-5_Form2_PH5H5016.D_SJ3695742.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-04 13-SEP-25
Sample Collection:
13-Sep-2025 16:45

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-6
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 18:03:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5017.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5004.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		163	4.91 (S)	0.06	1.006
Acenaphthylene	208-96-8		18.6	4.23 (S)	0.21	1.003
Acenaphthene	83-32-9		116	1.03 (S)	1.21	1.047
2-Methylfluorene	1430-97-3		320	5.97 (S)	1.37	0.939
C2 Phenanthrenes/Anthracenes			4570	4.22 (S)		
Fluorene	86-73-7		220	3.49 (S)	0.99	0.844
Phenanthrene	85-01-8		1480	6.12 (S)	0.19	1.004
Anthracene	120-12-7		24.0	6.10 (S)	0.21	1.011
C1 Phenanthrenes/Anthracenes			3650	4.79 (S)		
Fluoranthene	206-44-0		212	4.78 (S)	0.20	1.204
Pyrene	129-00-0		182	4.60 (S)	0.24	1.240
Benz[a]anthracene [3]	56-55-3	NDR	4.27	2.91 (S)	0.65	1.002
Chrysene [4]	218-01-9		91.3	2.82 (S)	0.32	1.002
Benzo[b]fluoranthene	205-99-2		5.09	4.71 (S)	0.23	1.004
Benzo[j,k]fluoranthenes		ND		4.71 (S)		
Benzo[e]pyrene	192-97-2	NDR	13.9	6.16 (S)	0.10	0.996
Benzo[a]pyrene	50-32-8	ND		6.04 (S)		
Perylene	198-55-0		36.8	6.50 (S)	0.23	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.20 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		3.17 (S)		
Benzo[ghi]perylene	191-24-2	ND		3.04 (S)		
2-Methylnaphthalene	91-57-6		220	2.73 (S)	0.92	1.008
1-Methylnaphthalene	90-12-0		241	2.96 (S)	0.95	1.039
C1-Naphthalenes			461	2.73 (S)		
Biphenyl	92-52-4		125	1.87 (S)	0.29	1.005
C1-Biphenyls			139	1.30 (S)		
C2-Biphenyls			264	2.11 (S)		
C2-Naphthalenes			2870	7.39 (S)		
1,2-Dimethylnaphthalene	573-98-8		180	7.39 (S)	1.22	1.082

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		522	5.59 (S)	0.70	1.011
C3-Naphthalenes			7070	3.17 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		2160	3.24 (S)	0.96	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		1330	3.12 (S)	1.04	1.224
C4-Naphthalenes			5680	8.71 (S)		
C1-Acenaphthenes			6.67	3.53 (S)		
C1-Fluorenes			870	5.97 (S)		
1,7-Dimethylfluorene	442-66-0		282	4.50 (S)	0.06	1.033
C2-Fluorenes			2540	4.50 (S)		
C3-Fluorenes			2640	6.35 (S)		
Dibenzothiophene	132-65-0		282	3.12 (S)	0.09	1.003
C1-Dibenzothiophenes			1630	1.47 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		459	1.47 (S)	0.79	1.094
C2-Dibenzothiophenes			2900	6.49 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		269	6.49 (S)	0.58	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		495	5.29 (S)	0.15	1.152
C3-Dibenzothiophenes			1050	6.70 (S)		
C4-Dibenzothiophenes			262	5.04 (S)		
3-Methylphenanthrene	832-71-3		685	4.86 (S)	0.60	1.087
2-Methylphenanthrene	2531-84-2		838	4.71 (S)	0.60	1.092
2-Methylanthracene	613-12-7	ND		5.09 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		1210	4.86 (S)	0.61	1.106
1-Methylphenanthrene	832-69-9		922	4.79 (S)	0.64	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	283	4.10 (S)	0.86	1.164
2,6-Dimethylphenanthrene	17980-16-4		262	4.22 (S)	0.34	1.170
1,7-Dimethylphenanthrene	483-87-4		831	4.35 (S)	0.33	1.192
1,8-Dimethylphenanthrene	7372-87-4		200	4.22 (S)	0.36	1.209
C3-Phenanthrenes/Anthracenes			2410	4.98 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		94.0	4.98 (S)	0.53	1.291
Retene	483-65-8		1120	6.49 (S)	1.49	1.300
C4-Phenanthrenes/Anthracenes			2450	6.49 (S)		
C1-Fluoranthenes/Pyrenes			321	2.68 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		125	2.68 (S)	1.17	1.300
C2-Fluoranthenes/Pyrenes			310	2.27 (S)		
C3-Fluoranthenes/Pyrenes			161	2.11 (S)		
C4-Fluoranthenes/Pyrenes			65.9	3.22 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			9.87	1.70 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		10.3	1.77 (S)		1.066
1-Methylchrysene	3351-28-8		12.7	1.63 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			50.0	1.01 (S)		
5,9-Dimethylchrysene	139493-40-6		1.45	1.01 (S)		1.127
C3-Benzo[a]anthracenes/Chrysenes [4]			11.5	3.30 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]			6.19	3.16 (S)		
C1-Benzofluoranthenes/Benzopyrenes			13.7	6.57 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		6.57 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		4.37 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		732	8.71 (S)	0.03	1.375
Anthracene d-10			1250	5.44 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		11300	4.12 (S)	0.16	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2890	3.68 (S)	0.22	1.003

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-6_Form1A_PH5H5017.D_SJ3695743.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-04 13-SEP-25
Sample Collection:
13-Sep-2025 16:45

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-6
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 18:03:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5017.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5004.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1600	40.0	0.10	0.612
2-Methylnaphthalene d-10		4040	2030	50.2	0.19	0.757
Biphenyl d-10		4010	2270	56.7		0.869
2,6-Dimethylnaphthalene d-12		4020	2400	59.6	0.70	0.896
Acenaphthylene d-8		4020	2460	61.2	0.17	0.961
Dibenzothiophene d-8		4010	2700	67.2	0.09	0.792
Phenanthrene d-10		4010	3050	76.2	0.14	0.808
Benzo[a]anthracene d-12		4000	3420	85.5	0.22	1.164
Chrysene d-12		3220	2800	86.9	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3450	86.5	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3430	87.6	0.18	0.961
Benzo[a]pyrene d-12		4010	3410	85.0	0.18	1.009
Perylene d-12		4000	3450	86.3	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3280	82.6	0.17	1.204
Benzo[ghi]perylene d-12		3980	3370	84.6	0.19	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-6_Form2_PH5H5017.D_SJ3695743.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-05 16-SEP-25
Sample Collection:
16-Sep-2025 12:25

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-7
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 21:39:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5022.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5019.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		144	3.11 (S)	0.07	1.006
Acenaphthylene	208-96-8		17.4	3.61 (S)	0.20	1.003
Acenaphthene	83-32-9		125	3.13 (S)	1.17	1.047
2-Methylfluorene	1430-97-3		165	6.63 (S)	1.31	0.939
C2 Phenanthrenes/Anthracenes			1600	3.41 (S)		
Fluorene	86-73-7		152	2.82 (S)	1.02	0.844
Phenanthrene	85-01-8		1320	6.10 (S)	0.19	1.004
Anthracene	120-12-7		29.3	6.07 (S)	0.19	1.011
C1 Phenanthrenes/Anthracenes			1300	6.37 (S)		
Fluoranthene	206-44-0		284	2.49 (S)	0.19	1.204
Pyrene	129-00-0		187	2.40 (S)	0.21	1.240
Benz[a]anthracene [3]	56-55-3		6.10	3.00 (S)	0.29	1.002
Chrysene [4]	218-01-9		67.2	3.19 (S)	0.32	1.002
Benzo[b]fluoranthene	205-99-2		6.48	2.94 (S)	0.21	1.004
Benzo[j,k]fluoranthenes		ND		2.89 (S)		
Benzo[e]pyrene	192-97-2	NDR	10.3	3.75 (S)	0.17	0.996
Benzo[a]pyrene	50-32-8	ND		3.67 (S)		
Perylene	198-55-0		43.1	4.03 (S)	0.18	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.55 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.93 (S)		
Benzo[ghi]perylene	191-24-2	NDR	3.75	1.95 (S)	0.34	1.002
2-Methylnaphthalene	91-57-6		60.9	2.77 (S)	0.96	1.009
1-Methylnaphthalene	90-12-0		84.1	3.00 (S)	0.97	1.039
C1-Naphthalenes			145	2.77 (S)		
Biphenyl	92-52-4		75.9	3.59 (S)	0.31	1.005
C1-Biphenyls			48.3	2.35 (S)		
C2-Biphenyls			90.1	4.47 (S)		
C2-Naphthalenes			487	7.29 (S)		
1,2-Dimethylnaphthalene	573-98-8		48.2	7.29 (S)	1.11	1.082

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		62.7	5.52 (S)	0.70	1.011
C3-Naphthalenes			1290	4.96 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		279	5.06 (S)	0.98	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		297	4.87 (S)	1.09	1.222
C4-Naphthalenes			1170	3.67 (S)		
C1-Acenaphthenes			3.65	3.33 (S)		
C1-Fluorenes			354	6.63 (S)		
1,7-Dimethylfluorene	442-66-0		74.9	5.82 (S)	0.08	1.034
C2-Fluorenes			756	5.82 (S)		
C3-Fluorenes			876	5.72 (S)		
Dibenzothiophene	132-65-0		58.0	2.54 (S)	0.08	1.003
C1-Dibenzothiophenes			177	2.41 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		44.2	2.41 (S)	0.70	1.095
C2-Dibenzothiophenes			603	6.36 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		50.6	6.36 (S)	0.52	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		94.5	5.18 (S)	0.19	1.152
C3-Dibenzothiophenes			381	3.40 (S)		
C4-Dibenzothiophenes			87.2	3.86 (S)		
3-Methylphenanthrene	832-71-3		195	6.46 (S)	0.58	1.087
2-Methylphenanthrene	2531-84-2		282	6.26 (S)	0.60	1.092
2-Methylanthracene	613-12-7	ND		6.76 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		340	6.46 (S)	0.63	1.106
1-Methylphenanthrene	832-69-9		487	6.37 (S)	0.63	1.110
3,6-Dimethylphenanthrene	1576-67-6	NDR	88.0	3.31 (S)	0.99	1.164
2,6-Dimethylphenanthrene	17980-16-4		64.0	3.41 (S)	0.37	1.171
1,7-Dimethylphenanthrene	483-87-4		470	3.51 (S)	0.33	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	76.4	3.41 (S)	0.61	1.209
C3-Phenanthrenes/Anthracenes			1620	1.01 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		44.9	1.01 (S)	0.53	1.292
Retene	483-65-8		1380	6.29 (S)	1.59	1.300
C4-Phenanthrenes/Anthracenes			2090	6.29 (S)		
C1-Fluoranthenes/Pyrenes			215	1.98 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		91.5	1.98 (S)	1.24	1.300
C2-Fluoranthenes/Pyrenes			161	2.18 (S)		
C3-Fluoranthenes/Pyrenes			75.7	1.19 (S)		
C4-Fluoranthenes/Pyrenes			22.1	1.34 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			46.2	2.09 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		5.35	2.18 (S)		1.066
1-Methylchrysene	3351-28-8		7.33	2.01 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			19.8	4.25 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		4.25 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.97 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		3.88 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.28 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.28 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		4.58 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		135	3.67 (S)	0.03	1.375
Anthracene d-10			1120	2.65 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		10600	3.10 (S)	0.16	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2860	3.72 (S)	0.22	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-7_Form1A_PH5H5022.D_SJ3695776.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
AEMP-DS-05 16-SEP-25
Sample Collection:
16-Sep-2025 12:25

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-7
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 21:39:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5022.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5019.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1280	31.9	0.09	0.612
2-Methylnaphthalene d-10		4040	1690	41.8	0.19	0.757
Biphenyl d-10		4010	1990	49.6		0.869
2,6-Dimethylnaphthalene d-12		4020	2120	52.7	0.71	0.896
Acenaphthylene d-8		4020	2210	54.9	0.17	0.961
Dibenzothiophene d-8		4010	2540	63.3	0.08	0.792
Phenanthrene d-10		4010	2940	73.2	0.14	0.808
Benzo[a]anthracene d-12		4000	3320	83.1	0.22	1.164
Chrysene d-12		3220	2740	85.1	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3310	83.1	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3260	83.4	0.18	0.961
Benzo[a]pyrene d-12		4010	3280	81.7	0.19	1.009
Perylene d-12		4000	3310	82.7	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3210	81.0	0.17	1.204
Benzo[ghi]perylene d-12		3980	3330	83.6	0.18	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-7_Form2_PH5H5022.D_SJ3695776.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-06 10-SEP-25
Sample Collection:
10-Sep-2025 12:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-8
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 22:28:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5023.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5019.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		75.6	5.26 (S)	0.08	1.006
Acenaphthylene	208-96-8	ND		1.96 (S)		
Acenaphthene	83-32-9		51.4	5.12 (S)	1.19	1.047
2-Methylfluorene	1430-97-3		13.2	3.65 (S)	1.34	0.939
C2 Phenanthrenes/Anthracenes			202	1.66 (S)		
Fluorene	86-73-7		30.9	4.35 (S)	1.08	0.844
Phenanthrene	85-01-8		171	3.11 (S)	0.19	1.004
Anthracene	120-12-7		4.50	3.10 (S)	0.22	1.011
C1 Phenanthrenes/Anthracenes			215	2.75 (S)		
Fluoranthene	206-44-0		52.2	3.19 (S)	0.21	1.203
Pyrene	129-00-0	NDR	59.9	3.07 (S)	0.51	1.240
Benz[a]anthracene [3]	56-55-3	ND		2.51 (S)		
Chrysene [4]	218-01-9		25.2	2.68 (S)	0.33	1.002
Benzo[b]fluoranthene	205-99-2		4.12	1.88 (S)	0.24	1.004
Benzo[j,k]fluoranthenes		ND		1.92 (S)		
Benzo[e]pyrene	192-97-2		9.47	2.55 (S)	0.22	0.996
Benzo[a]pyrene	50-32-8	ND		2.50 (S)		
Perylene	198-55-0		22.9	2.71 (S)	0.20	1.004
Dibenz[a,h]anthracene [5]	53-70-3	ND		3.44 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		2.14 (S)		
Benzo[ghi]perylene	191-24-2	ND		2.10 (S)		
2-Methylnaphthalene	91-57-6		49.2	2.84 (S)	1.00	1.008
1-Methylnaphthalene	90-12-0		50.9	3.07 (S)	0.98	1.039
C1-Naphthalenes			100	2.84 (S)		
Biphenyl	92-52-4		17.1	4.81 (S)	0.33	1.006
C1-Biphenyls			22.4	3.27 (S)		
C2-Biphenyls			58.5	4.94 (S)		
C2-Naphthalenes			243	6.80 (S)		
1,2-Dimethylnaphthalene	573-98-8		21.4	6.80 (S)	1.14	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		35.9	5.15 (S)	0.65	1.011
C3-Naphthalenes			369	2.42 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		91.1	2.47 (S)	0.90	1.203
2,3,5-Trimethylnaphthalene	2245-38-7		70.1	2.37 (S)	1.08	1.224
C4-Naphthalenes			314	1.57 (S)		
C1-Acenaphthenes		ND		2.26 (S)		
C1-Fluorenes			44.3	3.65 (S)		
1,7-Dimethylfluorene	442-66-0	ND		3.58 (S)		
C2-Fluorenes			102	3.58 (S)		
C3-Fluorenes			161	2.52 (S)		
Dibenzothiophene	132-65-0	NDR	13.4	2.56 (S)	0.10	1.003
C1-Dibenzothiophenes			34.6	3.06 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		8.19	3.06 (S)	0.83	1.095
C2-Dibenzothiophenes			78.4	0.892 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	5.68	0.892 (S)	1.26	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		10.3	0.727 (S)	0.17	1.153
C3-Dibenzothiophenes			38.3	1.67 (S)		
C4-Dibenzothiophenes			8.40	3.23 (S)		
3-Methylphenanthrene	832-71-3		39.0	2.78 (S)	0.64	1.087
2-Methylphenanthrene	2531-84-2		44.1	2.70 (S)	0.55	1.091
2-Methylanthracene	613-12-7	ND		2.91 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		72.2	2.78 (S)	0.61	1.105
1-Methylphenanthrene	832-69-9		59.4	2.75 (S)	0.57	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	16.3	1.61 (S)	0.91	1.164
2,6-Dimethylphenanthrene	17980-16-4		9.25	1.66 (S)	0.36	1.170
1,7-Dimethylphenanthrene	483-87-4		28.5	1.71 (S)	0.31	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	12.2	1.66 (S)	0.83	1.209
C3-Phenanthrenes/Anthracenes			1020	2.62 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		7.35	2.62 (S)	0.56	1.291
Retene	483-65-8		134	4.09 (S)	1.61	1.300
C4-Phenanthrenes/Anthracenes			241	4.09 (S)		
C1-Fluoranthenes/Pyrenes			73.0	2.00 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		26.0	2.00 (S)	1.03	1.300
C2-Fluoranthenes/Pyrenes			48.9	2.85 (S)		
C3-Fluoranthenes/Pyrenes			26.0	1.59 (S)		
C4-Fluoranthenes/Pyrenes			8.68	2.78 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			21.3	1.48 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		1.71	1.54 (S)		1.065
1-Methylchrysene	3351-28-8		2.62	1.42 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			7.61	2.97 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		2.97 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		2.07 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.90 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		4.67 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		4.67 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		4.13 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		34.5	1.57 (S)	0.03	1.375
Anthracene d-10			3840	4.17 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		17900	2.60 (S)	0.16	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2880	3.86 (S)	0.23	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

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Report Filename: PAH_PAH_LO_LPAHF_L43770-8_Form1A_PH5H5023.D_SJ3695777.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-06 10-SEP-25
Sample Collection:
10-Sep-2025 12:00

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43770-8
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	02-Oct-2025	**Initial Calibration Date:**	03-Nov-2025
Extraction Date:	19-Nov-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	25-Nov-2025 **Time:** 22:28:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H5023.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H5008.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H5019.D
Concentration Units:	ng absolute		

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This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1190	29.8	0.09	0.612
2-Methylnaphthalene d-10		4040	1480	36.6	0.19	0.757
Biphenyl d-10		4010	1700	42.4		0.868
2,6-Dimethylnaphthalene d-12		4020	1810	44.9	0.71	0.896
Acenaphthylene d-8		4020	1890	46.9	0.17	0.961
Dibenzothiophene d-8		4010	2220	55.2	0.09	0.792
Phenanthrene d-10		4010	2550	63.7	0.14	0.809
Benzo[a]anthracene d-12		4000	2830	70.6	0.22	1.164
Chrysene d-12		3220	2320	72.1	0.25	1.169
Benzo[b]fluoranthene d-12		3990	2870	71.9	0.19	0.957
Benzo[k]fluoranthene d-12		3910	2850	72.9	0.18	0.961
Benzo[a]pyrene d-12		4010	2820	70.3	0.19	1.009
Perylene d-12		4000	2850	71.3	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	2660	66.9	0.17	1.204
Benzo[ghi]perylene d-12		3980	2760	69.3	0.19	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

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Report Filename: PAH_PAH_LO_LPAHF_L43770-8_Form2_PH5H5023.D_SJ3695777.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-08 16-SEP-25
Sample Collection:
16-Sep-2025 12:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-9
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 23:18:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5024.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5019.D

Concentration Units: ng/sample

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		163	4.10 (S)	0.07	1.006
Acenaphthylene	208-96-8		13.9	4.42 (S)	0.24	1.003
Acenaphthene	83-32-9		140	2.26 (S)	1.21	1.047
2-Methylfluorene	1430-97-3		133	3.29 (S)	1.27	0.938
C2 Phenanthrenes/Anthracenes			1310	3.58 (S)		
Fluorene	86-73-7		156	1.30 (S)	0.99	0.844
Phenanthrene	85-01-8		1110	3.29 (S)	0.19	1.003
Anthracene	120-12-7		23.0	3.27 (S)	0.20	1.011
C1 Phenanthrenes/Anthracenes			990	3.01 (S)		
Fluoranthene	206-44-0		227	3.47 (S)	0.20	1.203
Pyrene	129-00-0	NDR	153	3.34 (S)	0.27	1.240
Benz[a]anthracene [3]	56-55-3		4.90	2.53 (S)	0.26	1.002
Chrysene [4]	218-01-9		62.9	2.55 (S)	0.32	1.002
Benzo[b]fluoranthene	205-99-2		6.08	2.27 (S)	0.25	1.004
Benzo[j,k]fluoranthenes		ND		2.29 (S)		
Benzo[e]pyrene	192-97-2	NDR	8.58	3.01 (S)	0.02	0.996
Benzo[a]pyrene	50-32-8	ND		2.95 (S)		
Perylene	198-55-0		40.1	3.22 (S)	0.21	1.005
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.48 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		3.08 (S)		
Benzo[ghi]perylene	191-24-2	ND		3.02 (S)		
2-Methylnaphthalene	91-57-6		67.9	3.50 (S)	0.92	1.008
1-Methylnaphthalene	90-12-0		82.7	3.79 (S)	0.95	1.039
C1-Naphthalenes			151	3.50 (S)		
Biphenyl	92-52-4		78.1	4.50 (S)	0.31	1.006
C1-Biphenyls			42.7	2.21 (S)		
C2-Biphenyls			73.8	1.01 (S)		
C2-Naphthalenes			450	4.17 (S)		
1,2-Dimethylnaphthalene	573-98-8		35.3	4.17 (S)	1.41	1.082

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		58.3	3.16 (S)	0.72	1.011
C3-Naphthalenes			1030	2.56 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		212	2.61 (S)	1.01	1.202
2,3,5-Trimethylnaphthalene	2245-38-7		228	2.51 (S)	1.07	1.223
C4-Naphthalenes			818	3.22 (S)		
C1-Acenaphthenes		ND		4.24 (S)		
C1-Fluorenes			283	3.29 (S)		
1,7-Dimethylfluorene	442-66-0		41.0	2.36 (S)	0.09	1.033
C2-Fluorenes			536	2.36 (S)		
C3-Fluorenes			865	4.92 (S)		
Dibenzothiophene	132-65-0		48.7	2.51 (S)	0.08	1.003
C1-Dibenzothiophenes			148	3.34 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		39.6	3.34 (S)	0.67	1.095
C2-Dibenzothiophenes			498	2.93 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	NDR	42.3	2.93 (S)	0.61	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		78.7	2.39 (S)	0.16	1.152
C3-Dibenzothiophenes			413	6.14 (S)		
C4-Dibenzothiophenes			115	2.79 (S)		
3-Methylphenanthrene	832-71-3		150	3.05 (S)	0.62	1.087
2-Methylphenanthrene	2531-84-2		214	2.96 (S)	0.57	1.091
2-Methylanthracene	613-12-7	NDR	4.05	3.19 (S)	1.09	1.098
9/4-Methylphenanthrene	883-20-5/832-64-4		268	3.05 (S)	0.63	1.105
1-Methylphenanthrene	832-69-9		358	3.01 (S)	0.63	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	80.1	3.48 (S)	0.88	1.164
2,6-Dimethylphenanthrene	17980-16-4		58.3	3.58 (S)	0.26	1.170
1,7-Dimethylphenanthrene	483-87-4		345	3.70 (S)	0.34	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	63.8	3.58 (S)	0.66	1.209
C3-Phenanthrenes/Anthracenes			1530	4.36 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		49.8	4.36 (S)	0.50	1.291
Retene	483-65-8		1020	2.41 (S)	1.57	1.300
C4-Phenanthrenes/Anthracenes			1940	2.41 (S)		
C1-Fluoranthenes/Pyrenes			200	3.02 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		76.0	3.02 (S)	1.22	1.300
C2-Fluoranthenes/Pyrenes			167	2.38 (S)		
C3-Fluoranthenes/Pyrenes			98.1	1.59 (S)		
C4-Fluoranthenes/Pyrenes			35.5	1.51 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			48.4	0.933 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		5.91	0.973 (S)		1.066
1-Methylchrysene	3351-28-8		8.03	0.897 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			21.5	3.01 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		3.01 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		3.08 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		3.24 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		5.94 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		5.94 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		3.28 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		99.2	3.22 (S)	0.02	1.375
Anthracene d-10			1480	2.00 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		12100	5.58 (S)	0.16	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1		2900	3.71 (S)	0.21	1.003

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-9_Form1A_PH5H5024.D_SJ3695778.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
AEMP-DS-08 16-SEP-25
Sample Collection:
16-Sep-2025 12:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-9
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 23:18:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5024.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5019.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1620	40.3	0.09	0.612
2-Methylnaphthalene d-10		4040	2030	50.3	0.19	0.758
Biphenyl d-10		4010	2260	56.3		0.869
2,6-Dimethylnaphthalene d-12		4020	2370	59.0	0.70	0.897
Acenaphthylene d-8		4020	2420	60.2	0.17	0.962
Dibenzothiophene d-8		4010	2570	64.1	0.09	0.792
Phenanthrene d-10		4010	2920	72.8	0.14	0.809
Benzo[a]anthracene d-12		4000	3300	82.6	0.22	1.164
Chrysene d-12		3220	2710	84.2	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3280	82.2	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3330	85.1	0.18	0.961
Benzo[a]pyrene d-12		4010	3250	81.1	0.18	1.009
Perylene d-12		4000	3300	82.4	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3210	80.7	0.17	1.204
Benzo[ghi]perylene d-12		3980	3270	82.2	0.19	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-9_Form2_PH5H5024.D_SJ3695778.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
DUP 1 13-SEP-25
Sample Collection:
13-Sep-2025 16:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	NORMAN WELLS AEMP
Matrix:	SPMD	**Lab Sample I.D.:**	L43770-10
Sample Receipt Date:	02-Oct-2025	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	26-Nov-2025 **Time:** 00:07:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5025.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5019.D

Concentration Units: ng/sample

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		57.4	3.35 (S)	0.09	1.007
Acenaphthylene	208-96-8	ND		3.26 (S)		
Acenaphthene	83-32-9		43.5	1.30 (S)	1.12	1.046
2-Methylfluorene	1430-97-3		117	2.43 (S)	1.31	0.938
C2 Phenanthrenes/Anthracenes			2000	2.33 (S)		
Fluorene	86-73-7		57.3	2.72 (S)	1.08	0.844
Phenanthrene	85-01-8		328	2.53 (S)	0.19	1.003
Anthracene	120-12-7	NDR	6.80	2.52 (S)	0.64	1.011
C1 Phenanthrenes/Anthracenes			1170	4.52 (S)		
Fluoranthene	206-44-0		106	2.15 (S)	0.20	1.204
Pyrene	129-00-0	NDR	116	2.07 (S)	0.38	1.240
Benz[a]anthracene [3]	56-55-3		9.45	0.748 (S)	0.31	1.002
Chrysene [4]	218-01-9		63.4	0.795 (S)	0.33	1.002
Benzo[b]fluoranthene	205-99-2		4.80	3.93 (S)	0.22	1.004
Benzo[j,k]fluoranthenes		ND		3.82 (S)		
Benzo[e]pyrene	192-97-2		10.5	5.12 (S)	0.22	0.996
Benzo[a]pyrene	50-32-8	ND		5.02 (S)		
Perylene	198-55-0	ND		5.53 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		2.87 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		4.16 (S)		
Benzo[ghi]perylene	191-24-2	ND		4.01 (S)		
2-Methylnaphthalene	91-57-6		163	1.81 (S)	0.94	1.009
1-Methylnaphthalene	90-12-0		170	1.97 (S)	0.96	1.039
C1-Naphthalenes			333	1.81 (S)		
Biphenyl	92-52-4		47.8	3.06 (S)	0.30	1.005
C1-Biphenyls			72.0	3.74 (S)		
C2-Biphenyls			155	1.39 (S)		
C2-Naphthalenes			1910	4.03 (S)		
1,2-Dimethylnaphthalene	573-98-8		133	4.03 (S)	1.26	1.081

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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0		346	3.05 (S)	0.70	1.011
C3-Naphthalenes			3730	7.31 (S)		
2,3,6-Trimethylnaphthalene	829-26-5		1140	7.45 (S)	0.96	1.201
2,3,5-Trimethylnaphthalene	2245-38-7		718	7.18 (S)	1.06	1.224
C4-Naphthalenes			3130	2.85 (S)		
C1-Acenaphthenes			7.30	2.14 (S)		
C1-Fluorenes			347	2.43 (S)		
1,7-Dimethylfluorene	442-66-0		121	6.55 (S)	0.08	1.033
C2-Fluorenes			999	6.55 (S)		
C3-Fluorenes			1240	2.28 (S)		
Dibenzothiophene	132-65-0		140	4.44 (S)	0.09	1.003
C1-Dibenzothiophenes			693	3.57 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		192	3.57 (S)	0.72	1.095
C2-Dibenzothiophenes			1590	5.97 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7		138	5.97 (S)	0.60	1.162
4,6-Dimethyldibenzothiophene	1207-12-1		283	4.86 (S)	0.15	1.152
C3-Dibenzothiophenes			1010	5.65 (S)		
C4-Dibenzothiophenes			375	3.54 (S)		
3-Methylphenanthrene	832-71-3		242	4.58 (S)	0.62	1.087
2-Methylphenanthrene	2531-84-2		271	4.45 (S)	0.59	1.091
2-Methylanthracene	613-12-7	ND		4.80 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4		390	4.58 (S)	0.60	1.105
1-Methylphenanthrene	832-69-9		268	4.52 (S)	0.66	1.109
3,6-Dimethylphenanthrene	1576-67-6	NDR	124	2.26 (S)	0.92	1.164
2,6-Dimethylphenanthrene	17980-16-4		130	2.33 (S)	0.36	1.170
1,7-Dimethylphenanthrene	483-87-4		301	2.40 (S)	0.36	1.192
1,8-Dimethylphenanthrene	7372-87-4	NDR	82.7	2.33 (S)	0.44	1.209
C3-Phenanthrenes/Anthracenes			2390	4.54 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6		71.3	4.54 (S)	0.61	1.291
Retene	483-65-8	NDR	67.1	9.84 (S)	1.07	1.300
C4-Phenanthrenes/Anthracenes			2120	9.84 (S)		
C1-Fluoranthenes/Pyrenes			169	2.90 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		50.4	2.90 (S)	0.94	1.300
C2-Fluoranthenes/Pyrenes			330	2.35 (S)		
C3-Fluoranthenes/Pyrenes			246	4.33 (S)		
C4-Fluoranthenes/Pyrenes			135	4.30 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]			106	2.53 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7		14.8	2.63 (S)		1.066
1-Methylchrysene	3351-28-8		16.7	2.43 (S)		1.074
C2-Benzo[a]anthracenes/Chrysenes [4]			108	1.62 (S)		
5,9-Dimethylchrysene	139493-40-6		22.2	1.62 (S)		1.128
C3-Benzo[a]anthracenes/Chrysenes [4]			20.5	4.02 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		2.61 (S)		
C1-Benzofluoranthenes/Benzopyrenes			28.5	7.00 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		7.00 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		5.70 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6		419	2.85 (S)	0.03	1.374
Anthracene d-10			9580	1.59 (S)	0.15	1.008
Fluoranthene d-10	93951-69-0		18800	5.45 (S)	0.16	0.835
Dibenzo[a,h]anthracene d-14	13250-98-1		1930	3.91 (S)	0.23	1.004

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

For Axys Internal Use Only [XSL Template: Pest1A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-10_Form1A_PH5H5025.D_SJ3695779.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
DUP 1 13-SEP-25
Sample Collection:
13-Sep-2025 16:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	NORMAN WELLS AEMP		
Contract No.:	4608	**Lab Sample I.D.:**	L43770-10
Matrix:	SPMD	**Sample Size:**	1 sample
Sample Receipt Date:	02-Oct-2025	**Initial Calibration Date:**	03-Nov-2025
Extraction Date:	19-Nov-2025	**Instrument ID:**	LR GC/MS
Analysis Date:	26-Nov-2025 **Time:** 00:07:00	**GC Column ID:**	RTX5
Extract Volume (uL):	500	**Sample Data Filename:**	**PH5H5025.D**
Injection Volume (uL):	1.0	**Blank Data Filename:**	PH5H5008.D
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	PH5H5019.D
Concentration Units:	ng absolute		

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LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1220	30.4	0.09	0.613
2-Methylnaphthalene d-10		4040	1590	39.5	0.19	0.757
Biphenyl d-10		4010	1870	46.6		0.869
2,6-Dimethylnaphthalene d-12		4020	2000	49.8	0.70	0.897
Acenaphthylene d-8		4020	2100	52.3	0.17	0.962
Dibenzothiophene d-8		4010	2510	62.7	0.09	0.792
Phenanthrene d-10		4010	2880	71.8	0.14	0.809
Benzo[a]anthracene d-12		4000	3210	80.2	0.22	1.164
Chrysene d-12		3220	2630	81.9	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3260	81.6	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3210	82.0	0.18	0.961
Benzo[a]pyrene d-12		4010	3180	79.3	0.18	1.009
Perylene d-12		4000	3230	80.7	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	2990	75.3	0.17	1.204
Benzo[ghi]perylene d-12		3980	3090	77.7	0.19	1.235

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

For Axys Internal Use Only [XSL Template: Pest2.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: PAH_PAH_LO_LPAHF_L43770-10_Form2_PH5H5025.D_SJ3695779.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

Form 1A

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	N/A
Matrix:	SPMD	**Lab Sample I.D.:**	WG95726-101
Sample Receipt Date:	N/A	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 10:41:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5008.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
		Cal. Ver. Data Filename:	PH5H5004.D

Concentration Units: ng/sample

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This test is not CALA accredited. Sample results relate only to the sample tested.

COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
Naphthalene	91-20-3		4.44	2.03 (S)	0.07	1.007
Acenaphthylene	208-96-8	ND		1.58 (S)		
Acenaphthene	83-32-9	ND		3.18 (S)		
2-Methylfluorene	1430-97-3	ND		2.67 (S)		
C2 Phenanthrenes/Anthracenes		ND		2.33 (S)		
Fluorene	86-73-7	ND		3.25 (S)		
Phenanthrene	85-01-8	ND		1.66 (S)		
Anthracene	120-12-7	NDR	2.33	1.65 (S)	0.29	1.012
C1 Phenanthrenes/Anthracenes		ND		2.75 (S)		
Fluoranthene	206-44-0	ND		0.981 (S)		
Pyrene	129-00-0	NDR	1.20	0.945 (S)	0.13	1.240
Benz[a]anthracene [3]	56-55-3	ND		3.49 (S)		
Chrysene [4]	218-01-9	ND		3.16 (S)		
Benzo[b]fluoranthene	205-99-2	ND		2.55 (S)		
Benzo[j,k]fluoranthenes		ND		2.51 (S)		
Benzo[e]pyrene	192-97-2	ND		3.47 (S)		
Benzo[a]pyrene	50-32-8	ND		3.40 (S)		
Perylene	198-55-0	ND		3.64 (S)		
Dibenz[a,h]anthracene [5]	53-70-3	ND		1.85 (S)		
Indeno[1,2,3-cd]pyrene	193-39-5	ND		1.76 (S)		
Benzo[ghi]perylene	191-24-2	ND		1.66 (S)		
2-Methylnaphthalene	91-57-6	NDR	3.61	1.66 (S)	1.21	1.008
1-Methylnaphthalene	90-12-0		3.04	1.79 (S)	1.12	1.040
C1-Naphthalenes			3.04	1.66 (S)		
Biphenyl	92-52-4	ND		2.90 (S)		
C1-Biphenyls			12.6	2.74 (S)		
C2-Biphenyls			50.6	3.24 (S)		
C2-Naphthalenes			16.7	5.98 (S)		
1,2-Dimethylnaphthalene	573-98-8	ND		5.98 (S)		

This page is part of a total report that contains information necessary for accreditation compliance.
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COMPOUND	CAS NO.	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO	RRT
2,6-Dimethylnaphthalene	581-42-0	ND		4.53 (S)		
C3-Naphthalenes		ND		2.88 (S)		
2,3,6-Trimethylnaphthalene	829-26-5	ND		2.93 (S)		
2,3,5-Trimethylnaphthalene	2245-38-7	ND		2.82 (S)		
C4-Naphthalenes		ND		3.45 (S)		
C1-Acenaphthenes		ND		2.10 (S)		
C1-Fluorenes		ND		2.67 (S)		
1,7-Dimethylfluorene	442-66-0	ND		3.21 (S)		
C2-Fluorenes		ND		3.21 (S)		
C3-Fluorenes		ND		4.15 (S)		
Dibenzothiophene	132-65-0	ND		1.20 (S)		
C1-Dibenzothiophenes		ND		3.03 (S)		
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3	ND		3.03 (S)		
C2-Dibenzothiophenes		ND		3.16 (S)		
2,4-Dimethyldibenzothiophene	31317-18-7	ND		3.16 (S)		
4,6-Dimethyldibenzothiophene	1207-12-1	ND		2.58 (S)		
C3-Dibenzothiophenes		ND		2.49 (S)		
C4-Dibenzothiophenes		ND		2.07 (S)		
3-Methylphenanthrene	832-71-3	ND		2.79 (S)		
2-Methylphenanthrene	2531-84-2	ND		2.71 (S)		
2-Methylanthracene	613-12-7	ND		2.92 (S)		
9/4-Methylphenanthrene	883-20-5/832-64-4	ND		2.79 (S)		
1-Methylphenanthrene	832-69-9	ND		2.75 (S)		
3,6-Dimethylphenanthrene	1576-67-6	ND		2.27 (S)		
2,6-Dimethylphenanthrene	17980-16-4	ND		2.33 (S)		
1,7-Dimethylphenanthrene	483-87-4	ND		2.40 (S)		
1,8-Dimethylphenanthrene	7372-87-4	ND		2.33 (S)		
C3-Phenanthrenes/Anthracenes		ND		2.75 (S)		
1,2,6-Trimethylphenanthrene	30436-55-6	ND		2.75 (S)		
Retene	483-65-8	ND		4.50 (S)		
C4-Phenanthrenes/Anthracenes		ND		4.50 (S)		
C1-Fluoranthenes/Pyrenes		ND		1.33 (S)		
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	ND		1.33 (S)		
C2-Fluoranthenes/Pyrenes		ND		1.21 (S)		
C3-Fluoranthenes/Pyrenes		ND		1.25 (S)		
C4-Fluoranthenes/Pyrenes		ND		2.29 (S)		
C1-Benzo[a]anthracenes/Chrysenes [4]		ND		0.762 (S)		
5/6-Methylchrysene	3697-24-3/1705-85-7	ND		0.794 (S)		
1-Methylchrysene	3351-28-8	ND		0.732 (S)		
C2-Benzo[a]anthracenes/Chrysenes [4]		ND		1.42 (S)		
5,9-Dimethylchrysene	139493-40-6	ND		1.42 (S)		
C3-Benzo[a]anthracenes/Chrysenes [4]		ND		1.56 (S)		
C4-Benzo[a]anthracenes/Chrysenes [4]		ND		3.57 (S)		
C1-Benzofluoranthenes/Benzopyrenes		ND		3.74 (S)		
7-Methylbenzo[a]pyrene	63041-77-0	ND		3.74 (S)		
C2-Benzofluoranthenes/Benzopyrenes		ND		3.18 (S)		
1,4,6,7-Tetramethylnaphthalene	13764-18-6	ND		3.45 (S)		
Anthracene d-10		NDR	12.4	4.51 (S)	0.18	1.008
Fluoranthene d-10	93951-69-0		6.37	1.82 (S)	0.14	0.834
Dibenzo[a,h]anthracene d-14	13250-98-1	ND		2.86 (S)		

(1) Where applicable, custom lab flags have been used on this report; ND = not detected at RL; NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) May co-elute with Cyclopenta(cd)pyrene.
(4) May co-elute with Triphenylene.
(5) May co-elute with Dibenz[a,c]anthracene.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Victoria Reesor_____

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Report Filename: PAH_PAH_LO_LPAHF_WG95726-101_Form1A_PH5H5008.D_SJ3695733.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 2

POLYAROMATIC HYDROCARBON ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4608	**Project No.**	N/A
Matrix:	SPMD	**Lab Sample I.D.:**	WG95726-101
Sample Receipt Date:	N/A	**Sample Size:**	1 sample
Extraction Date:	19-Nov-2025	**Initial Calibration Date:**	03-Nov-2025
Analysis Date:	25-Nov-2025 **Time:** 10:41:00	**Instrument ID:**	LR GC/MS
Extract Volume (uL):	500	**GC Column ID:**	RTX5
Injection Volume (uL):	1.0	**Sample Data Filename:**	**PH5H5008.D**
Dilution Factor:	N/A	**Blank Data Filename:**	PH5H5008.D
Concentration Units:	ng absolute	**Cal. Ver. Data Filename:**	PH5H5004.D

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not CALA accredited. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO	RRT
Naphthalene d-8		4010	1540	38.5	0.09	0.613
2-Methylnaphthalene d-10		4040	1580	39.0	0.19	0.757
Biphenyl d-10		4010	1560	39.0		0.869
2,6-Dimethylnaphthalene d-12		4020	1560	38.8	0.71	0.896
Acenaphthylene d-8		4020	1490	37.1	0.17	0.962
Dibenzothiophene d-8		4010	1610	40.2	0.09	0.793
Phenanthrene d-10		4010	1820	45.4	0.14	0.808
Benzo[a]anthracene d-12		4000	2960	73.9	0.22	1.164
Chrysene d-12		3220	2640	82.1	0.25	1.169
Benzo[b]fluoranthene d-12		3990	3290	82.5	0.19	0.957
Benzo[k]fluoranthene d-12		3910	3320	84.9	0.18	0.961
Benzo[a]pyrene d-12		4010	3130	78.0	0.19	1.008
Perylene d-12		4000	3230	80.7	0.23	1.024
Indeno[1,2,3-cd]pyrene d-12		3970	3050	76.9	0.17	1.205
Benzo[ghi]perylene d-12		3980	3280	82.4	0.19	1.236

(1) Where applicable, custom lab flags have been used on this report.
(2) R% = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

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Report Filename: PAH_PAH_LO_LPAHF_WG95726-101_Form2_PH5H5008.D_SJ3695733.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 8A

POLYAROMATIC HYDROCARBON ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4608 **OPR Data Filename:** **PH5H5005.D**

Matrix: SPMD **Lab Sample I.D.:** WG95726-103

Extraction Date: 19-Nov-2025 **Analysis Date:** 25-Nov-2025 **Time:** 08:13:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON 100 uL EXTRACT.

COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
Naphthalene	91-20-3		0.08	39500	41300	27700 - 51400	104
Acenaphthylene	208-96-8		0.20	39700	42100	27800 - 55600	106
Acenaphthene	83-32-9		1.17	39700	43200	27800 - 51600	109
2-Methylfluorene	1430-97-3		1.24	40000	38900	20000 - 60000	97.3
Fluorene	86-73-7		0.99	39700	33600	23800 - 55600	84.6
Phenanthrene	85-01-8		0.19	40400	42000	28300 - 52600	104
Anthracene	120-12-7		0.18	40100	45400	28100 - 52100	113
Fluoranthene	206-44-0	N	0.20	39400	58500	27600 - 51300	148
Pyrene	129-00-0	N	0.21	39600	60300	27700 - 51500	152
Benz[a]anthracene	56-55-3		0.26	40200	40900	28100 - 52300	102
Chrysene	218-01-9		0.29	40400	39800	28300 - 52500	98.6
Benzo[b]fluoranthene	205-99-2		0.22	40000	39500	28000 - 52100	98.6
Benzo[j,k]fluoranthenes			0.21	40300	40200	28200 - 52400	99.8
Benzo[e]pyrene	192-97-2		0.21	40000	41300	28000 - 52000	103
Benzo[a]pyrene	50-32-8		0.21	40200	40000	28100 - 52200	99.5
Perylene	198-55-0		0.21	40000	39500	28000 - 52000	98.8
Dibenz[a,h]anthracene	53-70-3		0.15	40400	39900	28300 - 52500	98.9
Indeno[1,2,3-cd]pyrene	193-39-5		0.19	40400	39900	28300 - 52500	98.8
Benzo[ghi]perylene	191-24-2		0.21	40100	39000	28100 - 52100	97.4
2-Methylnaphthalene	91-57-6		0.91	40000	42000	28000 - 52000	105
1-Methylnaphthalene	90-12-0		0.94	40100	42500	28000 - 52100	106
Biphenyl	92-52-4		0.28	39800	42100	27900 - 51800	106
1,2-Dimethylnaphthalene	573-98-8		1.30	39900	42100	23900 - 55900	105
2,6-Dimethylnaphthalene	581-42-0		0.69	40100	41200	28100 - 52200	103
2,3,6-Trimethylnaphthalene	829-26-5		0.90	39900	45100	20000 - 59900	113
2,3,5-Trimethylnaphthalene	2245-38-7		0.90	40000	44500	20000 - 60100	111
1,7-Dimethylfluorene	442-66-0		0.08	39800	48600	19900 - 59700	122
Dibenzothiophene	132-65-0		0.08	40000	42300	24000 - 55900	106
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		0.71	40200	45700	20100 - 60200	114
4,6-Dimethyldibenzothiophene	1207-12-1		0.16	40000	56500	20000 - 59900	141
2-Methylphenanthrene	2531-84-2		0.59	39800	49400	19900 - 59700	124
2-Methylanthracene	613-12-7		0.51	40000	52200	20000 - 60000	131
1-Methylphenanthrene	832-69-9		0.61	40000	52800	20000 - 60100	132
3,6-Dimethylphenanthrene	1576-67-6		0.35	40200	54900	20100 - 60200	137
1,7-Dimethylphenanthrene	483-87-4		0.34	39000	58300	19500 - 58500	149

COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
1,2,6-Trimethylphenanthrene	30436-55-6	N	0.59	40000	68700	20000 - 60000	172
Retene	483-65-8	N	1.59	40000	72700	20000 - 60000	182
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6	N	1.06	40300	69800	20100 - 60400	173
5/6-Methylchrysene	3697-24-3/1705-85-7			40000	40200	20000 - 60100	100
1-Methylchrysene	3351-28-8			39900	40200	19900 - 59800	101
5,9-Dimethylchrysene	139493-40-6			40200	40700	20100 - 60200	101
7-Methylbenzo[a]pyrene	63041-77-0			40000	39300	20000 - 59900	98.4
1,4,6,7-Tetramethylnaphthalene	13764-18-6		0.03	39900	49300	19900 - 79800	124
Anthracene d-10			0.13	40800	40700	28600 - 53000	99.6
Fluoranthene d-10	93951-69-0		0.16	39700	33800	27800 - 51600	85.1
Dibenzo[a,h]anthracene d-14	13250-98-1		0.22	38300	43700	26800 - 49800	114

(1) Where applicable, custom lab flags have been used on this report; N = authentic recovery in the OPR is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

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SGS AXYS METHOD MLA-021 Rev 12

Form 8B

POLYAROMATIC HYDROCARBON ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4608 **OPR Data Filename:** **PH5H5005.D**

Matrix: SPMD **Lab Sample I.D.:** WG95726-103

Extraction Date: 19-Nov-2025 **Analysis Date:** 25-Nov-2025 **Time:** 08:13:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON 100 uL EXTRACT.

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
Naphthalene d-8	1146-65-2		0.09	40100	11600	6020-52100	29.0
2-Methylnaphthalene d-10	7297-45-2		0.19	40400	12600	8080-52500	31.2
Biphenyl d-10	1486-01-7			40100	13200	6020-52100	32.9
2,6-Dimethylnaphthalene d-12	350820-12-1		0.71	40200	13400	8040-52300	33.2
Acenaphthylene d-8	93951-97-4		0.16	40200	13100	8040-52300	32.6
Dibenzothiophene d-8	33262-29-2		0.09	40100	15500	12000-52100	38.7
Phenanthrene d-10	1517-22-2		0.14	40100	18200	12000-52100	45.4
Benzo[a]anthracene d-12	1718-53-2		0.22	40000	31100	12000-52000	77.8
Chrysene d-12	1719-03-5		0.25	32200	27100	9650-41800	84.2
Benzo[b]fluoranthene d-12	93951-98-5		0.19	39900	33400	12000-51900	83.7
Benzo[k]fluoranthene d-12	93952-01-3		0.18	39100	33700	11700-50800	86.1
Benzo[a]pyrene d-12	63466-71-7		0.19	40100	33000	12000-52100	82.4
Perylene d-12	1520-96-3		0.23	40000	33200	12000-52000	83.1
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		0.17	39700	32200	11900-51600	81.1
Benzo[ghi]perylene d-12	93951-66-7		0.19	39800	34400	11900-51700	86.4

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

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SGS AXYS METHOD MLA-021 Rev 12

Form 3A

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 03-Nov-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H4759.D

CS2 Data Filename: PH5H4760.D

CS3 Data Filename: PH5H4761.D

CS4 Data Filename: PH5H4762.D

CS5 Data Filename: PH5H4763.D

CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
COMPOUND	**LAB FLAG 1**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
Naphthalene			1.14	1.18	1.24	1.21	1.22		1.20	3.33
Acenaphthylene			1.14	1.21	1.24	1.23	1.22		1.21	3.19
Acenaphthene			0.65	0.67	0.70	0.69	0.69		0.68	2.78
2-Methylfluorene			0.54	0.56	0.57	0.56	0.56		0.56	2.05
Fluorene			0.79	0.81	0.85	0.83	0.83		0.82	3.14
Phenanthrene			1.15	1.21	1.23	1.20	1.20		1.20	2.33
Anthracene			1.14	1.22	1.25	1.21	1.21		1.20	3.34
Fluoranthene			1.26	1.32	1.41	1.36	1.35		1.34	4.30
Pyrene			1.31	1.38	1.46	1.39	1.41		1.39	3.87
Benz[a]anthracene			1.16	1.16	1.21	1.19	1.17		1.18	1.94
Chrysene			1.09	1.14	1.18	1.16	1.16		1.15	3.16
Benzo[b]fluoranthene			1.34	1.36	1.36	1.35	1.34		1.35	0.81
Benzo[j,k]fluoranthenes			1.22	1.26	1.32	1.29	1.30		1.28	3.10
Benzo[e]pyrene			1.19	1.22	1.25	1.23	1.22		1.22	1.76
Benzo[a]pyrene			1.18	1.23	1.28	1.27	1.27		1.25	3.39
Perylene			1.10	1.16	1.19	1.20	1.20		1.17	3.62
Dibenz[a,h]anthracene			1.11	1.18	1.22	1.22	1.22		1.19	4.11
Indeno[1,2,3-cd]pyrene			1.17	1.22	1.23	1.22	1.21		1.21	2.15
Benzo[ghi]perylene			1.24	1.28	1.35	1.32	1.31		1.30	3.11
2-Methylnaphthalene			1.12	1.20	1.23	1.20	1.20		1.19	3.35
1-Methylnaphthalene			1.07	1.10	1.13	1.10	1.10		1.10	2.20
Biphenyl			1.04	1.09	1.12	1.09	1.09		1.09	2.80
C1-Biphenyls			1.04	1.09	1.12	1.09	1.09		1.09	2.80
C2-Biphenyls			1.04	1.09	1.12	1.09	1.09		1.09	2.80
1,2-Dimethylnaphthalene			0.84	0.88	0.90	0.89	0.90		0.88	2.57
2,6-Dimethylnaphthalene			1.12	1.16	1.21	1.18	1.17		1.17	2.59
C3-Naphthalenes			1.07	1.13	1.16	1.14	1.14		1.13	3.16
2,3,6-Trimethylnaphthalene			1.05	1.10	1.14	1.12	1.12		1.10	3.28
2,3,5-Trimethylnaphthalene			1.08	1.16	1.17	1.16	1.16		1.15	3.20
C4-Naphthalenes			1.03	1.10	1.13	1.11	1.11		1.10	3.30
C1-Acenaphthenes			0.65	0.67	0.70	0.69	0.69		0.68	2.78
C1-Fluorenes			0.54	0.56	0.57	0.56	0.56		0.56	2.05
1,7-Dimethylfluorene			0.50	0.53	0.55	0.55	0.54		0.53	3.92
C2-Fluorenes			0.50	0.53	0.55	0.55	0.54		0.53	3.92
C3-Fluorenes			0.50	0.53	0.55	0.55	0.54		0.53	3.92
Dibenzothiophene			1.06	1.13	1.15	1.13	1.13		1.12	3.24
2/3-Methyldibenzothiophenes			0.82	0.87	0.91	0.89	0.88		0.87	3.93
C2-Dibenzothiophenes			0.62	0.62	0.64	0.64	0.64		0.63	1.70

COMPOUND	LAB FLAG 1	RELATIVE RESPONSE (RR) CS0	CS1	CS2	CS3	CS4	CS5	CS6	MEAN RR	CV (%RSD)[2]
2,4-Dimethyldibenzothiophene			0.62	0.62	0.64	0.64	0.64		0.63	1.70
4,6-Dimethyldibenzothiophene			0.73	0.76	0.81	0.78	0.79		0.77	3.88
C3-Dibenzothiophenes			0.62	0.62	0.64	0.64	0.64		0.63	1.70
C4-Dibenzothiophenes			0.62	0.62	0.64	0.64	0.64		0.63	1.70
3-Methylphenanthrene			0.84	0.87	0.92	0.89	0.89		0.88	3.45
2-Methylphenanthrene			0.87	0.90	0.95	0.91	0.90		0.91	3.01
2-Methylanthracene			0.79	0.83	0.87	0.85	0.86		0.84	3.51
9/4-Methylphenanthrene			0.84	0.87	0.92	0.89	0.89		0.88	3.45
1-Methylphenanthrene			0.84	0.87	0.94	0.90	0.90		0.89	4.07
3,6-Dimethylphenanthrene			0.74	0.78	0.82	0.79	0.80		0.79	3.68
2,6-Dimethylphenanthrene			0.72	0.75	0.80	0.77	0.77		0.76	3.62
1,7-Dimethylphenanthrene			0.70	0.73	0.77	0.75	0.75		0.74	3.65
1,8-Dimethylphenanthrene			0.72	0.75	0.80	0.77	0.77		0.76	3.62
C3-Phenanthrenes/Anthracenes			0.71	0.73	0.79	0.75	0.77		0.75	4.40
1,2,6-Trimethylphenanthrene			0.71	0.73	0.79	0.75	0.77		0.75	4.40
Retene			0.27	0.28	0.29	0.29	0.29		0.28	3.58
C4-Phenanthrenes/Anthracenes			0.27	0.28	0.29	0.29	0.29		0.28	3.58
3-Methylfluoranthene/Benzo[a]fluorene			0.80	0.84	0.91	0.86	0.86		0.85	4.56
C2-Fluoranthenes/Pyrenes			0.80	0.84	0.91	0.86	0.86		0.85	4.56
C3-Fluoranthenes/Pyrenes			0.80	0.84	0.91	0.86	0.86		0.85	4.56
C4-Fluoranthenes/Pyrenes			0.80	0.84	0.91	0.86	0.86		0.85	4.56
C1-Benzo[a]anthracenes/Chrysenes			0.81	0.84	0.88	0.87	0.88		0.86	3.51
5/6-Methylchrysene			0.79	0.80	0.85	0.84	0.84		0.82	3.27
1-Methylchrysene			0.84	0.88	0.91	0.91	0.92		0.89	3.75
C2-Benzo[a]anthracenes/Chrysenes			0.69	0.72	0.75	0.74	0.75		0.73	3.28
5,9-Dimethylchrysene			0.69	0.72	0.75	0.74	0.75		0.73	3.28
C3-Benzo[a]anthracenes/Chrysenes			0.69	0.72	0.75	0.74	0.75		0.73	3.28
C4-Benzo[a]anthracenes/Chrysenes			0.69	0.72	0.75	0.74	0.75		0.73	3.28
C1-Benzofluoranthenes/Benzopyrenes			0.88	0.92	0.95	0.96	0.96		0.93	3.67
7-Methylbenzo[a]pyrene			0.88	0.92	0.95	0.96	0.96		0.93	3.67
C2-Benzofluoranthenes/Benzopyrenes			0.88	0.92	0.95	0.96	0.96		0.93	3.67
1,4,6,7-Tetramethylnaphthalene			1.03	1.10	1.13	1.11	1.11		1.10	3.30
Anthracene d-10			1.08	1.08	1.08	1.08	1.09		1.08	0.40
Fluoranthene d-10			1.00	0.99	0.98	1.00	0.99		0.99	0.62
Dibenzo[a,h]anthracene d-14			0.85	0.86	0.86	0.87	0.87		0.86	1.03

(1) Where applicable, custom lab flags have been used on this report.
(2) QC limit is 20% for native compounds with a labeled analog, 35% for those without a labeled analog.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

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Report Filename: GENERIC-SPECS_PAH_LO_03-Nov-2025_PH5H__Form3A_GS118362.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3B

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 03-Nov-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H4759.D

CS2 Data Filename: PH5H4760.D

CS3 Data Filename: PH5H4761.D

CS4 Data Filename: PH5H4762.D

CS5 Data Filename: PH5H4763.D

CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
LABELED COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
Naphthalene d-8			1.59	1.57	1.58	1.56	1.54		1.57	1.23
2-Methylnaphthalene d-10			1.07	1.05	1.06	1.05	1.05		1.06	0.81
Biphenyl d-10			1.41	1.39	1.40	1.39	1.39		1.40	0.65
2,6-Dimethylnaphthalene d-12			0.98	0.97	0.98	0.97	0.97		0.97	0.50
Acenaphthylene d-8			1.75	1.73	1.74	1.72	1.73		1.73	0.63
Dibenzothiophene d-8			0.88	0.89	0.85	0.87	0.86		0.87	1.86
Phenanthrene d-10			0.87	0.88	0.84	0.86	0.85		0.86	1.72
Benzo[a]anthracene d-12			1.01	1.03	1.01	1.01	1.01		1.01	0.76
Chrysene d-12			1.01	1.01	1.01	1.00	1.00		1.01	0.73
Benzo[b]fluoranthene d-12			1.01	1.00	1.00	1.00	1.00		1.00	0.43
Benzo[k]fluoranthene d-12			1.04	1.03	1.03	1.04	1.04		1.04	0.46
Benzo[a]pyrene d-12			1.01	1.01	1.00	1.01	1.02		1.01	0.44
Perylene d-12			1.03	1.02	1.03	1.03	1.03		1.03	0.39
Indeno[1,2,3-cd]pyrene d-12			1.04	1.04	1.04	1.05	1.05		1.05	0.54
Benzo[ghi]perylene d-12			0.97	0.97	0.97	0.98	0.98		0.97	0.81

(1) Where applicable, custom lab flags have been used on this report.
(2) QC limit is 35% for labeled compounds.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

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Report Filename: GENERIC-SPECS_PAH_LO_03-Nov-2025_PH5H__Form3B_GS118362.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3C

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 03-Nov-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H4759.D

CS2 Data Filename: PH5H4760.D

CS3 Data Filename: PH5H4761.D

CS4 Data Filename: PH5H4762.D

CS5 Data Filename: PH5H4763.D

CS6 Data Filename: N/A

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
Naphthalene		128,102		0.08	0.07	0.08	0.08	0.08	
Acenaphthylene		152,151		0.20	0.21	0.20	0.20	0.20	
Acenaphthene		154,153		1.11	1.15	1.14	1.14	1.13	
2-Methylfluorene		180,165		1.25	1.22	1.22	1.22	1.21	
Fluorene		166,165		1.00	1.00	0.98	0.97	0.97	
Phenanthrene		178,176		0.18	0.18	0.19	0.19	0.19	
Anthracene		178,176		0.20	0.19	0.18	0.18	0.18	
Fluoranthene		202,200		0.20	0.20	0.20	0.20	0.20	
Pyrene		202,200		0.21	0.20	0.20	0.20	0.20	
Benz[a]anthracene		228,226		0.27	0.26	0.26	0.26	0.26	
Chrysene		228,226		0.30	0.30	0.28	0.29	0.29	
Benzo[b]fluoranthene		252,253		0.23	0.21	0.21	0.21	0.22	
Benzo[j,k]fluoranthenes		252,253		0.21	0.22	0.21	0.22	0.22	
Benzo[e]pyrene		252,253		0.24	0.24	0.21	0.21	0.22	
Benzo[a]pyrene		252,253		0.23	0.22	0.21	0.21	0.22	
Perylene		252,253		0.21	0.21	0.21	0.21	0.22	
Dibenz[a,h]anthracene		278,139		0.17	0.15	0.15	0.16	0.16	
Indeno[1,2,3-cd]pyrene		276,138		0.24	0.22	0.20	0.20	0.20	
Benzo[ghi]perylene		276,138		0.23	0.22	0.21	0.22	0.22	
2-Methylnaphthalene		142,141		0.92	0.90	0.91	0.90	0.89	
1-Methylnaphthalene		142,141		0.93	0.94	0.93	0.93	0.93	
Biphenyl		154,152		0.29	0.28	0.28	0.28	0.28	
1,2-Dimethylnaphthalene		156,141		1.26	1.25	1.27	1.27	1.25	
2,6-Dimethylnaphthalene		156,141		0.67	0.67	0.66	0.67	0.67	
2,3,6-Trimethylnaphthalene		170,155		0.89	0.88	0.86	0.87	0.87	
2,3,5-Trimethylnaphthalene		170,155		0.86	0.88	0.88	0.87	0.86	
1,7-Dimethylfluorene		194,177		0.08	0.09	0.08	0.08	0.08	
Dibenzothiophene		184,152		0.09	0.08	0.08	0.08	0.08	
2/3-Methyldibenzothiophenes		198,197		0.72	0.72	0.71	0.71	0.70	
2,4-Dimethyldibenzothiophene		212,197		0.50	0.51	0.49	0.49	0.49	
4,6-Dimethyldibenzothiophene		212,197		0.15	0.16	0.15	0.15	0.15	
3-Methylphenanthrene		192,191							
2-Methylphenanthrene		192,191		0.58	0.59	0.58	0.58	0.58	
2-Methylanthracene		192,191		0.50	0.51	0.50	0.50	0.50	
9/4-Methylphenanthrene		192,191							
1-Methylphenanthrene		192,191		0.60	0.62	0.60	0.60	0.60	
3,6-Dimethylphenanthrene		206,191		0.35	0.34	0.33	0.34	0.33	
2,6-Dimethylphenanthrene		206,191							
1,7-Dimethylphenanthrene		206,191		0.33	0.32	0.31	0.31	0.31	

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
1,8-Dimethylphenanthrene		**206,191**							
1,2,6-Trimethylphenanthrene		**220,205**		0.56	0.56	0.55	0.56	0.55	
Retene		**234,219**		1.56	1.60	1.61	1.56	1.55	
3-Methylfluoranthene/Benzo[a]fluorene		**216,215**		1.06	1.07	1.06	1.05	1.05	
5/6-Methylchrysene		**242**							
1-Methylchrysene		**242**							
5,9-Dimethylchrysene		**256**							
7-Methylbenzo[a]pyrene		**266**							
1,4,6,7-Tetramethylnaphthalene		**184,139**		0.03	0.03	0.03	0.03	0.03	
Anthracene d-10		**188,184**		0.13	0.13	0.13	0.13	0.13	
Fluoranthene d-10		**212,208**		0.16	0.16	0.16	0.16	0.16	
Dibenzo[a,h]anthracene d-14		**292,288**		0.24	0.23	0.23	0.23	0.24	

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Victoria Reesor_____

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Report Filename: GENERIC-SPECS_PAH_LO_03-Nov-2025_PH5H__Form3C_GS118362.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 3D

POLYAROMATIC HYDROCARBON INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 03-Nov-2025

Instrument ID: LR GC/MS

GC Column ID: RTX5

CS0 Data Filename: N/A

CS1 Data Filename: PH5H4759.D

CS2 Data Filename: PH5H4760.D

CS3 Data Filename: PH5H4761.D

CS4 Data Filename: PH5H4762.D

CS5 Data Filename: PH5H4763.D

CS6 Data Filename: N/A

LABELED COMPOUND	LAB FLAG[1]	M/Z's FORMING RATIO	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6
Naphthalene d-8		**136,134**		0.09	0.09	0.09	0.09	0.09	
2-Methylnaphthalene d-10		**152,151**		0.19	0.19	0.19	0.19	0.19	
Biphenyl d-10		**164**							
2,6-Dimethylnaphthalene d-12		**168,150**		0.70	0.70	0.70	0.70	0.70	
Acenaphthylene d-8		**160,158**		0.16	0.16	0.16	0.16	0.16	
Dibenzothiophene d-8		**192,160**		0.09	0.08	0.08	0.08	0.08	
Phenanthrene d-10		**188,184**		0.14	0.14	0.14	0.14	0.14	
Benzo[a]anthracene d-12		**240,236**		0.23	0.23	0.23	0.23	0.23	
Chrysene d-12		**240,236**		0.26	0.26	0.26	0.26	0.26	
Benzo[b]fluoranthene d-12		**264,260**		0.20	0.20	0.20	0.20	0.20	
Benzo[k]fluoranthene d-12		**264,260**		0.19	0.19	0.19	0.19	0.19	
Benzo[a]pyrene d-12		**264,260**		0.19	0.19	0.20	0.20	0.19	
Perylene d-12		**264,260**		0.24	0.24	0.23	0.24	0.24	
Indeno[1,2,3-cd]pyrene d-12		**288,284**		0.18	0.18	0.17	0.18	0.18	
Benzo[ghi]perylene d-12		**288,284**		0.20	0.20	0.20	0.20	0.20	

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Victoria Reesor

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Report Filename: GENERIC-SPECS_PAH_LO_03-Nov-2025_PH5H__Form3D_GS118362.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4A

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	03-Nov-2025	**VER Data Filename:**	PH5H5004.D
Instrument ID:	LR GC/MS	**Analysis Date:**	25-Nov-2025
GC Column ID:	RTX5	**Analysis Time:**	07:24:00

COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene	91-20-3		128,102	0.08	0.06-0.10	2050	1480-2470
Acenaphthylene	208-96-8		152,151	0.20	0.16-0.24	2050	1490-2480
Acenaphthene	83-32-9		154,153	1.15	0.92-1.38	2080	1490-2480
2-Methylfluorene	1430-97-3		180,165	1.24	0.99-1.49	2060	1500-2500
Fluorene	86-73-7		166,165	0.98	0.78-1.18	2090	1490-2480
Phenanthrene	85-01-8		178,176	0.19	0.15-0.23	2090	1520-2530
Anthracene	120-12-7		178,176	0.18	0.14-0.22	2090	1500-2510
Fluoranthene	206-44-0		202,200	0.20	0.16-0.24	2080	1480-2470
Pyrene	129-00-0		202,200	0.21	0.17-0.25	2060	1490-2480
Benz[a]anthracene	56-55-3		228,226	0.26	0.21-0.31	2010	1510-2510
Chrysene	218-01-9		228,226	0.29	0.23-0.35	1990	1510-2520
Benzo[b]fluoranthene	205-99-2		252,253	0.21	0.17-0.25	1930	1500-2500
Benzo[j,k]fluoranthenes			252,253	0.21	0.17-0.25	1980	1510-2520
Benzo[e]pyrene	192-97-2		252,253	0.22	0.18-0.26	1920	1500-2500
Benzo[a]pyrene	50-32-8		252,253	0.21	0.17-0.25	1960	1510-2510
Perylene	198-55-0		252,253	0.21	0.17-0.25	1960	1500-2500
Dibenz[a,h]anthracene	53-70-3		278,139	0.14	0.09-0.19	1980	1510-2520
Indeno[1,2,3-cd]pyrene	193-39-5		276,138	0.18	0.12-0.24	1940	1520-2530
Benzo[ghi]perylene	191-24-2		276,138	0.20	0.13-0.27	1940	1500-2510
2-Methylnaphthalene	91-57-6		142,141	0.91	0.73-1.09	2070	1500-2500
1-Methylnaphthalene	90-12-0		142,141	0.94	0.75-1.13	2050	1500-2500
Biphenyl	92-52-4		154,152	0.28	0.22-0.34	2050	1490-2490
1,2-Dimethylnaphthalene	573-98-8		156,141	1.29	1.03-1.55	2030	1500-2490
2,6-Dimethylnaphthalene	581-42-0		156,141	0.69	0.55-0.83	2050	1510-2510
2,3,6-Trimethylnaphthalene	829-26-5		170,155	0.92	0.74-1.10	1970	1500-2490
2,3,5-Trimethylnaphthalene	2245-38-7		170,155	0.91	0.73-1.09	1980	1500-2500
1,7-Dimethylfluorene	442-66-0		194,177	0.08	0.06-0.10	2040	1490-2490
Dibenzothiophene	132-65-0		184,152	0.09	0.07-0.11	2080	1500-2500
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		198,197	0.71	0.57-0.85	2040	1510-2510
2,4-Dimethyldibenzothiophene	31317-18-7		212,197	0.51	0.41-0.61	2080	1500-2500
4,6-Dimethyldibenzothiophene	1207-12-1		212,197	0.16	0.13-0.19	2060	1500-2500
2-Methylphenanthrene	2531-84-2		192,191	0.59	0.47-0.71	2030	1490-2490
2-Methylanthracene	613-12-7		192,191	0.51	0.41-0.61	2000	1500-2500
1-Methylphenanthrene	832-69-9		192,191	0.61	0.49-0.73	2070	1500-2500
3,6-Dimethylphenanthrene	1576-67-6		206,191	0.35	0.28-0.42	2050	1510-2510
1,7-Dimethylphenanthrene	483-87-4		206,191	0.34	0.27-0.41	1960	1460-2440
1,2,6-Trimethylphenanthrene	30436-55-6		220,205	0.58	0.46-0.70	2040	1500-2500
Retene	483-65-8		234,219	1.59	1.27-1.91	2040	1500-2500
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		216,215	1.07	0.86-1.28	2050	1510-2520
5/6-Methylchrysene	3697-24-3/1705-85-7		242	0	N/A	1940	1500-2500
1-Methylchrysene	3351-28-8		242	0	N/A	1970	1500-2490
5,9-Dimethylchrysene	139493-40-6		256	0	N/A	1960	1510-2510
7-Methylbenzo[a]pyrene	63041-77-0		266	0	N/A	1960	1500-2500
1,4,6,7-Tetramethylnaphthalene	13764-18-6		184,139	0.03	0.02-0.04	1970	1500-2490
Anthracene d-10			188,184	0.13	0.10-0.16	1980	1490-2490
Fluoranthene d-10	93951-69-0		212,208	0.16	0.13-0.19	2090	1490-2490

Dibenzo[a,h]anthracene d-14	13250-98-1	292,288	0.23	0.15-0.31	2160	1440-2400

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Bjorn Arvi_____

For Axys Internal Use Only [XSL Template: Pest4A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_PH5H5004.D__Form4A_SJ3692432.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4B

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	03-Nov-2025	**VER Data Filename:**	PH5H5004.D
Instrument ID:	LR GC/MS	**Analysis Date:**	25-Nov-2025
GC Column ID:	RTX5	**Analysis Time:**	07:24:00

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene d-8	1146-65-2		136,134	0.09	0.07-0.11	2110	1500-2510
2-Methylnaphthalene d-10	7297-45-2		152,151	0.19	0.15-0.23	2060	1520-2530
Biphenyl d-10	1486-01-7		164	0	N/A	2040	1500-2510
2,6-Dimethylnaphthalene d-12	350820-12-1		168,150	0.73	0.58-0.88	2040	1510-2510
Acenaphthylene d-8	93951-97-4		160,158	0.16	0.13-0.19	1980	1510-2510
Dibenzothiophene d-8	33262-29-2		192,160	0.09	0.07-0.11	2030	1500-2510
Phenanthrene d-10	1517-22-2		188,184	0.14	0.11-0.17	2000	1500-2510
Benzo[a]anthracene d-12	1718-53-2		240,236	0.22	0.18-0.26	1920	1500-2500
Chrysene d-12	1719-03-5		240,236	0.26	0.21-0.31	1590	1210-2010
Benzo[b]fluoranthene d-12	93951-98-5		264,260	0.19	0.15-0.23	1980	1500-2490
Benzo[k]fluoranthene d-12	93952-01-3		264,260	0.19	0.15-0.23	1990	1470-2440
Benzo[a]pyrene d-12	63466-71-7		264,260	0.19	0.15-0.23	2030	1500-2510
Perylene d-12	1520-96-3		264,260	0.23	0.18-0.28	2010	1500-2500
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		288,284	0.17	0.11-0.23	2190	1490-2480
Benzo[ghi]perylene d-12	93951-66-7		288,284	0.19	0.12-0.26	2210	1490-2490

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Bjorn Arvi

For Axys Internal Use Only [XSL Template: Pest4B.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_PH5H5004.D__Form4B_SJ3692432.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4A

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	03-Nov-2025	**VER Data Filename:**	PH5H5019.D
Instrument ID:	LR GC/MS	**Analysis Date:**	25-Nov-2025
GC Column ID:	RTX5	**Analysis Time:**	19:12:00

COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene	91-20-3		128,102	0.08	0.06-0.10	2080	1480-2470
Acenaphthylene	208-96-8		152,151	0.20	0.16-0.24	2060	1490-2480
Acenaphthene	83-32-9		154,153	1.16	0.93-1.39	2050	1490-2480
2-Methylfluorene	1430-97-3		180,165	1.23	0.98-1.48	2070	1500-2500
Fluorene	86-73-7		166,165	0.98	0.78-1.18	2060	1490-2480
Phenanthrene	85-01-8		178,176	0.19	0.15-0.23	2070	1520-2530
Anthracene	120-12-7		178,176	0.18	0.14-0.22	2160	1500-2510
Fluoranthene	206-44-0		202,200	0.20	0.16-0.24	1990	1480-2470
Pyrene	129-00-0		202,200	0.20	0.16-0.24	1990	1490-2480
Benz[a]anthracene	56-55-3		228,226	0.27	0.22-0.32	1960	1510-2510
Chrysene	218-01-9		228,226	0.29	0.23-0.35	1980	1510-2520
Benzo[b]fluoranthene	205-99-2		252,253	0.22	0.18-0.26	1920	1500-2500
Benzo[j,k]fluoranthenes			252,253	0.22	0.18-0.26	1960	1510-2520
Benzo[e]pyrene	192-97-2		252,253	0.22	0.18-0.26	1930	1500-2500
Benzo[a]pyrene	50-32-8		252,253	0.21	0.17-0.25	1980	1510-2510
Perylene	198-55-0		252,253	0.21	0.17-0.25	1940	1500-2500
Dibenz[a,h]anthracene	53-70-3		278,139	0.15	0.10-0.20	1990	1510-2520
Indeno[1,2,3-cd]pyrene	193-39-5		276,138	0.18	0.12-0.24	1910	1520-2530
Benzo[ghi]perylene	191-24-2		276,138	0.20	0.13-0.27	1920	1500-2510
2-Methylnaphthalene	91-57-6		142,141	0.91	0.73-1.09	2080	1500-2500
1-Methylnaphthalene	90-12-0		142,141	0.94	0.75-1.13	2050	1500-2500
Biphenyl	92-52-4		154,152	0.28	0.22-0.34	2060	1490-2490
1,2-Dimethylnaphthalene	573-98-8		156,141	1.28	1.02-1.54	2010	1500-2490
2,6-Dimethylnaphthalene	581-42-0		156,141	0.69	0.55-0.83	2030	1510-2510
2,3,6-Trimethylnaphthalene	829-26-5		170,155	0.90	0.72-1.08	1970	1500-2490
2,3,5-Trimethylnaphthalene	2245-38-7		170,155	0.91	0.73-1.09	1980	1500-2500
1,7-Dimethylfluorene	442-66-0		194,177	0.08	0.06-0.10	2040	1490-2490
Dibenzothiophene	132-65-0		184,152	0.08	0.06-0.10	2100	1500-2500
2/3-Methyldibenzothiophenes	20928-02-3/16587-52-3		198,197	0.71	0.57-0.85	2050	1510-2510
2,4-Dimethyldibenzothiophene	31317-18-7		212,197	0.50	0.40-0.60	2040	1500-2500
4,6-Dimethyldibenzothiophene	1207-12-1		212,197	0.16	0.13-0.19	2020	1500-2500
2-Methylphenanthrene	2531-84-2		192,191	0.59	0.47-0.71	2000	1490-2490
2-Methylanthracene	613-12-7		192,191	0.51	0.41-0.61	1990	1500-2500
1-Methylphenanthrene	832-69-9		192,191	0.61	0.49-0.73	2060	1500-2500
3,6-Dimethylphenanthrene	1576-67-6		206,191	0.36	0.29-0.43	1990	1510-2510
1,7-Dimethylphenanthrene	483-87-4		206,191	0.33	0.26-0.40	1920	1460-2440
1,2,6-Trimethylphenanthrene	30436-55-6		220,205	0.59	0.47-0.71	2000	1500-2500
Retene	483-65-8		234,219	1.56	1.25-1.87	2020	1500-2500
3-Methylfluoranthene/Benzo[a]fluorene	1706-01-0/238-84-6		216,215	1.06	0.85-1.27	1990	1510-2520
5/6-Methylchrysene	3697-24-3/1705-85-7		242	0	N/A	1980	1500-2500
1-Methylchrysene	3351-28-8		242	0	N/A	2000	1500-2490
5,9-Dimethylchrysene	139493-40-6		256	0	N/A	2020	1510-2510
7-Methylbenzo[a]pyrene	63041-77-0		266	0	N/A	2030	1500-2500
1,4,6,7-Tetramethylnaphthalene	13764-18-6		184,139	0.03	0.02-0.04	1970	1500-2490
Anthracene d-10			188,184	0.13	0.10-0.16	1980	1490-2490
Fluoranthene d-10	93951-69-0		212,208	0.16	0.13-0.19	2040	1490-2490

Dibenzo[a,h]anthracene d-14	13250-98-1	292,288	0.22	0.14-0.30	2170	1440-2400

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Bjorn Arvi_____

For Axys Internal Use Only [XSL Template: Pest4A.xsl; Created: 09-Dec-2025 14:23:25; Application: XMLTransformer-1.18.62;
Report Filename: GENERIC-SPECS_PAH_LO_PH5H5019.D__Form4A_SJ3692893.html; Workgroup: WG95726; Design ID: 5444]

SGS AXYS METHOD MLA-021 Rev 12

Form 4B

POLYAROMATIC HYDROCARBON CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	03-Nov-2025	**VER Data Filename:**	PH5H5019.D
Instrument ID:	LR GC/MS	**Analysis Date:**	25-Nov-2025
GC Column ID:	RTX5	**Analysis Time:**	19:12:00

LABELED COMPOUND	CAS NO.	LAB FLAG [1]	m/e ION CHANNELS	ION ABUND. RATIO	SAMPLE QC LIMITS	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
Naphthalene d-8	1146-65-2		136,134	0.09	0.07-0.11	2070	1500-2510
2-Methylnaphthalene d-10	7297-45-2		152,151	0.19	0.15-0.23	2040	1520-2530
Biphenyl d-10	1486-01-7		164	0	N/A	2020	1500-2510
2,6-Dimethylnaphthalene d-12	350820-12-1		168,150	0.71	0.57-0.85	2050	1510-2510
Acenaphthylene d-8	93951-97-4		160,158	0.17	0.14-0.20	2000	1510-2510
Dibenzothiophene d-8	33262-29-2		192,160	0.09	0.07-0.11	2100	1500-2510
Phenanthrene d-10	1517-22-2		188,184	0.14	0.11-0.17	2060	1500-2510
Benzo[a]anthracene d-12	1718-53-2		240,236	0.22	0.18-0.26	1970	1500-2500
Chrysene d-12	1719-03-5		240,236	0.25	0.20-0.30	1600	1210-2010
Benzo[b]fluoranthene d-12	93951-98-5		264,260	0.19	0.15-0.23	1980	1500-2490
Benzo[k]fluoranthene d-12	93952-01-3		264,260	0.18	0.14-0.22	1970	1470-2440
Benzo[a]pyrene d-12	63466-71-7		264,260	0.19	0.15-0.23	2000	1500-2510
Perylene d-12	1520-96-3		264,260	0.23	0.18-0.28	2030	1500-2500
Indeno[1,2,3-cd]pyrene d-12	203578-33-0		288,284	0.17	0.11-0.23	2180	1490-2480
Benzo[ghi]perylene d-12	93951-66-7		288,284	0.19	0.12-0.26	2190	1490-2490

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Bjorn Arvi

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Report Filename: GENERIC-SPECS_PAH_LO_PH5H5019.D__Form4B_SJ3692893.html; Workgroup: WG95726; Design ID: 5444]

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora							Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
BFR	BTBPE	SGS AXYS MLA-033	MLA-033					Y											Y						Y												
BFR	DBDPE	SGS AXYS MLA-033	MLA-033					Y											Y						Y												
BFR	HBB	SGS AXYS MLA-033	MLA-033					Y											Y						Y												
BFR	PBEB	SGS AXYS MLA-033	MLA-033					Y											Y						Y												
Bisphenols	Bisphenol A	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol AF	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol B	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol E	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol F	SGS AXYS MLA-113	MLA-113					Y																	Y												
Bisphenols	Bisphenol S	SGS AXYS MLA-113	MLA-113					Y																	Y												
BPA and MPE	4,4'-dihydroxy-2,2-diphenylpropane (Bisphenol A) (BPA)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-(3-carboxypropyl) phthalate (MCPP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-2-ethylhexyl phthalate (MEHP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-benzyl phthalate (MBzP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-butyl phthalate (MBP) (n + iso)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-cyclohexyl phthalate (MCHP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-ethyl phthalate (MEP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-iso-nonyl phthalate (MiNP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-methyl phthalate (MMP)	SGS AXYS MLA-059	MLA-059																					Y												
BPA and MPE	Mono-(2-ethyl-5-carboxypentyl) phthalate (MECPP)	SGS AXYS MLA-059	MLA-059																																	
OC Pesticides	2,4'-DDD	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	2,4'-DDE	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	2,4'-DDT	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	4,4'-DDD	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	4,4'-DDE	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	4,4'-DDT	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Aldrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Alpha-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Beta-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	cis-Chlordane (alpha-Chlordane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	cis-Nonachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Delta-HCH	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Dieldrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endosulphan I	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endosulphan II	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endosulphan sulphate	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endrin	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endrin aldehyde	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Endrin ketone	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Gamma-HCH (Lindane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Heptachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Heptachlor epoxide	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Hexachlorobenzene	SGS AXYS MLA-228	MLA-228							Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Methoxychlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Mirex	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	Oxychlordane	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	trans-Chlordane (gamma-Chlordane)	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
OC Pesticides	trans-Nonachlor	SGS AXYS MLA-228	MLA-228					Y		Y					Y	Y			Y	Y			Y		Y					Y					Y	Y	
Fluoride	Fluoride	EPA 1621	MLA-119																										Y	Y							
Fluoride	Fluoride	SGS AXYS MLA-119 AOF	MLA-119																											Y							
Fluoride	Fluoride	SGS AXYS MLA-119 EOF	MLA-119							Y																				Y							
Fluoride	Fluoride	SGS AXYS MLA-119 TF	MLA-119							Y																				Y							
Fluoride	Adsorbable Organic Fluorine	EPA 1621	MLA-119																										Y								
PAH	"Extractable Organics" category (CA only)	EPA 8270E	MLA-021						Y																												
PAH	"Semi-volatile Organic Compounds" category (CA only)	EPA 1625	MLA-021																																		
PAH	1,2,6-Trimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,2-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,4,6,7-Tetramethylnaphthalene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,7-Dimethylfluorene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,7-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PAH	1,8-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021					Y																	Y												

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids												Tissue and Tissue Flora						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PAH	1-Methylchrysene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	1-Methylnaphthalene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	1-Methylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,3,5-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,3,6-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,4-Dimethyldibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,6-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2-Methylanthracene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2-Methylfluorene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	2-Methylnaphthalene	EPA 8270E	MLA-021						Y											Y										Y					Y			
PAH		SGS AXYS MLA-021	MLA-021				Y								Y	Y			Y	Y			Y		Y					Y						Y		
PAH	2-Methylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	3,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	3-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	3-Methylfluoranthene/ Benzo(a)fluorene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	3-Methylphenanthrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	5,9-Dimethylchrysene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	5/6-Methylchrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	7-Methylbenzo(a)pyrene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	9/4-Methylphenanthrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	Acenaphthene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Acenaphthylene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Anthracene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benz[a]anthracene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benzo[a]pyrene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benzo[b]fluoranthene	EPA 1625	MLA-021																										Y	Y	Y			Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benzo[e]pyrene	SGS AXYS MLA-021	MLA-021				Y													Y					Y												
PAH	Benzo[ghi]perylene	EPA 1625	MLA-021																										Y	Y				Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y	Y					Y																	
PAH		SGS AXYS MLA-021	MLA-021				Y			Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Benzo[j/k]fluoranthenes	SGS AXYS MLA-021	MLA-021				Y													Y					Y												
PAH	Benzo[k]fluoranthene	EPA 1625	MLA-021																										Y	Y	Y			Y		Y	
PAH		EPA 8270E	MLA-021					Y		Y				Y						Y																	
PAH		SGS AXYS MLA-021	MLA-021						Y						Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Biphenyl	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Acenaphthenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Benz(a)anthracenes/chrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Biphenyls	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Fluorenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Naphthalenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C1-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Biphenyls	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												

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				Serum	Solids													Tissue and Tissue Flora							Urine		Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PAH	C2-Fluorenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Naphthalenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C2-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C3-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C3-Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C3-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C3-Fluorenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C3-Naphthalenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C3-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C4-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C4-Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C4-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C4-Naphthalenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	C4-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	Chrysene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Dibenzo[a,h]anthracene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Dibenzothiophene	SGS AXYS MLA-021	MLA-021				Y																		Y												
PAH	Fluoranthene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Fluorene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Indeno[1,2,3-cd]pyrene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021							Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Naphthalene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Perylene	SGS AXYS MLA-021	MLA-021					Y												Y					Y												
PAH	Phenanthrene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y	Y			Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Pyrene	EPA 1625	MLA-021																									Y	Y				Y		Y		
PAH		EPA 8270E	MLA-021						Y	Y				Y	Y					Y																		
PAH		SGS AXYS MLA-021	MLA-021					Y		Y					Y	Y			Y	Y			Y		Y					Y						Y		
PAH	Retene	SGS AXYS MLA-021	MLA-021					Y																	Y												
PBDPE	BDE 10 2,6-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 100 2,2',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 105 2,3,3',4,4'-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 11 3,3'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 116 2,3,4,5,6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 119 2,3',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 12 3,4-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 126 3,3',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 13 3,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 140 2,2',3,4,4',6'-hexabromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												
PBDPE	BDE 15 4,4'-dibromodiphenylether	EPA 1614	MLA-033													Y																				Y	
PBDPE		SGS AXYS MLA-033	MLA-033					Y												Y					Y												

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				Serum	Solids											Tissue and Tissue Flora							Urine	Water	Water, Non-Potable									AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PBDPE	BDE 153 2,2',4,4',5,5'-hexabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 154 2,2',4,4',5',6-hexabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 155 2,2',4,4',6,6'-hexabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 166 2,3,4,4',5,6-hexabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 17 2,2',4-tribromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 181 2,2',3,4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 183 2,2',3,4,4',5',6-heptabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 190 2,3,3',4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 206 2,2',3,3',4,4',5,5',6-nonabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 207 2,2',3,3',4,4',5,6,6'-nonabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 208 2,2',3,3',4,5,5',6,6'-nonabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 209 Decabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 25 2,3',4-tribromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 28 2,4,4'-tribromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 30 2,4,6-tribromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 33 2',3,4-tribromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 35 3,3',4-tribromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 37 3,4,4'-tribromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 47 2,2',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 49 2,2',4,5'-tetrabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 66 2,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 7 2,4-dibromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 75 2,4,4',6-tetrabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 77 3,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 8 2,4'-dibromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 85 2,2',3,4,4'-pentabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PBDPE	BDE 99 2,2',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033												Y																			Y		
PBDPE		SGS AXYS MLA-033	MLA-033				Y											Y							Y											
PCB Aroclors	PCB Aroclor 1016	EPA 1668	MLA-010						Y	Y																			Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010						Y																			Y							
PCB Aroclors	PCB Aroclor 1221	EPA 1668	MLA-010						Y	Y																			Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010						Y																			Y							
PCB Aroclors	PCB Aroclor 1232	EPA 1668	MLA-010						Y	Y																			Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010						Y																			Y							
PCB Aroclors	PCB Aroclor 1242	EPA 1668	MLA-010						Y	Y																			Y	Y						
PCB Aroclors		SGS AXYS MLA-010	MLA-010						Y																			Y							
PCB Aroclors	PCB Aroclor 1248	EPA 1668	MLA-010						Y	Y																			Y	Y						

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				Serum	Solids												Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y									
PCB Aroclors	PCB Aroclor 1254	EPA 1668	MLA-010							Y	Y																			Y	Y								
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y									
PCB Aroclors	PCB Aroclor 1260	EPA 1668	MLA-010							Y	Y																			Y	Y								
PCB Aroclors		SGS AXYS MLA-010	MLA-010							Y																				Y									
PCB congeners	PCB 1 2-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 10 2,6-Dichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 100 2,2',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 101 2,2',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 102 2,2',4,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 103 2,2',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 104 2,2',4,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 105 2,3,3',4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 106 2,3,3',4,5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 107 2,3,3',4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 108 2,3,3',4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y						Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y								
PCB congeners	PCB 109 2,3,3',4,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y						Y							Y	

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 11 3,3'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 110 2,3,3',4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 111 2,3,3',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 112 2,3,3',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 113 2,3,3',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 114 2,3,4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 115 2,3,4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 116 2,3,4,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 117 2,3,4',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 118 2,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 119 2,3',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 12 3,4-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y			Y	Y					Y					Y							Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y						Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 120 2,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 121 2,3',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 122 2,3,3',4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 123 2,3',4,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y					Y			Y													Y		
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 124 2,3',4',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 125 2,3',4',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 126 3,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 127 3,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 129 2,2',3,3',4,5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 13 3,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 130 2,2',3,3',4,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y																		
PCB congeners	PCB 131 2,2',3,3',4,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y															
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y															Y													
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y					Y													
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y													Y	Y	

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 132 2,2',3,3',4,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 133 2,2',3,3',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 134 2,2',3,3',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 135 2,2',3,3',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 136 2,2',3,3',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 137 2,2',3,4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 139 2,2',3,4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 14 3,5-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 140 2,2',3,4,4',6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 141 2,2',3,4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 142 2,2',3,4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y							Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 143 2,2',3,4,5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 144 2,2',3,4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 145 2,2',3,4,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 146 2,2',3,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 147 2,2',3,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 148 2,2',3,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 149 2,2',3,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 15 4,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 150 2,2',3,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 152 2,2',3,5,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 154 2,2',4,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 155 2,2',4,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 157 2,3,3',4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 159 2,3,3',4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 16 2,2',3-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 160 2,3,3',4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 161 2,3,3',4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 162 2,3,3',4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 163 2,3,3',4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 164 2,3,3',4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 165 2,3,3',5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 166 2,3,4,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 168 2,3',4,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 17 2,2',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 171 2,2',3,3',4,4',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 172 2,2',3,3',4,5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 173 2,2',3,3',4,5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 174 2,2',3,3',4,5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 175 2,2',3,3',4,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 176 2,2',3,3',4,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 177 2,2',3,3',4,5',6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 178 2,2',3,3',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	Y

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				Serum	Solids												Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 179 2,2',3,3',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 18 2,2',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 181 2,2',3,4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 182 2,2',3,4,4',5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 183 2,2',3,4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 184 2,2',3,4,4',6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 185 2,2',3,4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 186 2,2',3,4,5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 188 2,2',3,4',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y							
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y							

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 19 2,2',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 190 2,3,3',4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 191 2,3,3',4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 192 2,3,3',4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 193 2,3,3',4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 195 2,2',3,3',4,4',5,6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 196 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 197 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 198 2,2',3,3',4,5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 199 2,2',3,3',4,5,5',6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 2 3-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 20 2,3,3'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 200 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 201 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 202 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 203 2,2',3,4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 204 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 205 2,3,3',4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 206 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 207 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 208 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 209 Decachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 21 2,3,4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										
PCB congeners	PCB 22 2,3,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y			Y							Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y				Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y										

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 23 2,3,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y				Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 24 2,3,6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 25 2,3',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 26 2,3',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 27 2,3',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 28 2,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 29 2,4,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 3 4-Chlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 30 2,4,6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 31 2,4',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 32 2,4',6-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 33 2,3',4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 34 2,3',5'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y						Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 35 3,3',4-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 36 3,3',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 37 3,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 38 3,4,5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 39 3,4',5-Trichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 4 2,2'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 40 2,2',3,3'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 41 2,2',3,4-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 42 2,2',3,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 43 2,2',3,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 44 2,2',3,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 45 2,2',3,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y		Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 46 2,2',3,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y		Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 47 2,2',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 48 2,2',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 49 2,2',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 5 2,3-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 50 2,2',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 51 2,2',4,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 52 2,2',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 53 2,2',5,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 54 2,2',6,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 55 2,3,3',4-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 56 2,3,3',4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 57 2,3,3',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y									
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									

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				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners	PCB 58 2,3,3',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 59 2,3,3',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 6 2,3'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 60 2,3,4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 61 2,3,4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 62 2,3,4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 63 2,3,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 64 2,3,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 65 2,3,5,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 66 2,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 67 2,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 68 2,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 69 2,3',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y		
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y		

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				Serum	Solids												Tissue and Tissue Flora						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y								
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 7 2,4-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 70 2,3',4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 71 2,3',4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 72 2,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 73 2,3',5',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 74 2,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 75 2,4,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 76 2,3',4',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 77 3,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 78 3,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 79 3,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y								
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y					Y			Y							Y						Y		
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 8 2,4'-Dichlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y				Y						Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y			Y	Y	Y	Y	Y	Y
PCB congeners		EPA 1628	MLA-908							Y										Y										Y								
PCB congeners	PCB 80 3,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	Y

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				Serum	Solids											Tissue and Tissue Flora						Urine		Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 81 3,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 82 2,2',3,3',4-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 83 2,2',3,3',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 84 2,2',3,3',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 85 2,2',3,4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 86 2,2',3,4,5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 87 2,2',3,4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 88 2,2',3,4,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 89 2,2',3,4,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 9 2,5-Dichlorobiphenyl	EPA 1668	MLA-010							Y			Y	Y	Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 90 2,2',3,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 91 2,2',3,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y						Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y								Y			Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y											Y							
PCB congeners	PCB 92 2,2',3,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y								Y	Y		Y	Y	Y	Y	Y	

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y							
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 93 2,2',3,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 94 2,2',3,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 95 2,2',3,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 96 2,2',3,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 97 2,2',3,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 98 2,2',3,4',6'-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB 99 2,2',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010							Y	Y		Y	Y	Y	Y				Y			Y							Y	Y		Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y		Y									Y	Y					Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y		Y						Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		EPA 1628	MLA-908							Y										Y										Y									
PCB congeners	PCB congeners, total	EPA 1668	MLA-010											Y																					Y			
PCB congeners	PCBs, as congeners	EPA 1668	MLA-010																	Y																		
PCB congeners		SGS AXYS MLA-010	MLA-010																	Y																		
PCB congeners		SGS AXYS MLA-210	MLA-210							Y										Y										Y									
PCB congeners		SGS AXYS MLA-908	MLA-908							Y										Y										Y									
PCB congeners		SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Heptachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Hexachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Monochlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Nonachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Octachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Pentachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Tetrachlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners	Total Trichlorobiphenyls	SGS AXYS MLA-010	MLA-010	Y				Y											Y						Y					Y								
PCB congeners		SGS AXYS MLA-210	MLA-210					Y								Y				Y			Y							Y				Y	Y	Y	Y	Y	
PCB congeners		SGS AXYS MLA-908	MLA-908							Y					Y	Y				Y			Y							Y				Y	Y	Y	Y	Y	

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora						Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCDDF	"Dioxins and Dibenzofurans" category (CA only)	EPA 1613	MLA-017																																
PCDDF		EPA 8290A	MLA-017																																
PCDDF	1,2,3,4,6,7,8-HpCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,4,6,7,8-HpCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,4,7,8,9-HpCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,4,7,8-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,4,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,6,7,8-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,6,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,7,8,9-HxCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,7,8,9-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,7,8-PeCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	1,2,3,7,8-PeCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	2,3,4,6,7,8-HxCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	2,3,4,7,8-PeCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y										Y							
PCDDF	2,3,7,8-TCDD	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			
PCDDF		SGS AXYS MLA-017	MLA-017	Y			Y			Y									Y	Y					Y					Y							
PCDDF		SGS AXYS MLA-217	MLA-217				Y			Y					Y				Y	Y		Y	Y		Y	Y				Y				Y		Y	Y	
PCDDF	2,3,7,8-TCDF	EPA 1613	MLA-017		Y					Y						Y				Y						Y			Y	Y	Y		Y	Y	Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y			Y				Y				Y			

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y					Y						Y							
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y		Y	Y								Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	OCDD	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y				Y				Y			Y		Y		
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y		Y	Y	Y				Y			Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	OCDF	EPA 1613	MLA-017		Y					Y						Y				Y							Y		Y	Y	Y		Y	Y		Y	Y	
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y	Y	Y					Y		Y	Y				Y				Y			Y		Y		
PCDDF		SGS AXYS MLA-017	MLA-017	Y				Y		Y									Y	Y					Y						Y							
PCDDF		SGS AXYS MLA-217	MLA-217					Y		Y					Y				Y	Y		Y	Y		Y	Y	Y				Y			Y		Y	Y	
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total HpCDD	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y		Y	Y	Y				Y			Y		Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total HpCDF	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y		Y	Y	Y				Y			Y		Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total HxCDD	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y		Y	Y	Y				Y			Y		Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total HxCDF	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y				Y	Y		Y	Y		Y	Y	Y				Y			Y		Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total PCDD	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PCDD/F	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PCDF	EPA 1613	MLA-017		Y																						Y											
PCDDF		EPA 8290A	MLA-017		Y																						Y											
PCDDF	Total PeCDD	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y		Y	Y				Y				Y					Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total PeCDF	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y		Y	Y				Y				Y					Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total TCDD	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y		Y	Y				Y				Y					Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PCDDF	Total TCDF	EPA 1613	MLA-017		Y					Y										Y							Y		Y	Y	Y							
PCDDF		EPA 8290A	MLA-017		Y					Y	Y		Y		Y					Y		Y	Y				Y				Y					Y		
PCDDF		SGS AXYS MLA-017	MLA-017							Y										Y											Y							
PCDDF		SGS AXYS MLA-217	MLA-217							Y					Y					Y		Y	Y				Y				Y					Y		
PCDDF		ATM 16130	MLA-217							Y										Y											Y							
PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y										Y	Y								Y	Y									Y	Y
PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y												
PFAS	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	SGS AXYS MLA-110	MLA-110			Y				Y							Y			Y							Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y							Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y							Y	Y
PFAS		EPA 1633	MLA-110		Y					Y		Y	Y		Y	Y			Y	Y	Y		Y		Y		Y			Y	Y		Y	Y		Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y										Y	Y							Y	Y
PFAS	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	SGS AXYS MLA-110	MLA-110			Y				Y		Y					Y			Y	Y						Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y		Y									Y									Y	Y		Y							Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y	Y									Y	Y									Y	Y	Y							Y	Y
PFAS		EPA 1633	MLA-110		Y					Y		Y	Y		Y	Y			Y	Y	Y		Y		Y		Y			Y	Y		Y	Y		Y	Y	
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y										Y	Y							Y	Y
PFAS	4,8-dioxa-3H-perfluorononanoate (ADONA)	SGS AXYS MLA-110	MLA-110			Y	Y										Y	Y										Y	Y							Y	Y
PFAS		DoD QSM Version 5.3	MLA-110			Y											Y											Y	Y							Y	

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		DoD QSM Version 5.4	MLA-110			Y											Y										Y										Y	
PFAS		EPA 1633	MLA-110							Y					Y					Y			Y												Y			
PFAS		EPA 1633 draft	MLA-110			Y											Y										Y										Y	
PFAS	4:2 Fluorotelomersulfonate (4:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	6:2 Fluorotelomersulfonate (6:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	8:2 Fluorotelomersulfonate (8:2 FTS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y										Y	Y									Y	Y									Y	Y
PFAS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y													
PFAS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	SGS AXYS MLA-110	MLA-110			Y				Y							Y			Y							Y										Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	Dodecafluoro-3H-4,8-dioxanonanoate (NaDONA)	SGS AXYS MLA-110	MLA-110	Y				Y											Y						Y													
		EPA 1633 draft	MLA-110									Y									Y											Y							
PFAS	Hexafluoropropylene oxide dimer acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y									Y		Y						Y		Y										Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	Hexafluoropropylene oxide dimer acid, anion and acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Hexaflurorpropylene oxide dimer acid (HFPO-DA)	SGS AXYS MLA-110	MLA-110	Y						Y										Y											Y							
PFAS	N-Ethylperfluorooctane sulfonamide (EtFOSAm)	SGS AXYS MLA-110	MLA-110							Y										Y											Y							
PFAS		DoD QSM Version 5,3	MLA-110						Y																					Y								
PFAS		DoD QSM Version 5,4	MLA-110						Y																					Y								
PFAS		EPA 1633	MLA-110									Y										Y									Y			Y				
PFAS		EPA 1633 draft	MLA-110																																			
PFAS	N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y									Y	Y	Y						Y		Y	Y									Y	Y
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y											Y									Y	Y										Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y					Y	Y				Y				Y			Y			Y	Y			Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	N-Methylperfluorooctanesulfonamide (N-MeFOSA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y				Y			Y	Y									Y	Y
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y			Y								Y									Y	Y		Y								Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS	Perflurorobutane Sulfonate (PFBS)	SGS AXYS MLA-042	MLA-042	Y																																		

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y		Y				Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorobutanoate (PFBA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y									Y	Y					Y		Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y		Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110		Y	Y	Y										Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorodecanoate (PFDA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y		Y	Y					Y		Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y		Y						Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	Y
PFAS		DoD QSM Version 5.3	MLA-110			Y											Y										Y										Y	
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorononanoate (PFNA)	SGS AXYS MLA-042	MLA-042	Y																																	
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y								Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y								Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y								Y	Y
PFAS	Perfluorooctanesulfonamide (PFOSA), a.k.a. FOSA	SGS AXYS MLA-042	MLA-042	Y																																	

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				Serum	Solids											Tissue and Tissue Flora							Urine		Water	Water, Non-Potable												AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y			Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		DoD AFFF01 Rev 1,0	MLA-110										Y																								Y	Y
PFAS	Perfluorooctanoate (PFOA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		DoD AFFF01 Rev 1,0	MLA-110																																		Y	Y
PFAS	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y	Y	Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-042	MLA-042	Y																																		
PFAS		SGS AXYS MLA-110	MLA-110	Y		Y		Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	4,4,5,5,6,6,6-heptafluorohexanoic acid (3:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	2H,2H,3H,3H-perfluorooctanoic acid (5:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	2H,2H,3H,3H-perfluorodecanoic acid (7:3 FTCA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoro-3-methoxypropanoic acid (PFMPA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Perfluoro-4-methoxybutanoic acid (PFMBA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y		Y	Y		Y							Y	
PFAS		DoD QSM Version 5,3	MLA-110		Y	Y	Y		Y								Y	Y								Y	Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5,4	MLA-110			Y	Y		Y								Y	Y									Y	Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y	Y		Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y	Y	Y		
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y

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				Serum	Solids											Tissue and Tissue Flora										Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PFAS	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y	Y		Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y										Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y			
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	SGS AXYS MLA-110	MLA-110	Y		Y	Y	Y		Y							Y	Y	Y	Y					Y	Y	Y	Y			Y						Y	
PFAS		DoD QSM Version 5.3	MLA-110		Y	Y	Y										Y	Y								Y	Y	Y									Y	Y
PFAS		DoD QSM Version 5.4	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PFAS		EPA 1633	MLA-110		Y			Y		Y		Y			Y	Y				Y	Y		Y			Y			Y	Y		Y	Y		Y			
PFAS		EPA 1633 draft	MLA-110			Y	Y										Y	Y									Y	Y									Y	Y
PPCP	1,7-Dimethylxanthine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	10-hydroxy-amitriptyline	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	2-hydroxy-ibuprofen	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epianhydrochlortetracycline (EACTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epianhydrotetracycline (EATC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epichlortetracycline (ECTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epioxytetracycline (EOTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	4-Epitetracycline (ETC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Acetaminophen	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Albuterol	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Alprazolam	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amitriptyline	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amlodipine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Amphetamine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Anhydrochlortetracycline (ACTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Anhydrotetracycline (ATC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Atenolol	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Atorvastatin	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Azithromycin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Benzoylecgonine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Benztropine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Betamethasone	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Bisphenol A	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Caffeine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Carbadox	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Carbamazepine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cefotaxime	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Chlortetracycline (CTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cimetidine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Ciprofloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clarithromycin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clinafloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Clonidine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cloxacillin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cocaine	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Codeine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Cotinine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	DEET (N,N-diethyl-m-toluamide)	SGS AXYS MLA-075	MLA-075					Y																	Y													
PPCP	Dehydronifedipine	EPA 1694	MLA-075								Y																				Y							

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				Serum	Solids												Tissue and Tissue Flora									Urine	Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Demeclocycline	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Desmethyldiltiazem	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Diazepam	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Digoxigenin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Digoxin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Diltiazem	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Diphenhydramine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Doxycycline	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Enalapril	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Enrofloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Erythromycin	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Erythromycin anydrate	EPA 1694	MLA-075								Y																				Y							
PPCP	Flumequine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Flucinonide	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Fluoxetine	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Fluticasone propionate	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Furosemide	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Gemfibrozil	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Glipizide	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Glyburide	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Hydrochlorothiazide	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Hydrocodone	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Hydrocortisone	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Ibuprofen	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Isochlortetracycline (ICTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Lincomycin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Lomefloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Meprobamate	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Metformin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Methylprednisolone	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Metoprolol	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Miconazole	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Minocycline	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Naproxen	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Norfloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Norfluoxetine	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Norgestimate	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Norverapamil	SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Ofloxacin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Ormetoprim	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Oxacillin	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Oxolinic acid	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Oxycodone	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Oxytetracycline (OTC)	EPA 1694	MLA-075								Y																				Y							
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y													
PPCP	Paroxetine	EPA 1694	MLA-075								Y																				Y							

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				Serum	Solids											Tissue and Tissue Flora							Urine	Water	Water, Non-Potable										AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Penicillin G	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Penicillin V	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Prednisolone	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Prednisone	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Promethazine	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Propoxyphene	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Propranolol	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Ranitidine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Roxithromycin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sarafloxacin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sertraline	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Simvastatin	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfachloropyridazine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfadiazine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfadimethoxine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfamerazine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfamethazine	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfamethizole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfamethoxazole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfanilamide	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Sulfathiazole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Tetracycline (TC)	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Theophylline	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Thiabendazole	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Trenbolone	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Trenbolone acetate	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Triamterene	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Triclocarban	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Triclosan	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Trimethoprim	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Tylosin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Valsartan	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Verapamil	SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Virginiamycin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
PPCP	Warfarin	EPA 1694	MLA-075								Y																				Y						
PPCP		SGS AXYS MLA-075	MLA-075				Y																		Y											
TOP	Perfluorobutanesulfonate (PFBS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorobutanoate (PFBA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorodecanoate (PFDA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorononanoate (PFNA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluorooctanoate (PFOA)	SGS AXYS MLA-111	MLA-111				Y																		Y											
TOP	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-111	MLA-111				Y																		Y											

Accreditation Scope
SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 81

				Serum	Solids											Tissue and Tissue Flora							Urine		Water	Water, Non-Potable											AFFF	
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	CALA	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	ANAB DoD/DOE **	ANAB ISO 17025	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	CALA	CALA	Alaska DEC	ANAB DoD/DOE **	ANAB ISO 17025	California WB	Florida DOH	Maine DOH	Minnesota DOH	New Jersey DEP	New York DOH	Pennsylvania DEP	Virginia DGS	Washington DE *	ANAB DoD/DOE **	ANAB ISO 17025
TOP	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
TOP	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
TOP	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
TOP	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-111	MLA-111					Y																	Y												
AO	6PPD-Quinone	SGS AXYS MLA-118	MLA-118																						Y												
Note **	PFAS by LC-MS/MS compliant with US DoD QSM 5.3 table B-15; US DoD/DOE QSM 5.4 and 6.0 table B-24																																				

Legend

Y	Accreditation scope
AFFF	Aqueous film forming foam
AO	Antiozonants
BFR	Brominated flame retardants (non-PBDPE)
BPA and mPE	Bisphenol A and mono-Phthalate Esters
OC Pesticides	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PBDPE	Polybrominated diphenylethers
PCB	Polychlorinated Biphenyls
PCDDF	Polychlorinated dibenzodioxins/furans
PFAS	Per- and Polyfluoroalkyl Substances
PPCP	Pharmaceutical and Personal Care Products
TOP	Total Oxidizable Precursors
California WB	California Water Boards, Lab ID 2911
Florida DOH	Florida Department of Health, Lab ID E871007, (NELAC Standard)
Pennsylvania DEP	Pennsylvania Department of Environmental Protection
Minnesota DOH	Minnesota Department of Health, Lab ID 232-999-430, (NELAC Standard)
New Jersey DEP	New Jersey Department of Environmental Protection, Lab ID CANA005, (NELAC Standard)
New York DOH	New York Department of Health, Lab ID 11674, (NELAC Standard)
Washington DE	Washington Department of Ecology, Lab ID C404
Virginia DGS	Virginia Department of General Services, Division of Consolidated Laboratory Services, Lab ID 460224, (NELAC Standard)
Alaska DEC	Alaska Department of Environmental Conservation, Contaminated Sites Laboratory Approval 17-014
Maine DOH	Maine Center for Disease Control and Prevention, Department of Health and Human Services, Lab ID CN00003
ANAB DoD	ANSI National Accreditation Board, certificate ADE-1861, (US DoD QSM 5.3, 5.4, US DoD/DOE QSM 6.0 Standard)
CALA	Canadian Association for Laboratory Accreditation Inc., Lab ID A2637, (ISO/IEC 17025:2017 Standard)

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP Certificate ADE-1861

ilac-MRA

ilac-MRA

CALA Testing Accreditation No. A2637

Task Order#: pending
Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292269

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3689983
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564015
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	2	AB SOP-00005	SM 24 2320 B m
Send Part to Archive (1)	2		
BTEX/F1 in Water by HS GC/MS/FID (1)	2	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	2		Auto Calc
Cadmium - low level CCME - Dissolved (1)	2		Auto Calc
Cadmium - low level CCME (Total) (1)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	2	AB SOP-00016	SM 24 5220D m
True Colour (1)	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	2	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	2		Auto Calc
Hardness (1)	2		Auto Calc
Mercury (Dissolved) by CV (1, 4)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	2		Auto Calc
Ammonia-N (Total) (1)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	2		Auto Calc
Oil and Grease by IR (1)	2	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	2		Auto Calc
PAH in Water by GC/MS (1)	2	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	2	AB SOP-00080	SM 24 4500 S2-A D Fm

Task Order#: pending
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Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3689983
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564015
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue) (1)	2	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total) (1)	2		Auto Calc
Nitrogen (Total) (1)	2	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (1, 8)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	2	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	2	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Task Order#: pending
Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292269

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564015

Received: 2025/07/21, 13:46

(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
28 Jul 2025 10:54:23

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C564015
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DPJ854			DPJ854			DPJ855		
Sampling Date		2025/07/18 12:40			2025/07/18 12:40			2025/07/18 10:00		
COC Number		292269			292269			292269		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**	**AEMP-US-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	0.10	C026626				<0.10	0.10	C026626
Volatiles										
Benzene	mg/L	<0.00040	0.00040	C026999	<0.00040	0.00040	C026999	<0.00040	0.00040	C026999
Toluene	mg/L	<0.00040	0.00040	C026999	<0.00040	0.00040	C026999	<0.00040	0.00040	C026999
Ethylbenzene	mg/L	<0.00040	0.00040	C026999	<0.00040	0.00040	C026999	<0.00040	0.00040	C026999
m & p-Xylene	mg/L	<0.00080	0.00080	C026999	<0.00080	0.00080	C026999	<0.00080	0.00080	C026999
o-Xylene	mg/L	<0.00040	0.00040	C026999	<0.00040	0.00040	C026999	<0.00040	0.00040	C026999
Xylenes (Total)	mg/L	<0.00089	0.00089	C025697				<0.00089	0.00089	C025697
F1 (C6-C10) - BTEX	mg/L	<0.10	0.10	C025697				<0.10	0.10	C025697
F1 (C6-C10)	mg/L	<0.10	0.10	C026999	<0.10	0.10	C026999	<0.10	0.10	C026999
Extraction Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	94		C026626				98		C026626
Instrument Surrogate Recovery (%)										
1,4-Difluorobenzene (sur.)	%	111		C026999	112		C026999	113		C026999
4-Bromofluorobenzene (sur.)	%	86		C026999	92		C026999	87		C026999
D4-1,2-Dichloroethane (sur.)	%	103		C026999	104		C026999	105		C026999

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DPJ854	DPJ855		
Sampling Date		2025/07/18 12:40	2025/07/18 10:00		
COC Number		292269	292269		
	UNITS	**AEMP-US-03**	**AEMP-DS-05**	**RDL**	**QC Batch**
Calculated Parameters					
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	0.21	0.20	C025701
Nutrients					
Total Nitrogen (N)	mg/L	0.25 (1)	0.25 (1)	0.20	C027347

RDL = Reportable Detection Limit

(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPJ854		DPJ855		
Sampling Date		2025/07/18 12:40		2025/07/18 10:00		
COC Number		292269		292269		
	UNITS	**AEMP-US-03**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Elements						
Total Cadmium (Cd)	mg/L	0.00017	C025597	0.00033	0.000020	C025597
Total Mercury (Hg)	ug/L	0.0092	C028449	0.016	0.0019	C028449
Total Aluminum (Al)	mg/L	2.6	C028298	4.2	0.0030	C028256
Total Antimony (Sb)	mg/L	<0.00060	C028298	<0.00060	0.00060	C028256
Total Arsenic (As)	mg/L	0.0024	C028298	0.0039	0.00020	C028256
Total Barium (Ba)	mg/L	0.13	C028306	0.19	0.010	C028257
Total Beryllium (Be)	mg/L	<0.0010	C028298	<0.0010	0.0010	C028256
Total Boron (B)	mg/L	<0.020	C028306	<0.020	0.020	C028257
Total Calcium (Ca)	mg/L	38	C028306	41	0.30	C028257
Total Chromium (Cr)	mg/L	0.0043	C028298	0.0069	0.0010	C028256
Total Cobalt (Co)	mg/L	0.0024	C028298	0.0041	0.00030	C028256
Total Copper (Cu)	mg/L	0.0066	C028298	0.011	0.0010	C028256
Total Iron (Fe)	mg/L	5.5	C028306	9.2	0.060	C028257
Total Lead (Pb)	mg/L	0.0028	C028298	0.0049	0.00020	C028256
Total Lithium (Li)	mg/L	<0.020	C028306	<0.020	0.020	C028257
Total Magnesium (Mg)	mg/L	11	C028306	13	0.20	C028257
Total Manganese (Mn)	mg/L	0.084	C028306	0.15	0.0040	C028257
Total Molybdenum (Mo)	mg/L	0.0014	C028298	0.0017	0.00020	C028256
Total Nickel (Ni)	mg/L	0.0086	C028298	0.014	0.00050	C028256
Total Phosphorus (P)	mg/L	0.13	C028306	0.22	0.10	C028257
Total Potassium (K)	mg/L	1.8	C028306	2.3	0.30	C028257
Total Selenium (Se)	mg/L	0.00051	C028298	0.00082	0.00020	C028256
Total Silicon (Si)	mg/L	4.8	C028306	6.8	0.50	C028257
Total Silver (Ag)	mg/L	<0.00010	C028298	0.00010	0.00010	C028256
Total Sodium (Na)	mg/L	7.6	C028306	6.6	0.50	C028257
Total Strontium (Sr)	mg/L	0.24	C028306	0.25	0.020	C028257
Total Sulphur (S)	mg/L	14	C028306	14	0.20	C028257
Total Thallium (Tl)	mg/L	<0.00020	C028298	<0.00020	0.00020	C028256
Total Tin (Sn)	mg/L	<0.0010	C028298	<0.0010	0.0010	C028256
Total Titanium (Ti)	mg/L	0.028	C028298	0.044	0.0010	C028256
Total Uranium (U)	mg/L	0.0010	C028298	0.0013	0.00010	C028256
RDL = Reportable Detection Limit						

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564015
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Site Location: NORMAN WELLS, NT
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REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPJ854		DPJ855		
Sampling Date		2025/07/18 12:40		2025/07/18 10:00		
COC Number		292269		292269		
	UNITS	**AEMP-US-03**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0079	C028298	0.013	0.0010	C028256
Total Zinc (Zn)	mg/L	0.050	C028298	0.082	0.0030	C028256
RDL = Reportable Detection Limit						

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Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPJ854			DPJ854			DPJ855		
Sampling Date		2025/07/18 12:40			2025/07/18 12:40			2025/07/18 10:00		
COC Number		292269			292269			292269		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**	**AEMP-US-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	120	0.50	C025752				120	0.50	C025752
Ion Balance (% Difference)	%	6.3	N/A	C025699				5.6	N/A	C025699
Nitrate (N)	mg/L	0.066	0.040	C025605				0.040	0.040	C025605
Nitrate (NO3)	mg/L	0.29	0.18	C025604				<0.18	0.18	C025604
Nitrite (NO2)	mg/L	<0.13	0.13	C025604				<0.13	0.13	C025604
Sulphide (as H2S)	mg/L	0.019	0.0020	C025507				0.025	0.0020	C025507
Demand Parameters										
Chemical Oxygen Demand	mg/L	41	10	C026742				49	10	C026742
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C025596				<0.000020	0.000020	C025596
Misc. Inorganics										
Conductivity	uS/cm	260	2.0	C027763	260	2.0	C027763	270	2.0	C027763
Dissolved Organic Carbon (C)	mg/L	3.9	0.50	C028606				3.4	0.50	C028606
pH	pH	7.04 (1)	N/A	C027762	7.47	N/A	C027762	7.56	N/A	C027762
Total Organic Carbon (C)	mg/L	3.4	0.50	C028399				3.5	0.50	C028399
Total Dissolved Solids	mg/L	160	10	C026598				170	10	C026598
Total Suspended Solids	mg/L	140	1.0	C026609	170	1.0	C026609	250	1.0	C026609
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760	<1.0	1.0	C027760
Alkalinity (Total as CaCO3)	mg/L	91	1.0	C027760	90	1.0	C027760	93	1.0	C027760
Bicarbonate (HCO3)	mg/L	110	1.0	C027760	110	1.0	C027760	110	1.0	C027760
Carbonate (CO3)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760	<1.0	1.0	C027760
Hydroxide (OH)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760	<1.0	1.0	C027760
Total Sulphide	mg/L	0.018	0.0018	C030042	0.016	0.0018	C030042	0.024	0.0018	C030035
Chloride (Cl)	mg/L	8.0	1.0	C027180				7.0	1.0	C027175
Sulphate (SO4)	mg/L	45	1.0	C027180				47	1.0	C027175
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C028302				<0.015	0.015	C028302

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Duplicate exceeds acceptance criteria due to sample non homogeneity. Reanalysis yields similar results.

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Bureau Veritas Job #: C564015
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPJ854			DPJ854			DPJ855		
Sampling Date		2025/07/18 12:40			2025/07/18 12:40			2025/07/18 10:00		
COC Number		292269			292269			292269		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**	**AEMP-US-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L	<0.0030	0.0030	C027287				<0.0030	0.0030	C027287
Nitrite (N)	mg/L	<0.040	0.040	C027168				<0.040	0.040	C027203
Nitrate plus Nitrite (N)	mg/L	0.066	0.040	C027168				0.040	0.040	C027203
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C025735				<2.0	2.0	C025735
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C025740				<2.0	2.0	C025740
Physical Properties										
True Colour	PtCo units	12	2.0	C027266				14	2.0	C027266
Physical Properties										
Turbidity	NTU	170 (1)	0.10	C027204				280 (1)	0.10	C027204

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Sample was analyzed after holding time expired.

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DPJ854	DPJ855		
Sampling Date		2025/07/18 12:40	2025/07/18 10:00		
COC Number		292269	292269		
	UNITS	**AEMP-US-03**	**AEMP-DS-05**	**RDL**	**QC Batch**
Polycyclic Aromatics					
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	0.000010	C026638
Acenaphthene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acenaphthylene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acridine	mg/L	<0.000040	<0.000040	0.000040	C026635
Anthracene	mg/L	<0.000010	<0.000010	0.000010	C026635
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Chrysene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Fluoranthene	mg/L	<0.000010	<0.000010	0.000010	C026635
Fluorene	mg/L	<0.000050	<0.000050	0.000050	C026635
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Naphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Perylene	mg/L	<0.000050	<0.000050	0.000050	C026635
Pyrene	mg/L	<0.000020	<0.000020	0.000020	C026635
Quinoline	mg/L	<0.00020	<0.00020	0.00020	C026635
Extraction Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	106	104		C026635
D8-ACENAPHTHYLENE (sur.)	%	87	83		C026635
D8-NAPHTHALENE (sur.)	%	78	73		C026635
TERPHENYL-D14 (sur.)	%	107	105		C026635
RDL = Reportable Detection Limit					

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MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DPJ854	DPJ855		
Sampling Date		2025/07/18 12:40	2025/07/18 10:00		
COC Number		292269	292269		
	UNITS	**AEMP-US-03**	**AEMP-DS-05**	**RDL**	**QC Batch**
Elements					
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C026813
RDL = Reportable Detection Limit					

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPJ854	DPJ855		
Sampling Date		2025/07/18 12:40	2025/07/18 10:00		
COC Number		292269	292269		
	UNITS	**AEMP-US-03**	**AEMP-DS-05**	**RDL**	**QC Batch**
Elements					
Dissolved Aluminum (Al)	mg/L	0.025	0.029	0.0030	C027585
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C027585
Dissolved Arsenic (As)	mg/L	0.00037	0.00034	0.00020	C027585
Dissolved Barium (Ba)	mg/L	0.043	0.042	0.010	C027179
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Boron (B)	mg/L	<0.020	<0.020	0.020	C027179
Dissolved Calcium (Ca)	mg/L	31	33	0.30	C027179
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	0.00030	C027585
Dissolved Copper (Cu)	mg/L	0.0013	0.0013	0.0010	C027585
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	0.060	C027179
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	C027585
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	0.020	C027179
Dissolved Magnesium (Mg)	mg/L	9.2	9.4	0.20	C027179
Dissolved Manganese (Mn)	mg/L	<0.0040	<0.0040	0.0040	C027179
Dissolved Molybdenum (Mo)	mg/L	0.00097	0.0011	0.00020	C027585
Dissolved Nickel (Ni)	mg/L	0.0013	0.0011	0.00050	C027585
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C027179
Dissolved Potassium (K)	mg/L	0.87	0.84	0.30	C027179
Dissolved Selenium (Se)	mg/L	0.00037	0.00032	0.00020	C027585
Dissolved Silicon (Si)	mg/L	1.7	1.5	0.50	C027179
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C027585
Dissolved Sodium (Na)	mg/L	7.3	6.7	0.50	C027179
Dissolved Strontium (Sr)	mg/L	0.22	0.22	0.020	C027179
Dissolved Sulphur (S)	mg/L	14	15	0.20	C027179
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C027585
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Uranium (U)	mg/L	0.00076	0.00084	0.00010	C027585
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	0.0030	C027585
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564015
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPJ854
Sample ID: AEMP-US-03
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C025697	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C025596	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025597	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C027180	N/A	2025/07/23	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C027266	N/A	2025/07/23	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C025507	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C025752	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028306	2025/07/24	2025/07/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C027585	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028298	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C025699	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C025604	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C027168	N/A	2025/07/23	Kristijan Kovac
Nitrate (as N)	CALC	C025605	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C027287	N/A	2025/07/23	Kristijan Kovac
Total Sulphide	SPEC	C030042	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026609	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027204	N/A	2025/07/23	Amy Phan

Bureau Veritas ID: DPJ854 Dup
Sample ID: AEMP-US-03
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha

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Bureau Veritas Job #: C564015
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPJ854 Dup
Sample ID: AEMP-US-03
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Total Sulphide	SPEC	C030042	2025/07/25	2025/07/25	Ly Vu
Total Suspended Solids (NFR)	BAL	C026609	2025/07/23	2025/07/23	Haydee Estilong

Bureau Veritas ID: DPJ855
Sample ID: AEMP-DS-05
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C025697	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C025596	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025597	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C027175	N/A	2025/07/23	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C027266	N/A	2025/07/23	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C025507	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C025752	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028257	2025/07/24	2025/07/24	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C027585	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028256	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C025699	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C025604	N/A	2025/07/23	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C027203	N/A	2025/07/23	Kristijan Kovac
Nitrate (as N)	CALC	C025605	2025/07/23	2025/07/23	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C027287	N/A	2025/07/23	Kristijan Kovac
Total Sulphide	SPEC	C030035	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz

Bureau Veritas Job #: C564015
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPJ855
Sample ID: AEMP-DS-05
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026609	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027204	N/A	2025/07/23	Amy Phan

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.3°C

Temperatures upon receipt at Bureau Veritas Labs Calgary
Package 1: 3.0 degrees C
Each temperature is the average of up to three cooler temperatures taken at receipt.

Note: Analysis required not listed or clearly specified on C of C. 2x 250ml amber bottles preserved with sodium bisulfate were received for both samples. However, no analysis is requested on them. Proceeded with alkylated PAH as per PM and client was notified via email.

Sample DPJ854 [AEMP-US-03] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DPJ855 [AEMP-DS-05] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for True Colour.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DPJ854	AEMP-US-03	Water	COLOURT-W	PHYS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPJ854	AEMP-US-03	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPJ854	AEMP-US-03	Water	PHALK	INORG	pH	#7 Duplicate RPD Above Control Limit	#6 Non-Homogeneous	This may increase the uncertainty associated with these results.
DPJ854	AEMP-US-03	Water	PO4AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPJ854	AEMP-US-03	Water	TURB	SPP	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPJ855	AEMP-DS-05	Water	COLOURT-W	PHYS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPJ855	AEMP-DS-05	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DPJ855	AEMP-DS-05	Water	PO4AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPJ855	AEMP-DS-05	Water	TURB	SPP	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C025735	RRA	Method Blank	Oil and grease	2025/07/22	<2.0		mg/L	
C025740	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/07/22	<2.0		mg/L	
C026598	HE1	Method Blank	Total Dissolved Solids	2025/07/24	<10		mg/L	
C026609	HE1	Method Blank	Total Suspended Solids	2025/07/23	<1.0		mg/L	
C026626	BQU	Method Blank	O-TERPHENYL (sur.)	2025/07/23		101	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23	<0.10		mg/L	
C026635	NK3	Method Blank	D10-ANTHRACENE (sur.)	2025/07/23		101	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		82	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23	<0.00010		mg/L	
			Acenaphthylene	2025/07/23	<0.00010		mg/L	
			Acridine	2025/07/23	<0.000040		mg/L	
			Anthracene	2025/07/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/07/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/07/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/07/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/07/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/07/23	<0.000050		mg/L	
			Chrysene	2025/07/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/07/23	<0.0000075		mg/L	
			Fluoranthene	2025/07/23	<0.000010		mg/L	
			Fluorene	2025/07/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/07/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			Naphthalene	2025/07/23	<0.00010		mg/L	
			Phenanthrene	2025/07/23	<0.000050		mg/L	
			Perylene	2025/07/23	<0.000050		mg/L	
			Pyrene	2025/07/23	<0.000020		mg/L	
			Quinoline	2025/07/23	<0.00020		mg/L	
C026742	AP1	Method Blank	Chemical Oxygen Demand	2025/07/23	<10		mg/L	
C026813	KKM	Method Blank	Dissolved Mercury (Hg)	2025/07/23	<0.0019		ug/L	
C026999	WPK	Method Blank	1,4-Difluorobenzene (sur.)	2025/07/25		107	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		90	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		98	%	50 - 140
			Benzene	2025/07/25	<0.00040		mg/L	
			Toluene	2025/07/25	<0.00040		mg/L	
			Ethylbenzene	2025/07/25	<0.00040		mg/L	
			m & p-Xylene	2025/07/25	<0.00080		mg/L	
			o-Xylene	2025/07/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/07/25	<0.10		mg/L	
C027168	KKC	Method Blank	Nitrite (N)	2025/07/23	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/07/23	<0.040		mg/L	
C027175	TOR	Method Blank	Chloride (Cl)	2025/07/23	<1.0		mg/L	
			Sulphate (SO4)	2025/07/23	<1.0		mg/L	
C027179	VSC	Method Blank	Dissolved Iron (Fe)	2025/07/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/07/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/07/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/07/23	<0.0040		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Potassium (K)	2025/07/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/07/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/07/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/07/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/07/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/07/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/07/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/07/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/07/23	<0.30		mg/L	
C027180	TOR	Method Blank	Chloride (Cl)	2025/07/23	<1.0		mg/L	
			Sulphate (SO4)	2025/07/23	<1.0		mg/L	
C027203	KKC	Method Blank	Nitrite (N)	2025/07/23	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/07/23	<0.040		mg/L	
C027204	AP1	Method Blank	Turbidity	2025/07/23	<0.10		NTU	
C027266	KKC	Method Blank	True Colour	2025/07/23	<2.0		PtCo units	
C027287	KKC	Method Blank	Orthophosphate (P)	2025/07/23	<0.0030		mg/L	
C027347	MAP	Method Blank	Total Nitrogen (N)	2025/07/23	<0.020		mg/L	
C027585	JAB	Method Blank	Dissolved Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/07/24	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C027760	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/07/24	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/07/24	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/07/24	<1.0		mg/L	
			Carbonate (CO3)	2025/07/24	<1.0		mg/L	
			Hydroxide (OH)	2025/07/24	<1.0		mg/L	
C027763	AYE	Method Blank	Conductivity	2025/07/24	<2.0		uS/cm	
C028256	JAB	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028257	BYM	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	
C028298	JAB	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028302	ISW	Method Blank	Total Ammonia (N)	2025/07/24	<0.015		mg/L	
C028306	VSC	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	

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C028399	TJ4	Method Blank	Total Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C028449	KKM	Method Blank	Total Mercury (Hg)	2025/07/24	<0.0019		ug/L	
C028606	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C030035	LYV	Method Blank	Total Sulphide	2025/07/25	<0.0018		mg/L	
C030042	LYV	Method Blank	Total Sulphide	2025/07/25	<0.0018		mg/L	
C026609	HE1	RPD [DPJ854-14]	Total Suspended Solids	2025/07/23	16		%	20
C026999	WPK	RPD [DPJ854-02]	Benzene	2025/07/25	NC		%	30
			Toluene	2025/07/25	NC		%	30
			Ethylbenzene	2025/07/25	NC		%	30
			m & p-Xylene	2025/07/25	NC		%	30
			o-Xylene	2025/07/25	NC		%	30
			F1 (C6-C10)	2025/07/25	NC		%	30
C027760	AYE	RPD [DPJ854-01]	Alkalinity (Total as CaCO3)	2025/07/24	1.1		%	20
			Alkalinity (PP as CaCO3)	2025/07/24	NC		%	20
			Bicarbonate (HCO3)	2025/07/24	1.1		%	20
			Carbonate (CO3)	2025/07/24	NC		%	20
			Hydroxide (OH)	2025/07/24	NC		%	20
C027762	AYE	RPD [DPJ854-01]	pH	2025/07/24	5.8		%	N/A
C027763	AYE	RPD [DPJ854-01]	Conductivity	2025/07/24	0.38		%	10
C030042	LYV	RPD [DPJ854-09]	Total Sulphide	2025/07/25	15		%	20
C026609	HE1	Matrix Spike [DPJ854-14]	Total Suspended Solids	2025/07/23		NC	%	80 - 120
C026999	WPK	Matrix Spike [DPJ855-02]	1,4-Difluorobenzene (sur.)	2025/07/25		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		92	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		94	%	50 - 140
			Benzene	2025/07/25		88	%	50 - 140
			Toluene	2025/07/25		94	%	50 - 140
			Ethylbenzene	2025/07/25		96	%	50 - 140
			m & p-Xylene	2025/07/25		97	%	50 - 140
			o-Xylene	2025/07/25		96	%	50 - 140
			F1 (C6-C10)	2025/07/25		96	%	60 - 140
C025735	RRA	LCS	Oil and grease	2025/07/22		96	%	70 - 130
C025740	RRA	LCS	Total Petroleum Hydrocarbon	2025/07/22		95	%	70 - 130
C026598	HE1	LCS	Total Dissolved Solids	2025/07/24		98	%	80 - 120
C026609	HE1	LCS	Total Suspended Solids	2025/07/23		100	%	80 - 120
C026626	BQU	LCS	O-TERPHENYL (sur.)	2025/07/23		104	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23		105	%	60 - 140
C026635	NK3	LCS	D10-ANTHRACENE (sur.)	2025/07/23		100	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23		70	%	50 - 130
			Acenaphthylene	2025/07/23		69	%	50 - 130
			Acridine	2025/07/23		85	%	50 - 130
			Anthracene	2025/07/23		89	%	50 - 130
			Benzo(a)anthracene	2025/07/23		96	%	50 - 130
			Benzo(b&j)fluoranthene	2025/07/23		100	%	50 - 130
			Benzo(k)fluoranthene	2025/07/23		104	%	50 - 130
			Benzo(g,h,i)perylene	2025/07/23		96	%	50 - 130
			Benzo(c)phenanthrene	2025/07/23		100	%	50 - 130
			Benzo(a)pyrene	2025/07/23		97	%	50 - 130
			Benzo(e)pyrene	2025/07/23		90	%	50 - 130
			Chrysene	2025/07/23		93	%	50 - 130

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dibenz(a,h)anthracene	2025/07/23		101	%	50 - 130
			Fluoranthene	2025/07/23		94	%	50 - 130
			Fluorene	2025/07/23		74	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/07/23		95	%	50 - 130
			1-Methylnaphthalene	2025/07/23		56	%	50 - 130
			2-Methylnaphthalene	2025/07/23		62	%	50 - 130
			Naphthalene	2025/07/23		74	%	50 - 130
			Phenanthrene	2025/07/23		87	%	50 - 130
			Perylene	2025/07/23		93	%	50 - 130
			Pyrene	2025/07/23		94	%	50 - 130
			Quinoline	2025/07/23		106	%	50 - 130
C026742	AP1	LCS	Chemical Oxygen Demand	2025/07/23		102	%	80 - 120
C026813	KKM	LCS	Dissolved Mercury (Hg)	2025/07/23		96	%	80 - 120
C026999	WPK	LCS	1,4-Difluorobenzene (sur.)	2025/07/25		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		94	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		94	%	50 - 140
			Benzene	2025/07/25		89	%	60 - 130
			Toluene	2025/07/25		95	%	60 - 130
			Ethylbenzene	2025/07/25		97	%	60 - 130
			m & p-Xylene	2025/07/25		100	%	60 - 130
			o-Xylene	2025/07/25		100	%	60 - 130
			F1 (C6-C10)	2025/07/25		104	%	60 - 140
C027168	KKC	LCS	Nitrite (N)	2025/07/23		106	%	80 - 120
			Nitrate plus Nitrite (N)	2025/07/23		106	%	80 - 120
C027175	TOR	LCS	Chloride (Cl)	2025/07/23		103	%	80 - 120
			Sulphate (SO4)	2025/07/23		102	%	80 - 120
C027179	VSC	LCS	Dissolved Iron (Fe)	2025/07/23		110	%	80 - 120
			Dissolved Lithium (Li)	2025/07/23		94	%	80 - 120
			Dissolved Magnesium (Mg)	2025/07/23		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/07/23		109	%	80 - 120
			Dissolved Potassium (K)	2025/07/23		97	%	80 - 120
			Dissolved Sodium (Na)	2025/07/23		95	%	80 - 120
			Dissolved Strontium (Sr)	2025/07/23		98	%	80 - 120
			Dissolved Sulphur (S)	2025/07/23		103	%	80 - 120
			Dissolved Phosphorus (P)	2025/07/23		104	%	80 - 120
			Dissolved Barium (Ba)	2025/07/23		101	%	80 - 120
			Dissolved Silicon (Si)	2025/07/23		103	%	80 - 120
			Dissolved Boron (B)	2025/07/23		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/07/23		96	%	80 - 120
C027180	TOR	LCS	Chloride (Cl)	2025/07/23		102	%	80 - 120
			Sulphate (SO4)	2025/07/23		104	%	80 - 120
C027203	KKC	LCS	Nitrite (N)	2025/07/23		103	%	80 - 120
			Nitrate plus Nitrite (N)	2025/07/23		105	%	80 - 120
C027204	AP1	LCS	Turbidity	2025/07/23		99	%	80 - 120
C027266	KKC	LCS	True Colour	2025/07/23		90	%	80 - 120
C027287	KKC	LCS	Orthophosphate (P)	2025/07/23		102	%	80 - 120
C027347	MAP	LCS	Total Nitrogen (N)	2025/07/23		102	%	80 - 120
C027585	JAB	LCS	Dissolved Aluminum (Al)	2025/07/24		118	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/24		98	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/24		97	%	80 - 120
			Dissolved Copper (Cu)	2025/07/24		98	%	80 - 120
			Dissolved Lead (Pb)	2025/07/24		97	%	80 - 120

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			Dissolved Antimony (Sb)	2025/07/24		103	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/24		104	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/24		97	%	80 - 120
			Dissolved Selenium (Se)	2025/07/24		98	%	80 - 120
			Dissolved Silver (Ag)	2025/07/24		94	%	80 - 120
			Dissolved Arsenic (As)	2025/07/24		99	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/24		98	%	80 - 120
			Dissolved Tin (Sn)	2025/07/24		100	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/24		94	%	80 - 120
			Dissolved Uranium (U)	2025/07/24		98	%	80 - 120
			Dissolved Vanadium (V)	2025/07/24		98	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/24		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/24		101	%	80 - 120
C027760	AYE	LCS	Alkalinity (Total as CaCO3)	2025/07/24		101	%	80 - 120
C027762	AYE	LCS	pH	2025/07/24		100	%	97 - 103
C027763	AYE	LCS	Conductivity	2025/07/24		100	%	90 - 110
C028256	JAB	LCS	Total Aluminum (Al)	2025/07/24		111	%	80 - 120
			Total Chromium (Cr)	2025/07/24		109	%	80 - 120
			Total Cobalt (Co)	2025/07/24		108	%	80 - 120
			Total Copper (Cu)	2025/07/24		108	%	80 - 120
			Total Lead (Pb)	2025/07/24		108	%	80 - 120
			Total Antimony (Sb)	2025/07/24		110	%	80 - 120
			Total Molybdenum (Mo)	2025/07/24		113	%	80 - 120
			Total Nickel (Ni)	2025/07/24		108	%	80 - 120
			Total Selenium (Se)	2025/07/24		108	%	80 - 120
			Total Silver (Ag)	2025/07/24		111	%	80 - 120
			Total Arsenic (As)	2025/07/24		109	%	80 - 120
			Total Thallium (Tl)	2025/07/24		110	%	80 - 120
			Total Tin (Sn)	2025/07/24		110	%	80 - 120
			Total Titanium (Ti)	2025/07/24		109	%	80 - 120
			Total Uranium (U)	2025/07/24		113	%	80 - 120
			Total Vanadium (V)	2025/07/24		108	%	80 - 120
			Total Zinc (Zn)	2025/07/24		109	%	80 - 120
			Total Beryllium (Be)	2025/07/24		110	%	80 - 120
C028257	BYM	LCS	Total Iron (Fe)	2025/07/24		107	%	80 - 120
			Total Lithium (Li)	2025/07/24		93	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		99	%	80 - 120
			Total Manganese (Mn)	2025/07/24		105	%	80 - 120
			Total Potassium (K)	2025/07/24		94	%	80 - 120
			Total Sodium (Na)	2025/07/24		92	%	80 - 120
			Total Strontium (Sr)	2025/07/24		96	%	80 - 120
			Total Sulphur (S)	2025/07/24		93	%	80 - 120
			Total Phosphorus (P)	2025/07/24		98	%	80 - 120
			Total Barium (Ba)	2025/07/24		100	%	80 - 120
			Total Silicon (Si)	2025/07/24		100	%	80 - 120
			Total Boron (B)	2025/07/24		95	%	80 - 120
			Total Calcium (Ca)	2025/07/24		90	%	80 - 120
C028298	JAB	LCS	Total Aluminum (Al)	2025/07/24		107	%	80 - 120
			Total Chromium (Cr)	2025/07/24		107	%	80 - 120
			Total Cobalt (Co)	2025/07/24		104	%	80 - 120
			Total Copper (Cu)	2025/07/24		105	%	80 - 120
			Total Lead (Pb)	2025/07/24		104	%	80 - 120

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Antimony (Sb)	2025/07/24		108	%	80 - 120
			Total Molybdenum (Mo)	2025/07/24		108	%	80 - 120
			Total Nickel (Ni)	2025/07/24		105	%	80 - 120
			Total Selenium (Se)	2025/07/24		105	%	80 - 120
			Total Silver (Ag)	2025/07/24		106	%	80 - 120
			Total Arsenic (As)	2025/07/24		106	%	80 - 120
			Total Thallium (Tl)	2025/07/24		107	%	80 - 120
			Total Tin (Sn)	2025/07/24		108	%	80 - 120
			Total Titanium (Ti)	2025/07/24		107	%	80 - 120
			Total Uranium (U)	2025/07/24		108	%	80 - 120
			Total Vanadium (V)	2025/07/24		106	%	80 - 120
			Total Zinc (Zn)	2025/07/24		104	%	80 - 120
			Total Beryllium (Be)	2025/07/24		105	%	80 - 120
C028302	ISW	LCS	Total Ammonia (N)	2025/07/24		106	%	80 - 120
C028306	VSC	LCS	Total Iron (Fe)	2025/07/24		108	%	80 - 120
			Total Lithium (Li)	2025/07/24		106	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		105	%	80 - 120
			Total Manganese (Mn)	2025/07/24		107	%	80 - 120
			Total Potassium (K)	2025/07/24		105	%	80 - 120
			Total Sodium (Na)	2025/07/24		103	%	80 - 120
			Total Strontium (Sr)	2025/07/24		98	%	80 - 120
			Total Sulphur (S)	2025/07/24		99	%	80 - 120
			Total Phosphorus (P)	2025/07/24		103	%	80 - 120
			Total Barium (Ba)	2025/07/24		102	%	80 - 120
			Total Silicon (Si)	2025/07/24		103	%	80 - 120
			Total Boron (B)	2025/07/24		99	%	80 - 120
			Total Calcium (Ca)	2025/07/24		102	%	80 - 120
C028399	TJ4	LCS	Total Organic Carbon (C)	2025/07/24		92	%	80 - 120
C028449	KKM	LCS	Total Mercury (Hg)	2025/07/24		106	%	80 - 120
C028606	TJ4	LCS	Dissolved Organic Carbon (C)	2025/07/24		97	%	80 - 120
C030035	LYV	LCS	Total Sulphide	2025/07/25		95	%	80 - 120
C030042	LYV	LCS	Total Sulphide	2025/07/25		98	%	80 - 120
C027347	MAP	SRM	Total Nitrogen (N)	2025/07/23		103	%	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

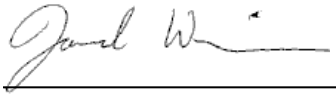
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

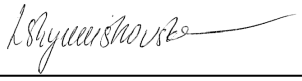
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Rahul Suryawanshi, Senior Analyst

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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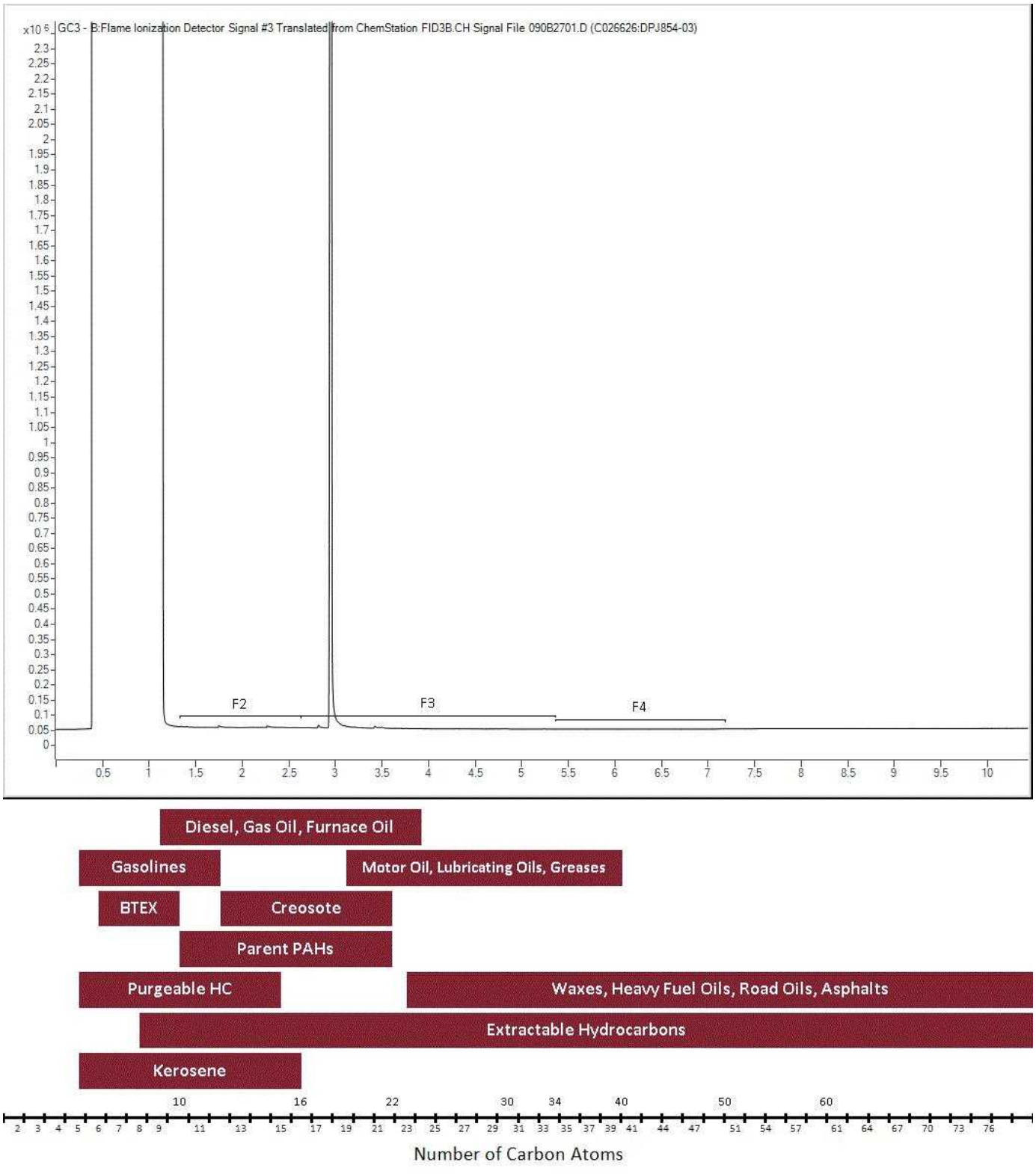
Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564015
Report Date: 2025/07/28
Bureau Veritas Sample: DPJ854

Advisian
Task Order#:pending10Line Item:10
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-03

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

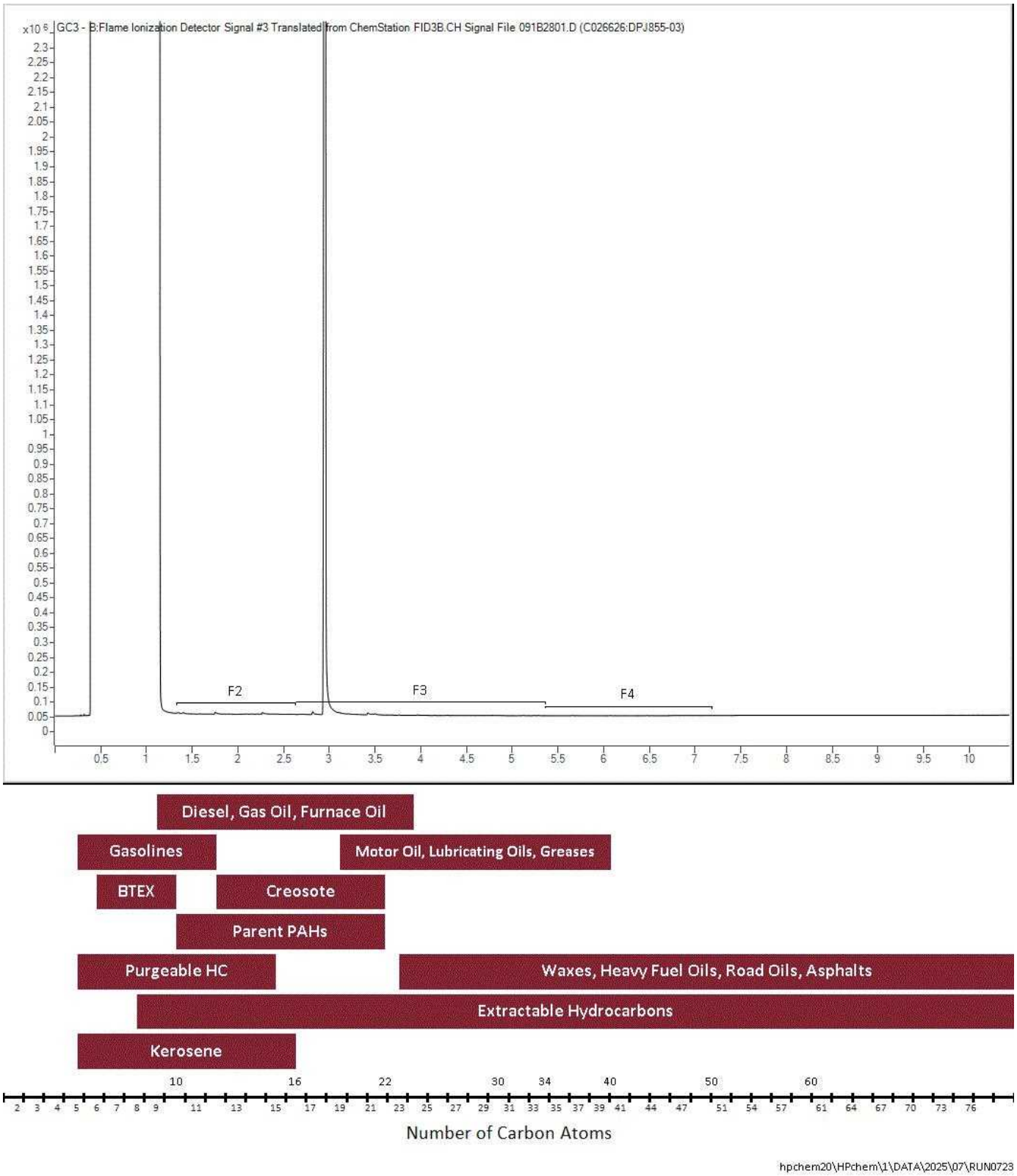


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C564015
Report Date: 2025/07/28
Bureau Veritas Sample: DPJ855

Advisian
Task Order#:pending10Line Item:10
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-05

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

☐ Calgary
4000 19th St. NE, T2E 6P8
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☒ Edmonton
9331 - 48 Street, T6B 2R4
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Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM
CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292269

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Alex Haigh	Contact Name: Alex Haigh
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7	Address: 49 Quarry PARK Blvd Calgary, AB T2C 3E7
Email: Alex.haigh@worley	Email: alex.haigh@worley.com
Ph: 587 847 6249	Ph: 587 847 6249
Sampler Name (Print): S Gibb / L Glatiotis	Consultant Project #: 417085-59897 25200

	FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, TDS, Turbidity	Oil & Grease	Tot. Rec. Sulphide	Nitrate, Nitrite, Ammonia (Total) TKN	Ortho-phosphate	Sulphur - total & Dissolved	COD	pH, TDS
1	AEMP-US-03		X			18	2025/07/18	12:40	X			X	X							X	X					X			X	X	X	X	X	X	X	X
2	AEMP-DS-05		X			19	2025/07/18	10:00	X			X	X							X	X					X			X	X	X	X	X	X	X	X
3																																					
4																																					
5																																					
6																																					
7																																					
8																																					
9																																					
10																																					

MED2-2025-07-600

IOL SITE LOCATION: Norman Wells, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) EAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley Carol_JOR data track@worleyca stacy.gibb@worley.com JES 260 1436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

	YES	NO	COOLER ID #			
SEAL PRESENT	/		TEMP °C	3	4	3
SEAL INTACT	/			1	2	3
COOLING MEDIA PRESENT						

	YES	NO	COOLER ID # MCAL			
SEAL PRESENT	/		TEMP °C	2	6	1
SEAL INTACT	/			1	2	3
COOLING MEDIA PRESENT	/					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

LAB USE ONLY
MAXXAM JOB #: C&G4015

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	Stacy Gibb	2025/07/20	10:00	1.	BRENTON MAH	2025/07/21	13:46
2.	BRENTON MAH	2025/07/21	18:00	2.	Jaskaran Bagri	2025/07/22	06:30
3.				3.			

SAMPLES
LABELED BY: EPL
VERIFIED BY: ATR

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: pending
Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292221

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690027
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564044
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	2	AB SOP-00005	SM 24 2320 B m
Send Part to Archive (1)	2		
BTEX/F1 in Water by HS GC/MS/FID (1)	2	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	2		Auto Calc
Cadmium - low level CCME - Dissolved (1)	2		Auto Calc
Cadmium - low level CCME (Total) (1)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	2	AB SOP-00016	SM 24 5220D m
True Colour (1)	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	2	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	2		Auto Calc
Hardness (1)	2		Auto Calc
Mercury (Dissolved) by CV (1, 4)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	2		Auto Calc
Ammonia-N (Total) (1)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	2		Auto Calc
Oil and Grease by IR (1)	2	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	2		Auto Calc
PAH in Water by GC/MS (1)	2	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	2	AB SOP-00080	SM 24 4500 S2-A D Fm

Task Order#: pending
Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292221

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690027
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564044
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue) (1)	2	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total) (1)	2		Auto Calc
Nitrogen (Total) (1)	2	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (1, 8)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	2	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	2	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Task Order#: pending
Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292221

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690027
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564044

Received: 2025/07/21, 13:46

(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
28 Jul 2025 11:07:54

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Job #: C564044
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DPK006	DPK007		
Sampling Date		2025/07/19 15:29	2025/07/19 14:54		
COC Number		292221	292221		
	UNITS	**AEMP-DS-02**	**AEMP-DS-04**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	0.10	C026626
Volatiles					
Benzene	mg/L	<0.00040	<0.00040	0.00040	C026999
Toluene	mg/L	<0.00040	<0.00040	0.00040	C026999
Ethylbenzene	mg/L	<0.00040	<0.00040	0.00040	C026999
m & p-Xylene	mg/L	<0.00080	<0.00080	0.00080	C026999
o-Xylene	mg/L	<0.00040	<0.00040	0.00040	C026999
Xylenes (Total)	mg/L	<0.00089	<0.00089	0.00089	C026025
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	0.10	C026025
F1 (C6-C10)	mg/L	<0.10	<0.10	0.10	C026999
Extraction Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	102	97		C026626
Instrument Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	108	108		C026999
4-Bromofluorobenzene (sur.)	%	90	85		C026999
D4-1,2-Dichloroethane (sur.)	%	101	101		C026999
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DPK006	DPK007		
Sampling Date		2025/07/19 15:29	2025/07/19 14:54		
COC Number		292221	292221		
	UNITS	**AEMP-DS-02**	**AEMP-DS-04**	**RDL**	**QC Batch**
Calculated Parameters					
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.23	0.22	0.20	C025701
Nutrients					
Total Nitrogen (N)	mg/L	0.29 (1)	0.29 (1)	0.20	C027347

RDL = Reportable Detection Limit

(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK006		DPK007		
Sampling Date		2025/07/19 15:29		2025/07/19 14:54		
COC Number		292221		292221		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DS-04**	**RDL**	**QC Batch**
Elements						
Total Cadmium (Cd)	mg/L	0.00018	C025826	0.00022	0.000020	C025826
Total Mercury (Hg)	ug/L	0.0062	C028449	0.010	0.0019	C028449
Total Aluminum (Al)	mg/L	2.5	C028298	2.9	0.0030	C028256
Total Antimony (Sb)	mg/L	<0.00060	C028298	<0.00060	0.00060	C028256
Total Arsenic (As)	mg/L	0.0024	C028298	0.0029	0.00020	C028256
Total Barium (Ba)	mg/L	0.13	C028306	0.14	0.010	C028257
Total Beryllium (Be)	mg/L	<0.0010	C028298	<0.0010	0.0010	C028256
Total Boron (B)	mg/L	<0.020	C028306	<0.020	0.020	C028257
Total Calcium (Ca)	mg/L	41	C028306	39	0.30	C028257
Total Chromium (Cr)	mg/L	0.0043	C028298	0.0049	0.0010	C028256
Total Cobalt (Co)	mg/L	0.0026	C028298	0.0031	0.00030	C028256
Total Copper (Cu)	mg/L	0.0068	C028298	0.0074	0.0010	C028256
Total Iron (Fe)	mg/L	5.5	C028306	6.5	0.060	C028257
Total Lead (Pb)	mg/L	0.0030	C028298	0.0034	0.00020	C028256
Total Lithium (Li)	mg/L	<0.020	C028306	<0.020	0.020	C028257
Total Magnesium (Mg)	mg/L	12	C028306	13	0.20	C028257
Total Manganese (Mn)	mg/L	0.099	C028306	0.12	0.0040	C028257
Total Molybdenum (Mo)	mg/L	0.0014	C028298	0.0014	0.00020	C028256
Total Nickel (Ni)	mg/L	0.0092	C028298	0.011	0.00050	C028256
Total Phosphorus (P)	mg/L	0.13	C028306	0.16	0.10	C028257
Total Potassium (K)	mg/L	1.8	C028306	1.8	0.30	C028257
Total Selenium (Se)	mg/L	0.00056	C028298	0.00048	0.00020	C028256
Total Silicon (Si)	mg/L	5.0	C028306	6.3	0.50	C028257
Total Silver (Ag)	mg/L	<0.00010	C028298	<0.00010	0.00010	C028256
Total Sodium (Na)	mg/L	7.7	C028306	7.0	0.50	C028257
Total Strontium (Sr)	mg/L	0.24	C028306	0.25	0.020	C028257
Total Sulphur (S)	mg/L	14	C028306	14	0.20	C028257
Total Thallium (Tl)	mg/L	<0.00020	C028298	<0.00020	0.00020	C028256
Total Tin (Sn)	mg/L	<0.0010	C028298	<0.0010	0.0010	C028256
Total Titanium (Ti)	mg/L	0.028	C028298	0.035	0.0010	C028256
Total Uranium (U)	mg/L	0.0010	C028298	0.0011	0.00010	C028256
RDL = Reportable Detection Limit						

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK006		DPK007		
Sampling Date		2025/07/19 15:29		2025/07/19 14:54		
COC Number		292221		292221		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DS-04**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0075	C028298	0.0092	0.0010	C028256
Total Zinc (Zn)	mg/L	0.071	C028298	0.054	0.0030	C028256
RDL = Reportable Detection Limit						

Bureau Veritas Job #: C564044
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK006			DPK007		
Sampling Date		2025/07/19 15:29			2025/07/19 14:54		
COC Number		292221			292221		
	UNITS	**AEMP-DS-02**	**RDL**	**QC Batch**	**AEMP-DS-04**	**RDL**	**QC Batch**
Calculated Parameters							
Hardness (CaCO3)	mg/L	120	0.50	C026111	120	0.50	C026111
Ion Balance (% Difference)	%	4.8	N/A	C026154	4.4	N/A	C026154
Nitrate (N)	mg/L	0.060	0.040	C026076	0.065	0.040	C026076
Nitrate (NO3)	mg/L	0.26	0.18	C026073	0.29	0.18	C026073
Nitrite (NO2)	mg/L	<0.13	0.13	C026073	<0.13	0.13	C026073
Sulphide (as H2S)	mg/L	0.014	0.0020	C026095	0.014	0.0020	C026095
Demand Parameters							
Chemical Oxygen Demand	mg/L	47	10	C026742	45	10	C026742
Elements							
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C026107	<0.000020	0.000020	C026107
Misc. Inorganics							
Conductivity	uS/cm	270	2.0	C027763	260	2.0	C027763
Dissolved Organic Carbon (C)	mg/L	3.3	0.50	C028606	3.2	0.50	C028606
pH	pH	7.45	N/A	C027762	7.41	N/A	C027762
Total Organic Carbon (C)	mg/L	3.3	0.50	C028399	3.0	0.50	C028399
Total Dissolved Solids	mg/L	160	10	C026598	160	10	C026598
Total Suspended Solids	mg/L	150	0.99	C026609	260	0.97	C026609
Anions							
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760
Alkalinity (Total as CaCO3)	mg/L	91	1.0	C027760	89	1.0	C027760
Bicarbonate (HCO3)	mg/L	110	1.0	C027760	110	1.0	C027760
Carbonate (CO3)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760
Hydroxide (OH)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760
Total Sulphide	mg/L	0.013	0.0018	C030030	0.013	0.0018	C030030
Chloride (Cl)	mg/L	8.3	1.0	C026364	8.9	1.0	C026364
Sulphate (SO4)	mg/L	44	1.0	C026364	43	1.0	C026364
Nutrients							
Total Ammonia (N)	mg/L	<0.015	0.015	C028302	<0.015	0.015	C028356
Orthophosphate (P)	mg/L	<0.0030	0.0030	C026423	<0.0030	0.0030	C026423
Nitrite (N)	mg/L	<0.040	0.040	C026362	<0.040	0.040	C026362

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C564044
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK006			DPK007		
Sampling Date		2025/07/19 15:29			2025/07/19 14:54		
COC Number		292221			292221		
	UNITS	**AEMP-DS-02**	**RDL**	**QC Batch**	**AEMP-DS-04**	**RDL**	**QC Batch**
Nitrate plus Nitrite (N)	mg/L	0.060	0.040	C026362	0.065	0.040	C026362
Misc. Organics							
Oil and grease	mg/L	<2.0	2.0	C025735	<2.0	2.0	C025735
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C025740	<2.0	2.0	C025740
Physical Properties							
True Colour	PtCo units	9.5	2.0	C026199	12	2.0	C026199
Physical Properties							
Turbidity	NTU	120	0.10	C026083	170	0.10	C026083
RDL = Reportable Detection Limit							

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DPK006	DPK007		
Sampling Date		2025/07/19 15:29	2025/07/19 14:54		
COC Number		292221	292221		
	UNITS	**AEMP-DS-02**	**AEMP-DS-04**	**RDL**	**QC Batch**
Polycyclic Aromatics					
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	0.000010	C026638
Acenaphthene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acenaphthylene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acridine	mg/L	<0.000040	<0.000040	0.000040	C026635
Anthracene	mg/L	<0.000010	<0.000010	0.000010	C026635
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Chrysene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Fluoranthene	mg/L	<0.000010	<0.000010	0.000010	C026635
Fluorene	mg/L	<0.000050	<0.000050	0.000050	C026635
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Naphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Perylene	mg/L	<0.000050	<0.000050	0.000050	C026635
Pyrene	mg/L	<0.000020	<0.000020	0.000020	C026635
Quinoline	mg/L	<0.00020	<0.00020	0.00020	C026635
Extraction Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	101	99		C026635
D8-ACENAPHTHYLENE (sur.)	%	85	84		C026635
D8-NAPHTHALENE (sur.)	%	76	76		C026635
TERPHENYL-D14 (sur.)	%	101	100		C026635
RDL = Reportable Detection Limit					

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MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DPK006	DPK007		
Sampling Date		2025/07/19 15:29	2025/07/19 14:54		
COC Number		292221	292221		
	UNITS	**AEMP-DS-02**	**AEMP-DS-04**	**RDL**	**QC Batch**
Elements					
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C026813
RDL = Reportable Detection Limit					

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPK006	DPK007		
Sampling Date		2025/07/19 15:29	2025/07/19 14:54		
COC Number		292221	292221		
	UNITS	**AEMP-DS-02**	**AEMP-DS-04**	**RDL**	**QC Batch**
Elements					
Dissolved Aluminum (Al)	mg/L	0.033	0.038	0.0030	C028258
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C028258
Dissolved Arsenic (As)	mg/L	0.00032	0.00043	0.00020	C028258
Dissolved Barium (Ba)	mg/L	0.044	0.048	0.010	C027179
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Boron (B)	mg/L	<0.020	<0.020	0.020	C027179
Dissolved Calcium (Ca)	mg/L	32	31	0.30	C027179
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	0.00030	C028258
Dissolved Copper (Cu)	mg/L	0.0020	0.0013	0.0010	C028258
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	0.060	C027179
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	C028258
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	0.020	C027179
Dissolved Magnesium (Mg)	mg/L	9.6	9.4	0.20	C027179
Dissolved Manganese (Mn)	mg/L	0.0055	0.014	0.0040	C027179
Dissolved Molybdenum (Mo)	mg/L	0.0010	0.0013	0.00020	C028258
Dissolved Nickel (Ni)	mg/L	0.0011	0.0011	0.00050	C028258
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C027179
Dissolved Potassium (K)	mg/L	0.86	0.84	0.30	C027179
Dissolved Selenium (Se)	mg/L	0.00034	0.00036	0.00020	C028258
Dissolved Silicon (Si)	mg/L	1.8	1.6	0.50	C027179
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C028258
Dissolved Sodium (Na)	mg/L	7.4	7.3	0.50	C027179
Dissolved Strontium (Sr)	mg/L	0.23	0.22	0.020	C027179
Dissolved Sulphur (S)	mg/L	15	14	0.20	C027179
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C028258
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Uranium (U)	mg/L	0.00069	0.00071	0.00010	C028258
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	0.0030	C028258
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564044
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK006
Sample ID: AEMP-DS-02
Matrix: Water

Collected: 2025/07/19
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026025	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C026364	N/A	2025/07/22	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C026199	N/A	2025/07/22	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028306	2025/07/24	2025/07/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028298	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C026154	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C026362	N/A	2025/07/22	Adam Fishleigh
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C026423	N/A	2025/07/22	Adam Fishleigh
Total Sulphide	SPEC	C030030	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026609	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C026083	N/A	2025/07/22	Daryl Viktoria Noval

Bureau Veritas ID: DPK007
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/07/19
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha

Bureau Veritas Job #: C564044
Report Date: 2025/07/28

Advisian
Task Order#: pending, Line Item: 10
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK007
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/07/19
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026025	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C026364	N/A	2025/07/22	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C026199	N/A	2025/07/22	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028257	2025/07/24	2025/07/24	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028256	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C026154	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028356	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C026362	N/A	2025/07/22	Adam Fishleigh
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C026423	N/A	2025/07/22	Adam Fishleigh
Total Sulphide	SPEC	C030030	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026609	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C026083	N/A	2025/07/22	Daryl Viktoria Noval

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.7°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C025735	RRA	Method Blank	Oil and grease	2025/07/22	<2.0		mg/L	
C025740	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/07/22	<2.0		mg/L	
C026083	DVN	Method Blank	Turbidity	2025/07/22	<0.10		NTU	
C026199	KKC	Method Blank	True Colour	2025/07/22	<2.0		PtCo units	
C026362	AFI	Method Blank	Nitrite (N)	2025/07/22	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/07/22	<0.040		mg/L	
C026364	TOR	Method Blank	Chloride (Cl)	2025/07/22	<1.0		mg/L	
			Sulphate (SO4)	2025/07/22	<1.0		mg/L	
C026423	AFI	Method Blank	Orthophosphate (P)	2025/07/22	<0.0030		mg/L	
C026598	HE1	Method Blank	Total Dissolved Solids	2025/07/24	<10		mg/L	
C026609	HE1	Method Blank	Total Suspended Solids	2025/07/23	<1.0		mg/L	
C026626	BQU	Method Blank	O-TERPHENYL (sur.)	2025/07/23		101	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23	<0.10		mg/L	
C026635	NK3	Method Blank	D10-ANTHRACENE (sur.)	2025/07/23		101	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		82	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23	<0.00010		mg/L	
			Acenaphthylene	2025/07/23	<0.00010		mg/L	
			Acridine	2025/07/23	<0.000040		mg/L	
			Anthracene	2025/07/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/07/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/07/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/07/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/07/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/07/23	<0.000050		mg/L	
			Chrysene	2025/07/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/07/23	<0.0000075		mg/L	
			Fluoranthene	2025/07/23	<0.000010		mg/L	
			Fluorene	2025/07/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/07/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			Naphthalene	2025/07/23	<0.00010		mg/L	
			Phenanthrene	2025/07/23	<0.000050		mg/L	
			Perylene	2025/07/23	<0.000050		mg/L	
			Pyrene	2025/07/23	<0.000020		mg/L	
			Quinoline	2025/07/23	<0.00020		mg/L	
C026742	AP1	Method Blank	Chemical Oxygen Demand	2025/07/23	<10		mg/L	
C026813	KKM	Method Blank	Dissolved Mercury (Hg)	2025/07/23	<0.0019		ug/L	
C026999	WPK	Method Blank	1,4-Difluorobenzene (sur.)	2025/07/25		107	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		90	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		98	%	50 - 140
			Benzene	2025/07/25	<0.00040		mg/L	
			Toluene	2025/07/25	<0.00040		mg/L	
			Ethylbenzene	2025/07/25	<0.00040		mg/L	
			m & p-Xylene	2025/07/25	<0.00080		mg/L	
			o-Xylene	2025/07/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/07/25	<0.10		mg/L	
C027179	VSC	Method Blank	Dissolved Iron (Fe)	2025/07/23	<0.060		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Lithium (Li)	2025/07/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/07/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/07/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/07/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/07/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/07/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/07/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/07/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/07/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/07/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/07/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/07/23	<0.30		mg/L	
C027347	MAP	Method Blank	Total Nitrogen (N)	2025/07/23	<0.020		mg/L	
C027760	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/07/24	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/07/24	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/07/24	<1.0		mg/L	
			Carbonate (CO3)	2025/07/24	<1.0		mg/L	
			Hydroxide (OH)	2025/07/24	<1.0		mg/L	
C027763	AYE	Method Blank	Conductivity	2025/07/24	<2.0		uS/cm	
C028256	JAB	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028257	BYM	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	
C028258	JAB	Method Blank	Dissolved Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/07/24	<0.0010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/07/24	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028298	JAB	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028302	ISW	Method Blank	Total Ammonia (N)	2025/07/24	<0.015		mg/L	
C028306	VSC	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	
C028356	ISW	Method Blank	Total Ammonia (N)	2025/07/24	<0.015		mg/L	
C028399	TJ4	Method Blank	Total Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C028449	KKM	Method Blank	Total Mercury (Hg)	2025/07/24	<0.0019		ug/L	
C028606	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/07/24	<0.50		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C030030	LYV	Method Blank	Total Sulphide	2025/07/25	<0.0018		mg/L	
C026626	BQU	Matrix Spike [DPK006-10]	O-TERPHENYL (sur.)	2025/07/23		102	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23		101	%	60 - 140
C026635	NK3	Matrix Spike [DPK007-10]	D10-ANTHRACENE (sur.)	2025/07/23		105	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		104	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		86	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		73	%	50 - 130
			Acenaphthene	2025/07/23		90	%	50 - 130
			Acenaphthylene	2025/07/23		84	%	50 - 130
			Acridine	2025/07/23		91	%	50 - 130
			Anthracene	2025/07/23		97	%	50 - 130
			Benzo(a)anthracene	2025/07/23		100	%	50 - 130
			Benzo(b&j)fluoranthene	2025/07/23		103	%	50 - 130
			Benzo(k)fluoranthene	2025/07/23		106	%	50 - 130
			Benzo(g,h,i)perylene	2025/07/23		101	%	50 - 130
			Benzo(c)phenanthrene	2025/07/23		105	%	50 - 130
			Benzo(a)pyrene	2025/07/23		102	%	50 - 130
			Benzo(e)pyrene	2025/07/23		94	%	50 - 130
			Chrysene	2025/07/23		99	%	50 - 130
			Dibenz(a,h)anthracene	2025/07/23		106	%	50 - 130
			Fluoranthene	2025/07/23		100	%	50 - 130
			Fluorene	2025/07/23		95	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/07/23		100	%	50 - 130
			1-Methylnaphthalene	2025/07/23		63	%	50 - 130
			2-Methylnaphthalene	2025/07/23		70	%	50 - 130
			Naphthalene	2025/07/23		73	%	50 - 130
			Phenanthrene	2025/07/23		97	%	50 - 130
			Perylene	2025/07/23		98	%	50 - 130
			Pyrene	2025/07/23		101	%	50 - 130
			Quinoline	2025/07/23		106	%	50 - 130
C025735	RRA	LCS	Oil and grease	2025/07/22		96	%	70 - 130
C025740	RRA	LCS	Total Petroleum Hydrocarbon	2025/07/22		95	%	70 - 130
C026083	DVN	LCS	Turbidity	2025/07/22		99	%	80 - 120
C026199	KKC	LCS	True Colour	2025/07/22		92	%	80 - 120
C026362	AFI	LCS	Nitrite (N)	2025/07/22		107	%	80 - 120
			Nitrate plus Nitrite (N)	2025/07/22		107	%	80 - 120
C026364	TOR	LCS	Chloride (Cl)	2025/07/22		102	%	80 - 120
			Sulphate (SO4)	2025/07/22		100	%	80 - 120
C026423	AFI	LCS	Orthophosphate (P)	2025/07/22		102	%	80 - 120
C026598	HE1	LCS	Total Dissolved Solids	2025/07/24		98	%	80 - 120
C026609	HE1	LCS	Total Suspended Solids	2025/07/23		100	%	80 - 120
C026626	BQU	LCS	O-TERPHENYL (sur.)	2025/07/23		104	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23		105	%	60 - 140
C026635	NK3	LCS	D10-ANTHRACENE (sur.)	2025/07/23		100	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23		70	%	50 - 130
			Acenaphthylene	2025/07/23		69	%	50 - 130
			Acridine	2025/07/23		85	%	50 - 130
			Anthracene	2025/07/23		89	%	50 - 130
			Benzo(a)anthracene	2025/07/23		96	%	50 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzo(b&j)fluoranthene	2025/07/23		100	%	50 - 130
			Benzo(k)fluoranthene	2025/07/23		104	%	50 - 130
			Benzo(g,h,i)perylene	2025/07/23		96	%	50 - 130
			Benzo(c)phenanthrene	2025/07/23		100	%	50 - 130
			Benzo(a)pyrene	2025/07/23		97	%	50 - 130
			Benzo(e)pyrene	2025/07/23		90	%	50 - 130
			Chrysene	2025/07/23		93	%	50 - 130
			Dibenz(a,h)anthracene	2025/07/23		101	%	50 - 130
			Fluoranthene	2025/07/23		94	%	50 - 130
			Fluorene	2025/07/23		74	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/07/23		95	%	50 - 130
			1-Methylnaphthalene	2025/07/23		56	%	50 - 130
			2-Methylnaphthalene	2025/07/23		62	%	50 - 130
			Naphthalene	2025/07/23		74	%	50 - 130
			Phenanthrene	2025/07/23		87	%	50 - 130
			Perylene	2025/07/23		93	%	50 - 130
			Pyrene	2025/07/23		94	%	50 - 130
			Quinoline	2025/07/23		106	%	50 - 130
C026742	AP1	LCS	Chemical Oxygen Demand	2025/07/23		102	%	80 - 120
C026813	KKM	LCS	Dissolved Mercury (Hg)	2025/07/23		96	%	80 - 120
C026999	WPK	LCS	1,4-Difluorobenzene (sur.)	2025/07/25		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		94	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		94	%	50 - 140
			Benzene	2025/07/25		89	%	60 - 130
			Toluene	2025/07/25		95	%	60 - 130
			Ethylbenzene	2025/07/25		97	%	60 - 130
			m & p-Xylene	2025/07/25		100	%	60 - 130
			o-Xylene	2025/07/25		100	%	60 - 130
			F1 (C6-C10)	2025/07/25		104	%	60 - 140
C027179	VSC	LCS	Dissolved Iron (Fe)	2025/07/23		110	%	80 - 120
			Dissolved Lithium (Li)	2025/07/23		94	%	80 - 120
			Dissolved Magnesium (Mg)	2025/07/23		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/07/23		109	%	80 - 120
			Dissolved Potassium (K)	2025/07/23		97	%	80 - 120
			Dissolved Sodium (Na)	2025/07/23		95	%	80 - 120
			Dissolved Strontium (Sr)	2025/07/23		98	%	80 - 120
			Dissolved Sulphur (S)	2025/07/23		103	%	80 - 120
			Dissolved Phosphorus (P)	2025/07/23		104	%	80 - 120
			Dissolved Barium (Ba)	2025/07/23		101	%	80 - 120
			Dissolved Silicon (Si)	2025/07/23		103	%	80 - 120
			Dissolved Boron (B)	2025/07/23		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/07/23		96	%	80 - 120
C027347	MAP	LCS	Total Nitrogen (N)	2025/07/23		102	%	80 - 120
C027760	AYE	LCS	Alkalinity (Total as CaCO3)	2025/07/24		101	%	80 - 120
C027762	AYE	LCS	pH	2025/07/24		100	%	97 - 103
C027763	AYE	LCS	Conductivity	2025/07/24		100	%	90 - 110
C028256	JAB	LCS	Total Aluminum (Al)	2025/07/24		111	%	80 - 120
			Total Chromium (Cr)	2025/07/24		109	%	80 - 120
			Total Cobalt (Co)	2025/07/24		108	%	80 - 120
			Total Copper (Cu)	2025/07/24		108	%	80 - 120
			Total Lead (Pb)	2025/07/24		108	%	80 - 120
			Total Antimony (Sb)	2025/07/24		110	%	80 - 120

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Molybdenum (Mo)	2025/07/24		113	%	80 - 120
			Total Nickel (Ni)	2025/07/24		108	%	80 - 120
			Total Selenium (Se)	2025/07/24		108	%	80 - 120
			Total Silver (Ag)	2025/07/24		111	%	80 - 120
			Total Arsenic (As)	2025/07/24		109	%	80 - 120
			Total Thallium (Tl)	2025/07/24		110	%	80 - 120
			Total Tin (Sn)	2025/07/24		110	%	80 - 120
			Total Titanium (Ti)	2025/07/24		109	%	80 - 120
			Total Uranium (U)	2025/07/24		113	%	80 - 120
			Total Vanadium (V)	2025/07/24		108	%	80 - 120
			Total Zinc (Zn)	2025/07/24		109	%	80 - 120
			Total Beryllium (Be)	2025/07/24		110	%	80 - 120
C028257	BYM	LCS	Total Iron (Fe)	2025/07/24		107	%	80 - 120
			Total Lithium (Li)	2025/07/24		93	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		99	%	80 - 120
			Total Manganese (Mn)	2025/07/24		105	%	80 - 120
			Total Potassium (K)	2025/07/24		94	%	80 - 120
			Total Sodium (Na)	2025/07/24		92	%	80 - 120
			Total Strontium (Sr)	2025/07/24		96	%	80 - 120
			Total Sulphur (S)	2025/07/24		93	%	80 - 120
			Total Phosphorus (P)	2025/07/24		98	%	80 - 120
			Total Barium (Ba)	2025/07/24		100	%	80 - 120
			Total Silicon (Si)	2025/07/24		100	%	80 - 120
			Total Boron (B)	2025/07/24		95	%	80 - 120
			Total Calcium (Ca)	2025/07/24		90	%	80 - 120
C028258	JAB	LCS	Dissolved Aluminum (Al)	2025/07/24		114	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/24		103	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/24		100	%	80 - 120
			Dissolved Copper (Cu)	2025/07/24		101	%	80 - 120
			Dissolved Lead (Pb)	2025/07/24		100	%	80 - 120
			Dissolved Antimony (Sb)	2025/07/24		107	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/24		112	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/24		101	%	80 - 120
			Dissolved Selenium (Se)	2025/07/24		113	%	80 - 120
			Dissolved Silver (Ag)	2025/07/24		104	%	80 - 120
			Dissolved Arsenic (As)	2025/07/24		107	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/24		106	%	80 - 120
			Dissolved Tin (Sn)	2025/07/24		104	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/24		111	%	80 - 120
			Dissolved Uranium (U)	2025/07/24		97	%	80 - 120
			Dissolved Vanadium (V)	2025/07/24		104	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/24		102	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/24		111	%	80 - 120
C028298	JAB	LCS	Total Aluminum (Al)	2025/07/24		107	%	80 - 120
			Total Chromium (Cr)	2025/07/24		107	%	80 - 120
			Total Cobalt (Co)	2025/07/24		104	%	80 - 120
			Total Copper (Cu)	2025/07/24		105	%	80 - 120
			Total Lead (Pb)	2025/07/24		104	%	80 - 120
			Total Antimony (Sb)	2025/07/24		108	%	80 - 120
			Total Molybdenum (Mo)	2025/07/24		108	%	80 - 120
			Total Nickel (Ni)	2025/07/24		105	%	80 - 120
			Total Selenium (Se)	2025/07/24		105	%	80 - 120

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silver (Ag)	2025/07/24		106	%	80 - 120
			Total Arsenic (As)	2025/07/24		106	%	80 - 120
			Total Thallium (Tl)	2025/07/24		107	%	80 - 120
			Total Tin (Sn)	2025/07/24		108	%	80 - 120
			Total Titanium (Ti)	2025/07/24		107	%	80 - 120
			Total Uranium (U)	2025/07/24		108	%	80 - 120
			Total Vanadium (V)	2025/07/24		106	%	80 - 120
			Total Zinc (Zn)	2025/07/24		104	%	80 - 120
			Total Beryllium (Be)	2025/07/24		105	%	80 - 120
C028302	ISW	LCS	Total Ammonia (N)	2025/07/24		106	%	80 - 120
C028306	VSC	LCS	Total Iron (Fe)	2025/07/24		108	%	80 - 120
			Total Lithium (Li)	2025/07/24		106	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		105	%	80 - 120
			Total Manganese (Mn)	2025/07/24		107	%	80 - 120
			Total Potassium (K)	2025/07/24		105	%	80 - 120
			Total Sodium (Na)	2025/07/24		103	%	80 - 120
			Total Strontium (Sr)	2025/07/24		98	%	80 - 120
			Total Sulphur (S)	2025/07/24		99	%	80 - 120
			Total Phosphorus (P)	2025/07/24		103	%	80 - 120
			Total Barium (Ba)	2025/07/24		102	%	80 - 120
			Total Silicon (Si)	2025/07/24		103	%	80 - 120
			Total Boron (B)	2025/07/24		99	%	80 - 120
			Total Calcium (Ca)	2025/07/24		102	%	80 - 120
C028356	ISW	LCS	Total Ammonia (N)	2025/07/24		108	%	80 - 120
C028399	TJ4	LCS	Total Organic Carbon (C)	2025/07/24		92	%	80 - 120
C028449	KKM	LCS	Total Mercury (Hg)	2025/07/24		106	%	80 - 120
C028606	TJ4	LCS	Dissolved Organic Carbon (C)	2025/07/24		97	%	80 - 120
C030030	LYV	LCS	Total Sulphide	2025/07/25		97	%	80 - 120
C027347	MAP	SRM	Total Nitrogen (N)	2025/07/23		103	%	80 - 120

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

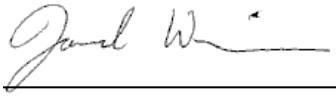
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

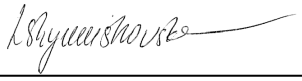
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Rahul Suryawanshi, Senior Analyst

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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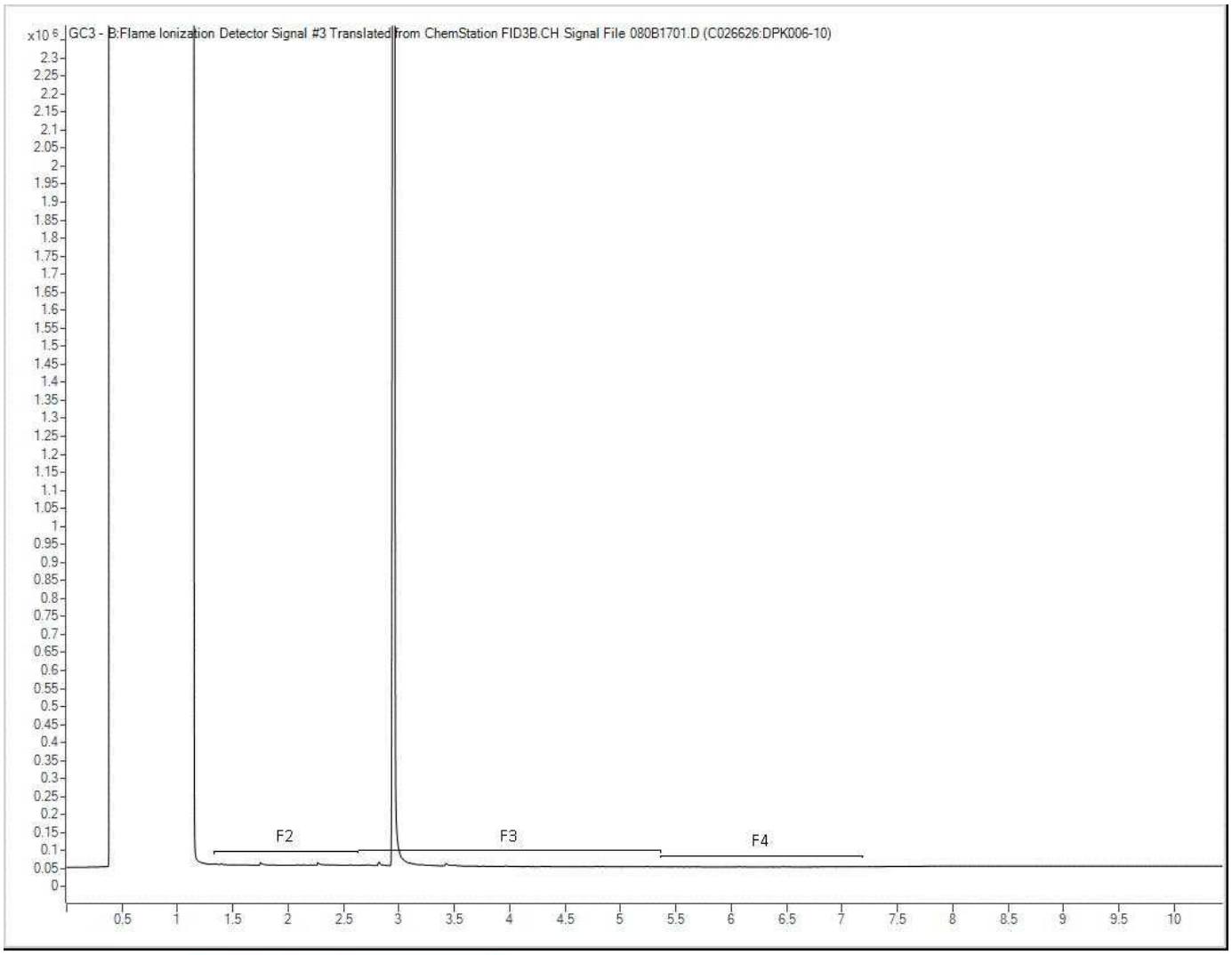
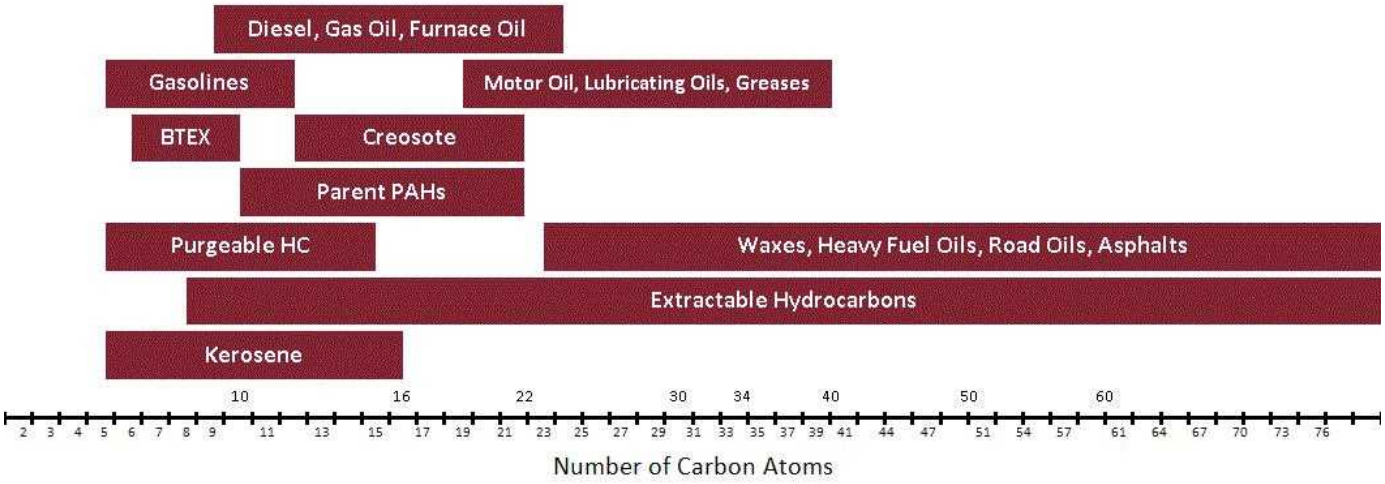
Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564044
Report Date: 2025/07/28
Bureau Veritas Sample: DPK006

Advisian
Task Order#:pending10Line Item:10
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-02

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram





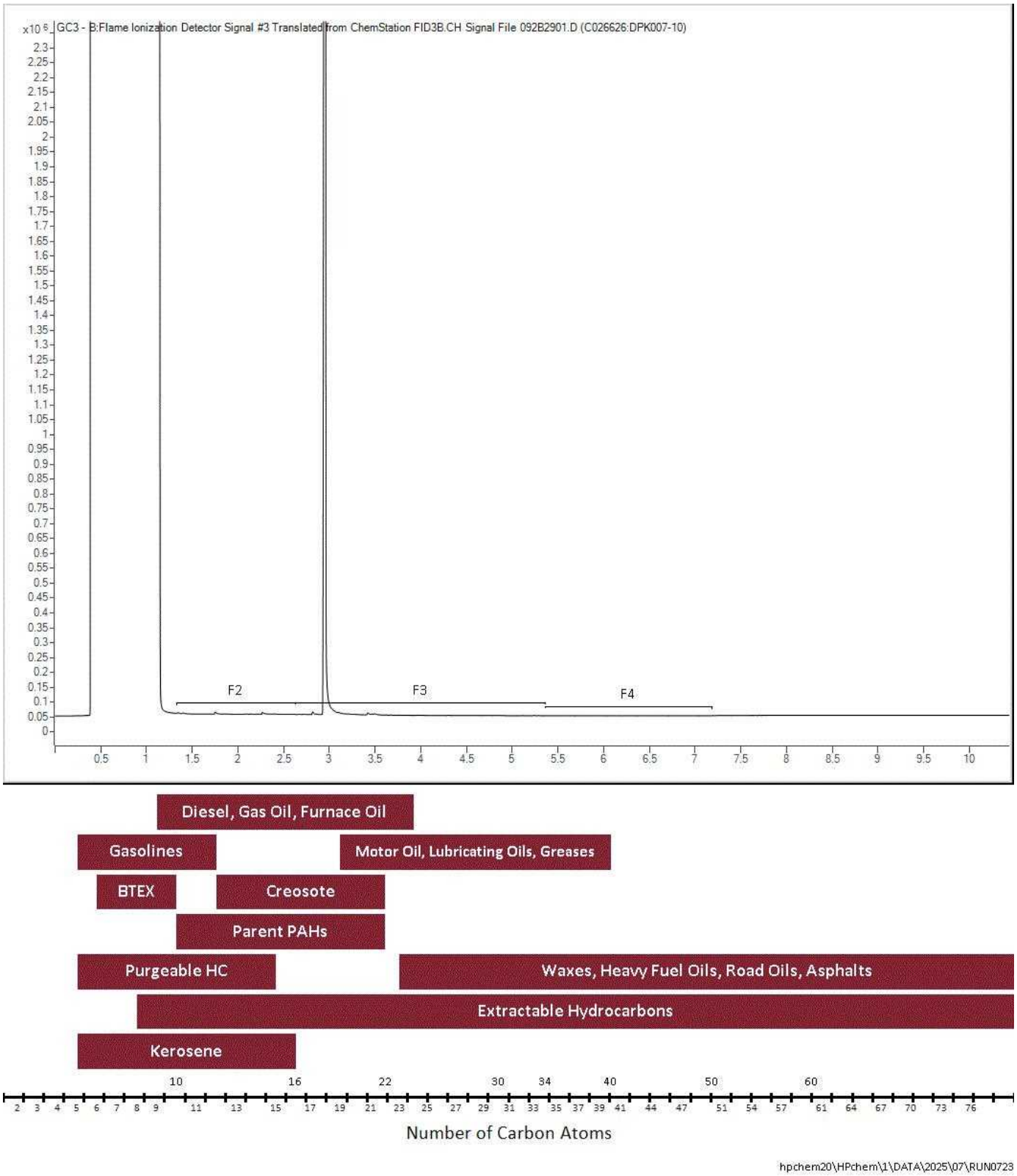
hpchem20\HPchem\1\DATA\2025\07\RUN0723

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C564044
Report Date: 2025/07/28
Bureau Veritas Sample: DPK007

Advisian
Task Order#:pending10Line Item:10
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-04

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292221

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Alex Haigh	Contact Name: Alex Haigh
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7	Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7
Email: Alex.haigh@worley.com	Email: Alex.haigh@worley.com
Ph: 587-847-6249	Ph: 587-847-6249
Sampler Name (Print): S Gibb, L Glatiotis	Consultant Project #: 417085-59897-25200

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY: pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, TDS, Turbidity	Oil & grease	Toc, Doc, Sulphide	Nitrate, Nitrite, Ammonia (total) TKN	Orthophosphate	Sulphur - Total & Dissolved	COD	PAH, TPH
1	AEMP-DS-02		X			19	2025/07/19	15:29	X			X	X							X	X							X	X	X	X	X	X	X
2	AEMP-DS-04		X			19	2025/07/19	14:54	X			X	X							X	X							X	X	X	X	X	X	X
3																																		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

MED2-2025-07-591
C564044

IOL SITE LOCATION: Norman Wells, NT
IOL PROJECT # (if applicable): NA
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: emails: canada.chemistry@worley.com, ircal-JOBdatatrack@worley.com, stacy.gibb@worley.com, JES 260 1436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	3	3	2
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID # MCAL			
SEAL PRESENT	✓		TEMP °C	1	2	2
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

LAB USE ONLY
MAXXAM JOB # C564044

SAMPLES
LABELED BY: GHP
VERIFIED BY: EPL

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	STACY GIBB	2025/07/20	10:00	1.	BRENTON MATH	2025/07/21	13:46
2.	BRENTON MATH	2025/07/21	18:00	2.	Jaskirat Bajwa	2025/07/22	06:30
3.				3.			

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292229

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690319
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564064
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	3	AB SOP-00005	SM 24 2320 B m
Send Part to Archive (1)	3		
BTEX/F1 in Water by HS GC/MS/FID (1)	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	3		Auto Calc
Cadmium - low level CCME - Dissolved (1)	3		Auto Calc
Cadmium - low level CCME (Total) (1)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	3	AB SOP-00016	SM 24 5220D m
True Colour (1)	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	3	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	3	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	3		Auto Calc
Hardness (1)	3		Auto Calc
Mercury (Dissolved) by CV (1, 4)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	3		Auto Calc
Ammonia-N (Total) (1)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	3		Auto Calc
Oil and Grease by IR (1)	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	3		Auto Calc
PAH in Water by GC/MS (1)	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	3	AB SOP-00080	SM 24 4500 S2-A D Fm

Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292229

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690319
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564064
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue) (1)	3	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total) (1)	3		Auto Calc
Nitrogen (Total) (1)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (1, 8)	3	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	3	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292229

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690319
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564064

Received: 2025/07/21, 13:46

(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Alejandro Escobar-Lopez
Customer Service Representative
28 Jul 2025 17:49:30

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Job #: C564064
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DPK096	DPK097	DPK098			DPK098		
Sampling Date		2025/07/18 11:47	2025/07/17 15:09	2025/07/17 15:54			2025/07/17 15:54		
COC Number		292229	292229	292229			292229		
	UNITS	**AEMP-DS-09**	**AEMP-US-05**	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C026626	<0.10	0.10	C026626
Volatiles									
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C026999			
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C026999			
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C026999			
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C026999			
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C026999			
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C026025			
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C026025			
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C026999			
Extraction Surrogate Recovery (%)									
O-TERPHENYL (sur.)	%	97	97	101		C026626	101		C026626
Instrument Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	108	108	109		C026999			
4-Bromofluorobenzene (sur.)	%	93	93	85		C026999			
D4-1,2-Dichloroethane (sur.)	%	102	102	101		C026999			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C564064
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DPK096		DPK097	DPK098		
Sampling Date		2025/07/18 11:47		2025/07/17 15:09	2025/07/17 15:54		
COC Number		292229		292229	292229		
	UNITS	**AEMP-DS-09**	**RDL**	**AEMP-US-05**	**AEMP-US-04**	**RDL**	**QC Batch**
Calculated Parameters							
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.27	0.20	0.40	0.094	0.040	C025701
Nutrients							
Total Nitrogen (N)	mg/L	0.32 (1)	0.20	0.46	0.15	0.020	C027347

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK096	DPK097	DPK098			DPK098		
Sampling Date		2025/07/18 11:47	2025/07/17 15:09	2025/07/17 15:54			2025/07/17 15:54		
COC Number		292229	292229	292229			292229		
	UNITS	**AEMP-DS-09**	**AEMP-US-05**	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**
Elements									
Total Cadmium (Cd)	mg/L	0.00020	<0.000020	<0.000020	0.000020	C025826			
Total Mercury (Hg)	ug/L	0.013	<0.0019	<0.0019	0.0019	C028449			
Total Aluminum (Al)	mg/L	3.1	0.045	0.049	0.0030	C028298	0.053	0.0030	C028298
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	<0.00060	0.00060	C028298	<0.00060	0.00060	C028298
Total Arsenic (As)	mg/L	0.0028	0.00025	0.00024	0.00020	C028298	0.00022	0.00020	C028298
Total Barium (Ba)	mg/L	0.18	0.087	0.089	0.010	C028306	0.088	0.010	C028306
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C028298	<0.0010	0.0010	C028298
Total Boron (B)	mg/L	<0.020	0.041	0.038	0.020	C028306	0.042	0.020	C028306
Total Calcium (Ca)	mg/L	46	90	91	0.30	C028306	90	0.30	C028306
Total Chromium (Cr)	mg/L	0.0053	<0.0010	<0.0010	0.0010	C028298	<0.0010	0.0010	C028298
Total Cobalt (Co)	mg/L	0.0031	<0.00030	<0.00030	0.00030	C028298	<0.00030	0.00030	C028298
Total Copper (Cu)	mg/L	0.0087	<0.0010	<0.0010	0.0010	C028298	<0.0010	0.0010	C028298
Total Iron (Fe)	mg/L	6.6	0.12	0.13	0.060	C028306	0.13	0.060	C028306
Total Lead (Pb)	mg/L	0.0036	<0.00020	<0.00020	0.00020	C028298	<0.00020	0.00020	C028298
Total Lithium (Li)	mg/L	<0.020	<0.020	<0.020	0.020	C028306	<0.020	0.020	C028306
Total Magnesium (Mg)	mg/L	13	33	33	0.20	C028306	33	0.20	C028306
Total Manganese (Mn)	mg/L	0.10	0.0098	0.010	0.0040	C028306	0.010	0.0040	C028306
Total Molybdenum (Mo)	mg/L	0.0017	0.0019	0.0021	0.00020	C028298	0.0020	0.00020	C028298
Total Nickel (Ni)	mg/L	0.011	0.00065	0.00075	0.00050	C028298	0.00067	0.00050	C028298
Total Phosphorus (P)	mg/L	0.17	<0.10	<0.10	0.10	C028306	<0.10	0.10	C028306
Total Potassium (K)	mg/L	2.1	1.3	1.3	0.30	C028306	1.3	0.30	C028306
Total Selenium (Se)	mg/L	0.00066	0.00023	0.00021	0.00020	C028298	0.00021	0.00020	C028298
Total Silicon (Si)	mg/L	5.5	3.7	3.1	0.50	C028306	3.1	0.50	C028306
Total Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C028298	<0.00010	0.00010	C028298
Total Sodium (Na)	mg/L	6.8	34	34	0.50	C028306	34	0.50	C028306
Total Strontium (Sr)	mg/L	0.26	1.6	1.6	0.020	C028306	1.6	0.020	C028306
Total Sulphur (S)	mg/L	18	60	61	0.20	C028306	60	0.20	C028306
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C028298	<0.00020	0.00020	C028298
Total Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C028298	<0.0010	0.0010	C028298
Total Titanium (Ti)	mg/L	0.031	0.0011	0.0016	0.0010	C028298	<0.0010	0.0010	C028298

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C564064
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Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK096	DPK097	DPK098			DPK098		
Sampling Date		2025/07/18 11:47	2025/07/17 15:09	2025/07/17 15:54			2025/07/17 15:54		
COC Number		292229	292229	292229			292229		
	UNITS	**AEMP-DS-09**	**AEMP-US-05**	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L	0.0012	0.0013	0.0013	0.00010	C028298	0.0013	0.00010	C028298
Total Vanadium (V)	mg/L	0.0096	<0.0010	<0.0010	0.0010	C028298	<0.0010	0.0010	C028298
Total Zinc (Zn)	mg/L	0.071	<0.0030	<0.0030	0.0030	C028298	<0.0030	0.0030	C028298

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK096			DPK097			DPK097		
Sampling Date		2025/07/18 11:47			2025/07/17 15:09			2025/07/17 15:09		
COC Number		292229			292229			292229		
	UNITS	**AEMP-DS-09**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**	**AEMP-US-05 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	140	0.50	C026111	350	0.50	C026111			
Ion Balance (% Difference)	%	9.4	N/A	C026071	1.7	N/A	C026154			
Nitrate (N)	mg/L	0.056	0.040	C026076	0.057	0.040	C026076			
Nitrate (NO3)	mg/L	0.25	0.18	C026073	0.25	0.18	C026073			
Nitrite (NO2)	mg/L	<0.13	0.13	C026073	<0.13	0.13	C026073			
Sulphide (as H2S)	mg/L	0.027	0.0020	C026095	<0.0020	0.0020	C026095			
Demand Parameters										
Chemical Oxygen Demand	mg/L	43	10	C026742	<10 (1)	10	C026742			
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C026107	<0.000020	0.000020	C026107			
Misc. Inorganics										
Conductivity	uS/cm	300	2.0	C027763	770	2.0	C027763			
Dissolved Organic Carbon (C)	mg/L	3.7	0.50	C028606	2.9	0.50	C031998	3.0	0.50	C031998
pH	pH	7.62	N/A	C027762	8.25	N/A	C027762			
Total Organic Carbon (C)	mg/L	3.9	0.50	C028399	1.5	0.50	C032115	1.8	0.50	C032115
Total Dissolved Solids	mg/L	190	10	C026598	490	10	C026598			
Total Suspended Solids	mg/L	220	1.0	C026609	1.9	1.0	C026609			
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760			
Alkalinity (Total as CaCO3)	mg/L	120	1.0	C027760	190	1.0	C027760			
Bicarbonate (HCO3)	mg/L	140	1.0	C027760	230	1.0	C027760			
Carbonate (CO3)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760			
Hydroxide (OH)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760			
Total Sulphide	mg/L	0.025	0.0018	C029349	<0.0018	0.0018	C029349			
Chloride (Cl)	mg/L	6.4	1.0	C026364	39	1.0	C026364	39	1.0	C026364
Sulphate (SO4)	mg/L	55	1.0	C026364	180	5.0	C026364	180	5.0	C026364
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C028302	<0.015	0.015	C028302			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK096			DPK097			DPK097		
Sampling Date		2025/07/18 11:47			2025/07/17 15:09			2025/07/17 15:09		
COC Number		292229			292229			292229		
	UNITS	**AEMP-DS-09**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**	**AEMP-US-05 Lab-Dup**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L	<0.0030	0.0030	C026423	<0.0030	0.0030	C026423			
Nitrite (N)	mg/L	<0.040	0.040	C026362	<0.040	0.040	C026362			
Nitrate plus Nitrite (N)	mg/L	0.056	0.040	C026362	0.057	0.040	C026362			
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C025735	<2.0	2.0	C025735			
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C025740	<2.0	2.0	C025740			
Physical Properties										
True Colour	PtCo units	16	2.0	C026199	3.7	2.0	C026199			
Physical Properties										
Turbidity	NTU	200 (1)	0.10	C027204	0.56	0.10	C027204			

RDL = Reportable Detection Limit
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(1) Sample was analyzed after holding time expired.

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK098			DPK098		
Sampling Date		2025/07/17 15:54			2025/07/17 15:54		
COC Number		292229			292229		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters							
Hardness (CaCO3)	mg/L	340	0.50	C026111			
Ion Balance (% Difference)	%	3.6	N/A	C026154			
Nitrate (N)	mg/L	0.057	0.040	C026076			
Nitrate (NO3)	mg/L	0.25	0.18	C026073			
Nitrite (NO2)	mg/L	<0.13	0.13	C026073			
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C026095			
Demand Parameters							
Chemical Oxygen Demand	mg/L	<10 (1)	10	C026742			
Elements							
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C026107			
Misc. Inorganics							
Conductivity	uS/cm	780	2.0	C027763			
Dissolved Organic Carbon (C)	mg/L	2.7	0.50	C031998			
pH	pH	8.28	N/A	C027762			
Total Organic Carbon (C)	mg/L	1.9	0.50	C032115			
Total Dissolved Solids	mg/L	490	10	C026598			
Total Suspended Solids	mg/L	<1.0	1.0	C026609			
Anions							
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C027760			
Alkalinity (Total as CaCO3)	mg/L	200	1.0	C027760			
Bicarbonate (HCO3)	mg/L	240	1.0	C027760			
Carbonate (CO3)	mg/L	<1.0	1.0	C027760			
Hydroxide (OH)	mg/L	<1.0	1.0	C027760			
Total Sulphide	mg/L	<0.0018	0.0018	C029349			
Chloride (Cl)	mg/L	40	1.0	C026364			
Sulphate (SO4)	mg/L	180	5.0	C026364			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK098			DPK098		
Sampling Date		2025/07/17 15:54			2025/07/17 15:54		
COC Number		292229			292229		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**
Nutrients							
Total Ammonia (N)	mg/L	<0.015	0.015	C028302			
Orthophosphate (P)	mg/L	<0.0030	0.0030	C026423	<0.0030	0.0030	C026423
Nitrite (N)	mg/L	<0.040	0.040	C026362			
Nitrate plus Nitrite (N)	mg/L	0.057	0.040	C026362			
Misc. Organics							
Oil and grease	mg/L	<2.0	2.0	C025735			
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C025740			
Physical Properties							
True Colour	PtCo units	6.1	2.0	C026199			
Physical Properties							
Turbidity	NTU	0.57	0.10	C027204			

RDL = Reportable Detection Limit
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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DPK096	DPK097	DPK098		
Sampling Date		2025/07/18 11:47	2025/07/17 15:09	2025/07/17 15:54		
COC Number		292229	292229	292229		
	UNITS	**AEMP-DS-09**	**AEMP-US-05**	**AEMP-US-04**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C026638
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C026635
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C026635
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C026635
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C026635
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C026635
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C026635
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C026635
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C026635
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C026635
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C026635
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C026635
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C026635
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C026635
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C026635
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C026635
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C026635
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C026635
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C026635
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C026635
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	106	104	91		C026635
D8-ACENAPHTHYLENE (sur.)	%	89	88	77		C026635
D8-NAPHTHALENE (sur.)	%	83	81	72		C026635
TERPHENYL-D14 (sur.)	%	107	103	91		C026635
RDL = Reportable Detection Limit						

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DPK098		
Sampling Date		2025/07/17 15:54		
COC Number		292229		
	UNITS	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**
Polycyclic Aromatics				
Acenaphthene	mg/L	<0.00010	0.00010	C026635
Acenaphthylene	mg/L	<0.00010	0.00010	C026635
Acridine	mg/L	<0.000040	0.000040	C026635
Anthracene	mg/L	<0.000010	0.000010	C026635
Benzo(a)anthracene	mg/L	<0.0000085	0.0000085	C026635
Benzo(b&j)fluoranthene	mg/L	<0.0000085	0.0000085	C026635
Benzo(k)fluoranthene	mg/L	<0.0000085	0.0000085	C026635
Benzo(g,h,i)perylene	mg/L	<0.0000085	0.0000085	C026635
Benzo(c)phenanthrene	mg/L	<0.000050	0.000050	C026635
Benzo(a)pyrene	mg/L	<0.0000075	0.0000075	C026635
Benzo(e)pyrene	mg/L	<0.000050	0.000050	C026635
Chrysene	mg/L	<0.0000085	0.0000085	C026635
Dibenz(a,h)anthracene	mg/L	<0.0000075	0.0000075	C026635
Fluoranthene	mg/L	<0.000010	0.000010	C026635
Fluorene	mg/L	<0.000050	0.000050	C026635
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	0.0000085	C026635
1-Methylnaphthalene	mg/L	<0.00010	0.00010	C026635
2-Methylnaphthalene	mg/L	<0.00010	0.00010	C026635
Naphthalene	mg/L	<0.00010	0.00010	C026635
Phenanthrene	mg/L	<0.000050	0.000050	C026635
Perylene	mg/L	<0.000050	0.000050	C026635
Pyrene	mg/L	<0.000020	0.000020	C026635
Quinoline	mg/L	<0.00020	0.00020	C026635
Extraction Surrogate Recovery (%)				
D10-ANTHRACENE (sur.)	%	90		C026635
D8-ACENAPHTHYLENE (sur.)	%	90		C026635
D8-NAPHTHALENE (sur.)	%	83		C026635
TERPHENYL-D14 (sur.)	%	90		C026635

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C564064
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DPK096	DPK097	DPK098		
Sampling Date		2025/07/18 11:47	2025/07/17 15:09	2025/07/17 15:54		
COC Number		292229	292229	292229		
	UNITS	**AEMP-DS-09**	**AEMP-US-05**	**AEMP-US-04**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	0.0019	C026813
RDL = Reportable Detection Limit						

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Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPK096	DPK097	DPK098		
Sampling Date		2025/07/18 11:47	2025/07/17 15:09	2025/07/17 15:54		
COC Number		292229	292229	292229		
	UNITS	**AEMP-DS-09**	**AEMP-US-05**	**AEMP-US-04**	**RDL**	**QC Batch**
Elements						
Dissolved Aluminum (Al)	mg/L	0.039	0.0040	0.015	0.0030	C028258
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	<0.00060	0.00060	C028258
Dissolved Arsenic (As)	mg/L	0.00032	<0.00020	<0.00020	0.00020	C028258
Dissolved Barium (Ba)	mg/L	0.047	0.082	0.084	0.010	C027179
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C028258
Dissolved Boron (B)	mg/L	<0.020	0.039	0.038	0.020	C027179
Dissolved Calcium (Ca)	mg/L	37	85	83	0.30	C027179
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C028258
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	<0.00030	0.00030	C028258
Dissolved Copper (Cu)	mg/L	0.0017	<0.0010	<0.0010	0.0010	C028258
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	<0.060	0.060	C027179
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C028258
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	<0.020	0.020	C027179
Dissolved Magnesium (Mg)	mg/L	11	32	31	0.20	C027179
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0085	0.0070	0.0040	C027179
Dissolved Molybdenum (Mo)	mg/L	0.0012	0.0020	0.0019	0.00020	C028258
Dissolved Nickel (Ni)	mg/L	0.0013	0.00060	0.00057	0.00050	C028258
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	<0.10	0.10	C027179
Dissolved Potassium (K)	mg/L	0.88	1.2	1.3	0.30	C027179
Dissolved Selenium (Se)	mg/L	0.00046	<0.00020	<0.00020	0.00020	C028258
Dissolved Silicon (Si)	mg/L	2.1	2.6	2.6	0.50	C027179
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C028258
Dissolved Sodium (Na)	mg/L	6.4	32	32	0.50	C027179
Dissolved Strontium (Sr)	mg/L	0.24	1.6	1.6	0.020	C027179
Dissolved Sulphur (S)	mg/L	18	64	63	0.20	C027179
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C028258
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C028258
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C028258
Dissolved Uranium (U)	mg/L	0.00085	0.0011	0.0011	0.00010	C028258
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C028258
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	<0.0030	0.0030	C028258
RDL = Reportable Detection Limit						

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Bureau Veritas Job #: C564064
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK096
Sample ID: AEMP-DS-09
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026025	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C026364	N/A	2025/07/22	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C026199	N/A	2025/07/22	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028306	2025/07/24	2025/07/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028298	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C026071	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C026362	N/A	2025/07/22	Adam Fishleigh
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C026423	N/A	2025/07/22	Adam Fishleigh
Total Sulphide	SPEC	C029349	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026609	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027204	N/A	2025/07/23	Amy Phan

Bureau Veritas ID: DPK097
Sample ID: AEMP-US-05
Matrix: Water

Collected: 2025/07/17
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha

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Bureau Veritas Job #: C564064
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK097
Sample ID: AEMP-US-05
Matrix: Water

Collected: 2025/07/17
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026025	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C026364	N/A	2025/07/22	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C026199	N/A	2025/07/22	Kristijan Kovac
Carbon (DOC)	TECH	C031998	N/A	2025/07/28	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028306	2025/07/24	2025/07/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028298	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C026154	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C026362	N/A	2025/07/22	Adam Fishleigh
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C026423	N/A	2025/07/22	Adam Fishleigh
Total Sulphide	SPEC	C029349	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C032115	N/A	2025/07/28	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026609	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027204	N/A	2025/07/23	Amy Phan

Bureau Veritas ID: DPK097 Dup
Sample ID: AEMP-US-05
Matrix: Water

Collected: 2025/07/17
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride/Sulphate by Auto Colourimetry	KONE	C026364	N/A	2025/07/22	Tyler Orr
Carbon (DOC)	TECH	C031998	N/A	2025/07/28	Thomas Johnson

Bureau Veritas Job #: C564064
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK097 Dup
Sample ID: AEMP-US-05
Matrix: Water

Collected: 2025/07/17
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (Total Organic)	TECH	C032115	N/A	2025/07/28	Thomas Johnson

Bureau Veritas ID: DPK098
Sample ID: AEMP-US-04
Matrix: Water

Collected: 2025/07/17
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026025	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C026364	N/A	2025/07/22	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C026199	N/A	2025/07/22	Kristijan Kovac
Carbon (DOC)	TECH	C031998	N/A	2025/07/28	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028306	2025/07/24	2025/07/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028298	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C026154	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C026362	N/A	2025/07/22	Adam Fishleigh
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C026423	N/A	2025/07/22	Adam Fishleigh
Total Sulphide	SPEC	C029349	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C032115	N/A	2025/07/28	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026609	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027204	N/A	2025/07/23	Amy Phan

Bureau Veritas Job #: C564064
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK098 Dup
Sample ID: AEMP-US-04
Matrix: Water

Collected: 2025/07/17
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Elements by ICP - Total	ICPA	C028306	2025/07/24	2025/07/24	Vincy Scaria
Elements by ICPMS - Total	ICPM	C028298	2025/07/24	2025/07/24	Jason Bao
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
Orthophosphate by Automated Analyzer	KONE	C026423	N/A	2025/07/22	Adam Fishleigh

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C

Note: Analysis required not listed or clearly specified on C of C.
2x 250ml amber bottles preserved with sodium bisulfate were received for both samples. However, no analysis is requested on them. Proceeded with Alkylated PAH.
Proceed; emailed Alex

Sample DPK096 [AEMP-DS-09] : Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour.

Sample DPK097 [AEMP-US-05] : Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Total Sulphide.

Sample DPK098 [AEMP-US-04] : Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Total Sulphide.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DPK096	AEMP-DS-09	Water	COLOURT-W	PHYS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK096	AEMP-DS-09	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK096	AEMP-DS-09	Water	PO4AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK096	AEMP-DS-09	Water	TURB	SPP	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C025735	RRA	Method Blank	Oil and grease	2025/07/22	<2.0		mg/L	
C025740	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/07/22	<2.0		mg/L	
C026199	KKC	Method Blank	True Colour	2025/07/22	<2.0		PtCo units	
C026362	AFI	Method Blank	Nitrite (N)	2025/07/22	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/07/22	<0.040		mg/L	
C026364	TOR	Method Blank	Chloride (Cl)	2025/07/22	<1.0		mg/L	
			Sulphate (SO4)	2025/07/22	<1.0		mg/L	
C026423	AFI	Method Blank	Orthophosphate (P)	2025/07/22	<0.0030		mg/L	
C026598	HE1	Method Blank	Total Dissolved Solids	2025/07/24	<10		mg/L	
C026609	HE1	Method Blank	Total Suspended Solids	2025/07/23	<1.0		mg/L	
C026626	BQU	Method Blank	O-TERPHENYL (sur.)	2025/07/23		101	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23	<0.10		mg/L	
C026635	NK3	Method Blank	D10-ANTHRACENE (sur.)	2025/07/23		101	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		82	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23	<0.00010		mg/L	
			Acenaphthylene	2025/07/23	<0.00010		mg/L	
			Acridine	2025/07/23	<0.000040		mg/L	
			Anthracene	2025/07/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/07/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/07/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/07/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/07/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/07/23	<0.000050		mg/L	
			Chrysene	2025/07/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/07/23	<0.0000075		mg/L	
			Fluoranthene	2025/07/23	<0.000010		mg/L	
			Fluorene	2025/07/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/07/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			Naphthalene	2025/07/23	<0.00010		mg/L	
			Phenanthrene	2025/07/23	<0.000050		mg/L	
			Perylene	2025/07/23	<0.000050		mg/L	
			Pyrene	2025/07/23	<0.000020		mg/L	
			Quinoline	2025/07/23	<0.00020		mg/L	
C026742	AP1	Method Blank	Chemical Oxygen Demand	2025/07/23	<10		mg/L	
C026813	KKM	Method Blank	Dissolved Mercury (Hg)	2025/07/23	<0.0019		ug/L	
C026999	WPK	Method Blank	1,4-Difluorobenzene (sur.)	2025/07/25		107	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		90	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		98	%	50 - 140
			Benzene	2025/07/25	<0.00040		mg/L	
			Toluene	2025/07/25	<0.00040		mg/L	
			Ethylbenzene	2025/07/25	<0.00040		mg/L	
			m & p-Xylene	2025/07/25	<0.00080		mg/L	
			o-Xylene	2025/07/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/07/25	<0.10		mg/L	
C027179	VSC	Method Blank	Dissolved Iron (Fe)	2025/07/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/07/23	<0.020		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Magnesium (Mg)	2025/07/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/07/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/07/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/07/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/07/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/07/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/07/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/07/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/07/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/07/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/07/23	<0.30		mg/L	
C027204	AP1	Method Blank	Turbidity	2025/07/23	<0.10		NTU	
C027347	MAP	Method Blank	Total Nitrogen (N)	2025/07/23	<0.020		mg/L	
C027760	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/07/24	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/07/24	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/07/24	<1.0		mg/L	
			Carbonate (CO3)	2025/07/24	<1.0		mg/L	
			Hydroxide (OH)	2025/07/24	<1.0		mg/L	
C027763	AYE	Method Blank	Conductivity	2025/07/24	<2.0		uS/cm	
C028258	JAB	Method Blank	Dissolved Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/07/24	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028298	JAB	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028302	ISW	Method Blank	Total Ammonia (N)	2025/07/24	<0.015		mg/L	
C028306	VSC	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	
C028399	TJ4	Method Blank	Total Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C028449	KKM	Method Blank	Total Mercury (Hg)	2025/07/24	<0.0019		ug/L	
C028606	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C029349	LYV	Method Blank	Total Sulphide	2025/07/25	<0.0018		mg/L	
C031998	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/07/28	<0.50		mg/L	
C032115	TJ4	Method Blank	Total Organic Carbon (C)	2025/07/28	<0.50		mg/L	
C026364	TOR	RPD [DPK097-02]	Chloride (Cl)	2025/07/22	0.067		%	20
			Sulphate (SO4)	2025/07/22	0.20		%	20
C031998	TJ4	RPD [DPK097-03]	Dissolved Organic Carbon (C)	2025/07/28	1.2		%	20
C032115	TJ4	RPD [DPK097-04]	Total Organic Carbon (C)	2025/07/28	17		%	20
C026423	AFI	RPD [DPK098-02]	Orthophosphate (P)	2025/07/22	NC		%	20
C026626	BQU	RPD [DPK098-10]	F2 (C10-C16 Hydrocarbons)	2025/07/23	NC		%	30
C026635	NK3	RPD [DPK098-10]	Acenaphthene	2025/07/23	NC		%	30
			Acenaphthylene	2025/07/23	NC		%	30
			Acridine	2025/07/23	NC		%	30
			Anthracene	2025/07/23	NC		%	30
			Benzo(a)anthracene	2025/07/23	NC		%	30
			Benzo(b&j)fluoranthene	2025/07/23	NC		%	30
			Benzo(k)fluoranthene	2025/07/23	NC		%	30
			Benzo(g,h,i)perylene	2025/07/23	NC		%	30
			Benzo(c)phenanthrene	2025/07/23	NC		%	30
			Benzo(a)pyrene	2025/07/23	NC		%	30
			Benzo(e)pyrene	2025/07/23	NC		%	30
			Chrysene	2025/07/23	NC		%	30
			Dibenz(a,h)anthracene	2025/07/23	NC		%	30
			Fluoranthene	2025/07/23	NC		%	30
			Fluorene	2025/07/23	NC		%	30
			Indeno(1,2,3-cd)pyrene	2025/07/23	NC		%	30
			1-Methylnaphthalene	2025/07/23	NC		%	30
			2-Methylnaphthalene	2025/07/23	NC		%	30
			Naphthalene	2025/07/23	NC		%	30
			Phenanthrene	2025/07/23	NC		%	30
			Perylene	2025/07/23	NC		%	30
			Pyrene	2025/07/23	NC		%	30
			Quinoline	2025/07/23	NC		%	30

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C028298	JAB	RPD [DPK098-06]	Total Aluminum (Al)	2025/07/24	8.2		%	20
			Total Chromium (Cr)	2025/07/24	NC		%	20
			Total Cobalt (Co)	2025/07/24	NC		%	20
			Total Copper (Cu)	2025/07/24	NC		%	20
			Total Lead (Pb)	2025/07/24	NC		%	20
			Total Antimony (Sb)	2025/07/24	NC		%	20
			Total Molybdenum (Mo)	2025/07/24	0.88		%	20
			Total Nickel (Ni)	2025/07/24	11		%	20
			Total Selenium (Se)	2025/07/24	2.1		%	20
			Total Silver (Ag)	2025/07/24	NC		%	20
			Total Arsenic (As)	2025/07/24	6.1		%	20
			Total Thallium (Tl)	2025/07/24	NC		%	20
			Total Tin (Sn)	2025/07/24	NC		%	20
			Total Titanium (Ti)	2025/07/24	NC		%	20
			Total Uranium (U)	2025/07/24	0.91		%	20
			Total Vanadium (V)	2025/07/24	NC		%	20
			Total Zinc (Zn)	2025/07/24	NC		%	20
			Total Beryllium (Be)	2025/07/24	NC		%	20
C028306	VSC	RPD [DPK098-06]	Total Iron (Fe)	2025/07/24	1.8		%	20
			Total Lithium (Li)	2025/07/24	NC		%	20
			Total Magnesium (Mg)	2025/07/24	1.1		%	20
			Total Manganese (Mn)	2025/07/24	0		%	20
			Total Potassium (K)	2025/07/24	1.4		%	20
			Total Sodium (Na)	2025/07/24	0.64		%	20
			Total Strontium (Sr)	2025/07/24	1.2		%	20
			Total Sulphur (S)	2025/07/24	0.91		%	20
			Total Phosphorus (P)	2025/07/24	NC		%	20
			Total Barium (Ba)	2025/07/24	1.4		%	20
			Total Silicon (Si)	2025/07/24	0.016		%	20
			Total Boron (B)	2025/07/24	9.0		%	20
			Total Calcium (Ca)	2025/07/24	0.69		%	20
C026364	TOR	Matrix Spike [DPK097-02]	Chloride (Cl)	2025/07/22		97	%	80 - 120
			Sulphate (SO4)	2025/07/22		NC	%	80 - 120
C026423	AFI	Matrix Spike [DPK098-02]	Orthophosphate (P)	2025/07/22		92	%	80 - 120
C028298	JAB	Matrix Spike [DPK097-06]	Total Aluminum (Al)	2025/07/24		107	%	80 - 120
			Total Chromium (Cr)	2025/07/24		106	%	80 - 120
			Total Cobalt (Co)	2025/07/24		104	%	80 - 120
			Total Copper (Cu)	2025/07/24		103	%	80 - 120
			Total Lead (Pb)	2025/07/24		106	%	80 - 120
			Total Antimony (Sb)	2025/07/24		110	%	80 - 120
			Total Molybdenum (Mo)	2025/07/24		115	%	80 - 120
			Total Nickel (Ni)	2025/07/24		103	%	80 - 120
			Total Selenium (Se)	2025/07/24		105	%	80 - 120
			Total Silver (Ag)	2025/07/24		109	%	80 - 120
			Total Arsenic (As)	2025/07/24		108	%	80 - 120
			Total Thallium (Tl)	2025/07/24		110	%	80 - 120
			Total Tin (Sn)	2025/07/24		109	%	80 - 120
			Total Titanium (Ti)	2025/07/24		109	%	80 - 120
			Total Uranium (U)	2025/07/24		113	%	80 - 120
			Total Vanadium (V)	2025/07/24		106	%	80 - 120
			Total Zinc (Zn)	2025/07/24		103	%	80 - 120
			Total Beryllium (Be)	2025/07/24		107	%	80 - 120

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C031998	TJ4	Matrix Spike [DPK097-03]	Dissolved Organic Carbon (C)	2025/07/28		91	%	75 - 125
C032115	TJ4	Matrix Spike [DPK097-04]	Total Organic Carbon (C)	2025/07/28		115	%	75 - 125
C025735	RRA	LCS	Oil and grease	2025/07/22		96	%	70 - 130
C025740	RRA	LCS	Total Petroleum Hydrocarbon	2025/07/22		95	%	70 - 130
C026199	KKC	LCS	True Colour	2025/07/22		92	%	80 - 120
C026362	AFI	LCS	Nitrite (N)	2025/07/22		107	%	80 - 120
			Nitrate plus Nitrite (N)	2025/07/22		107	%	80 - 120
C026364	TOR	LCS	Chloride (Cl)	2025/07/22		102	%	80 - 120
			Sulphate (SO4)	2025/07/22		100	%	80 - 120
C026423	AFI	LCS	Orthophosphate (P)	2025/07/22		102	%	80 - 120
C026598	HE1	LCS	Total Dissolved Solids	2025/07/24		98	%	80 - 120
C026609	HE1	LCS	Total Suspended Solids	2025/07/23		100	%	80 - 120
C026626	BQU	LCS	O-TERPHENYL (sur.)	2025/07/23		104	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23		105	%	60 - 140
C026635	NK3	LCS	D10-ANTHRACENE (sur.)	2025/07/23		100	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23		70	%	50 - 130
			Acenaphthylene	2025/07/23		69	%	50 - 130
			Acridine	2025/07/23		85	%	50 - 130
			Anthracene	2025/07/23		89	%	50 - 130
			Benzo(a)anthracene	2025/07/23		96	%	50 - 130
			Benzo(b&j)fluoranthene	2025/07/23		100	%	50 - 130
			Benzo(k)fluoranthene	2025/07/23		104	%	50 - 130
			Benzo(g,h,i)perylene	2025/07/23		96	%	50 - 130
			Benzo(c)phenanthrene	2025/07/23		100	%	50 - 130
			Benzo(a)pyrene	2025/07/23		97	%	50 - 130
			Benzo(e)pyrene	2025/07/23		90	%	50 - 130
			Chrysene	2025/07/23		93	%	50 - 130
			Dibenz(a,h)anthracene	2025/07/23		101	%	50 - 130
			Fluoranthene	2025/07/23		94	%	50 - 130
			Fluorene	2025/07/23		74	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/07/23		95	%	50 - 130
			1-Methylnaphthalene	2025/07/23		56	%	50 - 130
			2-Methylnaphthalene	2025/07/23		62	%	50 - 130
			Naphthalene	2025/07/23		74	%	50 - 130
			Phenanthrene	2025/07/23		87	%	50 - 130
			Perylene	2025/07/23		93	%	50 - 130
			Pyrene	2025/07/23		94	%	50 - 130
			Quinoline	2025/07/23		106	%	50 - 130
C026742	AP1	LCS	Chemical Oxygen Demand	2025/07/23		102	%	80 - 120
C026813	KKM	LCS	Dissolved Mercury (Hg)	2025/07/23		96	%	80 - 120
C026999	WPK	LCS	1,4-Difluorobenzene (sur.)	2025/07/25		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		94	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		94	%	50 - 140
			Benzene	2025/07/25		89	%	60 - 130
			Toluene	2025/07/25		95	%	60 - 130
			Ethylbenzene	2025/07/25		97	%	60 - 130
			m & p-Xylene	2025/07/25		100	%	60 - 130
			o-Xylene	2025/07/25		100	%	60 - 130
			F1 (C6-C10)	2025/07/25		104	%	60 - 140

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C027179	VSC	LCS	Dissolved Iron (Fe)	2025/07/23		110	%	80 - 120
			Dissolved Lithium (Li)	2025/07/23		94	%	80 - 120
			Dissolved Magnesium (Mg)	2025/07/23		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/07/23		109	%	80 - 120
			Dissolved Potassium (K)	2025/07/23		97	%	80 - 120
			Dissolved Sodium (Na)	2025/07/23		95	%	80 - 120
			Dissolved Strontium (Sr)	2025/07/23		98	%	80 - 120
			Dissolved Sulphur (S)	2025/07/23		103	%	80 - 120
			Dissolved Phosphorus (P)	2025/07/23		104	%	80 - 120
			Dissolved Barium (Ba)	2025/07/23		101	%	80 - 120
			Dissolved Silicon (Si)	2025/07/23		103	%	80 - 120
			Dissolved Boron (B)	2025/07/23		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/07/23		96	%	80 - 120
C027204	AP1	LCS	Turbidity	2025/07/23		99	%	80 - 120
C027347	MAP	LCS	Total Nitrogen (N)	2025/07/23		102	%	80 - 120
C027760	AYE	LCS	Alkalinity (Total as CaCO3)	2025/07/24		101	%	80 - 120
C027762	AYE	LCS	pH	2025/07/24		100	%	97 - 103
C027763	AYE	LCS	Conductivity	2025/07/24		100	%	90 - 110
C028258	JAB	LCS	Dissolved Aluminum (Al)	2025/07/24		114	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/24		103	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/24		100	%	80 - 120
			Dissolved Copper (Cu)	2025/07/24		101	%	80 - 120
			Dissolved Lead (Pb)	2025/07/24		100	%	80 - 120
			Dissolved Antimony (Sb)	2025/07/24		107	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/24		112	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/24		101	%	80 - 120
			Dissolved Selenium (Se)	2025/07/24		113	%	80 - 120
			Dissolved Silver (Ag)	2025/07/24		104	%	80 - 120
			Dissolved Arsenic (As)	2025/07/24		107	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/24		106	%	80 - 120
			Dissolved Tin (Sn)	2025/07/24		104	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/24		111	%	80 - 120
			Dissolved Uranium (U)	2025/07/24		97	%	80 - 120
			Dissolved Vanadium (V)	2025/07/24		104	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/24		102	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/24		111	%	80 - 120
C028298	JAB	LCS	Total Aluminum (Al)	2025/07/24		107	%	80 - 120
			Total Chromium (Cr)	2025/07/24		107	%	80 - 120
			Total Cobalt (Co)	2025/07/24		104	%	80 - 120
			Total Copper (Cu)	2025/07/24		105	%	80 - 120
			Total Lead (Pb)	2025/07/24		104	%	80 - 120
			Total Antimony (Sb)	2025/07/24		108	%	80 - 120
			Total Molybdenum (Mo)	2025/07/24		108	%	80 - 120
			Total Nickel (Ni)	2025/07/24		105	%	80 - 120
			Total Selenium (Se)	2025/07/24		105	%	80 - 120
			Total Silver (Ag)	2025/07/24		106	%	80 - 120
			Total Arsenic (As)	2025/07/24		106	%	80 - 120
			Total Thallium (Tl)	2025/07/24		107	%	80 - 120
			Total Tin (Sn)	2025/07/24		108	%	80 - 120
			Total Titanium (Ti)	2025/07/24		107	%	80 - 120
			Total Uranium (U)	2025/07/24		108	%	80 - 120
			Total Vanadium (V)	2025/07/24		106	%	80 - 120

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Zinc (Zn)	2025/07/24		104	%	80 - 120
			Total Beryllium (Be)	2025/07/24		105	%	80 - 120
C028302	ISW	LCS	Total Ammonia (N)	2025/07/24		106	%	80 - 120
C028306	VSC	LCS	Total Iron (Fe)	2025/07/24		108	%	80 - 120
			Total Lithium (Li)	2025/07/24		106	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		105	%	80 - 120
			Total Manganese (Mn)	2025/07/24		107	%	80 - 120
			Total Potassium (K)	2025/07/24		105	%	80 - 120
			Total Sodium (Na)	2025/07/24		103	%	80 - 120
			Total Strontium (Sr)	2025/07/24		98	%	80 - 120
			Total Sulphur (S)	2025/07/24		99	%	80 - 120
			Total Phosphorus (P)	2025/07/24		103	%	80 - 120
			Total Barium (Ba)	2025/07/24		102	%	80 - 120
			Total Silicon (Si)	2025/07/24		103	%	80 - 120
			Total Boron (B)	2025/07/24		99	%	80 - 120
			Total Calcium (Ca)	2025/07/24		102	%	80 - 120
C028399	TJ4	LCS	Total Organic Carbon (C)	2025/07/24		92	%	80 - 120
C028449	KKM	LCS	Total Mercury (Hg)	2025/07/24		106	%	80 - 120
C028606	TJ4	LCS	Dissolved Organic Carbon (C)	2025/07/24		97	%	80 - 120
C029349	LYV	LCS	Total Sulphide	2025/07/25		98	%	80 - 120
C031998	TJ4	LCS	Dissolved Organic Carbon (C)	2025/07/28		96	%	80 - 120
C032115	TJ4	LCS	Total Organic Carbon (C)	2025/07/28		93	%	80 - 120
C027347	MAP	SRM	Total Nitrogen (N)	2025/07/23		103	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

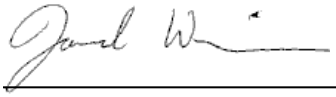
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

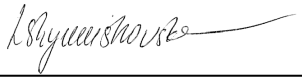
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

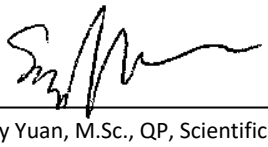


Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



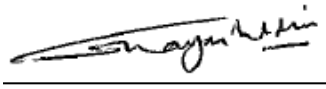
Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Rahul Suryawanshi, Senior Analyst



Sandy Yuan, M.Sc., QP, Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

VALIDATION SIGNATURE PAGE(CONT'D)

The analytical data and all QC contained in this report were reviewed and validated by:

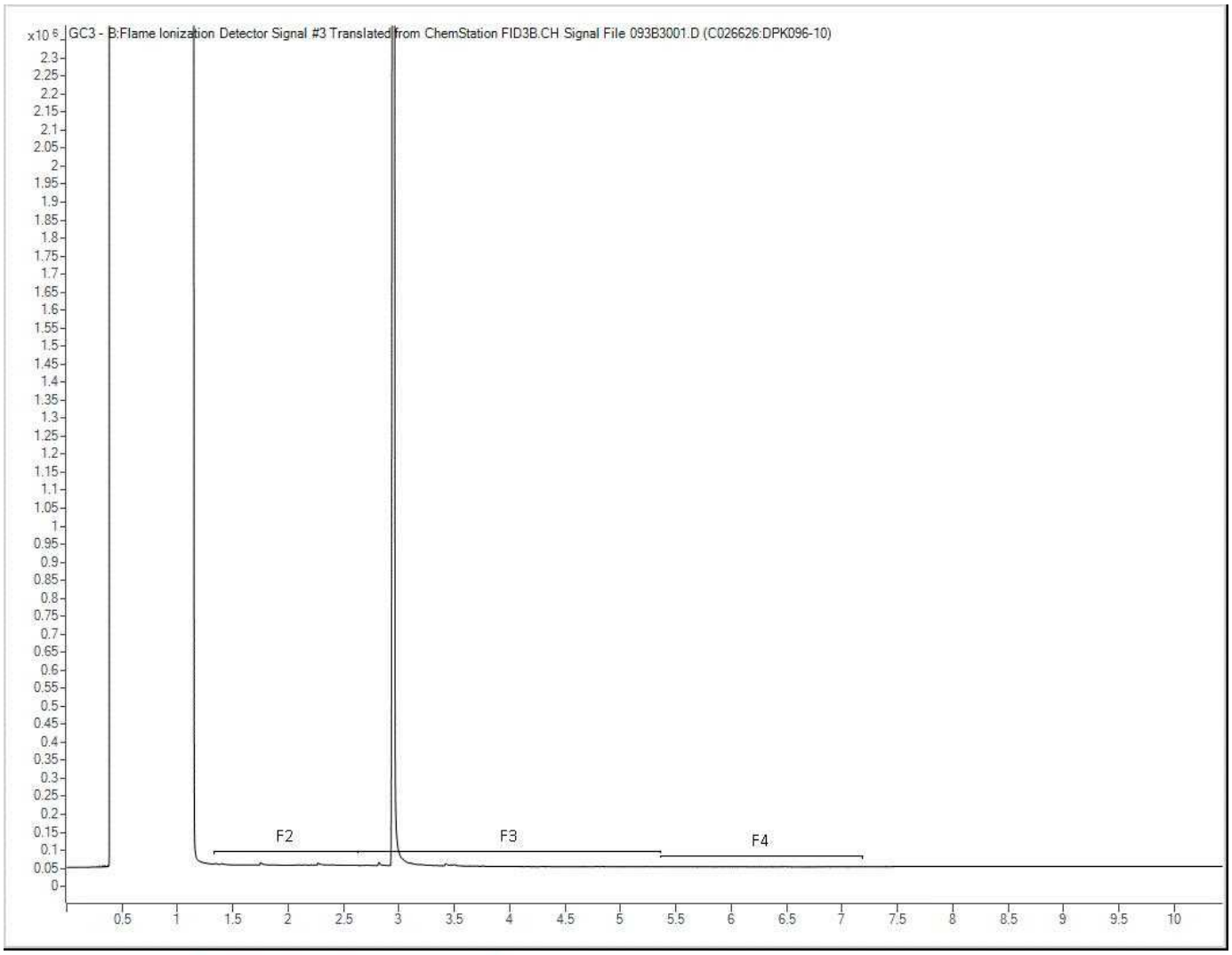
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

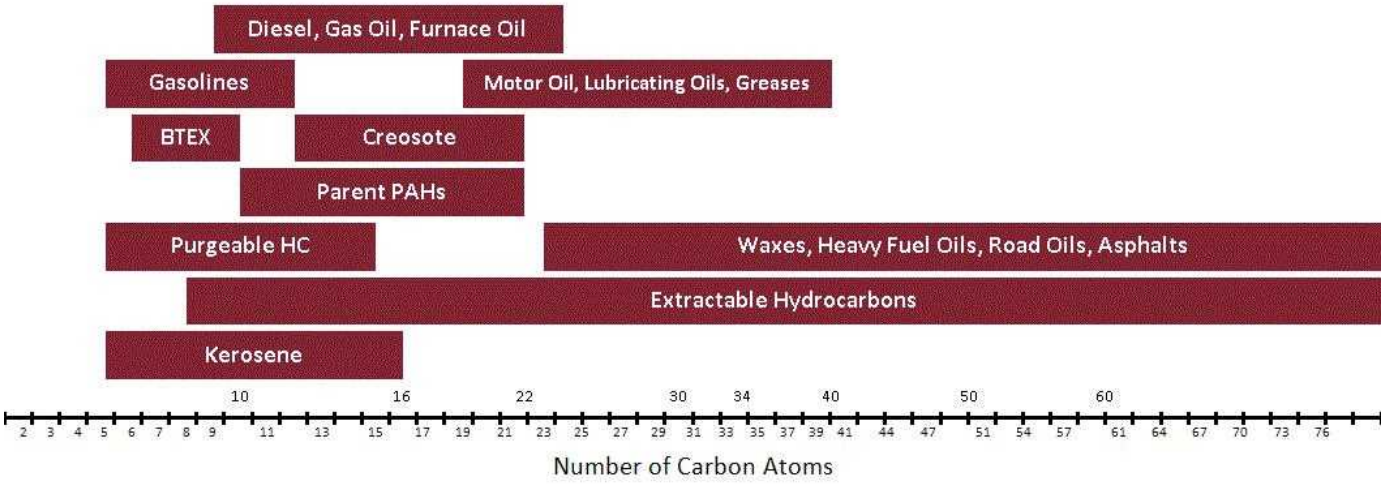
Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564064
Report Date: 2025/07/28
Bureau Veritas Sample: DPK096

Advisian
Task Order#:Advisian PendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-09

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram





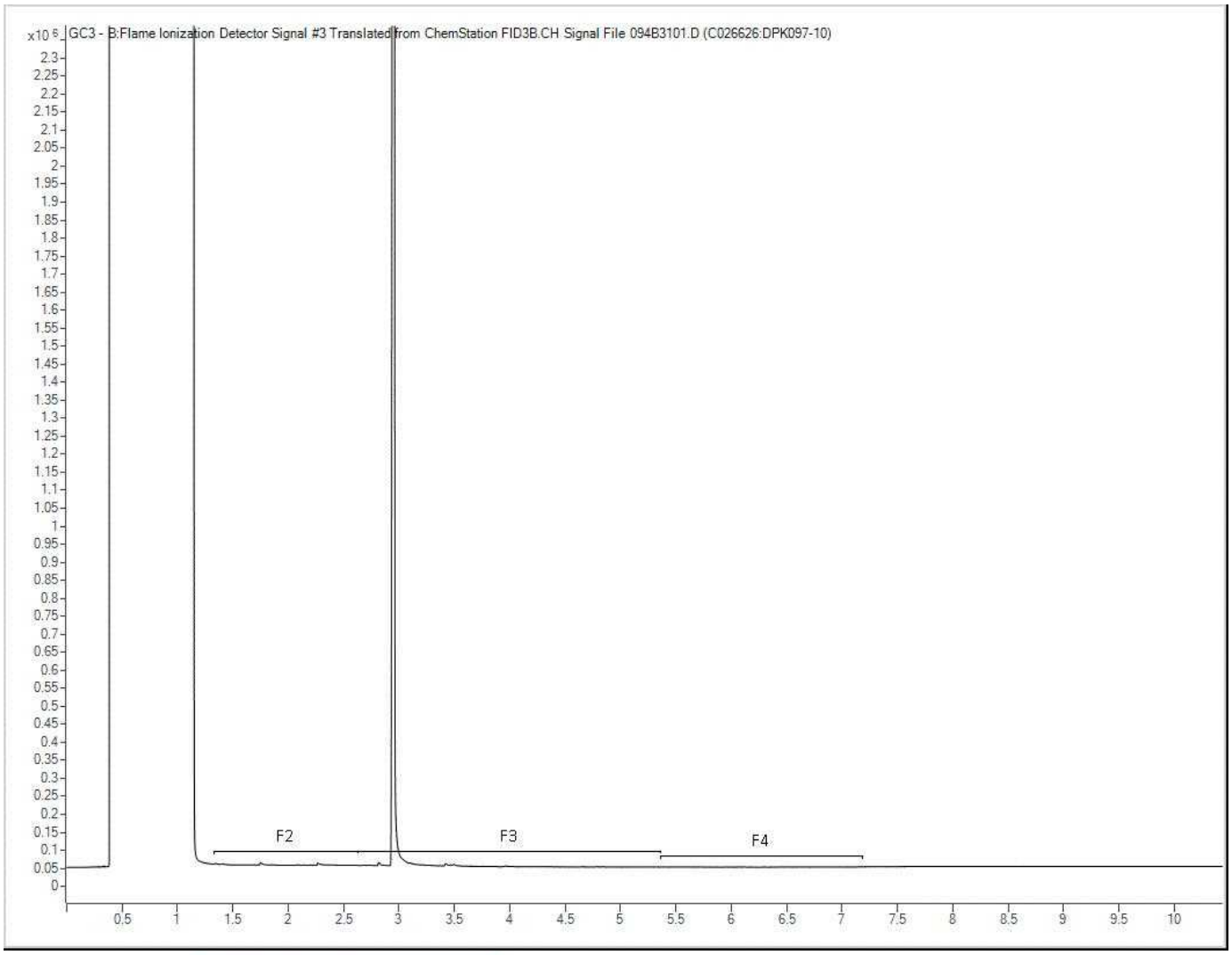
hpchem20\HPchem\1\DATA\2025\07\RUN0723

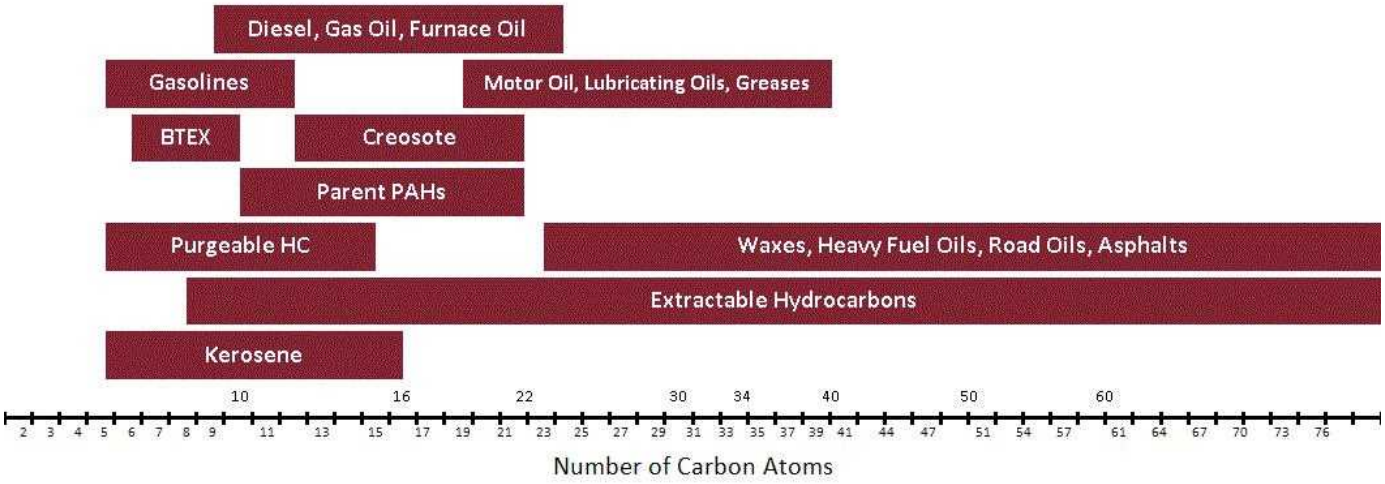
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C564064
Report Date: 2025/07/28
Bureau Veritas Sample: DPK097

Advisian
Task Order#:Advisian PendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-05

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram





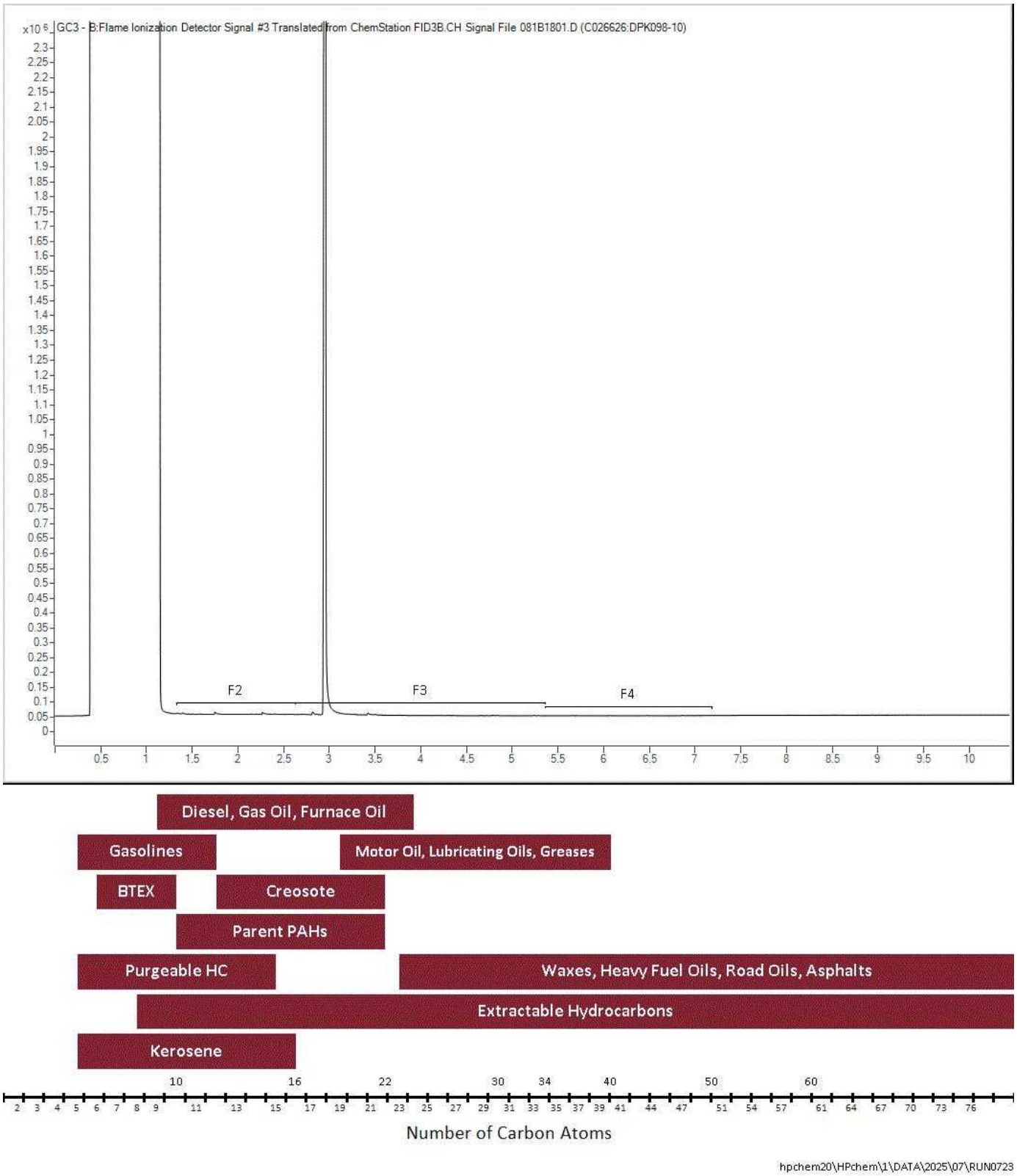
hpchem20\HPchem\1\DATA\2025\07\RUN0723

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C564064
Report Date: 2025/07/28
Bureau Veritas Sample: DPK098

Advisian
Task Order#:Advisian PendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-04

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



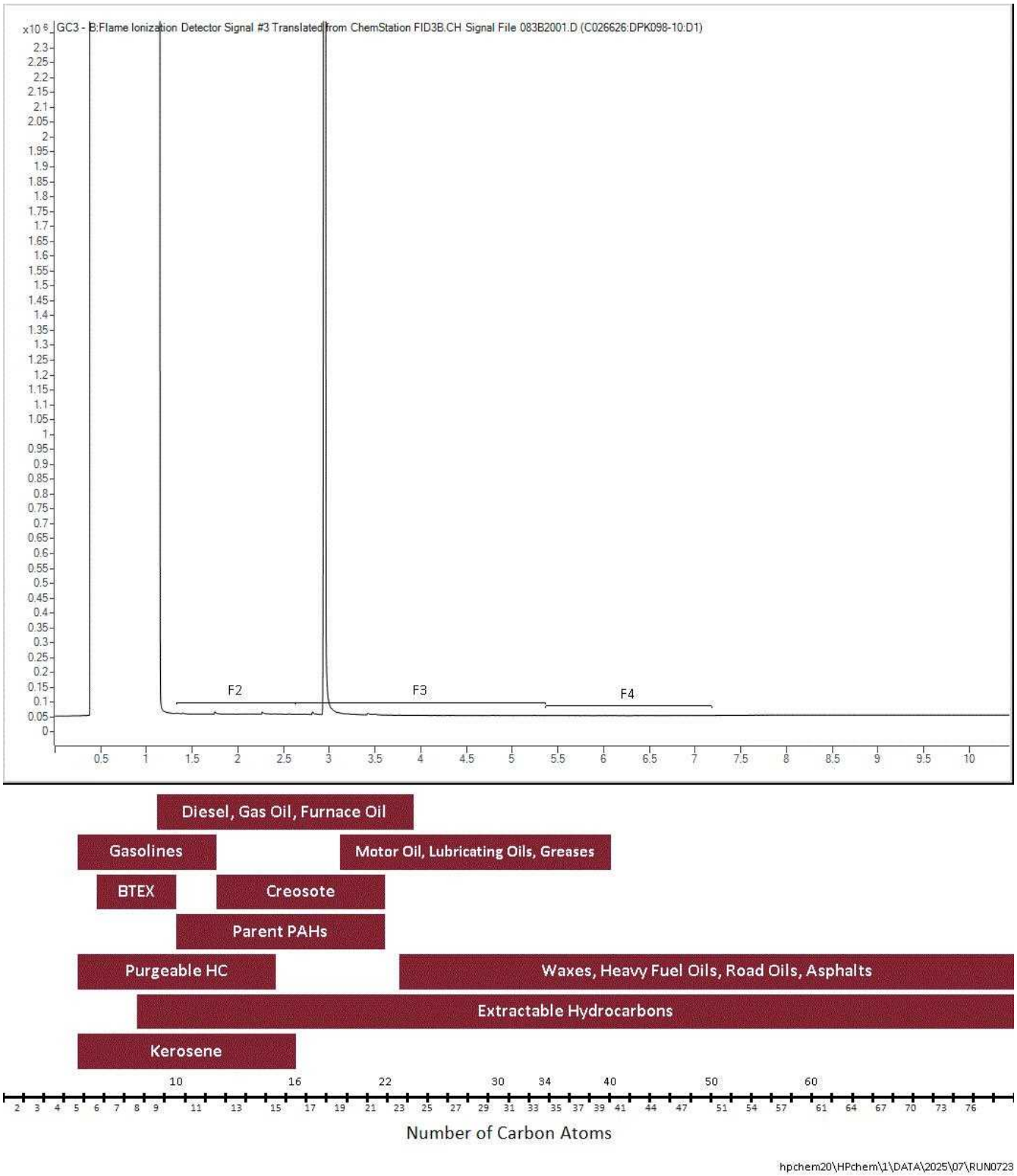
hpchem20\HPchem\1\DATA\2025\07\RUN0723

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C564064
Report Date: 2025/07/28
Bureau Veritas Sample: DPK098 Lab-Dup

Advisian
Task Order#:Advisian PendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-04

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292229

INVOICE INFORMATION

Company Name: ☒ Imperial Oil ☐ ExxonMobil
Contact Name: Alex Haigh
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7
Email: Alex.haigh@Worley.com
Ph: 587-847-6249
Sampler Name (Print): S Gibb, L Glutnik

REPORT INFORMATION

Company Name: Worley
Contact Name: Alex Haigh
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7
Email: Alex.haigh@Worley.com
Ph: 587-847-6249
Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	ANALYSIS REQUESTED: VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS TOT ☒ DIS ☐	MERCURY TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, TDS, Turbid. Tr	Oil & Grease	Toc, Doc, Sulphide	Nitrate, Nitrite, Ammonia (total) TKN	Orthophosphate	Sulphur - Total & Dissolved	E.coli	PAH, TPH
1 AEMP-DS-09		X			19	2025/07/18	11:47	X			X	X							X	X					X			X	X	X	X	X	X	X
2 AEMP-US-05		X			18	2025/07/17	15:09	X			X	X							X	X					X			X	X	X	X	X	X	X
3 AEMP-US-04		X			19	2025/07/17	15:54	X			X	X							X	X					X			X	X	X	X	X	X	X
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

MED2-2025-07-589
C564064

IOL SITE LOCATION: Norman Wells, NT
IOL PROJECT # (if applicable): NA
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☑ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS emails:
Canada.chemistry@worley.com
Cacal-JORdatatrack@worley.com
Stacy.gibb@worley.com
JES 26014136

JARS USED & NOT SUBMITTED Enter N/A for Water: N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	4	6	3
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID # MCAL			
SEAL PRESENT	✓		TEMP °C	5	2	1
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

LAB USE ONLY
MAXXAM JOB # C564064

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1. SG	Stacy Gibb	2025/07/21	10:00	1.	BRENTON MAH	2025/07/21	13:46
2. BM	BRENTON MAH	2025/07/21	18:00	2. JES	Jaskirat Bajaj	2025/07/22	06:30
3.				3.			

SAMPLES

LABELED BY:	VERIFIED BY:
GHP	EDL

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292220

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3689984
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564097
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	2	AB SOP-00005	SM 24 2320 B m
Send Part to Archive (1)	2		
BTEX/F1 in Water by HS GC/MS/FID (1)	2	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	2		Auto Calc
Cadmium - low level CCME - Dissolved (1)	2		Auto Calc
Cadmium - low level CCME (Total) (1)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	2	AB SOP-00016	SM 24 5220D m
True Colour (1)	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	2	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	2		Auto Calc
Hardness (1)	2		Auto Calc
Mercury (Dissolved) by CV (1, 4)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	2		Auto Calc
Ammonia-N (Total) (1)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	2		Auto Calc
Oil and Grease by IR (1)	2	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	2		Auto Calc
PAH in Water by GC/MS (1)	2	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	2	AB SOP-00080	SM 24 4500 S2-A D Fm

Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292220

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3689984
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564097
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue) (1)	2	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total) (1)	2		Auto Calc
Nitrogen (Total) (1)	2	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (1, 8)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	2	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	2	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292220

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3689984
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564097

Received: 2025/07/21, 13:46

(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
28 Jul 2025 10:56:41

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DPK223	DPK224		
Sampling Date		2025/07/18 14:21	2025/07/18 15:34		
COC Number		292220	292220		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	0.10	C026626
Volatiles					
Benzene	mg/L	<0.00040	<0.00040	0.00040	C026999
Toluene	mg/L	<0.00040	<0.00040	0.00040	C026999
Ethylbenzene	mg/L	<0.00040	<0.00040	0.00040	C026999
m & p-Xylene	mg/L	<0.00080	<0.00080	0.00080	C026999
o-Xylene	mg/L	<0.00040	<0.00040	0.00040	C026999
Xylenes (Total)	mg/L	<0.00089	<0.00089	0.00089	C026185
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	0.10	C026185
F1 (C6-C10)	mg/L	<0.10	<0.10	0.10	C026999
Extraction Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	99	99		C026626
Instrument Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	109	108		C026999
4-Bromofluorobenzene (sur.)	%	91	91		C026999
D4-1,2-Dichloroethane (sur.)	%	102	103		C026999
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564097
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Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DPK223		DPK224		
Sampling Date		2025/07/18 14:21		2025/07/18 15:34		
COC Number		292220		292220		
	UNITS	**AEMP-US-01**	**RDL**	**AEMP-US-02**	**RDL**	**QC Batch**
Calculated Parameters						
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	0.20	0.22	0.040	C025701
Nutrients						
Total Nitrogen (N)	mg/L	0.22 (1)	0.20	0.27	0.020	C027347

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Advisian
Task Order#: Advisian Pending
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Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK223	DPK224		
Sampling Date		2025/07/18 14:21	2025/07/18 15:34		
COC Number		292220	292220		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**RDL**	**QC Batch**
Elements					
Total Cadmium (Cd)	mg/L	0.00014	0.00011	0.000020	C025826
Total Mercury (Hg)	ug/L	0.0069	0.0073	0.0019	C028449
Total Aluminum (Al)	mg/L	1.8	2.2	0.0030	C028555
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C028555
Total Arsenic (As)	mg/L	0.0017	0.0020	0.00020	C028555
Total Barium (Ba)	mg/L	0.095	0.11	0.010	C028578
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C028555
Total Boron (B)	mg/L	<0.020	<0.020	0.020	C028578
Total Calcium (Ca)	mg/L	34	37	0.30	C028578
Total Chromium (Cr)	mg/L	0.0028	0.0033	0.0010	C028555
Total Cobalt (Co)	mg/L	0.0016	0.0018	0.00030	C028555
Total Copper (Cu)	mg/L	0.0048	0.0054	0.0010	C028555
Total Iron (Fe)	mg/L	3.6	4.2	0.060	C028578
Total Lead (Pb)	mg/L	0.0017	0.0021	0.00020	C028555
Total Lithium (Li)	mg/L	<0.020	<0.020	0.020	C028578
Total Magnesium (Mg)	mg/L	11	11	0.20	C028578
Total Manganese (Mn)	mg/L	0.059	0.064	0.0040	C028578
Total Molybdenum (Mo)	mg/L	0.0011	0.0013	0.00020	C028555
Total Nickel (Ni)	mg/L	0.0061	0.0069	0.00050	C028555
Total Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C028578
Total Potassium (K)	mg/L	1.5	1.7	0.30	C028578
Total Selenium (Se)	mg/L	0.00045	0.00056	0.00020	C028555
Total Silicon (Si)	mg/L	3.5	4.6	0.50	C028578
Total Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C028555
Total Sodium (Na)	mg/L	8.9	7.7	0.50	C028578
Total Strontium (Sr)	mg/L	0.23	0.25	0.020	C028578
Total Sulphur (S)	mg/L	12	14	0.20	C028578
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C028555
Total Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C028555
Total Titanium (Ti)	mg/L	0.019	0.023	0.0010	C028555
Total Uranium (U)	mg/L	0.00074	0.00087	0.00010	C028555
RDL = Reportable Detection Limit					

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Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK223	DPK224		
Sampling Date		2025/07/18 14:21	2025/07/18 15:34		
COC Number		292220	292220		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0055	0.0068	0.0010	C028555
Total Zinc (Zn)	mg/L	0.043	0.044	0.0030	C028555
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK223			DPK223			DPK224		
Sampling Date		2025/07/18 14:21			2025/07/18 14:21			2025/07/18 15:34		
COC Number		292220			292220			292220		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	110	0.50	C026111				120	0.50	C026111
Ion Balance (% Difference)	%	8.0	N/A	C026154				7.5	N/A	C026154
Nitrate (N)	mg/L	0.069	0.040	C026076				0.055	0.040	C026076
Nitrate (NO3)	mg/L	0.31	0.18	C026073				0.25	0.18	C026073
Nitrite (NO2)	mg/L	<0.13	0.13	C026073				<0.13	0.13	C026073
Sulphide (as H2S)	mg/L	0.015	0.0020	C026095				0.016	0.0020	C026095
Demand Parameters										
Chemical Oxygen Demand	mg/L	15	10	C026742				33	10	C026742
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C026107				<0.000020	0.000020	C026107
Misc. Inorganics										
Conductivity	uS/cm	260	2.0	C027763				270	2.0	C027763
Dissolved Organic Carbon (C)	mg/L	3.7	0.50	C028606				3.5	0.50	C028606
pH	pH	7.48	N/A	C027762				7.50	N/A	C027762
Total Organic Carbon (C)	mg/L	2.9	0.50	C028399				2.8	0.50	C028399
Total Dissolved Solids	mg/L	150	10	C026598				160	10	C026598
Total Suspended Solids	mg/L	110	1.0	C026619	110	1.0	C026619	130	1.0	C026619
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C027760				<1.0	1.0	C027760
Alkalinity (Total as CaCO3)	mg/L	92	1.0	C027760				97	1.0	C027760
Bicarbonate (HCO3)	mg/L	110	1.0	C027760				120	1.0	C027760
Carbonate (CO3)	mg/L	<1.0	1.0	C027760				<1.0	1.0	C027760
Hydroxide (OH)	mg/L	<1.0	1.0	C027760				<1.0	1.0	C027760
Total Sulphide	mg/L	0.014	0.0018	C030030				0.015	0.0018	C030030
Chloride (Cl)	mg/L	10	1.0	C027180				8.2	1.0	C027180
Sulphate (SO4)	mg/L	41	1.0	C027180				46	1.0	C027180
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C028356				<0.015	0.015	C028356
Orthophosphate (P)	mg/L	<0.0030	0.0030	C027287				<0.0030	0.0030	C027287

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK223			DPK223			DPK224		
Sampling Date		2025/07/18 14:21			2025/07/18 14:21			2025/07/18 15:34		
COC Number		292220			292220			292220		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Nitrite (N)	mg/L	<0.040	0.040	C027168				<0.040	0.040	C027168
Nitrate plus Nitrite (N)	mg/L	0.069	0.040	C027168				0.055	0.040	C027168
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C025735				<2.0	2.0	C025735
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C025740				<2.0	2.0	C025740
Physical Properties										
True Colour	PtCo units	10	2.0	C027266				11	2.0	C027266
Physical Properties										
Turbidity	NTU	110 (1)	0.10	C027205				130 (1)	0.10	C027205

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Sample was analyzed after holding time expired.

Bureau Veritas ID		DPK224		
Sampling Date		2025/07/18 15:34		
COC Number		292220		
	UNITS	**AEMP-US-02 Lab-Dup**	**RDL**	**QC Batch**
Misc. Inorganics				
Dissolved Organic Carbon (C)	mg/L	3.7	0.50	C028606

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DPK223	DPK224		
Sampling Date		2025/07/18 14:21	2025/07/18 15:34		
COC Number		292220	292220		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**RDL**	**QC Batch**
Polycyclic Aromatics					
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	0.000010	C026638
Acenaphthene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acenaphthylene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acridine	mg/L	<0.000040	<0.000040	0.000040	C026635
Anthracene	mg/L	<0.000010	<0.000010	0.000010	C026635
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Chrysene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Fluoranthene	mg/L	<0.000010	<0.000010	0.000010	C026635
Fluorene	mg/L	<0.000050	<0.000050	0.000050	C026635
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Naphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Perylene	mg/L	<0.000050	<0.000050	0.000050	C026635
Pyrene	mg/L	<0.000020	<0.000020	0.000020	C026635
Quinoline	mg/L	<0.00020	<0.00020	0.00020	C026635
Extraction Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	107	107		C026635
D8-ACENAPHTHYLENE (sur.)	%	94	92		C026635
D8-NAPHTHALENE (sur.)	%	92	83		C026635
TERPHENYL-D14 (sur.)	%	108	108		C026635
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DPK223	DPK224		
Sampling Date		2025/07/18 14:21	2025/07/18 15:34		
COC Number		292220	292220		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**RDL**	**QC Batch**
Elements					
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C026813
RDL = Reportable Detection Limit					

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPK223			DPK223			DPK224		
Sampling Date		2025/07/18 14:21			2025/07/18 14:21			2025/07/18 15:34		
COC Number		292220			292220			292220		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Elements										
Dissolved Aluminum (Al)	mg/L	0.022 (1)	0.0030	C028258	0.023	0.0030	C028258	0.036	0.0030	C028258
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	C028258	<0.00060	0.00060	C028258	<0.00060	0.00060	C028258
Dissolved Arsenic (As)	mg/L	0.00028	0.00020	C028258	0.00028	0.00020	C028258	0.00030	0.00020	C028258
Dissolved Barium (Ba)	mg/L	0.039	0.010	C027179				0.042	0.010	C027179
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258
Dissolved Boron (B)	mg/L	<0.020	0.020	C027179				<0.020	0.020	C027179
Dissolved Calcium (Ca)	mg/L	29	0.30	C027179				31	0.30	C027179
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258
Dissolved Cobalt (Co)	mg/L	<0.00030	0.00030	C028258	<0.00030	0.00030	C028258	<0.00030	0.00030	C028258
Dissolved Copper (Cu)	mg/L	0.0010	0.0010	C028258	0.0010	0.0010	C028258	0.0011	0.0010	C028258
Dissolved Iron (Fe)	mg/L	<0.060	0.060	C027179				<0.060	0.060	C027179
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	C028258	<0.00020	0.00020	C028258	<0.00020	0.00020	C028258
Dissolved Lithium (Li)	mg/L	<0.020	0.020	C027179				<0.020	0.020	C027179
Dissolved Magnesium (Mg)	mg/L	9.0	0.20	C027179				9.5	0.20	C027179
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0040	C027179				<0.0040	0.0040	C027179
Dissolved Molybdenum (Mo)	mg/L	0.00089	0.00020	C028258	0.00081	0.00020	C028258	0.0011	0.00020	C028258
Dissolved Nickel (Ni)	mg/L	0.0010	0.00050	C028258	0.0010	0.00050	C028258	0.0012	0.00050	C028258
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	C027179				<0.10	0.10	C027179
Dissolved Potassium (K)	mg/L	0.78	0.30	C027179				0.83	0.30	C027179
Dissolved Selenium (Se)	mg/L	0.00030	0.00020	C028258	0.00030	0.00020	C028258	0.00040	0.00020	C028258
Dissolved Silicon (Si)	mg/L	1.5	0.50	C027179				2.0	0.50	C027179
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	C028258	<0.00010	0.00010	C028258	<0.00010	0.00010	C028258
Dissolved Sodium (Na)	mg/L	8.2	0.50	C027179				7.3	0.50	C027179
Dissolved Strontium (Sr)	mg/L	0.22	0.020	C027179				0.24	0.020	C027179
Dissolved Sulphur (S)	mg/L	13	0.20	C027179				15	0.20	C027179
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	C028258	<0.00020	0.00020	C028258	<0.00020	0.00020	C028258
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258
Dissolved Uranium (U)	mg/L	0.00063	0.00010	C028258	0.00061	0.00010	C028258	0.00070	0.00010	C028258

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Matrix spike exceeds acceptance limits due to matrix interference.

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Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPK223			DPK223			DPK224		
Sampling Date		2025/07/18 14:21			2025/07/18 14:21			2025/07/18 15:34		
COC Number		292220			292220			292220		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258	<0.0010	0.0010	C028258
Dissolved Zinc (Zn)	mg/L	<0.0030	0.0030	C028258	<0.0030	0.0030	C028258	<0.0030	0.0030	C028258

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK223
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026185	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C027180	N/A	2025/07/23	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C027266	N/A	2025/07/23	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028578	2025/07/24	2025/07/24	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028555	2025/07/24	2025/07/24	Kevin Huang
Ion Balance	CALC	C026154	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028356	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C027168	N/A	2025/07/23	Kristijan Kovac
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C027287	N/A	2025/07/23	Kristijan Kovac
Total Sulphide	SPEC	C030030	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026619	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027205	N/A	2025/07/23	Amy Phan

Bureau Veritas ID: DPK223 Dup
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao

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Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK223 Dup
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Suspended Solids (NFR)	BAL	C026619	2025/07/23	2025/07/23	Haydee Estilong

Bureau Veritas ID: DPK224
Sample ID: AEMP-US-02
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026185	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C027180	N/A	2025/07/23	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C027266	N/A	2025/07/23	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C026813	2025/07/23	2025/07/23	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028578	2025/07/24	2025/07/24	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028555	2025/07/24	2025/07/24	Kevin Huang
Ion Balance	CALC	C026154	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028356	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C027168	N/A	2025/07/23	Kristijan Kovac
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C027287	N/A	2025/07/23	Kristijan Kovac
Total Sulphide	SPEC	C030030	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026619	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027205	N/A	2025/07/23	Amy Phan

Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK224 Dup
Sample ID: AEMP-US-02
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Sample DPK223 [AEMP-US-01] : Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour.

Sample DPK224 [AEMP-US-02] : Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DPK223	AEMP-US-01	Water	COLOURT-W	PHYS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK223	AEMP-US-01	Water	ICPMSABL-D	ELE	Aluminum (Al)	#2 Matrix Spike Recovery Above Control Limit	#1 Matrix Interference	This may represent a high bias for the parameters in this test in this sample.
DPK223	AEMP-US-01	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK223	AEMP-US-01	Water	PO4AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK223	AEMP-US-01	Water	TURB	SPP	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK224	AEMP-US-02	Water	COLOURT-W	PHYS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK224	AEMP-US-02	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK224	AEMP-US-02	Water	PO4AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DPK224	AEMP-US-02	Water	TURB	SPP	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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Bureau Veritas Job #: C564097
Report Date: 2025/07/28

Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C025735	RRA	Method Blank	Oil and grease	2025/07/22	<2.0		mg/L	
C025740	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/07/22	<2.0		mg/L	
C026598	HE1	Method Blank	Total Dissolved Solids	2025/07/24	<10		mg/L	
C026619	HE1	Method Blank	Total Suspended Solids	2025/07/23	<1.0		mg/L	
C026626	BQU	Method Blank	O-TERPHENYL (sur.)	2025/07/23		101	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23	<0.10		mg/L	
C026635	NK3	Method Blank	D10-ANTHRACENE (sur.)	2025/07/23		101	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		82	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23	<0.00010		mg/L	
			Acenaphthylene	2025/07/23	<0.00010		mg/L	
			Acridine	2025/07/23	<0.000040		mg/L	
			Anthracene	2025/07/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/07/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/07/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/07/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/07/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/07/23	<0.000050		mg/L	
			Chrysene	2025/07/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/07/23	<0.0000075		mg/L	
			Fluoranthene	2025/07/23	<0.000010		mg/L	
			Fluorene	2025/07/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/07/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			Naphthalene	2025/07/23	<0.00010		mg/L	
			Phenanthrene	2025/07/23	<0.000050		mg/L	
			Perylene	2025/07/23	<0.000050		mg/L	
			Pyrene	2025/07/23	<0.000020		mg/L	
			Quinoline	2025/07/23	<0.00020		mg/L	
C026742	AP1	Method Blank	Chemical Oxygen Demand	2025/07/23	<10		mg/L	
C026813	KKM	Method Blank	Dissolved Mercury (Hg)	2025/07/23	<0.0019		ug/L	
C026999	WPK	Method Blank	1,4-Difluorobenzene (sur.)	2025/07/25		107	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		90	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		98	%	50 - 140
			Benzene	2025/07/25	<0.00040		mg/L	
			Toluene	2025/07/25	<0.00040		mg/L	
			Ethylbenzene	2025/07/25	<0.00040		mg/L	
			m & p-Xylene	2025/07/25	<0.00080		mg/L	
			o-Xylene	2025/07/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/07/25	<0.10		mg/L	
C027168	KKC	Method Blank	Nitrite (N)	2025/07/23	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/07/23	<0.040		mg/L	
C027179	VSC	Method Blank	Dissolved Iron (Fe)	2025/07/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/07/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/07/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/07/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/07/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/07/23	<0.50		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Strontium (Sr)	2025/07/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/07/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/07/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/07/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/07/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/07/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/07/23	<0.30		mg/L	
C027180	TOR	Method Blank	Chloride (Cl)	2025/07/23	<1.0		mg/L	
			Sulphate (SO4)	2025/07/23	<1.0		mg/L	
C027205	AP1	Method Blank	Turbidity	2025/07/23	<0.10		NTU	
C027266	KKC	Method Blank	True Colour	2025/07/23	<2.0		PtCo units	
C027287	KKC	Method Blank	Orthophosphate (P)	2025/07/23	<0.0030		mg/L	
C027347	MAP	Method Blank	Total Nitrogen (N)	2025/07/23	<0.020		mg/L	
C027760	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/07/24	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/07/24	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/07/24	<1.0		mg/L	
			Carbonate (CO3)	2025/07/24	<1.0		mg/L	
			Hydroxide (OH)	2025/07/24	<1.0		mg/L	
C027763	AYE	Method Blank	Conductivity	2025/07/24	<2.0		uS/cm	
C028258	JAB	Method Blank	Dissolved Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/07/24	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028356	ISW	Method Blank	Total Ammonia (N)	2025/07/24	<0.015		mg/L	
C028399	TJ4	Method Blank	Total Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C028449	KKM	Method Blank	Total Mercury (Hg)	2025/07/24	<0.0019		ug/L	
C028555	KH2	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028578	KHU	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	
C028606	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C030030	LYV	Method Blank	Total Sulphide	2025/07/25	<0.0018		mg/L	
C026619	HE1	RPD [DPK223-01]	Total Suspended Solids	2025/07/23	2.5		%	20
C028258	JAB	RPD [DPK223-05]	Dissolved Aluminum (Al)	2025/07/24	1.6		%	20
			Dissolved Chromium (Cr)	2025/07/24	NC		%	20
			Dissolved Cobalt (Co)	2025/07/24	NC		%	20
			Dissolved Copper (Cu)	2025/07/24	2.5		%	20
			Dissolved Lead (Pb)	2025/07/24	NC		%	20
			Dissolved Antimony (Sb)	2025/07/24	NC		%	20
			Dissolved Molybdenum (Mo)	2025/07/24	10		%	20
			Dissolved Nickel (Ni)	2025/07/24	3.4		%	20
			Dissolved Selenium (Se)	2025/07/24	3.0		%	20
			Dissolved Silver (Ag)	2025/07/24	NC		%	20
			Dissolved Arsenic (As)	2025/07/24	0.39		%	20
			Dissolved Thallium (Tl)	2025/07/24	NC		%	20
			Dissolved Tin (Sn)	2025/07/24	NC		%	20
			Dissolved Titanium (Ti)	2025/07/24	NC		%	20
			Dissolved Uranium (U)	2025/07/24	1.9		%	20
			Dissolved Vanadium (V)	2025/07/24	NC		%	20
			Dissolved Zinc (Zn)	2025/07/24	NC		%	20
			Dissolved Beryllium (Be)	2025/07/24	NC		%	20
C028606	TJ4	RPD [DPK224-03]	Dissolved Organic Carbon (C)	2025/07/24	7.7		%	20
C026619	HE1	Matrix Spike [DPK223-01]	Total Suspended Solids	2025/07/23		111	%	80 - 120
C028258	JAB	Matrix Spike [DPK223-05]	Dissolved Aluminum (Al)	2025/07/24		147 (1)	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/24		98	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/24		96	%	80 - 120
			Dissolved Copper (Cu)	2025/07/24		96	%	80 - 120
			Dissolved Lead (Pb)	2025/07/24		92	%	80 - 120
			Dissolved Antimony (Sb)	2025/07/24		99	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/24		105	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/24		95	%	80 - 120
			Dissolved Selenium (Se)	2025/07/24		100	%	80 - 120
			Dissolved Silver (Ag)	2025/07/24		97	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Arsenic (As)	2025/07/24		98	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/24		97	%	80 - 120
			Dissolved Tin (Sn)	2025/07/24		98	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/24		105	%	80 - 120
			Dissolved Uranium (U)	2025/07/24		89	%	80 - 120
			Dissolved Vanadium (V)	2025/07/24		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/24		90	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/24		96	%	80 - 120
C028606	TJ4	Matrix Spike [DPK224-03]	Dissolved Organic Carbon (C)	2025/07/24		117	%	75 - 125
C025735	RRA	LCS	Oil and grease	2025/07/22		96	%	70 - 130
C025740	RRA	LCS	Total Petroleum Hydrocarbon	2025/07/22		95	%	70 - 130
C026598	HE1	LCS	Total Dissolved Solids	2025/07/24		98	%	80 - 120
C026619	HE1	LCS	Total Suspended Solids	2025/07/23		95	%	80 - 120
C026626	BQU	LCS	O-TERPHENYL (sur.)	2025/07/23		104	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23		105	%	60 - 140
C026635	NK3	LCS	D10-ANTHRACENE (sur.)	2025/07/23		100	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23		70	%	50 - 130
			Acenaphthylene	2025/07/23		69	%	50 - 130
			Acridine	2025/07/23		85	%	50 - 130
			Anthracene	2025/07/23		89	%	50 - 130
			Benzo(a)anthracene	2025/07/23		96	%	50 - 130
			Benzo(b&j)fluoranthene	2025/07/23		100	%	50 - 130
			Benzo(k)fluoranthene	2025/07/23		104	%	50 - 130
			Benzo(g,h,i)perylene	2025/07/23		96	%	50 - 130
			Benzo(c)phenanthrene	2025/07/23		100	%	50 - 130
			Benzo(a)pyrene	2025/07/23		97	%	50 - 130
			Benzo(e)pyrene	2025/07/23		90	%	50 - 130
			Chrysene	2025/07/23		93	%	50 - 130
			Dibenz(a,h)anthracene	2025/07/23		101	%	50 - 130
			Fluoranthene	2025/07/23		94	%	50 - 130
			Fluorene	2025/07/23		74	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/07/23		95	%	50 - 130
			1-Methylnaphthalene	2025/07/23		56	%	50 - 130
			2-Methylnaphthalene	2025/07/23		62	%	50 - 130
			Naphthalene	2025/07/23		74	%	50 - 130
			Phenanthrene	2025/07/23		87	%	50 - 130
			Perylene	2025/07/23		93	%	50 - 130
			Pyrene	2025/07/23		94	%	50 - 130
			Quinoline	2025/07/23		106	%	50 - 130
C026742	AP1	LCS	Chemical Oxygen Demand	2025/07/23		102	%	80 - 120
C026813	KKM	LCS	Dissolved Mercury (Hg)	2025/07/23		96	%	80 - 120
C026999	WPK	LCS	1,4-Difluorobenzene (sur.)	2025/07/25		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		94	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		94	%	50 - 140
			Benzene	2025/07/25		89	%	60 - 130
			Toluene	2025/07/25		95	%	60 - 130
			Ethylbenzene	2025/07/25		97	%	60 - 130
			m & p-Xylene	2025/07/25		100	%	60 - 130
			o-Xylene	2025/07/25		100	%	60 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			F1 (C6-C10)	2025/07/25		104	%	60 - 140
C027168	KKC	LCS	Nitrite (N)	2025/07/23		106	%	80 - 120
			Nitrate plus Nitrite (N)	2025/07/23		106	%	80 - 120
C027179	VSC	LCS	Dissolved Iron (Fe)	2025/07/23		110	%	80 - 120
			Dissolved Lithium (Li)	2025/07/23		94	%	80 - 120
			Dissolved Magnesium (Mg)	2025/07/23		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/07/23		109	%	80 - 120
			Dissolved Potassium (K)	2025/07/23		97	%	80 - 120
			Dissolved Sodium (Na)	2025/07/23		95	%	80 - 120
			Dissolved Strontium (Sr)	2025/07/23		98	%	80 - 120
			Dissolved Sulphur (S)	2025/07/23		103	%	80 - 120
			Dissolved Phosphorus (P)	2025/07/23		104	%	80 - 120
			Dissolved Barium (Ba)	2025/07/23		101	%	80 - 120
			Dissolved Silicon (Si)	2025/07/23		103	%	80 - 120
			Dissolved Boron (B)	2025/07/23		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/07/23		96	%	80 - 120
C027180	TOR	LCS	Chloride (Cl)	2025/07/23		102	%	80 - 120
			Sulphate (SO4)	2025/07/23		104	%	80 - 120
C027205	AP1	LCS	Turbidity	2025/07/23		100	%	80 - 120
C027266	KKC	LCS	True Colour	2025/07/23		90	%	80 - 120
C027287	KKC	LCS	Orthophosphate (P)	2025/07/23		102	%	80 - 120
C027347	MAP	LCS	Total Nitrogen (N)	2025/07/23		102	%	80 - 120
C027760	AYE	LCS	Alkalinity (Total as CaCO3)	2025/07/24		101	%	80 - 120
C027762	AYE	LCS	pH	2025/07/24		100	%	97 - 103
C027763	AYE	LCS	Conductivity	2025/07/24		100	%	90 - 110
C028258	JAB	LCS	Dissolved Aluminum (Al)	2025/07/24		114	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/24		103	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/24		100	%	80 - 120
			Dissolved Copper (Cu)	2025/07/24		101	%	80 - 120
			Dissolved Lead (Pb)	2025/07/24		100	%	80 - 120
			Dissolved Antimony (Sb)	2025/07/24		107	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/24		112	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/24		101	%	80 - 120
			Dissolved Selenium (Se)	2025/07/24		113	%	80 - 120
			Dissolved Silver (Ag)	2025/07/24		104	%	80 - 120
			Dissolved Arsenic (As)	2025/07/24		107	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/24		106	%	80 - 120
			Dissolved Tin (Sn)	2025/07/24		104	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/24		111	%	80 - 120
			Dissolved Uranium (U)	2025/07/24		97	%	80 - 120
			Dissolved Vanadium (V)	2025/07/24		104	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/24		102	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/24		111	%	80 - 120
C028356	ISW	LCS	Total Ammonia (N)	2025/07/24		108	%	80 - 120
C028399	TJ4	LCS	Total Organic Carbon (C)	2025/07/24		92	%	80 - 120
C028449	KKM	LCS	Total Mercury (Hg)	2025/07/24		106	%	80 - 120
C028555	KH2	LCS	Total Aluminum (Al)	2025/07/24		106	%	80 - 120
			Total Chromium (Cr)	2025/07/24		101	%	80 - 120
			Total Cobalt (Co)	2025/07/24		98	%	80 - 120
			Total Copper (Cu)	2025/07/24		98	%	80 - 120
			Total Lead (Pb)	2025/07/24		93	%	80 - 120
			Total Antimony (Sb)	2025/07/24		102	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Molybdenum (Mo)	2025/07/24		110	%	80 - 120
			Total Nickel (Ni)	2025/07/24		98	%	80 - 120
			Total Selenium (Se)	2025/07/24		112	%	80 - 120
			Total Silver (Ag)	2025/07/24		105	%	80 - 120
			Total Arsenic (As)	2025/07/24		102	%	80 - 120
			Total Thallium (Tl)	2025/07/24		100	%	80 - 120
			Total Tin (Sn)	2025/07/24		101	%	80 - 120
			Total Titanium (Ti)	2025/07/24		103	%	80 - 120
			Total Uranium (U)	2025/07/24		93	%	80 - 120
			Total Vanadium (V)	2025/07/24		101	%	80 - 120
			Total Zinc (Zn)	2025/07/24		96	%	80 - 120
			Total Beryllium (Be)	2025/07/24		113	%	80 - 120
C028578	KHU	LCS	Total Iron (Fe)	2025/07/24		99	%	80 - 120
			Total Lithium (Li)	2025/07/24		99	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		97	%	80 - 120
			Total Manganese (Mn)	2025/07/24		99	%	80 - 120
			Total Potassium (K)	2025/07/24		99	%	80 - 120
			Total Sodium (Na)	2025/07/24		98	%	80 - 120
			Total Strontium (Sr)	2025/07/24		94	%	80 - 120
			Total Sulphur (S)	2025/07/24		85	%	80 - 120
			Total Phosphorus (P)	2025/07/24		96	%	80 - 120
			Total Barium (Ba)	2025/07/24		98	%	80 - 120
			Total Silicon (Si)	2025/07/24		97	%	80 - 120
			Total Boron (B)	2025/07/24		93	%	80 - 120
			Total Calcium (Ca)	2025/07/24		95	%	80 - 120
C028606	TJ4	LCS	Dissolved Organic Carbon (C)	2025/07/24		97	%	80 - 120
C030030	LYV	LCS	Total Sulphide	2025/07/25		97	%	80 - 120
C027347	MAP	SRM	Total Nitrogen (N)	2025/07/23		103	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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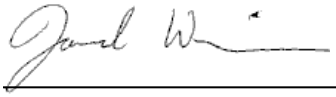
Advisian
Task Order#: Advisian Pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

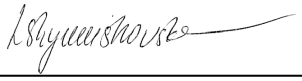
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Rahul Suryawanshi, Senior Analyst

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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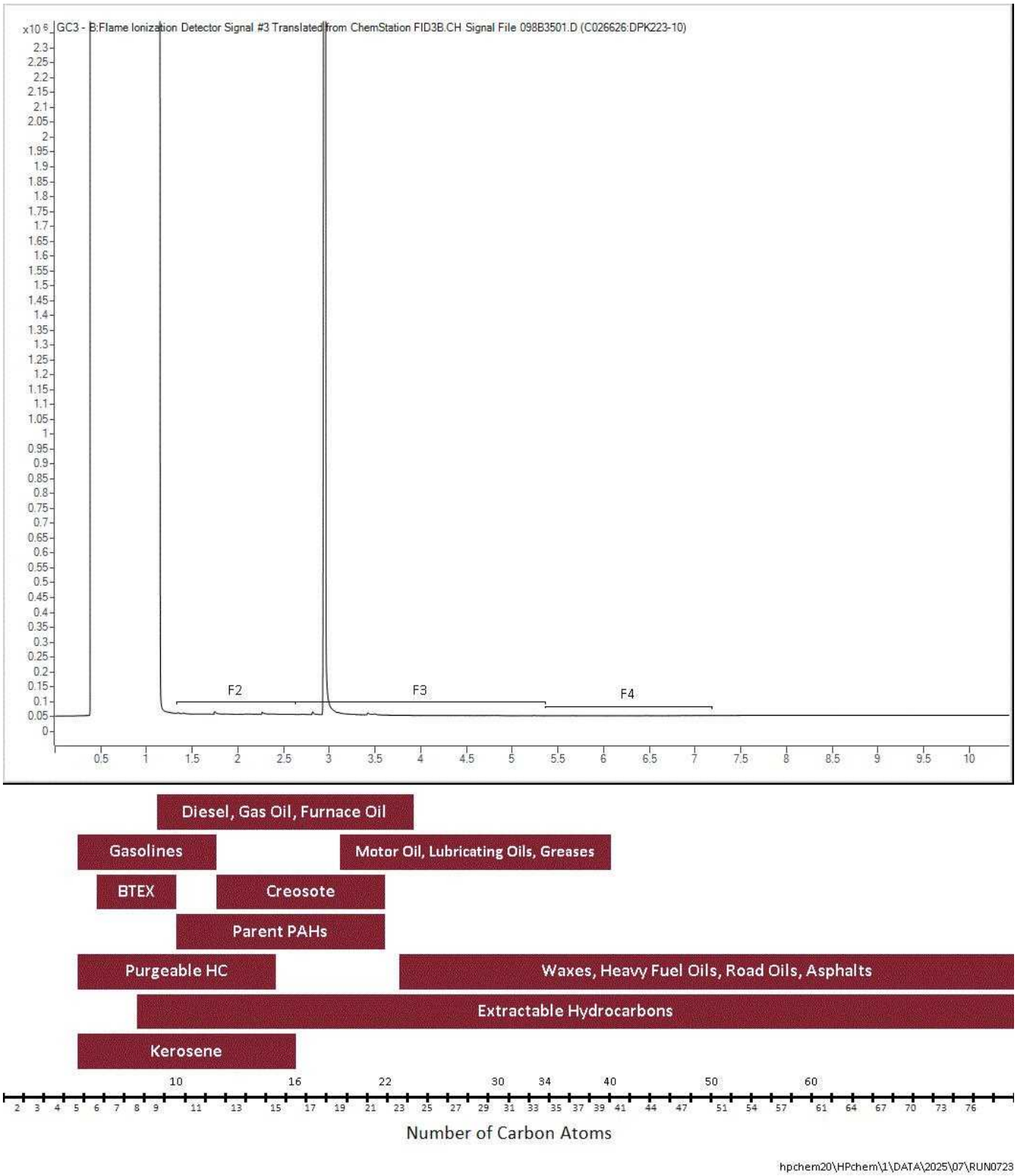
Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564097
Report Date: 2025/07/28
Bureau Veritas Sample: DPK223

Advisian
Task Order#:Advisian PendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-01

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

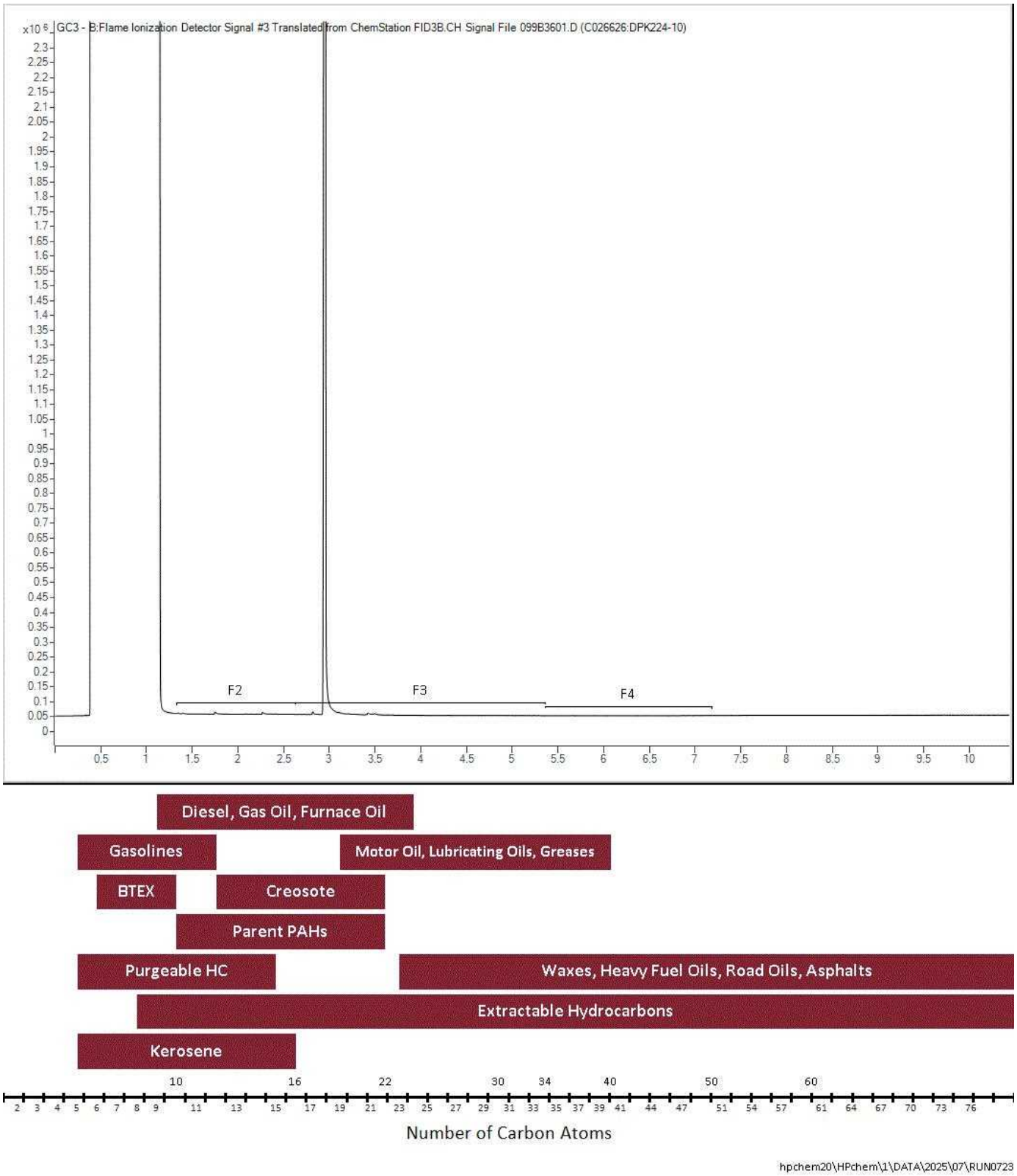


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C564097
Report Date: 2025/07/28
Bureau Veritas Sample: DPK224

Advisian
Task Order#:Advisian PendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-02

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
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EXXON MOBIL/IMPERIAL OIL - MAXXAM
CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292220

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Alex Haigh	Contact Name: Alex Haigh
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7	Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7
Email: Alex.haigh@worley.com	Email: Alex.haigh@worley.com
Ph: 587-847-6249	Ph: 587-847-6249
Sampler Name (Print): S.GIBB / L Glatiotis	Consultant Project #: 417085-59897-25200

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: DISS ☐ TOT ☒	MERCURY: DISSOLVED ☒ TOTAL ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, Turbidity	DOC & Organic Carbon	Tot & Diss Sulphide	Nitrate, Nitrite, Ammonia (total) TKN	Orthophosphate	Sulphur - total & dissolved	COD	OAH, TPH
1	AEMP-US-01		X			18	2025/07/18	14:21	X			X	X							X	X					X			X	X	X	X	X	X	X
2	AEMP-US-02		X			18	2025/07/18	15:34	X			X	X							X	X					X			X	X	X	X	X	X	X
3																																				
4																																				
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				

MED2-2025-07-593
CS64097

IOL SITE LOCATION: Norman Wells, NT
IOL PROJECT # (if applicable): NA
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) EAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com
cacal_IOR_datatrack@worley.com
stacy.gibb@worley.com
IES 2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

	YES	NO	COOLER ID #				YES	NO	COOLER ID # MCAL				YES	NO	COOLER ID #			
SEAL PRESENT	/																	
SEAL INTACT	/		TEMP °C	5	3	3			TEMP °C	2	5	2			TEMP °C			
COOLING MEDIA PRESENT	/			1	2	3				1	2	3				1	2	3

LAB USE ONLY
MAXXAM JOB # CS64097

SAMPLES
LABELED BY: GHP
VERIFIED BY: EM

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	STACY GIBB	2025/07/20	10:00	1.	BRENTON NAH	2025/07/21	13:46
2.	BRENTON NAH	2025/07/21	18:00	2.	Jaskirat Bajwa	2025/07/22	06:30
3.				3.			

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292222

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3689985
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564108
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	2	AB SOP-00005	SM 24 2320 B m
Send Part to Archive (1)	2		
BTEX/F1 in Water by HS GC/MS/FID (1)	2	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	2		Auto Calc
Cadmium - low level CCME - Dissolved (1)	2		Auto Calc
Cadmium - low level CCME (Total) (1)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	2	AB SOP-00016	SM 24 5220D m
True Colour (1)	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	2	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	2		Auto Calc
Hardness (1)	2		Auto Calc
Mercury (Dissolved) by CV (1, 4)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	2		Auto Calc
Ammonia-N (Total) (1)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	2		Auto Calc
Oil and Grease by IR (1)	2	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	2		Auto Calc
PAH in Water by GC/MS (1)	2	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	2	AB SOP-00080	SM 24 4500 S2-A D Fm

Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292222

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3689985
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564108
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue) (1)	2	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total) (1)	2		Auto Calc
Nitrogen (Total) (1)	2	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (1, 8)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	2	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	2	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292222

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3689985
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564108

Received: 2025/07/21, 13:46

(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
28 Jul 2025 10:45:51

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DPK256	DPK257		
Sampling Date		2025/07/19 16:54	2025/07/19 16:54		
COC Number		292222	292222		
	UNITS	**AEMP-DS-01**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	0.10	C026626
Volatiles					
Benzene	mg/L	<0.00040	<0.00040	0.00040	C026999
Toluene	mg/L	<0.00040	<0.00040	0.00040	C026999
Ethylbenzene	mg/L	<0.00040	<0.00040	0.00040	C026999
m & p-Xylene	mg/L	<0.00080	<0.00080	0.00080	C026999
o-Xylene	mg/L	<0.00040	<0.00040	0.00040	C026999
Xylenes (Total)	mg/L	<0.00089	<0.00089	0.00089	C026185
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	0.10	C026185
F1 (C6-C10)	mg/L	<0.10	<0.10	0.10	C026999
Extraction Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	99	97		C026626
Instrument Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	109	107		C026999
4-Bromofluorobenzene (sur.)	%	92	91		C026999
D4-1,2-Dichloroethane (sur.)	%	102	102		C026999
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DPK256	DPK257		
Sampling Date		2025/07/19 16:54	2025/07/19 16:54		
COC Number		292222	292222		
	UNITS	**AEMP-DS-01**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Calculated Parameters					
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.099	0.16	0.040	C025701
Nutrients					
Total Nitrogen (N)	mg/L	0.15	0.22	0.020	C027347
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK256			DPK256			DPK257		
Sampling Date		2025/07/19 16:54			2025/07/19 16:54			2025/07/19 16:54		
COC Number		292222			292222			292222		
	UNITS	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Elements										
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	C025826				<0.000020	0.000020	C025826
Total Mercury (Hg)	ug/L	<0.0019	0.0019	C028449	<0.0019	0.0019	C028449	<0.0019	0.0019	C028449
Total Aluminum (Al)	mg/L	0.029	0.0030	C028555				0.017	0.0030	C028298
Total Antimony (Sb)	mg/L	<0.00060	0.00060	C028555				<0.00060	0.00060	C028298
Total Arsenic (As)	mg/L	0.00027	0.00020	C028555				0.00027	0.00020	C028298
Total Barium (Ba)	mg/L	0.085	0.010	C028578				0.085	0.010	C028306
Total Beryllium (Be)	mg/L	<0.0010	0.0010	C028555				<0.0010	0.0010	C028298
Total Boron (B)	mg/L	0.039	0.020	C028578				0.039	0.020	C028306
Total Calcium (Ca)	mg/L	84	0.30	C028578				87	0.30	C028306
Total Chromium (Cr)	mg/L	<0.0010	0.0010	C028555				<0.0010	0.0010	C028298
Total Cobalt (Co)	mg/L	<0.00030	0.00030	C028555				<0.00030	0.00030	C028298
Total Copper (Cu)	mg/L	<0.0010	0.0010	C028555				<0.0010	0.0010	C028298
Total Iron (Fe)	mg/L	0.065	0.060	C028578				0.070	0.060	C028306
Total Lead (Pb)	mg/L	<0.00020	0.00020	C028555				<0.00020	0.00020	C028298
Total Lithium (Li)	mg/L	<0.020	0.020	C028578				<0.020	0.020	C028306
Total Magnesium (Mg)	mg/L	31	0.20	C028578				32	0.20	C028306
Total Manganese (Mn)	mg/L	0.0080	0.0040	C028578				0.0083	0.0040	C028306
Total Molybdenum (Mo)	mg/L	0.0021	0.00020	C028555				0.0021	0.00020	C028298
Total Nickel (Ni)	mg/L	0.00062	0.00050	C028555				0.00058	0.00050	C028298
Total Phosphorus (P)	mg/L	<0.10	0.10	C028578				<0.10	0.10	C028306
Total Potassium (K)	mg/L	1.3	0.30	C028578				1.3	0.30	C028306
Total Selenium (Se)	mg/L	0.00020	0.00020	C028555				0.00020	0.00020	C028298
Total Silicon (Si)	mg/L	2.2	0.50	C028578				2.2	0.50	C028306
Total Silver (Ag)	mg/L	<0.00010	0.00010	C028555				<0.00010	0.00010	C028298
Total Sodium (Na)	mg/L	32	0.50	C028578				32	0.50	C028306
Total Strontium (Sr)	mg/L	1.5	0.020	C028578				1.5	0.020	C028306
Total Sulphur (S)	mg/L	55	0.20	C028578				57	0.20	C028306
Total Thallium (Tl)	mg/L	<0.00020	0.00020	C028555				<0.00020	0.00020	C028298
Total Tin (Sn)	mg/L	<0.0010	0.0010	C028555				<0.0010	0.0010	C028298
Total Titanium (Ti)	mg/L	<0.0010	0.0010	C028555				<0.0010	0.0010	C028298

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK256			DPK256			DPK257		
Sampling Date		2025/07/19 16:54			2025/07/19 16:54			2025/07/19 16:54		
COC Number		292222			292222			292222		
	UNITS	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L	0.0012	0.00010	C028555				0.0012	0.00010	C028298
Total Vanadium (V)	mg/L	<0.0010	0.0010	C028555				<0.0010	0.0010	C028298
Total Zinc (Zn)	mg/L	<0.0030	0.0030	C028555				<0.0030	0.0030	C028298

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK256		DPK257		
Sampling Date		2025/07/19 16:54		2025/07/19 16:54		
COC Number		292222		292222		
	UNITS	**AEMP-DS-01**	**QC Batch**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Calculated Parameters						
Hardness (CaCO3)	mg/L	320	C026111	320	0.50	C026111
Ion Balance (% Difference)	%	4.9	C026154	4.9	N/A	C026154
Nitrate (N)	mg/L	0.052	C026076	0.057	0.040	C026076
Nitrate (NO3)	mg/L	0.23	C026073	0.25	0.18	C026073
Nitrite (NO2)	mg/L	<0.13	C026073	<0.13	0.13	C026073
Sulphide (as H2S)	mg/L	0.011	C026095	0.012	0.0020	C026095
Demand Parameters						
Chemical Oxygen Demand	mg/L	<10 (1)	C026742	<10 (1)	10	C026742
Elements						
Dissolved Cadmium (Cd)	mg/L	<0.000020	C026107	<0.000020	0.000020	C026107
Misc. Inorganics						
Conductivity	uS/cm	750	C027763	750	2.0	C027763
Dissolved Organic Carbon (C)	mg/L	2.5	C028606	2.4	0.50	C028606
pH	pH	8.30	C027762	8.28	N/A	C027762
Total Organic Carbon (C)	mg/L	1.8	C028399	1.5	0.50	C028399
Total Dissolved Solids	mg/L	460	C026598	470	10	C026598
Total Suspended Solids	mg/L	<1.0	C026619	<1.0	1.0	C026619
Anions						
Alkalinity (PP as CaCO3)	mg/L	<1.0	C027760	<1.0	1.0	C027760
Alkalinity (Total as CaCO3)	mg/L	190	C027760	190	1.0	C027760
Bicarbonate (HCO3)	mg/L	230	C027760	230	1.0	C027760
Carbonate (CO3)	mg/L	<1.0	C027760	<1.0	1.0	C027760
Hydroxide (OH)	mg/L	<1.0	C027760	<1.0	1.0	C027760
Total Sulphide	mg/L	0.011	C030042	0.011	0.0018	C030042
Chloride (Cl)	mg/L	36	C027870	36	1.0	C027870
Sulphate (SO4)	mg/L	180	C027870	180	5.0	C027870
Nutrients						
Total Ammonia (N)	mg/L	0.036	C028356	<0.015	0.015	C028302

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK256		DPK257		
Sampling Date		2025/07/19 16:54		2025/07/19 16:54		
COC Number		292222		292222		
	UNITS	**AEMP-DS-01**	**QC Batch**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L	<0.0030	C028527	<0.0030	0.0030	C028527
Nitrite (N)	mg/L	<0.040	C028189	<0.040	0.040	C028189
Nitrate plus Nitrite (N)	mg/L	0.052	C028189	0.057	0.040	C028189
Misc. Organics						
Oil and grease	mg/L	<2.0	C025735	<2.0	2.0	C025735
Total Petroleum Hydrocarbon	mg/L	<2.0	C025740	<2.0	2.0	C025740
Physical Properties						
True Colour	PtCo units	9.6	C028441	8.8	2.0	C028441
Physical Properties						
Turbidity	NTU	0.12	C026083	0.12	0.10	C026083
RDL = Reportable Detection Limit						

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DPK256	DPK257		
Sampling Date		2025/07/19 16:54	2025/07/19 16:54		
COC Number		292222	292222		
	UNITS	**AEMP-DS-01**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Polycyclic Aromatics					
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	0.000010	C026638
Acenaphthene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acenaphthylene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acridine	mg/L	<0.000040	<0.000040	0.000040	C026635
Anthracene	mg/L	<0.000010	<0.000010	0.000010	C026635
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Chrysene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Fluoranthene	mg/L	<0.000010	<0.000010	0.000010	C026635
Fluorene	mg/L	<0.000050	<0.000050	0.000050	C026635
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Naphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Perylene	mg/L	<0.000050	<0.000050	0.000050	C026635
Pyrene	mg/L	<0.000020	<0.000020	0.000020	C026635
Quinoline	mg/L	<0.00020	<0.00020	0.00020	C026635
Extraction Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	103	100		C026635
D8-ACENAPHTHYLENE (sur.)	%	86	84		C026635
D8-NAPHTHALENE (sur.)	%	79	79		C026635
TERPHENYL-D14 (sur.)	%	103	102		C026635
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DPK256	DPK257		
Sampling Date		2025/07/19 16:54	2025/07/19 16:54		
COC Number		292222	292222		
	UNITS	**AEMP-DS-01**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Elements					
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C028440
RDL = Reportable Detection Limit					

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Task Order#: advisian pending
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Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPK256	DPK257		
Sampling Date		2025/07/19 16:54	2025/07/19 16:54		
COC Number		292222	292222		
	UNITS	**AEMP-DS-01**	**AEMP-DUP-1**	**RDL**	**QC Batch**
Elements					
Dissolved Aluminum (Al)	mg/L	<0.0030	<0.0030	0.0030	C028258
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C028258
Dissolved Arsenic (As)	mg/L	<0.00020	0.00022	0.00020	C028258
Dissolved Barium (Ba)	mg/L	0.081	0.081	0.010	C027179
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Boron (B)	mg/L	0.039	0.039	0.020	C027179
Dissolved Calcium (Ca)	mg/L	80	80	0.30	C027179
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	0.00030	C028258
Dissolved Copper (Cu)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	0.060	C027179
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	C028258
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	0.020	C027179
Dissolved Magnesium (Mg)	mg/L	30	31	0.20	C027179
Dissolved Manganese (Mn)	mg/L	0.0068	0.0068	0.0040	C027179
Dissolved Molybdenum (Mo)	mg/L	0.0019	0.0019	0.00020	C028258
Dissolved Nickel (Ni)	mg/L	<0.00050	0.00057	0.00050	C028258
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C027179
Dissolved Potassium (K)	mg/L	1.2	1.2	0.30	C027179
Dissolved Selenium (Se)	mg/L	<0.00020	<0.00020	0.00020	C028258
Dissolved Silicon (Si)	mg/L	2.2	2.2	0.50	C027179
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C028258
Dissolved Sodium (Na)	mg/L	30	30	0.50	C027179
Dissolved Strontium (Sr)	mg/L	1.5	1.5	0.020	C027179
Dissolved Sulphur (S)	mg/L	60	60	0.20	C027179
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C028258
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Uranium (U)	mg/L	0.0010	0.0011	0.00010	C028258
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	0.0010	C028258
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	0.0030	C028258
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK256
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/07/19
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026185	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C027870	N/A	2025/07/23	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C028441	N/A	2025/07/24	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C028440	2025/07/24	2025/07/24	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028578	2025/07/24	2025/07/24	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028555	2025/07/24	2025/07/24	Kevin Huang
Ion Balance	CALC	C026154	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028356	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/25	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C028189	N/A	2025/07/24	Kristijan Kovac
Nitrate (as N)	CALC	C026076	2025/07/25	2025/07/25	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C028527	N/A	2025/07/24	Kristijan Kovac
Total Sulphide	SPEC	C030042	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/25	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026619	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C026083	N/A	2025/07/22	Daryl Viktoria Noval

Bureau Veritas ID: DPK256 Dup
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/07/19
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari

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Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK257
Sample ID: AEMP-DUP-1
Matrix: Water

Collected: 2025/07/19
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026185	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C027870	N/A	2025/07/23	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C028441	N/A	2025/07/24	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C028440	2025/07/24	2025/07/24	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028306	2025/07/24	2025/07/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C028258	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028298	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C026154	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/25	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C028189	N/A	2025/07/24	Kristijan Kovac
Nitrate (as N)	CALC	C026076	2025/07/25	2025/07/25	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C028527	N/A	2025/07/24	Kristijan Kovac
Total Sulphide	SPEC	C030042	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/25	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026619	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C026083	N/A	2025/07/22	Daryl Viktoria Noval

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Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Sample DPK256 [AEMP-DS-01] : True Colour completed within five days of sampling. Data is satisfactory for compliance purposes. Sample was analyzed past method specified hold time for True Colour. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Sample DPK257 [AEMP-DUP-1] : True Colour completed within five days of sampling. Data is satisfactory for compliance purposes. Sample was analyzed past method specified hold time for True Colour. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C025735	RRA	Method Blank	Oil and grease	2025/07/22	<2.0		mg/L	
C025740	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/07/22	<2.0		mg/L	
C026083	DVN	Method Blank	Turbidity	2025/07/22	<0.10		NTU	
C026598	HE1	Method Blank	Total Dissolved Solids	2025/07/24	<10		mg/L	
C026619	HE1	Method Blank	Total Suspended Solids	2025/07/23	<1.0		mg/L	
C026626	BQU	Method Blank	O-TERPHENYL (sur.)	2025/07/23		101	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23	<0.10		mg/L	
C026635	NK3	Method Blank	D10-ANTHRACENE (sur.)	2025/07/23		101	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		82	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23	<0.00010		mg/L	
			Acenaphthylene	2025/07/23	<0.00010		mg/L	
			Acridine	2025/07/23	<0.000040		mg/L	
			Anthracene	2025/07/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/07/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/07/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/07/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/07/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/07/23	<0.000050		mg/L	
			Chrysene	2025/07/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/07/23	<0.0000075		mg/L	
			Fluoranthene	2025/07/23	<0.000010		mg/L	
			Fluorene	2025/07/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/07/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			Naphthalene	2025/07/23	<0.00010		mg/L	
			Phenanthrene	2025/07/23	<0.000050		mg/L	
			Perylene	2025/07/23	<0.000050		mg/L	
			Pyrene	2025/07/23	<0.000020		mg/L	
			Quinoline	2025/07/23	<0.00020		mg/L	
C026742	AP1	Method Blank	Chemical Oxygen Demand	2025/07/23	<10		mg/L	
C026999	WPK	Method Blank	1,4-Difluorobenzene (sur.)	2025/07/25		107	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		90	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		98	%	50 - 140
			Benzene	2025/07/25	<0.00040		mg/L	
			Toluene	2025/07/25	<0.00040		mg/L	
			Ethylbenzene	2025/07/25	<0.00040		mg/L	
			m & p-Xylene	2025/07/25	<0.00080		mg/L	
			o-Xylene	2025/07/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/07/25	<0.10		mg/L	
C027179	VSC	Method Blank	Dissolved Iron (Fe)	2025/07/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/07/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/07/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/07/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/07/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/07/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/07/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/07/23	<0.20		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Phosphorus (P)	2025/07/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/07/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/07/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/07/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/07/23	<0.30		mg/L	
C027347	MAP	Method Blank	Total Nitrogen (N)	2025/07/23	<0.020		mg/L	
C027760	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/07/24	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/07/24	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/07/24	<1.0		mg/L	
			Carbonate (CO3)	2025/07/24	<1.0		mg/L	
			Hydroxide (OH)	2025/07/24	<1.0		mg/L	
C027763	AYE	Method Blank	Conductivity	2025/07/24	<2.0		uS/cm	
C027870	TOR	Method Blank	Chloride (Cl)	2025/07/23	<1.0		mg/L	
			Sulphate (SO4)	2025/07/23	<1.0		mg/L	
C028189	KKC	Method Blank	Nitrite (N)	2025/07/24	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/07/24	<0.040		mg/L	
C028258	JAB	Method Blank	Dissolved Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/07/24	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028298	JAB	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C028302	ISW	Method Blank	Total Ammonia (N)	2025/07/24	<0.015		mg/L	
C028306	VSC	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	
C028356	ISW	Method Blank	Total Ammonia (N)	2025/07/24	<0.015		mg/L	
C028399	TJ4	Method Blank	Total Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C028440	KKM	Method Blank	Dissolved Mercury (Hg)	2025/07/24	<0.0019		ug/L	
C028441	KKC	Method Blank	True Colour	2025/07/24	<2.0		PtCo units	
C028449	KKM	Method Blank	Total Mercury (Hg)	2025/07/24	<0.0019		ug/L	
C028527	KKC	Method Blank	Orthophosphate (P)	2025/07/24	<0.0030		mg/L	
C028555	KH2	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028578	KHU	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	
C028606	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/07/24	<0.50		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C030042	LYV	Method Blank	Total Sulphide	2025/07/25	<0.0018		mg/L	
C028449	KKM	RPD [DPK256-13]	Total Mercury (Hg)	2025/07/24	NC		%	20
C028306	VSC	Matrix Spike [DPK257-06]	Total Iron (Fe)	2025/07/24		106	%	80 - 120
			Total Lithium (Li)	2025/07/24		104	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		101	%	80 - 120
			Total Manganese (Mn)	2025/07/24		105	%	80 - 120
			Total Potassium (K)	2025/07/24		104	%	80 - 120
			Total Sodium (Na)	2025/07/24		101	%	80 - 120
			Total Strontium (Sr)	2025/07/24		92	%	80 - 120
			Total Sulphur (S)	2025/07/24		NC	%	80 - 120
			Total Phosphorus (P)	2025/07/24		101	%	80 - 120
			Total Barium (Ba)	2025/07/24		99	%	80 - 120
			Total Silicon (Si)	2025/07/24		100	%	80 - 120
			Total Boron (B)	2025/07/24		97	%	80 - 120
			Total Calcium (Ca)	2025/07/24		NC	%	80 - 120
C028449	KKM	Matrix Spike [DPK257-13]	Total Mercury (Hg)	2025/07/24		106	%	80 - 120
C025735	RRA	LCS	Oil and grease	2025/07/22		96	%	70 - 130
C025740	RRA	LCS	Total Petroleum Hydrocarbon	2025/07/22		95	%	70 - 130
C026083	DVN	LCS	Turbidity	2025/07/22		99	%	80 - 120
C026598	HE1	LCS	Total Dissolved Solids	2025/07/24		98	%	80 - 120
C026619	HE1	LCS	Total Suspended Solids	2025/07/23		95	%	80 - 120
C026626	BQU	LCS	O-TERPHENYL (sur.)	2025/07/23		104	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23		105	%	60 - 140
C026635	NK3	LCS	D10-ANTHRACENE (sur.)	2025/07/23		100	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23		70	%	50 - 130
			Acenaphthylene	2025/07/23		69	%	50 - 130
			Acridine	2025/07/23		85	%	50 - 130
			Anthracene	2025/07/23		89	%	50 - 130
			Benzo(a)anthracene	2025/07/23		96	%	50 - 130
			Benzo(b&j)fluoranthene	2025/07/23		100	%	50 - 130
			Benzo(k)fluoranthene	2025/07/23		104	%	50 - 130
			Benzo(g,h,i)perylene	2025/07/23		96	%	50 - 130
			Benzo(c)phenanthrene	2025/07/23		100	%	50 - 130
			Benzo(a)pyrene	2025/07/23		97	%	50 - 130
			Benzo(e)pyrene	2025/07/23		90	%	50 - 130
			Chrysene	2025/07/23		93	%	50 - 130
			Dibenz(a,h)anthracene	2025/07/23		101	%	50 - 130
			Fluoranthene	2025/07/23		94	%	50 - 130
			Fluorene	2025/07/23		74	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/07/23		95	%	50 - 130
			1-Methylnaphthalene	2025/07/23		56	%	50 - 130
			2-Methylnaphthalene	2025/07/23		62	%	50 - 130
			Naphthalene	2025/07/23		74	%	50 - 130
			Phenanthrene	2025/07/23		87	%	50 - 130
			Perylene	2025/07/23		93	%	50 - 130
			Pyrene	2025/07/23		94	%	50 - 130
			Quinoline	2025/07/23		106	%	50 - 130
C026742	AP1	LCS	Chemical Oxygen Demand	2025/07/23		102	%	80 - 120
C026999	WPK	LCS	1,4-Difluorobenzene (sur.)	2025/07/25		102	%	50 - 140

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			4-Bromofluorobenzene (sur.)	2025/07/25		94	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		94	%	50 - 140
			Benzene	2025/07/25		89	%	60 - 130
			Toluene	2025/07/25		95	%	60 - 130
			Ethylbenzene	2025/07/25		97	%	60 - 130
			m & p-Xylene	2025/07/25		100	%	60 - 130
			o-Xylene	2025/07/25		100	%	60 - 130
			F1 (C6-C10)	2025/07/25		104	%	60 - 140
C027179	VSC	LCS	Dissolved Iron (Fe)	2025/07/23		110	%	80 - 120
			Dissolved Lithium (Li)	2025/07/23		94	%	80 - 120
			Dissolved Magnesium (Mg)	2025/07/23		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/07/23		109	%	80 - 120
			Dissolved Potassium (K)	2025/07/23		97	%	80 - 120
			Dissolved Sodium (Na)	2025/07/23		95	%	80 - 120
			Dissolved Strontium (Sr)	2025/07/23		98	%	80 - 120
			Dissolved Sulphur (S)	2025/07/23		103	%	80 - 120
			Dissolved Phosphorus (P)	2025/07/23		104	%	80 - 120
			Dissolved Barium (Ba)	2025/07/23		101	%	80 - 120
			Dissolved Silicon (Si)	2025/07/23		103	%	80 - 120
			Dissolved Boron (B)	2025/07/23		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/07/23		96	%	80 - 120
C027347	MAP	LCS	Total Nitrogen (N)	2025/07/23		102	%	80 - 120
C027760	AYE	LCS	Alkalinity (Total as CaCO3)	2025/07/24		101	%	80 - 120
C027762	AYE	LCS	pH	2025/07/24		100	%	97 - 103
C027763	AYE	LCS	Conductivity	2025/07/24		100	%	90 - 110
C027870	TOR	LCS	Chloride (Cl)	2025/07/23		100	%	80 - 120
			Sulphate (SO4)	2025/07/23		105	%	80 - 120
C028189	KKC	LCS	Nitrite (N)	2025/07/24		104	%	80 - 120
			Nitrate plus Nitrite (N)	2025/07/24		108	%	80 - 120
C028258	JAB	LCS	Dissolved Aluminum (Al)	2025/07/24		114	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/24		103	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/24		100	%	80 - 120
			Dissolved Copper (Cu)	2025/07/24		101	%	80 - 120
			Dissolved Lead (Pb)	2025/07/24		100	%	80 - 120
			Dissolved Antimony (Sb)	2025/07/24		107	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/24		112	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/24		101	%	80 - 120
			Dissolved Selenium (Se)	2025/07/24		113	%	80 - 120
			Dissolved Silver (Ag)	2025/07/24		104	%	80 - 120
			Dissolved Arsenic (As)	2025/07/24		107	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/24		106	%	80 - 120
			Dissolved Tin (Sn)	2025/07/24		104	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/24		111	%	80 - 120
			Dissolved Uranium (U)	2025/07/24		97	%	80 - 120
			Dissolved Vanadium (V)	2025/07/24		104	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/24		102	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/24		111	%	80 - 120
C028298	JAB	LCS	Total Aluminum (Al)	2025/07/24		107	%	80 - 120
			Total Chromium (Cr)	2025/07/24		107	%	80 - 120
			Total Cobalt (Co)	2025/07/24		104	%	80 - 120
			Total Copper (Cu)	2025/07/24		105	%	80 - 120
			Total Lead (Pb)	2025/07/24		104	%	80 - 120

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Antimony (Sb)	2025/07/24		108	%	80 - 120
			Total Molybdenum (Mo)	2025/07/24		108	%	80 - 120
			Total Nickel (Ni)	2025/07/24		105	%	80 - 120
			Total Selenium (Se)	2025/07/24		105	%	80 - 120
			Total Silver (Ag)	2025/07/24		106	%	80 - 120
			Total Arsenic (As)	2025/07/24		106	%	80 - 120
			Total Thallium (Tl)	2025/07/24		107	%	80 - 120
			Total Tin (Sn)	2025/07/24		108	%	80 - 120
			Total Titanium (Ti)	2025/07/24		107	%	80 - 120
			Total Uranium (U)	2025/07/24		108	%	80 - 120
			Total Vanadium (V)	2025/07/24		106	%	80 - 120
			Total Zinc (Zn)	2025/07/24		104	%	80 - 120
			Total Beryllium (Be)	2025/07/24		105	%	80 - 120
C028302	ISW	LCS	Total Ammonia (N)	2025/07/24		106	%	80 - 120
C028306	VSC	LCS	Total Iron (Fe)	2025/07/24		108	%	80 - 120
			Total Lithium (Li)	2025/07/24		106	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		105	%	80 - 120
			Total Manganese (Mn)	2025/07/24		107	%	80 - 120
			Total Potassium (K)	2025/07/24		105	%	80 - 120
			Total Sodium (Na)	2025/07/24		103	%	80 - 120
			Total Strontium (Sr)	2025/07/24		98	%	80 - 120
			Total Sulphur (S)	2025/07/24		99	%	80 - 120
			Total Phosphorus (P)	2025/07/24		103	%	80 - 120
			Total Barium (Ba)	2025/07/24		102	%	80 - 120
			Total Silicon (Si)	2025/07/24		103	%	80 - 120
			Total Boron (B)	2025/07/24		99	%	80 - 120
			Total Calcium (Ca)	2025/07/24		102	%	80 - 120
C028356	ISW	LCS	Total Ammonia (N)	2025/07/24		108	%	80 - 120
C028399	TJ4	LCS	Total Organic Carbon (C)	2025/07/24		92	%	80 - 120
C028440	KKM	LCS	Dissolved Mercury (Hg)	2025/07/24		105	%	80 - 120
C028441	KKC	LCS	True Colour	2025/07/24		92	%	80 - 120
C028449	KKM	LCS	Total Mercury (Hg)	2025/07/24		106	%	80 - 120
C028527	KKC	LCS	Orthophosphate (P)	2025/07/24		102	%	80 - 120
C028555	KH2	LCS	Total Aluminum (Al)	2025/07/24		106	%	80 - 120
			Total Chromium (Cr)	2025/07/24		101	%	80 - 120
			Total Cobalt (Co)	2025/07/24		98	%	80 - 120
			Total Copper (Cu)	2025/07/24		98	%	80 - 120
			Total Lead (Pb)	2025/07/24		93	%	80 - 120
			Total Antimony (Sb)	2025/07/24		102	%	80 - 120
			Total Molybdenum (Mo)	2025/07/24		110	%	80 - 120
			Total Nickel (Ni)	2025/07/24		98	%	80 - 120
			Total Selenium (Se)	2025/07/24		112	%	80 - 120
			Total Silver (Ag)	2025/07/24		105	%	80 - 120
			Total Arsenic (As)	2025/07/24		102	%	80 - 120
			Total Thallium (Tl)	2025/07/24		100	%	80 - 120
			Total Tin (Sn)	2025/07/24		101	%	80 - 120
			Total Titanium (Ti)	2025/07/24		103	%	80 - 120
			Total Uranium (U)	2025/07/24		93	%	80 - 120
			Total Vanadium (V)	2025/07/24		101	%	80 - 120
			Total Zinc (Zn)	2025/07/24		96	%	80 - 120
			Total Beryllium (Be)	2025/07/24		113	%	80 - 120
C028578	KHU	LCS	Total Iron (Fe)	2025/07/24		99	%	80 - 120

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Lithium (Li)	2025/07/24		99	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		97	%	80 - 120
			Total Manganese (Mn)	2025/07/24		99	%	80 - 120
			Total Potassium (K)	2025/07/24		99	%	80 - 120
			Total Sodium (Na)	2025/07/24		98	%	80 - 120
			Total Strontium (Sr)	2025/07/24		94	%	80 - 120
			Total Sulphur (S)	2025/07/24		85	%	80 - 120
			Total Phosphorus (P)	2025/07/24		96	%	80 - 120
			Total Barium (Ba)	2025/07/24		98	%	80 - 120
			Total Silicon (Si)	2025/07/24		97	%	80 - 120
			Total Boron (B)	2025/07/24		93	%	80 - 120
			Total Calcium (Ca)	2025/07/24		95	%	80 - 120
C028606	TJ4	LCS	Dissolved Organic Carbon (C)	2025/07/24		97	%	80 - 120
C030042	LYV	LCS	Total Sulphide	2025/07/25		98	%	80 - 120
C027347	MAP	SRM	Total Nitrogen (N)	2025/07/23		103	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

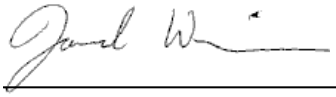
Bureau Veritas Job #: C564108
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

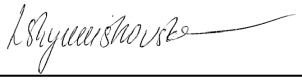
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Rahul Suryawanshi, Senior Analyst

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

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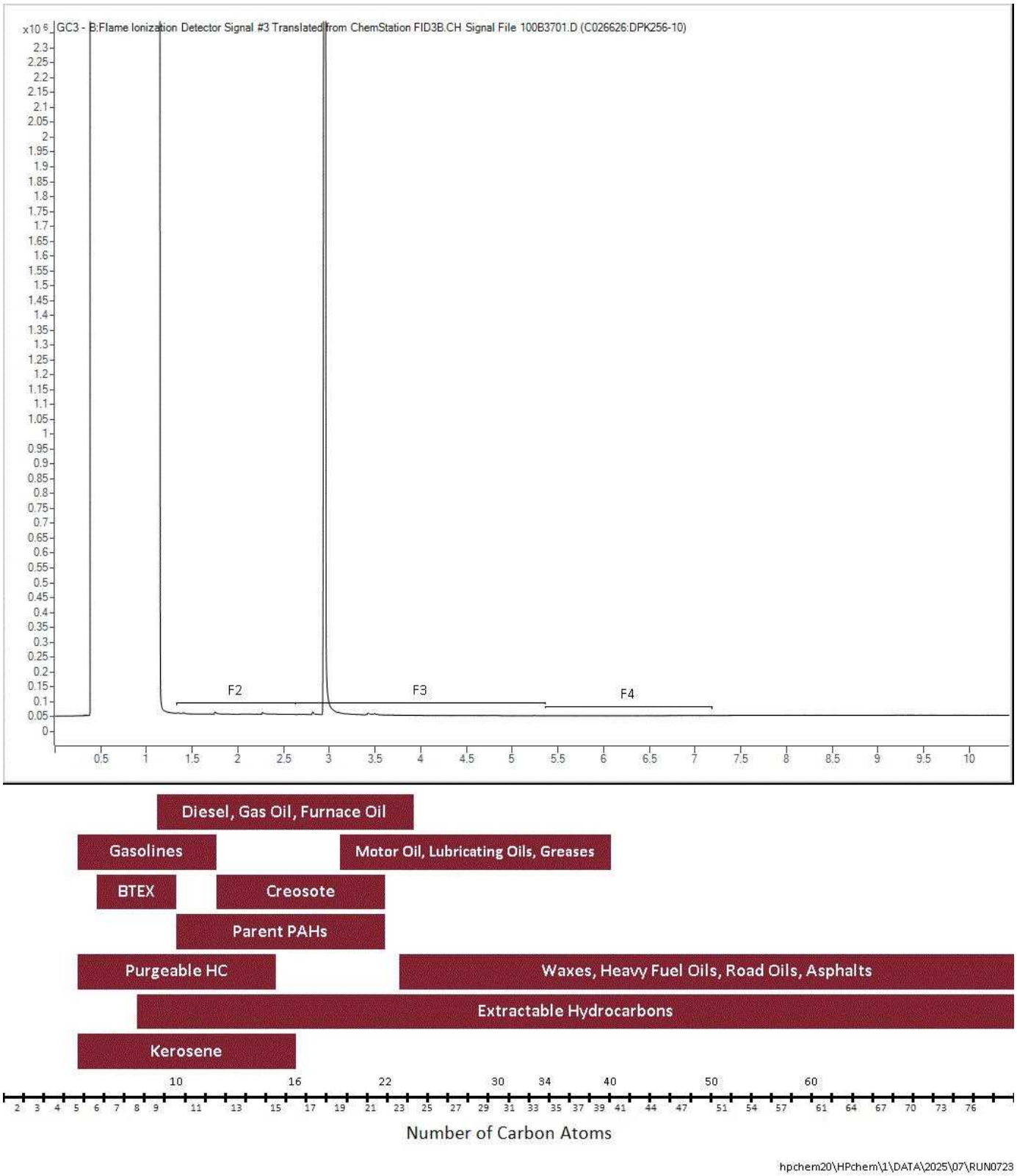
Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564108
Report Date: 2025/07/28
Bureau Veritas Sample: DPK256

Advisian
Task Order#:advisian pendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-01

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

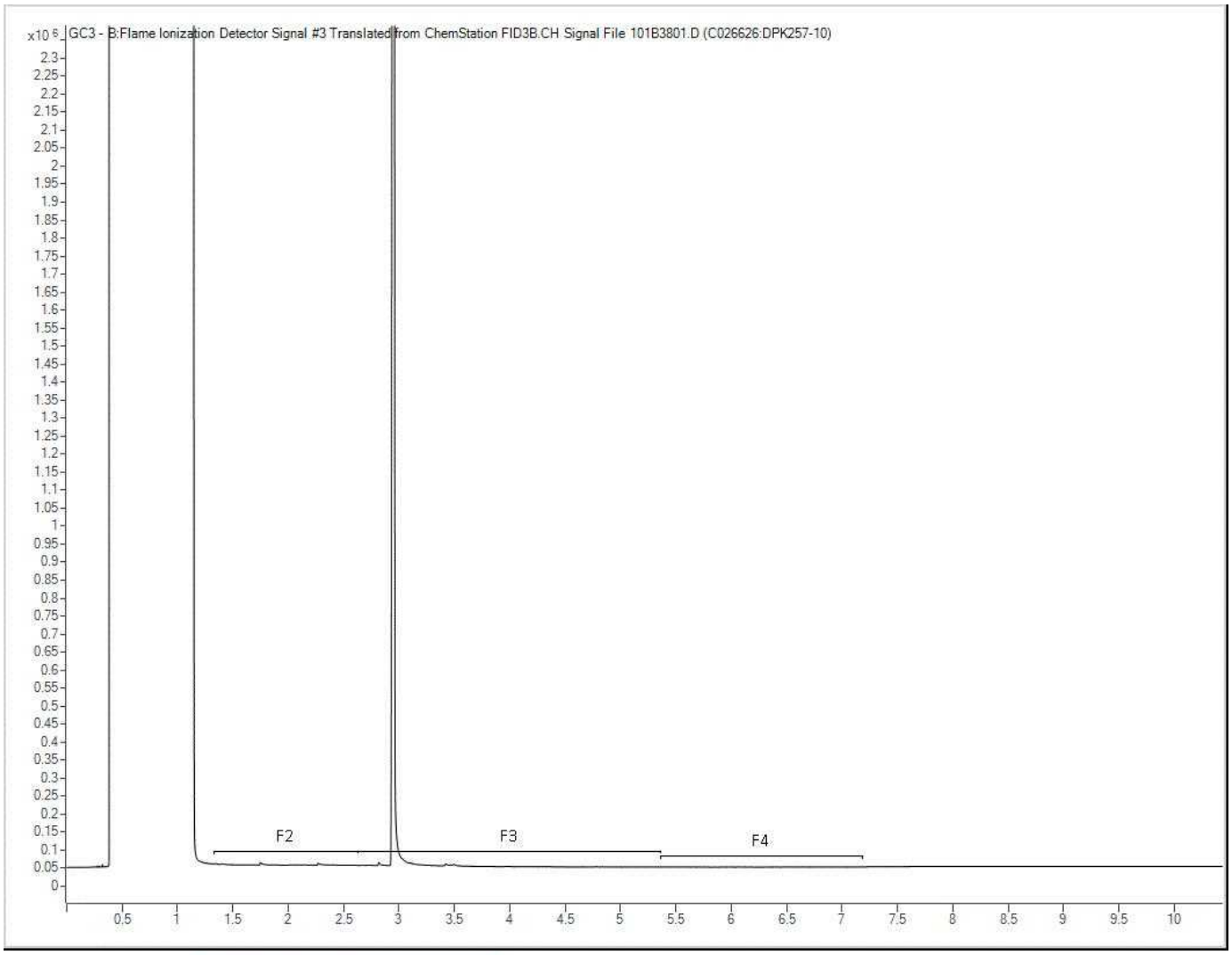


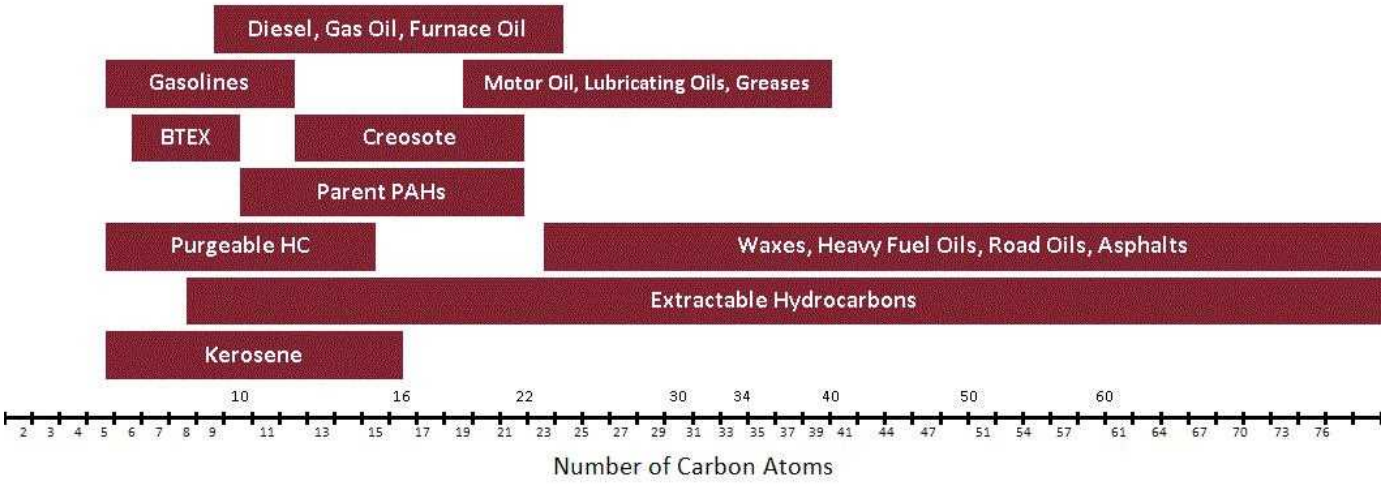
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C564108
Report Date: 2025/07/28
Bureau Veritas Sample: DPK257

Advisian
Task Order#:advisian pendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DUP-1

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram





hpchem20\HPchem\1\DATA\2025\07\RUN0723

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 292222

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☑ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Alex. Haigh	Contact Name: Alex Haigh
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7	Address: 490 Quarry Park Blvd SE Calgary, AB T2C 3E7
Email: Alex.haigh@worley.com	Email: Alex.haigh@worley.com
Ph: 587-847-6249	Ph: 587-847-6249
Sampler Name (Print): S Gibb / L Galatiotis	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	ANALYSIS REQUESTED: VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☐ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True Color, TSS, TDS, Turbidity	Oil & Grease	Tot. Diss. Sulphide	Nitrate, Nitrite, Ammonia (total) TKN	Orthophosphate	Sulphur - total & Dissolved	COD	PAH, TPH
1 AEMP-DS-01		X			17	2025/07/19	16:54	X			X	X							X	X					X			X	X	X	X	X	X	X	X
2 AEMP-DUP-1		X			17	2025/07/19	16:54	X			X	X							X	X					X			X	X	X	X	X	X	X	X
3																																			
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

MED2-2025-07-592
C564108

IOL SITE LOCATION: Norman Wells, NT
IOL PROJECT # (if applicable): NA
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email Canada.chemistry@worley.com Carol_IORdatatrack@worley.com Stacy.Gibb@worley.com JES 2601436

JARS USED & NOT SUBMITTED Enter N/A for Water: NA

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐ (2 days) ☐ (1 day) ☐ (same day) ☐
Date Required

	YES	NO	COOLER ID #				YES	NO	COOLER ID # MCAL				YES	NO	COOLER ID #			
SEAL PRESENT																		
SEAL INTACT			TEMP °C	6	1	4			TEMP °C	5	6	5			TEMP °C			
COOLING MEDIA PRESENT				1	2	3				1	2	3				1	2	3

LAB USE ONLY
MAXXAM JOB # C564108

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	Stacy Gibb	2025/07/20	10:00	1.	BRENTON MAH	2025/07/21	13:41
2.	BRENTON MAH	2025/07/21	18:00	2.	Jaskarat Boyal	2025/07/22	06:30
3.				3.			

SAMPLES
LABELED BY: GHP
VERIFIED BY: KLN

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292268

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690043
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564116
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	2	AB SOP-00005	SM 24 2320 B m
Send Part to Archive (1)	2		
BTEX/F1 in Water by HS GC/MS/FID (1)	2	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	2		Auto Calc
Cadmium - low level CCME - Dissolved (1)	2		Auto Calc
Cadmium - low level CCME (Total) (1)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	2	AB SOP-00016	SM 24 5220D m
True Colour (1)	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	2	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	2		Auto Calc
Hardness (1)	2		Auto Calc
Mercury (Dissolved) by CV (1, 4)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	2		Auto Calc
Ammonia-N (Total) (1)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	2		Auto Calc
Oil and Grease by IR (1)	2	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	2		Auto Calc
PAH in Water by GC/MS (1)	2	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	2	AB SOP-00080	SM 24 4500 S2-A D Fm

Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292268

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690043
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564116
Received: 2025/07/21, 13:46

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue) (1)	2	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total) (1)	2		Auto Calc
Nitrogen (Total) (1)	2	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (1, 8)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	2	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	2	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292268

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/28
Report #: R3690043
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564116

Received: 2025/07/21, 13:46

(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
28 Jul 2025 11:21:13

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Job #: C564116
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DPK275	DPK276		
Sampling Date		2025/07/18 09:15	2025/07/18 11:45		
COC Number		292268	292268		
	UNITS	**AEMP-DS-08**	**AEMP-DS-03**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	0.10	C026626
Volatiles					
Benzene	mg/L	<0.00040	<0.00040	0.00040	C026999
Toluene	mg/L	<0.00040	<0.00040	0.00040	C026999
Ethylbenzene	mg/L	<0.00040	<0.00040	0.00040	C026999
m & p-Xylene	mg/L	<0.00080	<0.00080	0.00080	C026999
o-Xylene	mg/L	<0.00040	<0.00040	0.00040	C026999
Xylenes (Total)	mg/L	<0.00089	<0.00089	0.00089	C026185
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	0.10	C026185
F1 (C6-C10)	mg/L	<0.10	<0.10	0.10	C026999
Extraction Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	97	98		C026626
Instrument Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	108	109		C026999
4-Bromofluorobenzene (sur.)	%	90	91		C026999
D4-1,2-Dichloroethane (sur.)	%	102	102		C026999
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564116
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DPK275	DPK276		
Sampling Date		2025/07/18 09:15	2025/07/18 11:45		
COC Number		292268	292268		
	UNITS	**AEMP-DS-08**	**AEMP-DS-03**	**RDL**	**QC Batch**
Calculated Parameters					
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.27	0.27	0.20	C025701
Nutrients					
Total Nitrogen (N)	mg/L	0.27 (1)	0.27 (1)	0.20	C027347

RDL = Reportable Detection Limit

(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK275	DPK276		
Sampling Date		2025/07/18 09:15	2025/07/18 11:45		
COC Number		292268	292268		
	UNITS	**AEMP-DS-08**	**AEMP-DS-03**	**RDL**	**QC Batch**
Elements					
Total Cadmium (Cd)	mg/L	0.00014	0.00025	0.000020	C025826
Total Mercury (Hg)	ug/L	0.0098	0.013	0.0019	C028449
Total Aluminum (Al)	mg/L	2.8	3.4	0.0030	C028256
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C028256
Total Arsenic (As)	mg/L	0.0025	0.0031	0.00020	C028256
Total Barium (Ba)	mg/L	0.13	0.17	0.010	C028257
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C028256
Total Boron (B)	mg/L	<0.020	<0.020	0.020	C028257
Total Calcium (Ca)	mg/L	36	44	0.30	C028257
Total Chromium (Cr)	mg/L	0.0044	0.0059	0.0010	C028256
Total Cobalt (Co)	mg/L	0.0025	0.0033	0.00030	C028256
Total Copper (Cu)	mg/L	0.0072	0.0089	0.0010	C028256
Total Iron (Fe)	mg/L	5.6	7.3	0.060	C028257
Total Lead (Pb)	mg/L	0.0030	0.0038	0.00020	C028256
Total Lithium (Li)	mg/L	<0.020	<0.020	0.020	C028257
Total Magnesium (Mg)	mg/L	11	14	0.20	C028257
Total Manganese (Mn)	mg/L	0.082	0.12	0.0040	C028257
Total Molybdenum (Mo)	mg/L	0.0014	0.0017	0.00020	C028256
Total Nickel (Ni)	mg/L	0.0091	0.012	0.00050	C028256
Total Phosphorus (P)	mg/L	0.13	0.18	0.10	C028257
Total Potassium (K)	mg/L	1.8	2.0	0.30	C028257
Total Selenium (Se)	mg/L	0.00059	0.00071	0.00020	C028256
Total Silicon (Si)	mg/L	5.4	6.0	0.50	C028257
Total Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C028256
Total Sodium (Na)	mg/L	6.5	6.2	0.50	C028257
Total Strontium (Sr)	mg/L	0.24	0.27	0.020	C028257
Total Sulphur (S)	mg/L	14	18	0.20	C028257
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C028256
Total Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C028256
Total Titanium (Ti)	mg/L	0.027	0.032	0.0010	C028256
Total Uranium (U)	mg/L	0.0011	0.0013	0.00010	C028256
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564116
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DPK275	DPK276		
Sampling Date		2025/07/18 09:15	2025/07/18 11:45		
COC Number		292268	292268		
	UNITS	**AEMP-DS-08**	**AEMP-DS-03**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0085	0.011	0.0010	C028256
Total Zinc (Zn)	mg/L	0.049	0.071	0.0030	C028256
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564116
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Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK275			DPK276		
Sampling Date		2025/07/18 09:15			2025/07/18 11:45		
COC Number		292268			292268		
	UNITS	**AEMP-DS-08**	**RDL**	**QC Batch**	**AEMP-DS-03**	**RDL**	**QC Batch**
Calculated Parameters							
Hardness (CaCO3)	mg/L	120	0.50	C026111	130	0.50	C026111
Ion Balance (% Difference)	%	4.7	N/A	C026071	4.7	N/A	C026071
Nitrate (N)	mg/L	<0.040	0.040	C026076	<0.040	0.040	C026076
Nitrate (NO3)	mg/L	<0.18	0.18	C026073	<0.18	0.18	C026073
Nitrite (NO2)	mg/L	<0.13	0.13	C026073	<0.13	0.13	C026073
Sulphide (as H2S)	mg/L	0.021	0.0020	C026095	0.031	0.0020	C026095
Demand Parameters							
Chemical Oxygen Demand	mg/L	44	10	C026742	40	10	C026742
Elements							
Dissolved Cadmium (Cd)	mg/L	0.000020	0.000020	C026107	<0.000020	0.000020	C026107
Misc. Inorganics							
Conductivity	uS/cm	270	2.0	C027763	300	2.0	C027763
Dissolved Organic Carbon (C)	mg/L	3.5	0.50	C028606	3.9	0.50	C028606
pH	pH	7.40	N/A	C027762	7.36	N/A	C027762
Total Organic Carbon (C)	mg/L	3.7	0.50	C028399	3.8	0.50	C028399
Total Dissolved Solids	mg/L	160	10	C026598	180	10	C026598
Total Suspended Solids	mg/L	170	0.99	C026619	310	1.0	C026619
Anions							
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760
Alkalinity (Total as CaCO3)	mg/L	91	1.0	C027760	95	1.0	C027760
Bicarbonate (HCO3)	mg/L	110	1.0	C027760	120	1.0	C027760
Carbonate (CO3)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760
Hydroxide (OH)	mg/L	<1.0	1.0	C027760	<1.0	1.0	C027760
Total Sulphide	mg/L	0.020 (1)	0.0018	C030042	0.029	0.0018	C030042
Chloride (Cl)	mg/L	7.0	1.0	C027180	6.3	1.0	C027175
Sulphate (SO4)	mg/L	47	1.0	C027180	57	1.0	C027175
Nutrients							
Total Ammonia (N)	mg/L	<0.015	0.015	C028302	<0.015	0.015	C028302
Orthophosphate (P)	mg/L	<0.0030	0.0030	C027287	<0.0030	0.0030	C027287

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Matrix spike exceeds acceptance limits due to matrix interference.

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Bureau Veritas Job #: C564116
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPK275			DPK276		
Sampling Date		2025/07/18 09:15			2025/07/18 11:45		
COC Number		292268			292268		
	UNITS	**AEMP-DS-08**	**RDL**	**QC Batch**	**AEMP-DS-03**	**RDL**	**QC Batch**
Nitrite (N)	mg/L	<0.040	0.040	C027168	<0.040	0.040	C027168
Nitrate plus Nitrite (N)	mg/L	<0.040	0.040	C027168	<0.040	0.040	C027168
Misc. Organics							
Oil and grease	mg/L	<2.0	2.0	C025735	<2.0	2.0	C025735
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C025740	<2.0	2.0	C025740
Physical Properties							
True Colour	PtCo units	15	2.0	C027266	14	2.0	C027266
Physical Properties							
Turbidity	NTU	180 (1)	0.10	C027205	220 (1)	0.10	C027205

RDL = Reportable Detection Limit
(1) Sample was analyzed after holding time expired.

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DPK275	DPK276		
Sampling Date		2025/07/18 09:15	2025/07/18 11:45		
COC Number		292268	292268		
	UNITS	**AEMP-DS-08**	**AEMP-DS-03**	**RDL**	**QC Batch**
Polycyclic Aromatics					
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	0.000010	C026638
Acenaphthene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acenaphthylene	mg/L	<0.00010	<0.00010	0.00010	C026635
Acridine	mg/L	<0.000040	<0.000040	0.000040	C026635
Anthracene	mg/L	<0.000010	<0.000010	0.000010	C026635
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Chrysene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	0.0000075	C026635
Fluoranthene	mg/L	<0.000010	<0.000010	0.000010	C026635
Fluorene	mg/L	<0.000050	<0.000050	0.000050	C026635
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	0.0000085	C026635
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Naphthalene	mg/L	<0.00010	<0.00010	0.00010	C026635
Phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C026635
Perylene	mg/L	<0.000050	<0.000050	0.000050	C026635
Pyrene	mg/L	<0.000020	<0.000020	0.000020	C026635
Quinoline	mg/L	<0.00020	<0.00020	0.00020	C026635
Extraction Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	105	100		C026635
D8-ACENAPHTHYLENE (sur.)	%	88	87		C026635
D8-NAPHTHALENE (sur.)	%	79	82		C026635
TERPHENYL-D14 (sur.)	%	105	101		C026635
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564116
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Task Order#: advisian pending
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Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DPK275	DPK276		
Sampling Date		2025/07/18 09:15	2025/07/18 11:45		
COC Number		292268	292268		
	UNITS	**AEMP-DS-08**	**AEMP-DS-03**	**RDL**	**QC Batch**
Elements					
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C028440
RDL = Reportable Detection Limit					

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPK275	DPK276		
Sampling Date		2025/07/18 09:15	2025/07/18 11:45		
COC Number		292268	292268		
	UNITS	**AEMP-DS-08**	**AEMP-DS-03**	**RDL**	**QC Batch**
Elements					
Dissolved Aluminum (Al)	mg/L	0.028	0.034	0.0030	C027585
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C027585
Dissolved Arsenic (As)	mg/L	0.00032	0.00035	0.00020	C027585
Dissolved Barium (Ba)	mg/L	0.042	0.047	0.010	C027179
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Boron (B)	mg/L	<0.020	<0.020	0.020	C027179
Dissolved Calcium (Ca)	mg/L	33	36	0.30	C027179
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	0.00030	C027585
Dissolved Copper (Cu)	mg/L	0.0016	0.0014	0.0010	C027585
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	0.060	C027179
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	C027585
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	0.020	C027179
Dissolved Magnesium (Mg)	mg/L	9.5	10	0.20	C027179
Dissolved Manganese (Mn)	mg/L	<0.0040	<0.0040	0.0040	C027179
Dissolved Molybdenum (Mo)	mg/L	0.0010	0.0012	0.00020	C027585
Dissolved Nickel (Ni)	mg/L	0.0013	0.0014	0.00050	C027585
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C027179
Dissolved Potassium (K)	mg/L	0.86	0.87	0.30	C027179
Dissolved Selenium (Se)	mg/L	0.00034	0.00045	0.00020	C027585
Dissolved Silicon (Si)	mg/L	1.7	1.7	0.50	C027179
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C027585
Dissolved Sodium (Na)	mg/L	6.7	6.3	0.50	C027179
Dissolved Strontium (Sr)	mg/L	0.22	0.24	0.020	C027179
Dissolved Sulphur (S)	mg/L	15	18	0.20	C027179
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C027585
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Uranium (U)	mg/L	0.00081	0.00092	0.00010	C027585
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	0.0010	C027585
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	0.0030	C027585
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C564116
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK275
Sample ID: AEMP-DS-08
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026185	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C027180	N/A	2025/07/23	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C027266	N/A	2025/07/23	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C028440	2025/07/24	2025/07/24	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028257	2025/07/24	2025/07/24	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C027585	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028256	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C026071	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C027168	N/A	2025/07/23	Kristijan Kovac
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C027287	N/A	2025/07/23	Kristijan Kovac
Total Sulphide	SPEC	C030042	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026619	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027205	N/A	2025/07/23	Amy Phan

Bureau Veritas ID: DPK276
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C027760	N/A	2025/07/24	Ayesha Ayesha

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Bureau Veritas Job #: C564116
Report Date: 2025/07/28

Advisian
Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPK276
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/07/18
Relinquished: 2025/07/20
Received: 2025/07/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C026999	N/A	2025/07/25	Wonjeong Park
F1-BTEX	CALC/MS	C026185	N/A	2025/07/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C026107	N/A	2025/07/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C025826	N/A	2025/07/25	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C027175	N/A	2025/07/23	Tyler Orr
COD by Colorimeter	M/PROB	C026742	N/A	2025/07/23	Amy Phan
True Colour	SPEC/COL	C027266	N/A	2025/07/23	Kristijan Kovac
Carbon (DOC)	TECH	C028606	N/A	2025/07/24	Thomas Johnson
Conductivity @25C	COND	C027763	N/A	2025/07/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C026626	2025/07/23	2025/07/23	Bryanna Quach
Sulphide (as H2S)	CALC	C026095	N/A	2025/07/25	Automated Statchk
Hardness	CALC	C026111	N/A	2025/07/24	Automated Statchk
Mercury (Dissolved) by CV	CV	C028440	2025/07/24	2025/07/24	Kiran Kumari
Mercury (Total) by CV	CV	C028449	2025/07/24	2025/07/24	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C027179	N/A	2025/07/23	Vincy Scaria
Elements by ICP - Total	ICPA	C028257	2025/07/24	2025/07/24	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C027585	N/A	2025/07/24	Jason Bao
Elements by ICPMS - Total	ICPM	C028256	2025/07/24	2025/07/24	Jason Bao
Ion Balance	CALC	C026071	N/A	2025/07/25	Automated Statchk
Ammonia-N (Total)	KONE	C028302	N/A	2025/07/24	Isabelle White
Nitrate and Nitrite	CALC	C026073	N/A	2025/07/24	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C027168	N/A	2025/07/23	Kristijan Kovac
Nitrate (as N)	CALC	C026076	2025/07/24	2025/07/24	Automated Statchk
Oil and Grease by IR	IR	C025735	2025/07/23	2025/07/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C026638	N/A	2025/07/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C026635	2025/07/23	2025/07/23	Nora Kazemian
pH @25°C	AT/ALK	C027762	N/A	2025/07/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C027287	N/A	2025/07/23	Kristijan Kovac
Total Sulphide	SPEC	C030042	2025/07/25	2025/07/25	Ly Vu
Total Dissolved Solids (Filt. Residue)	BAL	C026598	2025/07/23	2025/07/24	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C025701	N/A	2025/07/24	Automated Statchk
Nitrogen (Total)	AC/COL	C027347	2025/07/23	2025/07/23	Mary Anne Dela Cruz
Carbon (Total Organic)	TECH	C028399	N/A	2025/07/24	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C025740	2025/07/23	2025/07/24	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C026619	2025/07/23	2025/07/23	Haydee Estilong
Turbidity	TURB	C027205	N/A	2025/07/23	Amy Phan

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Bureau Veritas Job #: C564116
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Task Order#: advisian pending
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C

Temperatures upon receipt at Bureau Veritas Labs Calgary
Package 1: 2.3 degrees C
Each temperature is the average of up to three cooler temperatures taken at receipt.

Note: Bottles in shipment, but bottles not listed on C of C.

AEMP-DS-03 - Chain of custody form has 18 listed containers but we received 19. Alex Haigh notified via email and proceeded with the analysis.

Sample DPK275 [AEMP-DS-08] : Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour.

Sample DPK276 [AEMP-DS-03] : Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DPK275	AEMP-DS-08	Water	COLOURT-W	PHYS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK275	AEMP-DS-08	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK275	AEMP-DS-08	Water	PO4AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK275	AEMP-DS-08	Water	SIDE	MAI	Sulphide	#1 Matrix Spike Recovery Below Control Limit	#1 Matrix Interference	This may represent a low bias for this parameter.
DPK275	AEMP-DS-08	Water	TURB	SPP	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK276	AEMP-DS-03	Water	COLOURT-W	PHYS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DPK276	AEMP-DS-03	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK276	AEMP-DS-03	Water	PO4AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPK276	AEMP-DS-03	Water	TURB	SPP	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C025735	RRA	Method Blank	Oil and grease	2025/07/22	<2.0		mg/L	
C025740	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/07/22	<2.0		mg/L	
C026598	HE1	Method Blank	Total Dissolved Solids	2025/07/24	<10		mg/L	
C026619	HE1	Method Blank	Total Suspended Solids	2025/07/23	<1.0		mg/L	
C026626	BQU	Method Blank	O-TERPHENYL (sur.)	2025/07/23		101	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23	<0.10		mg/L	
C026635	NK3	Method Blank	D10-ANTHRACENE (sur.)	2025/07/23		101	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		82	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23	<0.00010		mg/L	
			Acenaphthylene	2025/07/23	<0.00010		mg/L	
			Acridine	2025/07/23	<0.000040		mg/L	
			Anthracene	2025/07/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/07/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/07/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/07/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/07/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/07/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/07/23	<0.000050		mg/L	
			Chrysene	2025/07/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/07/23	<0.0000075		mg/L	
			Fluoranthene	2025/07/23	<0.000010		mg/L	
			Fluorene	2025/07/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/07/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/07/23	<0.00010		mg/L	
			Naphthalene	2025/07/23	<0.00010		mg/L	
			Phenanthrene	2025/07/23	<0.000050		mg/L	
			Perylene	2025/07/23	<0.000050		mg/L	
			Pyrene	2025/07/23	<0.000020		mg/L	
			Quinoline	2025/07/23	<0.00020		mg/L	
C026742	AP1	Method Blank	Chemical Oxygen Demand	2025/07/23	<10		mg/L	
C026999	WPK	Method Blank	1,4-Difluorobenzene (sur.)	2025/07/25		107	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		90	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		98	%	50 - 140
			Benzene	2025/07/25	<0.00040		mg/L	
			Toluene	2025/07/25	<0.00040		mg/L	
			Ethylbenzene	2025/07/25	<0.00040		mg/L	
			m & p-Xylene	2025/07/25	<0.00080		mg/L	
			o-Xylene	2025/07/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/07/25	<0.10		mg/L	
C027168	KKC	Method Blank	Nitrite (N)	2025/07/23	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/07/23	<0.040		mg/L	
C027175	TOR	Method Blank	Chloride (Cl)	2025/07/23	<1.0		mg/L	
			Sulphate (SO4)	2025/07/23	<1.0		mg/L	
C027179	VSC	Method Blank	Dissolved Iron (Fe)	2025/07/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/07/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/07/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/07/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/07/23	<0.30		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Sodium (Na)	2025/07/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/07/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/07/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/07/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/07/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/07/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/07/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/07/23	<0.30		mg/L	
C027180	TOR	Method Blank	Chloride (Cl)	2025/07/23	<1.0		mg/L	
			Sulphate (SO4)	2025/07/23	<1.0		mg/L	
C027205	AP1	Method Blank	Turbidity	2025/07/23	<0.10		NTU	
C027266	KKC	Method Blank	True Colour	2025/07/23	<2.0		PtCo units	
C027287	KKC	Method Blank	Orthophosphate (P)	2025/07/23	<0.0030		mg/L	
C027347	MAP	Method Blank	Total Nitrogen (N)	2025/07/23	<0.020		mg/L	
C027585	JAB	Method Blank	Dissolved Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/07/24	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/07/24	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C027760	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/07/24	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/07/24	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/07/24	<1.0		mg/L	
			Carbonate (CO3)	2025/07/24	<1.0		mg/L	
			Hydroxide (OH)	2025/07/24	<1.0		mg/L	
C027763	AYE	Method Blank	Conductivity	2025/07/24	<2.0		uS/cm	
C028256	JAB	Method Blank	Total Aluminum (Al)	2025/07/24	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/24	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/24	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/24	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/24	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/24	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/24	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/24	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/24	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/24	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/24	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/24	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/24	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/24	<0.0010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Uranium (U)	2025/07/24	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/24	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/24	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/24	<0.0010		mg/L	
C028257	BYM	Method Blank	Total Iron (Fe)	2025/07/24	<0.060		mg/L	
			Total Lithium (Li)	2025/07/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/24	<0.0040		mg/L	
			Total Potassium (K)	2025/07/24	<0.30		mg/L	
			Total Sodium (Na)	2025/07/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/24	<0.020		mg/L	
			Total Sulphur (S)	2025/07/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/24	<0.10		mg/L	
			Total Barium (Ba)	2025/07/24	<0.010		mg/L	
			Total Silicon (Si)	2025/07/24	<0.50		mg/L	
			Total Boron (B)	2025/07/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/24	<0.30		mg/L	
C028302	ISW	Method Blank	Total Ammonia (N)	2025/07/24	<0.015		mg/L	
C028399	TJ4	Method Blank	Total Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C028440	KKM	Method Blank	Dissolved Mercury (Hg)	2025/07/24	<0.0019		ug/L	
C028449	KKM	Method Blank	Total Mercury (Hg)	2025/07/24	<0.0019		ug/L	
C028606	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/07/24	<0.50		mg/L	
C030042	LYV	Method Blank	Total Sulphide	2025/07/25	<0.0018		mg/L	
C030042	LYV	Matrix Spike [DPK275-07]	Total Sulphide	2025/07/25		5.0 (1)	%	80 - 120
C025735	RRA	LCS	Oil and grease	2025/07/22		96	%	70 - 130
C025740	RRA	LCS	Total Petroleum Hydrocarbon	2025/07/22		95	%	70 - 130
C026598	HE1	LCS	Total Dissolved Solids	2025/07/24		98	%	80 - 120
C026619	HE1	LCS	Total Suspended Solids	2025/07/23		95	%	80 - 120
C026626	BQU	LCS	O-TERPHENYL (sur.)	2025/07/23		104	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/23		105	%	60 - 140
C026635	NK3	LCS	D10-ANTHRACENE (sur.)	2025/07/23		100	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/07/23		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/07/23		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/07/23		66	%	50 - 130
			Acenaphthene	2025/07/23		70	%	50 - 130
			Acenaphthylene	2025/07/23		69	%	50 - 130
			Acridine	2025/07/23		85	%	50 - 130
			Anthracene	2025/07/23		89	%	50 - 130
			Benzo(a)anthracene	2025/07/23		96	%	50 - 130
			Benzo(b&j)fluoranthene	2025/07/23		100	%	50 - 130
			Benzo(k)fluoranthene	2025/07/23		104	%	50 - 130
			Benzo(g,h,i)perylene	2025/07/23		96	%	50 - 130
			Benzo(c)phenanthrene	2025/07/23		100	%	50 - 130
			Benzo(a)pyrene	2025/07/23		97	%	50 - 130
			Benzo(e)pyrene	2025/07/23		90	%	50 - 130
			Chrysene	2025/07/23		93	%	50 - 130
			Dibenz(a,h)anthracene	2025/07/23		101	%	50 - 130
			Fluoranthene	2025/07/23		94	%	50 - 130
			Fluorene	2025/07/23		74	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/07/23		95	%	50 - 130
			1-Methylnaphthalene	2025/07/23		56	%	50 - 130
			2-Methylnaphthalene	2025/07/23		62	%	50 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Naphthalene	2025/07/23		74	%	50 - 130
			Phenanthrene	2025/07/23		87	%	50 - 130
			Perylene	2025/07/23		93	%	50 - 130
			Pyrene	2025/07/23		94	%	50 - 130
			Quinoline	2025/07/23		106	%	50 - 130
C026742	AP1	LCS	Chemical Oxygen Demand	2025/07/23		102	%	80 - 120
C026999	WPK	LCS	1,4-Difluorobenzene (sur.)	2025/07/25		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/25		94	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/25		94	%	50 - 140
			Benzene	2025/07/25		89	%	60 - 130
			Toluene	2025/07/25		95	%	60 - 130
			Ethylbenzene	2025/07/25		97	%	60 - 130
			m & p-Xylene	2025/07/25		100	%	60 - 130
			o-Xylene	2025/07/25		100	%	60 - 130
			F1 (C6-C10)	2025/07/25		104	%	60 - 140
C027168	KKC	LCS	Nitrite (N)	2025/07/23		106	%	80 - 120
			Nitrate plus Nitrite (N)	2025/07/23		106	%	80 - 120
C027175	TOR	LCS	Chloride (Cl)	2025/07/23		103	%	80 - 120
			Sulphate (SO4)	2025/07/23		102	%	80 - 120
C027179	VSC	LCS	Dissolved Iron (Fe)	2025/07/23		110	%	80 - 120
			Dissolved Lithium (Li)	2025/07/23		94	%	80 - 120
			Dissolved Magnesium (Mg)	2025/07/23		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/07/23		109	%	80 - 120
			Dissolved Potassium (K)	2025/07/23		97	%	80 - 120
			Dissolved Sodium (Na)	2025/07/23		95	%	80 - 120
			Dissolved Strontium (Sr)	2025/07/23		98	%	80 - 120
			Dissolved Sulphur (S)	2025/07/23		103	%	80 - 120
			Dissolved Phosphorus (P)	2025/07/23		104	%	80 - 120
			Dissolved Barium (Ba)	2025/07/23		101	%	80 - 120
			Dissolved Silicon (Si)	2025/07/23		103	%	80 - 120
			Dissolved Boron (B)	2025/07/23		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/07/23		96	%	80 - 120
C027180	TOR	LCS	Chloride (Cl)	2025/07/23		102	%	80 - 120
			Sulphate (SO4)	2025/07/23		104	%	80 - 120
C027205	AP1	LCS	Turbidity	2025/07/23		100	%	80 - 120
C027266	KKC	LCS	True Colour	2025/07/23		90	%	80 - 120
C027287	KKC	LCS	Orthophosphate (P)	2025/07/23		102	%	80 - 120
C027347	MAP	LCS	Total Nitrogen (N)	2025/07/23		102	%	80 - 120
C027585	JAB	LCS	Dissolved Aluminum (Al)	2025/07/24		118	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/24		98	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/24		97	%	80 - 120
			Dissolved Copper (Cu)	2025/07/24		98	%	80 - 120
			Dissolved Lead (Pb)	2025/07/24		97	%	80 - 120
			Dissolved Antimony (Sb)	2025/07/24		103	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/24		104	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/24		97	%	80 - 120
			Dissolved Selenium (Se)	2025/07/24		98	%	80 - 120
			Dissolved Silver (Ag)	2025/07/24		94	%	80 - 120
			Dissolved Arsenic (As)	2025/07/24		99	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/24		98	%	80 - 120
			Dissolved Tin (Sn)	2025/07/24		100	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/24		94	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Uranium (U)	2025/07/24		98	%	80 - 120
			Dissolved Vanadium (V)	2025/07/24		98	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/24		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/24		101	%	80 - 120
C027760	AYE	LCS	Alkalinity (Total as CaCO3)	2025/07/24		101	%	80 - 120
C027762	AYE	LCS	pH	2025/07/24		100	%	97 - 103
C027763	AYE	LCS	Conductivity	2025/07/24		100	%	90 - 110
C028256	JAB	LCS	Total Aluminum (Al)	2025/07/24		111	%	80 - 120
			Total Chromium (Cr)	2025/07/24		109	%	80 - 120
			Total Cobalt (Co)	2025/07/24		108	%	80 - 120
			Total Copper (Cu)	2025/07/24		108	%	80 - 120
			Total Lead (Pb)	2025/07/24		108	%	80 - 120
			Total Antimony (Sb)	2025/07/24		110	%	80 - 120
			Total Molybdenum (Mo)	2025/07/24		113	%	80 - 120
			Total Nickel (Ni)	2025/07/24		108	%	80 - 120
			Total Selenium (Se)	2025/07/24		108	%	80 - 120
			Total Silver (Ag)	2025/07/24		111	%	80 - 120
			Total Arsenic (As)	2025/07/24		109	%	80 - 120
			Total Thallium (Tl)	2025/07/24		110	%	80 - 120
			Total Tin (Sn)	2025/07/24		110	%	80 - 120
			Total Titanium (Ti)	2025/07/24		109	%	80 - 120
			Total Uranium (U)	2025/07/24		113	%	80 - 120
			Total Vanadium (V)	2025/07/24		108	%	80 - 120
			Total Zinc (Zn)	2025/07/24		109	%	80 - 120
			Total Beryllium (Be)	2025/07/24		110	%	80 - 120
C028257	BYM	LCS	Total Iron (Fe)	2025/07/24		107	%	80 - 120
			Total Lithium (Li)	2025/07/24		93	%	80 - 120
			Total Magnesium (Mg)	2025/07/24		99	%	80 - 120
			Total Manganese (Mn)	2025/07/24		105	%	80 - 120
			Total Potassium (K)	2025/07/24		94	%	80 - 120
			Total Sodium (Na)	2025/07/24		92	%	80 - 120
			Total Strontium (Sr)	2025/07/24		96	%	80 - 120
			Total Sulphur (S)	2025/07/24		93	%	80 - 120
			Total Phosphorus (P)	2025/07/24		98	%	80 - 120
			Total Barium (Ba)	2025/07/24		100	%	80 - 120
			Total Silicon (Si)	2025/07/24		100	%	80 - 120
			Total Boron (B)	2025/07/24		95	%	80 - 120
			Total Calcium (Ca)	2025/07/24		90	%	80 - 120
C028302	ISW	LCS	Total Ammonia (N)	2025/07/24		106	%	80 - 120
C028399	TJ4	LCS	Total Organic Carbon (C)	2025/07/24		92	%	80 - 120
C028440	KKM	LCS	Dissolved Mercury (Hg)	2025/07/24		105	%	80 - 120
C028449	KKM	LCS	Total Mercury (Hg)	2025/07/24		106	%	80 - 120
C028606	TJ4	LCS	Dissolved Organic Carbon (C)	2025/07/24		97	%	80 - 120
C030042	LYV	LCS	Total Sulphide	2025/07/25		98	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C027347	MAP	SRM	Total Nitrogen (N)	2025/07/23		103	%	80 - 120

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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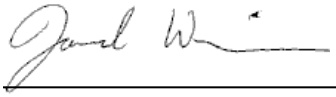
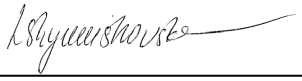
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



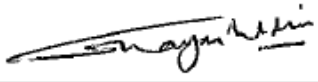
Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Rahul Suryawanshi, Senior Analyst

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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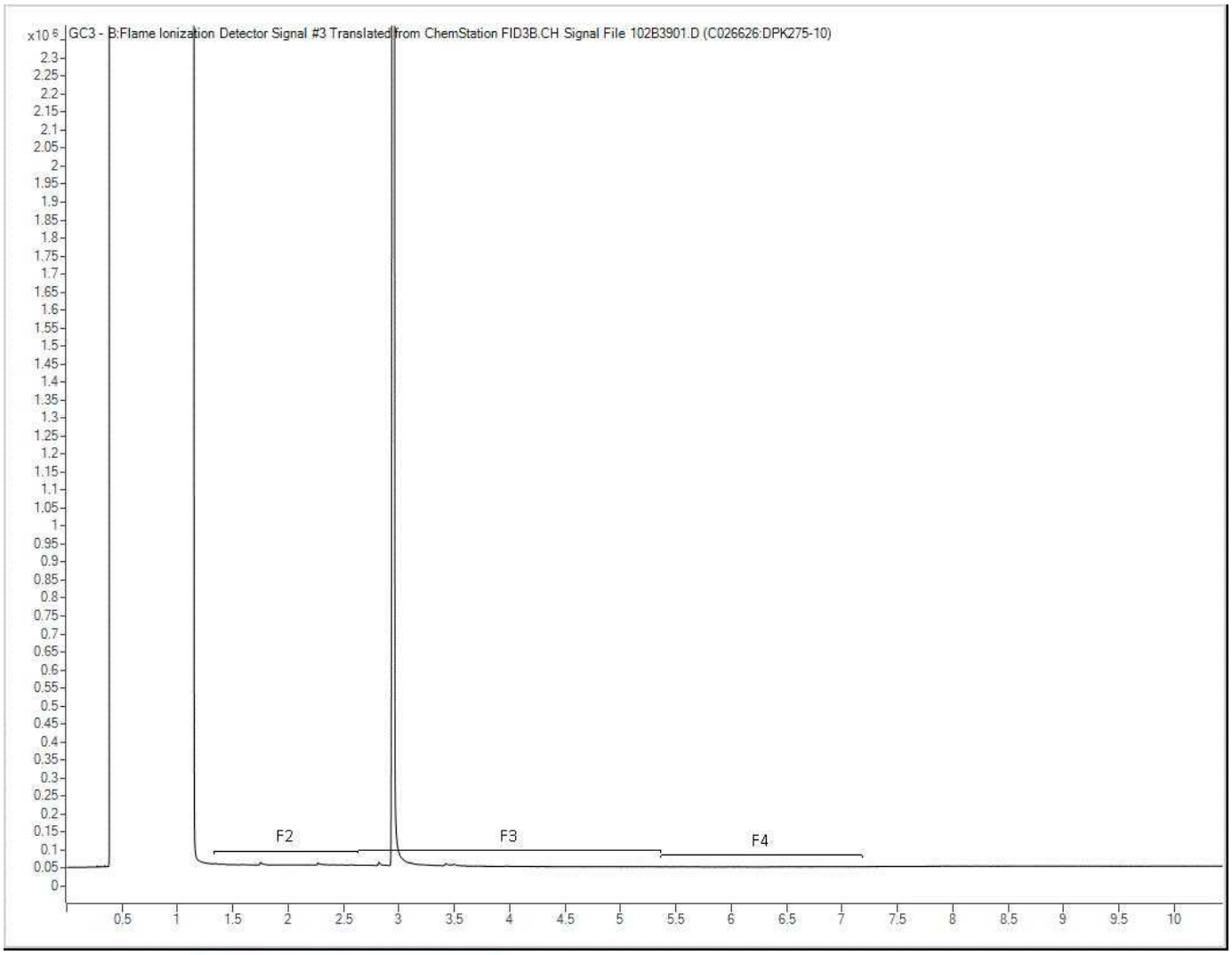
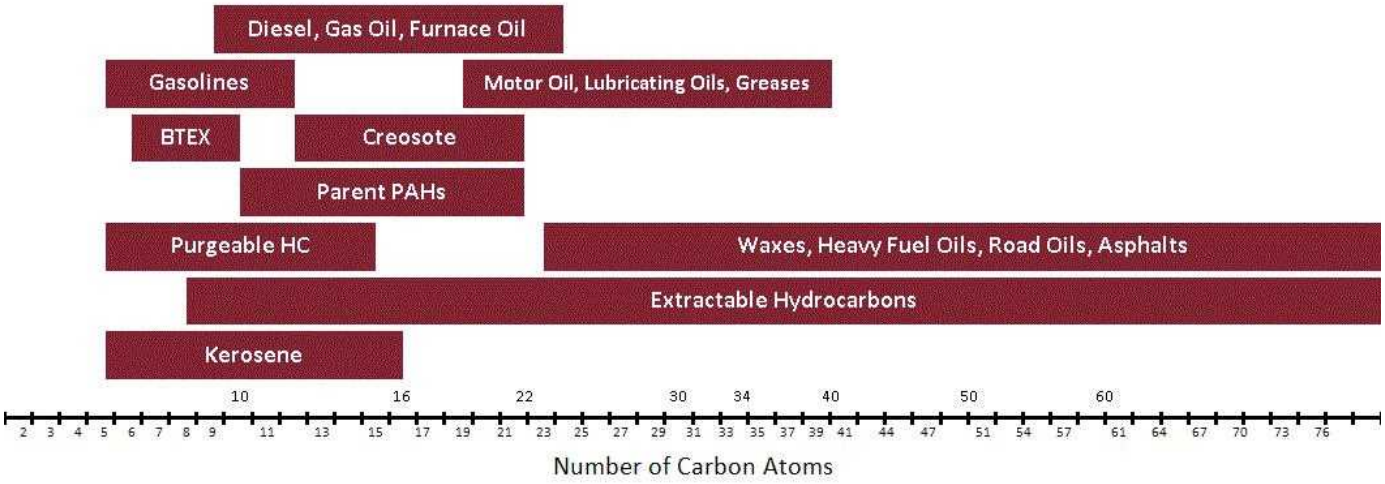
Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C564116
Report Date: 2025/07/28
Bureau Veritas Sample: DPK275

Advisian
Task Order#:advisian pendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-08

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram





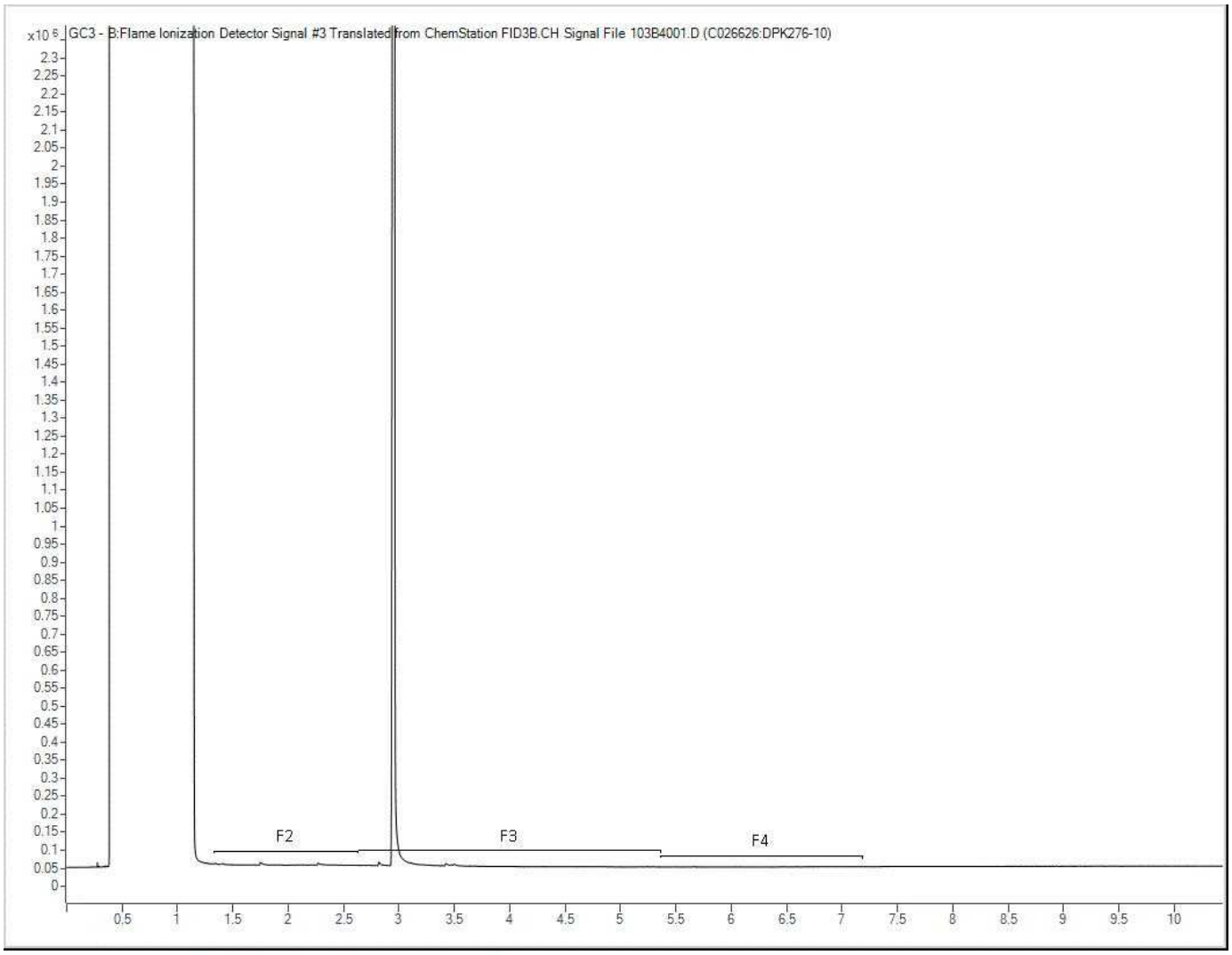
hpchem20\HPchem\1\DATA\2025\07\RUN0723

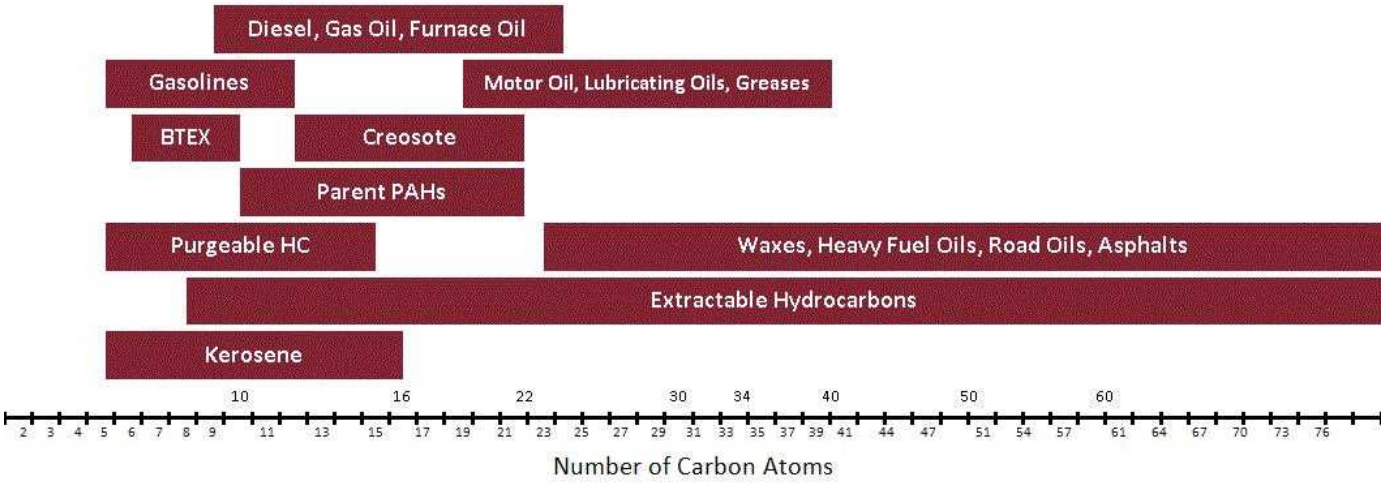
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C564116
Report Date: 2025/07/28
Bureau Veritas Sample: DPK276

Advisian
Task Order#:advisian pendingLine Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-03

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram





hpchem20\HPchem\1\DATA\2025\07\RUN0723

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 292268

INVOICE INFORMATION

Company Name: ☒ Imperial Oil ☐ ExxonMobil
Contact Name: Alex Haigh
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7
Email: Alex.haigh@worley.com
Ph: 587-847-6249
Sampler Name (Print): SGIBB / L Glatiotis

REPORT INFORMATION

Company Name: Worley
Contact Name: Alex Haigh
Address: 49 Quarry Park, Blvd SE Calgary, AB T2C 3E7
Email: Alex.haigh@worley.com
Ph: 587-847-6249
Consultant Project #: 417085-59897-25200

ANALYSIS REQUESTED

FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, TDS, Turbidity	Oil & Grease	TOC, DOC, Sulphide	Nitrate, Nitrite, Ammonia (total) TKN	Orthophosphate	Sulphur - total & dissolved	CoD	TPH
1 AEMP-DS-08		X			18	2025/07/18	9:15	X			X	X							X	X					X			X	X	X	X	X	X	X
2 AEMP-DS-03		X			18	2025/07/18	11:45	X			X	X							X	X					X			X	X	X	X	X	X	X
3																																		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

MED2-2025-07-569
KLN 2025/07/22
C564116

IOL SITE LOCATION: Norman Wells, NT
IOL PROJECT # (if applicable): N/A
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) EAL ☐ Other

SPECIAL INSTRUCTIONS: email Canada.Chemistry@worley.com cacal_JOB_datatrack@worley.com Stacy.gibb@worley.com JES 260 1436

JARS USED & NOT SUBMITTED Enter N/A for Water: N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

	YES	NO	COOLER ID #	TEMP °C 1	2	3
SEAL PRESENT	✓					
SEAL INTACT	✓					
COOLING MEDIA PRESENT	✓			3	3	1

	YES	NO	COOLER ID # NCAC	TEMP °C 1	2	3
SEAL PRESENT						
SEAL INTACT						
COOLING MEDIA PRESENT				6	2	5

	YES	NO	COOLER ID #	TEMP °C 1	2	3
SEAL PRESENT						
SEAL INTACT						
COOLING MEDIA PRESENT						

LAB USE ONLY
MAXXAM JOB # C564116
SAMPLES
LABELED BY: GHP
VERIFIED BY: KLN

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	STACY GIBB	2025/07/20	10:00	1.	BRENTON NAH	2025/07/21	13:46
2.	BRENTON NAH	2025/07/21	18:00	2.	Jasleen Regal	2025/07/22	06:30
3.				3.			

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 292270

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/31
Report #: R3691929
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C565457
Received: 2025/07/25, 09:04

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	3	AB SOP-00005	SM 24 2320 B m
BTEX/F1 in Water by HS GC/MS/FID (1)	4	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	4		Auto Calc
Cadmium - low level CCME - Dissolved (1)	3		Auto Calc
Cadmium - low level CCME (Total) (1)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductivity @25C (1)	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 2)	4	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Fluoride (1)	3	AB SOP-00005	SM 24 4500-F C m
Hardness (1)	3		Auto Calc
Mercury (Dissolved) by CV (1, 3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	3		Auto Calc
Nitrate and Nitrite (1)	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	3		Auto Calc
Total Dissolved Solids (Filt. Residue) (1)	3	AB SOP-00065	SM 24 2540 C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 292270

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/07/31
Report #: R3691929
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C565457
Received: 2025/07/25, 09:04

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Encryption Key

Danielle Boisvert
Customer Solutions Representative
31 Jul 2025 17:55:01

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Job #: C565457
Report Date: 2025/07/31

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DPS265	DPS266	DPS267	DPS268		
Sampling Date		2025/07/22 13:56	2025/07/22 14:00	2025/07/22 15:00	2025/07/22 15:05		
COC Number		292270	292270	292270	292270		
	UNITS	**BIBG-10-1-4**	**SNP-DUP2**	**BI-13-3-4-5**	**SNP-FB**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	C032058
Volatiles							
Benzene	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	C031717
Toluene	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	C031717
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	C031717
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	<0.00080	0.00080	C031717
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	C031717
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	<0.00089	0.00089	C030860
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	C030860
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	C031717
Extraction Surrogate Recovery (%)							
O-TERPHENYL (sur.)	%	104	103	103	106		C032058
Instrument Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	97	98	98	103		C031717
4-Bromofluorobenzene (sur.)	%	110	109	109	110		C031717
D4-1,2-Dichloroethane (sur.)	%	97	97	98	101		C031717
RDL = Reportable Detection Limit							

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

REGULATED METALS (CCME/AT1) - TOTAL

Bureau Veritas ID		DPS265	DPS266	DPS267		
Sampling Date		2025/07/22 13:56	2025/07/22 14:00	2025/07/22 15:00		
COC Number		292270	292270	292270		
	UNITS	**BIBG-10-1-4**	**SNP-DUP2**	**BI-13-3-4-5**	**RDL**	**QC Batch**
Elements						
Total Cadmium (Cd)	mg/L	0.00027	0.00027	0.00056	0.000020	C030880
Total Aluminum (Al)	mg/L	4.0	3.5	1.7	0.0030	C031405
Total Antimony (Sb)	mg/L	0.00085	0.00061	0.0016	0.00060	C031405
Total Arsenic (As)	mg/L	0.0050	0.0046	0.0065	0.00020	C031405
Total Barium (Ba)	mg/L	0.18	0.16	0.13	0.010	C031413
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C031405
Total Boron (B)	mg/L	<0.020	<0.020	<0.020	0.020	C031413
Total Calcium (Ca)	mg/L	210	210	370	0.30	C031413
Total Chromium (Cr)	mg/L	0.0056	0.0050	0.0060	0.0010	C031405
Total Cobalt (Co)	mg/L	0.0066	0.0066	0.0026	0.00030	C031405
Total Copper (Cu)	mg/L	0.0083	0.0078	0.0094	0.0010	C031405
Total Iron (Fe)	mg/L	11	9.3	7.9	0.060	C031413
Total Lead (Pb)	mg/L	0.011	0.011	0.0036	0.00020	C031405
Total Lithium (Li)	mg/L	<0.020	<0.020	0.023	0.020	C031413
Total Magnesium (Mg)	mg/L	54	55	170	0.20	C031413
Total Manganese (Mn)	mg/L	0.51	0.52	0.22	0.0040	C031413
Total Molybdenum (Mo)	mg/L	0.037	0.036	0.022	0.00020	C031405
Total Nickel (Ni)	mg/L	0.015	0.014	0.058	0.00050	C031405
Total Phosphorus (P)	mg/L	0.65	0.56	0.23	0.10	C031413
Total Potassium (K)	mg/L	1.8	1.7	3.3	0.30	C031413
Total Selenium (Se)	mg/L	0.0016	0.0015	0.0070	0.00020	C031405
Total Silicon (Si)	mg/L	8.4	7.8	6.0	0.50	C031413
Total Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C031405
Total Sodium (Na)	mg/L	4.8	4.9	10	0.50	C031413
Total Strontium (Sr)	mg/L	0.53	0.53	1.1	0.020	C031413
Total Sulphur (S)	mg/L	130	140	420	0.20	C031413
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C031405
Total Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C031405
Total Titanium (Ti)	mg/L	0.055	0.049	0.020	0.0010	C031405
Total Uranium (U)	mg/L	0.0064	0.0064	0.022	0.00010	C031405
Total Vanadium (V)	mg/L	0.013	0.012	0.0070	0.0010	C031405
RDL = Reportable Detection Limit						

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C565457
Report Date: 2025/07/31

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS (CCME/AT1) - TOTAL

Bureau Veritas ID		DPS265	DPS266	DPS267		
Sampling Date		2025/07/22 13:56	2025/07/22 14:00	2025/07/22 15:00		
COC Number		292270	292270	292270		
	UNITS	**BIBG-10-1-4**	**SNP-DUP2**	**BI-13-3-4-5**	**RDL**	**QC Batch**
Total Zinc (Zn)	mg/L	0.061	0.058	0.14	0.0030	C031405
RDL = Reportable Detection Limit						

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C565457
Report Date: 2025/07/31

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DPS265		DPS266			DPS267		
Sampling Date		2025/07/22 13:56		2025/07/22 14:00			2025/07/22 15:00		
COC Number		292270		292270			292270		
	UNITS	**BIBG-10-1-4**	**QC Batch**	**SNP-DUP2**	**RDL**	**QC Batch**	**BI-13-3-4-5**	**RDL**	**QC Batch**
Calculated Parameters									
Hardness (CaCO3)	mg/L	700	C030863	700	0.50	C030863	1600	0.50	C030863
Ion Balance (% Difference)	%	1.6	C030886	2.5	N/A	C030886	1.3	N/A	C030886
Nitrate (N)	mg/L	<0.040	C030888	<0.040	0.040	C030888	<0.040	0.040	C030888
Nitrate (NO3)	mg/L	<0.18	C030864	<0.18	0.18	C030864	<0.18	0.18	C030864
Nitrite (NO2)	mg/L	<0.13	C030864	<0.13	0.13	C030864	<0.13	0.13	C030864
Elements									
Dissolved Cadmium (Cd)	mg/L	0.000075	C030879	0.000063	0.000020	C030879	0.00032	0.000020	C030879
Misc. Inorganics									
Conductivity	uS/cm	1200	C031738	1200	2.0	C031738	2400	2.0	C031738
Total Dissolved Solids	mg/L	910	C032808	900	10	C032808	2300	10	C032808
Anions									
Alkalinity (PP as CaCO3)	mg/L	<1.0	C031733	<1.0	1.0	C031733	<1.0	1.0	C031733
Alkalinity (Total as CaCO3)	mg/L	260	C031733	260	1.0	C031733	310	1.0	C031733
Bicarbonate (HCO3)	mg/L	310	C031733	320	1.0	C031733	380	1.0	C031733
Carbonate (CO3)	mg/L	<1.0	C031733	<1.0	1.0	C031733	<1.0	1.0	C031733
Dissolved Fluoride (F)	mg/L	0.26	C031739	0.27	0.050	C031739	0.24	0.050	C031739
Hydroxide (OH)	mg/L	<1.0	C031733	<1.0	1.0	C031733	<1.0	1.0	C031733
Chloride (Cl)	mg/L	4.7	C032060	4.8	1.0	C032050	4.4	1.0	C032060
Sulphate (SO4)	mg/L	400	C032060	390	5.0	C032050	1300	25	C032060
Nutrients									
Nitrite (N)	mg/L	<0.040	C031238	<0.040	0.040	C031238	<0.040	0.040	C031238
Nitrate plus Nitrite (N)	mg/L	<0.040	C031238	<0.040	0.040	C031238	<0.040	0.040	C031238

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C565457
Report Date: 2025/07/31

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DPS265			DPS266			DPS267		
Sampling Date		2025/07/22 13:56			2025/07/22 14:00			2025/07/22 15:00		
COC Number		292270			292270			292270		
	UNITS	**BIBG-10-1-4**	**RDL**	**QC Batch**	**SNP-DUP2**	**RDL**	**QC Batch**	**BI-13-3-4-5**	**RDL**	**QC Batch**
Elements										
Dissolved Mercury (Hg)	ug/L	<0.0019	0.0019	C033017	<0.0019	0.0019	C033015	<0.0019	0.0019	C033017
Total Mercury (Hg)	ug/L	0.028	0.0019	C033001	0.022	0.019	C033001	0.024	0.0019	C033001
RDL = Reportable Detection Limit										

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Task Order#: 417085-59897
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPS265	DPS266			DPS266		
Sampling Date		2025/07/22 13:56	2025/07/22 14:00			2025/07/22 14:00		
COC Number		292270	292270			292270		
	UNITS	**BIBG-10-1-4**	**SNP-DUP2**	**RDL**	**QC Batch**	**SNP-DUP2 Lab-Dup**	**RDL**	**QC Batch**
Elements								
Dissolved Aluminum (Al)	mg/L	<0.0030	<0.0030	0.0030	C031499	<0.0030	0.0030	C031499
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C031499	<0.00060	0.00060	C031499
Dissolved Arsenic (As)	mg/L	<0.00020	<0.00020	0.00020	C031499	<0.00020	0.00020	C031499
Dissolved Barium (Ba)	mg/L	0.031	0.032	0.010	C031552			
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C031499	<0.0010	0.0010	C031499
Dissolved Boron (B)	mg/L	<0.020	<0.020	0.020	C031552			
Dissolved Calcium (Ca)	mg/L	210	210	0.30	C031552			
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	C031499	<0.0010	0.0010	C031499
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	0.00030	C031499	<0.00030	0.00030	C031499
Dissolved Copper (Cu)	mg/L	<0.0010	<0.0010	0.0010	C031499	<0.0010	0.0010	C031499
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	0.060	C031552			
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	C031499	<0.00020	0.00020	C031499
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	0.020	C031552			
Dissolved Magnesium (Mg)	mg/L	44	44	0.20	C031552			
Dissolved Manganese (Mn)	mg/L	0.0072	0.0066	0.0040	C031552			
Dissolved Molybdenum (Mo)	mg/L	0.026	0.026	0.00020	C031499	0.026	0.00020	C031499
Dissolved Nickel (Ni)	mg/L	0.0050	0.0039	0.00050	C031499	0.0038	0.00050	C031499
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C031552			
Dissolved Potassium (K)	mg/L	0.87	0.84	0.30	C031552			
Dissolved Selenium (Se)	mg/L	0.00047	0.00043	0.00020	C031499	0.00049	0.00020	C031499
Dissolved Silicon (Si)	mg/L	3.1	3.2	0.50	C031552			
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C031499	<0.00010	0.00010	C031499
Dissolved Sodium (Na)	mg/L	4.7	4.7	0.50	C031552			
Dissolved Strontium (Sr)	mg/L	0.53	0.54	0.020	C031552			
Dissolved Sulphur (S)	mg/L	130	140	0.20	C031552			
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C031499	<0.00020	0.00020	C031499
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C031499	<0.0010	0.0010	C031499
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	0.0010	C031499	<0.0010	0.0010	C031499
Dissolved Uranium (U)	mg/L	0.0064	0.0062	0.00010	C031499	0.0063	0.00010	C031499
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	0.0010	C031499	<0.0010	0.0010	C031499

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C565457
Report Date: 2025/07/31

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPS265	DPS266			DPS266		
Sampling Date		2025/07/22 13:56	2025/07/22 14:00			2025/07/22 14:00		
COC Number		292270	292270			292270		
	UNITS	**BIBG-10-1-4**	**SNP-DUP2**	**RDL**	**QC Batch**	**SNP-DUP2 Lab-Dup**	**RDL**	**QC Batch**
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	0.0030	C031499	<0.0030	0.0030	C031499

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DPS267		
Sampling Date		2025/07/22 15:00		
COC Number		292270		
	UNITS	**BI-13-3-4-5**	**RDL**	**QC Batch**
Elements				
Dissolved Aluminum (Al)	mg/L	0.0031	0.0030	C031499
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	C031499
Dissolved Arsenic (As)	mg/L	0.00044	0.00020	C031499
Dissolved Barium (Ba)	mg/L	0.053	0.010	C031552
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	C031499
Dissolved Boron (B)	mg/L	<0.020	0.020	C031552
Dissolved Calcium (Ca)	mg/L	370	0.30	C031552
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	C031499
Dissolved Cobalt (Co)	mg/L	0.0010	0.00030	C031499
Dissolved Copper (Cu)	mg/L	0.0038	0.0010	C031499
Dissolved Iron (Fe)	mg/L	<0.060	0.060	C031552
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	C031499
Dissolved Lithium (Li)	mg/L	0.021	0.020	C031552
Dissolved Magnesium (Mg)	mg/L	160	0.20	C031552
Dissolved Manganese (Mn)	mg/L	0.19	0.0040	C031552
Dissolved Molybdenum (Mo)	mg/L	0.020	0.00020	C031499
Dissolved Nickel (Ni)	mg/L	0.051	0.00050	C031499
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	C031552
Dissolved Potassium (K)	mg/L	3.1	0.30	C031552
Dissolved Selenium (Se)	mg/L	0.0036	0.00020	C031499
Dissolved Silicon (Si)	mg/L	3.8	0.50	C031552
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	C031499
Dissolved Sodium (Na)	mg/L	11	0.50	C031552
Dissolved Strontium (Sr)	mg/L	1.1	0.020	C031552
Dissolved Sulphur (S)	mg/L	430	0.20	C031552
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	C031499
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	C031499
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	C031499
Dissolved Uranium (U)	mg/L	0.021	0.00010	C031499
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	C031499
Dissolved Zinc (Zn)	mg/L	0.080	0.0030	C031499
RDL = Reportable Detection Limit				

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPS265
Sample ID: BIBG-10-1-4
Matrix: Water

Collected: 2025/07/22
Relinquished: 2025/07/24
Received: 2025/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C031733	N/A	2025/07/29	Jeanette Chavol Melo
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C031717	N/A	2025/07/30	Richard Ly
F1-BTEX	CALC/MS	C030860	N/A	2025/07/31	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C030879	N/A	2025/07/29	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C030880	N/A	2025/07/28	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C032060	N/A	2025/07/28	Tyler Orr
Conductivity @25C	COND	C031738	N/A	2025/07/29	Jeanette Chavol Melo
Fluoride	AT	C031739	N/A	2025/07/29	Jeanette Chavol Melo
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C032058	2025/07/28	2025/07/28	Grace (Quan) Guo
Hardness	CALC	C030863	N/A	2025/07/29	Automated Statchk
Mercury (Dissolved) by CV	CV	C033017	2025/07/29	2025/07/29	Kiran Kumari
Mercury (Total) by CV	CV	C033001	2025/07/29	2025/07/29	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C031552	N/A	2025/07/28	Bailey Morrison
Elements by ICP - Total	ICPA	C031413	2025/07/27	2025/07/27	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C031499	N/A	2025/07/27	Jason Bao
Elements by ICPMS - Total	ICPM	C031405	2025/07/27	2025/07/27	Jason Bao
Ion Balance	CALC	C030886	N/A	2025/07/30	Automated Statchk
Nitrate and Nitrite	CALC	C030864	N/A	2025/07/28	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C031238	N/A	2025/07/26	Kristijan Kovac
Nitrate (as N)	CALC	C030888	2025/07/28	2025/07/28	Automated Statchk
Total Dissolved Solids (Filt. Residue)	BAL	C032808	2025/07/29	2025/07/30	Haydee Estilong

Bureau Veritas ID: DPS266
Sample ID: SNP-DUP2
Matrix: Water

Collected: 2025/07/22
Relinquished: 2025/07/24
Received: 2025/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C031733	N/A	2025/07/29	Jeanette Chavol Melo
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C031717	N/A	2025/07/30	Richard Ly
F1-BTEX	CALC/MS	C030860	N/A	2025/07/31	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C030879	N/A	2025/07/29	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C030880	N/A	2025/07/28	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C032050	N/A	2025/07/28	Tyler Orr
Conductivity @25C	COND	C031738	N/A	2025/07/29	Jeanette Chavol Melo
Fluoride	AT	C031739	N/A	2025/07/29	Jeanette Chavol Melo
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C032058	2025/07/28	2025/07/28	Grace (Quan) Guo
Hardness	CALC	C030863	N/A	2025/07/29	Automated Statchk
Mercury (Dissolved) by CV	CV	C033015	2025/07/29	2025/07/29	Kiran Kumari
Mercury (Total) by CV	CV	C033001	2025/07/29	2025/07/29	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C031552	N/A	2025/07/27	Bailey Morrison
Elements by ICP - Total	ICPA	C031413	2025/07/27	2025/07/27	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C031499	N/A	2025/07/27	Jason Bao
Elements by ICPMS - Total	ICPM	C031405	2025/07/27	2025/07/27	Jason Bao
Ion Balance	CALC	C030886	N/A	2025/07/30	Automated Statchk

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DPS266
Sample ID: SNP-DUP2
Matrix: Water

Collected: 2025/07/22
Relinquished: 2025/07/24
Received: 2025/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate and Nitrite	CALC	C030864	N/A	2025/07/28	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C031238	N/A	2025/07/26	Kristijan Kovac
Nitrate (as N)	CALC	C030888	2025/07/28	2025/07/28	Automated Statchk
Total Dissolved Solids (Filt. Residue)	BAL	C032808	2025/07/29	2025/07/30	Haydee Estilong

Bureau Veritas ID: DPS266 Dup
Sample ID: SNP-DUP2
Matrix: Water

Collected: 2025/07/22
Relinquished: 2025/07/24
Received: 2025/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICPMS - Dissolved	ICPM	C031499	N/A	2025/07/27	Jason Bao

Bureau Veritas ID: DPS267
Sample ID: BI-13-3-4-5
Matrix: Water

Collected: 2025/07/22
Relinquished: 2025/07/24
Received: 2025/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C031733	N/A	2025/07/29	Jeanette Chavol Melo
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C031717	N/A	2025/07/30	Richard Ly
F1-BTEX	CALC/MS	C030860	N/A	2025/07/31	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C030879	N/A	2025/07/29	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C030880	N/A	2025/07/28	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C032060	N/A	2025/07/28	Tyler Orr
Conductivity @25C	COND	C031738	N/A	2025/07/29	Jeanette Chavol Melo
Fluoride	AT	C031739	N/A	2025/07/29	Jeanette Chavol Melo
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C032058	2025/07/28	2025/07/28	Grace (Quan) Guo
Hardness	CALC	C030863	N/A	2025/07/29	Automated Statchk
Mercury (Dissolved) by CV	CV	C033017	2025/07/29	2025/07/29	Kiran Kumari
Mercury (Total) by CV	CV	C033001	2025/07/29	2025/07/29	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C031552	N/A	2025/07/27	Bailey Morrison
Elements by ICP - Total	ICPA	C031413	2025/07/27	2025/07/27	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C031499	N/A	2025/07/27	Jason Bao
Elements by ICPMS - Total	ICPM	C031405	2025/07/27	2025/07/27	Jason Bao
Ion Balance	CALC	C030886	N/A	2025/07/30	Automated Statchk
Nitrate and Nitrite	CALC	C030864	N/A	2025/07/28	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C031238	N/A	2025/07/26	Kristijan Kovac
Nitrate (as N)	CALC	C030888	2025/07/28	2025/07/28	Automated Statchk
Total Dissolved Solids (Filt. Residue)	BAL	C032808	2025/07/29	2025/07/30	Haydee Estilong

Bureau Veritas ID: DPS268
Sample ID: SNP-FB
Matrix: Water

Collected: 2025/07/22
Relinquished: 2025/07/24
Received: 2025/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C031717	N/A	2025/07/30	Richard Ly

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Advisian
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TEST SUMMARY

Bureau Veritas ID: DPS268
Sample ID: SNP-FB
Matrix: Water

Collected: 2025/07/22
Relinquished: 2025/07/24
Received: 2025/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
F1-BTEX	CALC/MS	C030860	N/A	2025/07/31	Automated Statchk
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C032058	2025/07/28	2025/07/28	Grace (Quan) Guo

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.7°C

Temperatures upon receipt at Bureau Veritas Labs Calgary
Package 1: 6.3 degrees C
Package 2: -0.3 degrees C
Each temperature is the average of up to three cooler temperatures taken at receipt.

Sample DPS265 [BIBG-10-1-4] : Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample DPS266 [SNP-DUP2] : Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample DPS267 [BI-13-3-4-5] : Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DPS265	BIBG-10-1-4	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPS266	SNP-DUP2	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DPS267	BI-13-3-4-5	Water	NO23AC-W	NUTS	Sample	#11 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C031238	KKC	Method Blank	Nitrite (N)	2025/07/26	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/07/26	<0.040		mg/L	
C031405	JAB	Method Blank	Total Aluminum (Al)	2025/07/27	<0.0030		mg/L	
			Total Chromium (Cr)	2025/07/27	<0.0010		mg/L	
			Total Cobalt (Co)	2025/07/27	<0.00030		mg/L	
			Total Copper (Cu)	2025/07/27	<0.0010		mg/L	
			Total Lead (Pb)	2025/07/27	<0.00020		mg/L	
			Total Antimony (Sb)	2025/07/27	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/07/27	<0.00020		mg/L	
			Total Nickel (Ni)	2025/07/27	<0.00050		mg/L	
			Total Selenium (Se)	2025/07/27	<0.00020		mg/L	
			Total Silver (Ag)	2025/07/27	<0.00010		mg/L	
			Total Arsenic (As)	2025/07/27	<0.00020		mg/L	
			Total Thallium (Tl)	2025/07/27	<0.00020		mg/L	
			Total Tin (Sn)	2025/07/27	<0.0010		mg/L	
			Total Titanium (Ti)	2025/07/27	<0.0010		mg/L	
			Total Uranium (U)	2025/07/27	<0.00010		mg/L	
			Total Vanadium (V)	2025/07/27	<0.0010		mg/L	
			Total Zinc (Zn)	2025/07/27	<0.0030		mg/L	
			Total Beryllium (Be)	2025/07/27	<0.0010		mg/L	
C031413	BYM	Method Blank	Total Iron (Fe)	2025/07/27	<0.060		mg/L	
			Total Lithium (Li)	2025/07/27	<0.020		mg/L	
			Total Magnesium (Mg)	2025/07/27	<0.20		mg/L	
			Total Manganese (Mn)	2025/07/27	<0.0040		mg/L	
			Total Potassium (K)	2025/07/27	<0.30		mg/L	
			Total Sodium (Na)	2025/07/27	<0.50		mg/L	
			Total Strontium (Sr)	2025/07/27	<0.020		mg/L	
			Total Sulphur (S)	2025/07/27	<0.20		mg/L	
			Total Phosphorus (P)	2025/07/27	<0.10		mg/L	
			Total Barium (Ba)	2025/07/27	<0.010		mg/L	
			Total Silicon (Si)	2025/07/27	<0.50		mg/L	
			Total Boron (B)	2025/07/27	<0.020		mg/L	
			Total Calcium (Ca)	2025/07/27	<0.30		mg/L	
C031499	JAB	Method Blank	Dissolved Aluminum (Al)	2025/07/27	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/07/27	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/07/27	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/07/27	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/07/27	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/07/27	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/07/27	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/07/27	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/07/27	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/07/27	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/07/27	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/07/27	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/07/27	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/07/27	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/07/27	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/07/27	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/07/27	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/07/27	<0.0010		mg/L	
C031552	BYM	Method Blank	Dissolved Iron (Fe)	2025/07/27	<0.060		mg/L	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Lithium (Li)	2025/07/27	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/07/27	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/07/27	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/07/27	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/07/27	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/07/27	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/07/27	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/07/27	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/07/27	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/07/27	<0.50		mg/L	
			Dissolved Boron (B)	2025/07/27	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/07/27	<0.30		mg/L	
C031717	RIL	Method Blank	1,4-Difluorobenzene (sur.)	2025/07/30		104	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/30		107	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/30		103	%	50 - 140
			Benzene	2025/07/30	<0.00040		mg/L	
			Toluene	2025/07/30	<0.00040		mg/L	
			Ethylbenzene	2025/07/30	<0.00040		mg/L	
			m & p-Xylene	2025/07/30	<0.00080		mg/L	
			o-Xylene	2025/07/30	<0.00040		mg/L	
			F1 (C6-C10)	2025/07/30	<0.10		mg/L	
C031733	JVM	Method Blank	Alkalinity (Total as CaCO3)	2025/07/29	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/07/29	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/07/29	<1.0		mg/L	
			Carbonate (CO3)	2025/07/29	<1.0		mg/L	
			Hydroxide (OH)	2025/07/29	<1.0		mg/L	
C031738	JVM	Method Blank	Conductivity	2025/07/29	<2.0		uS/cm	
C031739	JVM	Method Blank	Dissolved Fluoride (F)	2025/07/29	<0.050		mg/L	
C032050	TOR	Method Blank	Chloride (Cl)	2025/07/28	<1.0		mg/L	
			Sulphate (SO4)	2025/07/28	<1.0		mg/L	
C032058	GG3	Method Blank	O-TERPHENYL (sur.)	2025/07/28		104	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/28	<0.10		mg/L	
C032060	TOR	Method Blank	Chloride (Cl)	2025/07/28	<1.0		mg/L	
			Sulphate (SO4)	2025/07/28	<1.0		mg/L	
C032808	HE1	Method Blank	Total Dissolved Solids	2025/07/30	<10		mg/L	
C033001	KKM	Method Blank	Total Mercury (Hg)	2025/07/29	<0.0019		ug/L	
C033015	KKM	Method Blank	Dissolved Mercury (Hg)	2025/07/29	<0.0019		ug/L	
C033017	KKM	Method Blank	Dissolved Mercury (Hg)	2025/07/29	<0.0019		ug/L	
C031499	JAB	RPD [DPS266-04]	Dissolved Aluminum (Al)	2025/07/27	NC		%	20
			Dissolved Chromium (Cr)	2025/07/27	NC		%	20
			Dissolved Cobalt (Co)	2025/07/27	NC		%	20
			Dissolved Copper (Cu)	2025/07/27	NC		%	20
			Dissolved Lead (Pb)	2025/07/27	NC		%	20
			Dissolved Antimony (Sb)	2025/07/27	NC		%	20
			Dissolved Molybdenum (Mo)	2025/07/27	0.34		%	20
			Dissolved Nickel (Ni)	2025/07/27	2.4		%	20
			Dissolved Selenium (Se)	2025/07/27	11		%	20
			Dissolved Silver (Ag)	2025/07/27	NC		%	20
			Dissolved Arsenic (As)	2025/07/27	NC		%	20
			Dissolved Thallium (Tl)	2025/07/27	NC		%	20
			Dissolved Tin (Sn)	2025/07/27	NC		%	20
			Dissolved Titanium (Ti)	2025/07/27	NC		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Uranium (U)	2025/07/27	1.3		%	20
			Dissolved Vanadium (V)	2025/07/27	NC		%	20
			Dissolved Zinc (Zn)	2025/07/27	NC		%	20
			Dissolved Beryllium (Be)	2025/07/27	NC		%	20
C031499	JAB	Matrix Spike [DPS266-04]	Dissolved Aluminum (Al)	2025/07/27		107	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/27		98	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/27		98	%	80 - 120
			Dissolved Copper (Cu)	2025/07/27		96	%	80 - 120
			Dissolved Lead (Pb)	2025/07/27		96	%	80 - 120
			Dissolved Antimony (Sb)	2025/07/27		104	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/27		105	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/27		97	%	80 - 120
			Dissolved Selenium (Se)	2025/07/27		102	%	80 - 120
			Dissolved Silver (Ag)	2025/07/27		99	%	80 - 120
			Dissolved Arsenic (As)	2025/07/27		103	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/27		100	%	80 - 120
			Dissolved Tin (Sn)	2025/07/27		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/27		105	%	80 - 120
			Dissolved Uranium (U)	2025/07/27		95	%	80 - 120
			Dissolved Vanadium (V)	2025/07/27		100	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/27		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/27		102	%	80 - 120
C031238	KKC	LCS	Nitrite (N)	2025/07/26		106	%	80 - 120
			Nitrate plus Nitrite (N)	2025/07/26		110	%	80 - 120
C031405	JAB	LCS	Total Aluminum (Al)	2025/07/27		107	%	80 - 120
			Total Chromium (Cr)	2025/07/27		95	%	80 - 120
			Total Cobalt (Co)	2025/07/27		97	%	80 - 120
			Total Copper (Cu)	2025/07/27		95	%	80 - 120
			Total Lead (Pb)	2025/07/27		103	%	80 - 120
			Total Antimony (Sb)	2025/07/27		106	%	80 - 120
			Total Molybdenum (Mo)	2025/07/27		105	%	80 - 120
			Total Nickel (Ni)	2025/07/27		92	%	80 - 120
			Total Selenium (Se)	2025/07/27		98	%	80 - 120
			Total Silver (Ag)	2025/07/27		100	%	80 - 120
			Total Arsenic (As)	2025/07/27		100	%	80 - 120
			Total Thallium (Tl)	2025/07/27		109	%	80 - 120
			Total Tin (Sn)	2025/07/27		101	%	80 - 120
			Total Titanium (Ti)	2025/07/27		101	%	80 - 120
			Total Uranium (U)	2025/07/27		103	%	80 - 120
			Total Vanadium (V)	2025/07/27		97	%	80 - 120
			Total Zinc (Zn)	2025/07/27		93	%	80 - 120
			Total Beryllium (Be)	2025/07/27		104	%	80 - 120
C031413	BYM	LCS	Total Iron (Fe)	2025/07/27		98	%	80 - 120
			Total Lithium (Li)	2025/07/27		94	%	80 - 120
			Total Magnesium (Mg)	2025/07/27		100	%	80 - 120
			Total Manganese (Mn)	2025/07/27		98	%	80 - 120
			Total Potassium (K)	2025/07/27		95	%	80 - 120
			Total Sodium (Na)	2025/07/27		96	%	80 - 120
			Total Strontium (Sr)	2025/07/27		99	%	80 - 120
			Total Sulphur (S)	2025/07/27		87	%	80 - 120
			Total Phosphorus (P)	2025/07/27		98	%	80 - 120
			Total Barium (Ba)	2025/07/27		100	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silicon (Si)	2025/07/27		99	%	80 - 120
			Total Boron (B)	2025/07/27		100	%	80 - 120
			Total Calcium (Ca)	2025/07/27		89	%	80 - 120
C031499	JAB	LCS	Dissolved Aluminum (Al)	2025/07/27		106	%	80 - 120
			Dissolved Chromium (Cr)	2025/07/27		97	%	80 - 120
			Dissolved Cobalt (Co)	2025/07/27		98	%	80 - 120
			Dissolved Copper (Cu)	2025/07/27		98	%	80 - 120
			Dissolved Lead (Pb)	2025/07/27		97	%	80 - 120
			Dissolved Antimony (Sb)	2025/07/27		103	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/07/27		102	%	80 - 120
			Dissolved Nickel (Ni)	2025/07/27		96	%	80 - 120
			Dissolved Selenium (Se)	2025/07/27		100	%	80 - 120
			Dissolved Silver (Ag)	2025/07/27		100	%	80 - 120
			Dissolved Arsenic (As)	2025/07/27		100	%	80 - 120
			Dissolved Thallium (Tl)	2025/07/27		100	%	80 - 120
			Dissolved Tin (Sn)	2025/07/27		99	%	80 - 120
			Dissolved Titanium (Ti)	2025/07/27		101	%	80 - 120
			Dissolved Uranium (U)	2025/07/27		93	%	80 - 120
			Dissolved Vanadium (V)	2025/07/27		98	%	80 - 120
			Dissolved Zinc (Zn)	2025/07/27		96	%	80 - 120
			Dissolved Beryllium (Be)	2025/07/27		100	%	80 - 120
C031552	BYM	LCS	Dissolved Iron (Fe)	2025/07/27		101	%	80 - 120
			Dissolved Lithium (Li)	2025/07/27		96	%	80 - 120
			Dissolved Magnesium (Mg)	2025/07/27		98	%	80 - 120
			Dissolved Manganese (Mn)	2025/07/27		98	%	80 - 120
			Dissolved Potassium (K)	2025/07/27		98	%	80 - 120
			Dissolved Sodium (Na)	2025/07/27		99	%	80 - 120
			Dissolved Strontium (Sr)	2025/07/27		99	%	80 - 120
			Dissolved Sulphur (S)	2025/07/27		97	%	80 - 120
			Dissolved Phosphorus (P)	2025/07/27		99	%	80 - 120
			Dissolved Barium (Ba)	2025/07/27		100	%	80 - 120
			Dissolved Silicon (Si)	2025/07/27		96	%	80 - 120
			Dissolved Boron (B)	2025/07/27		98	%	80 - 120
			Dissolved Calcium (Ca)	2025/07/27		95	%	80 - 120
C031717	RIL	LCS	1,4-Difluorobenzene (sur.)	2025/07/30		90	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/07/30		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/07/30		97	%	50 - 140
			Benzene	2025/07/30		95	%	60 - 130
			Toluene	2025/07/30		89	%	60 - 130
			Ethylbenzene	2025/07/30		94	%	60 - 130
			m & p-Xylene	2025/07/30		89	%	60 - 130
			o-Xylene	2025/07/30		92	%	60 - 130
			F1 (C6-C10)	2025/07/30		99	%	60 - 140
C031733	JVM	LCS	Alkalinity (Total as CaCO3)	2025/07/29		96	%	80 - 120
C031738	JVM	LCS	Conductivity	2025/07/29		101	%	90 - 110
C031739	JVM	LCS	Dissolved Fluoride (F)	2025/07/29		107	%	80 - 120
C032050	TOR	LCS	Chloride (Cl)	2025/07/28		104	%	80 - 120
			Sulphate (SO4)	2025/07/28		99	%	80 - 120
C032058	GG3	LCS	O-TERPHENYL (sur.)	2025/07/28		108	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/07/28		94	%	60 - 140
C032060	TOR	LCS	Chloride (Cl)	2025/07/28		103	%	80 - 120
			Sulphate (SO4)	2025/07/28		101	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C032808	HE1	LCS	Total Dissolved Solids	2025/07/30		97	%	80 - 120
C033001	KKM	LCS	Total Mercury (Hg)	2025/07/29		104	%	80 - 120
C033015	KKM	LCS	Dissolved Mercury (Hg)	2025/07/29		107	%	80 - 120
C033017	KKM	LCS	Dissolved Mercury (Hg)	2025/07/29		104	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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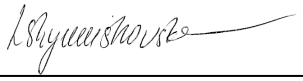
Bureau Veritas Job #: C565457
Report Date: 2025/07/31

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Rahul Suryawanshi, Senior Analyst

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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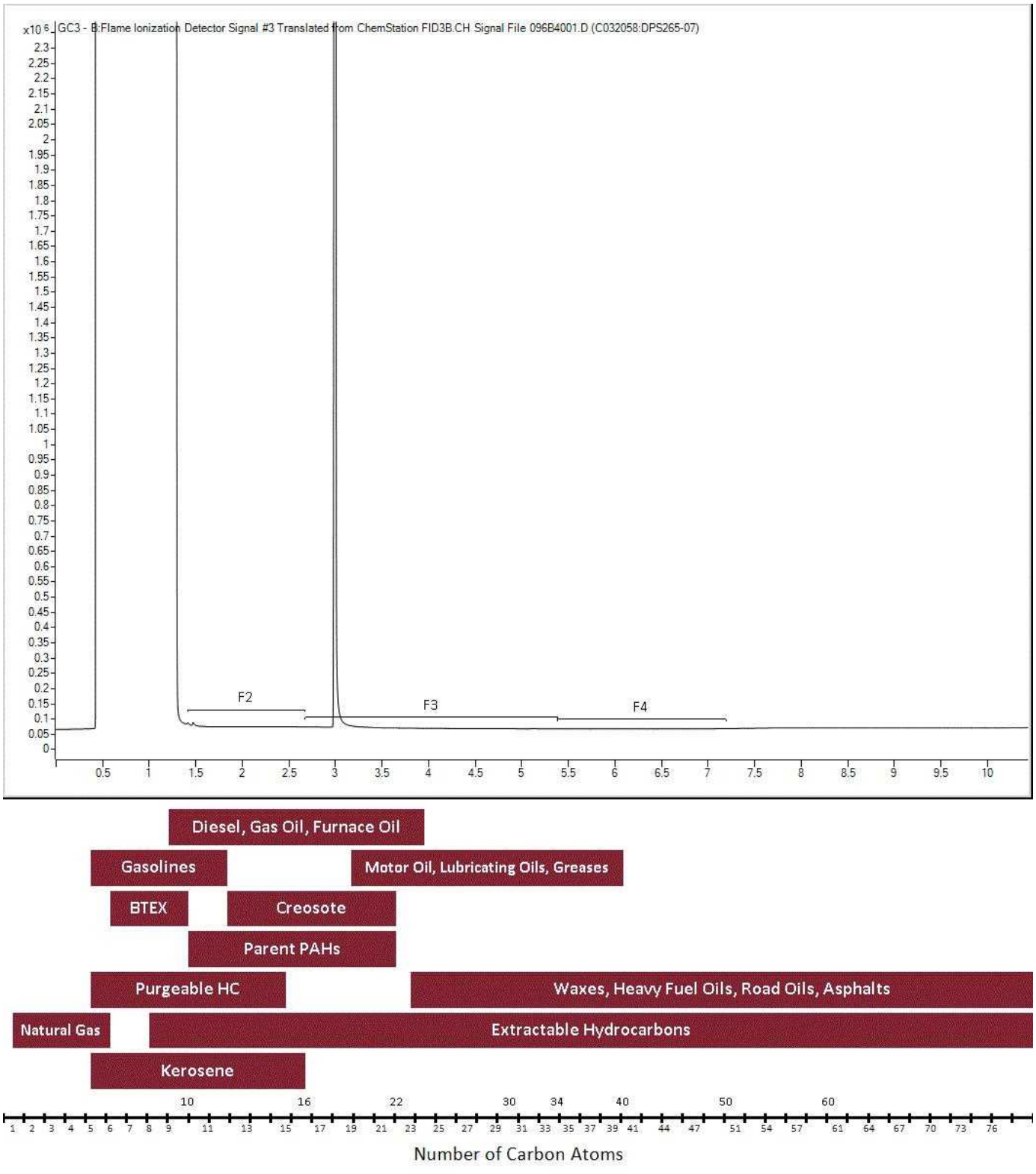
Bureau Veritas Job #: C565457
Report Date: 2025/07/31
Bureau Veritas Sample: DPS265

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: BIBG-10-1-4

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

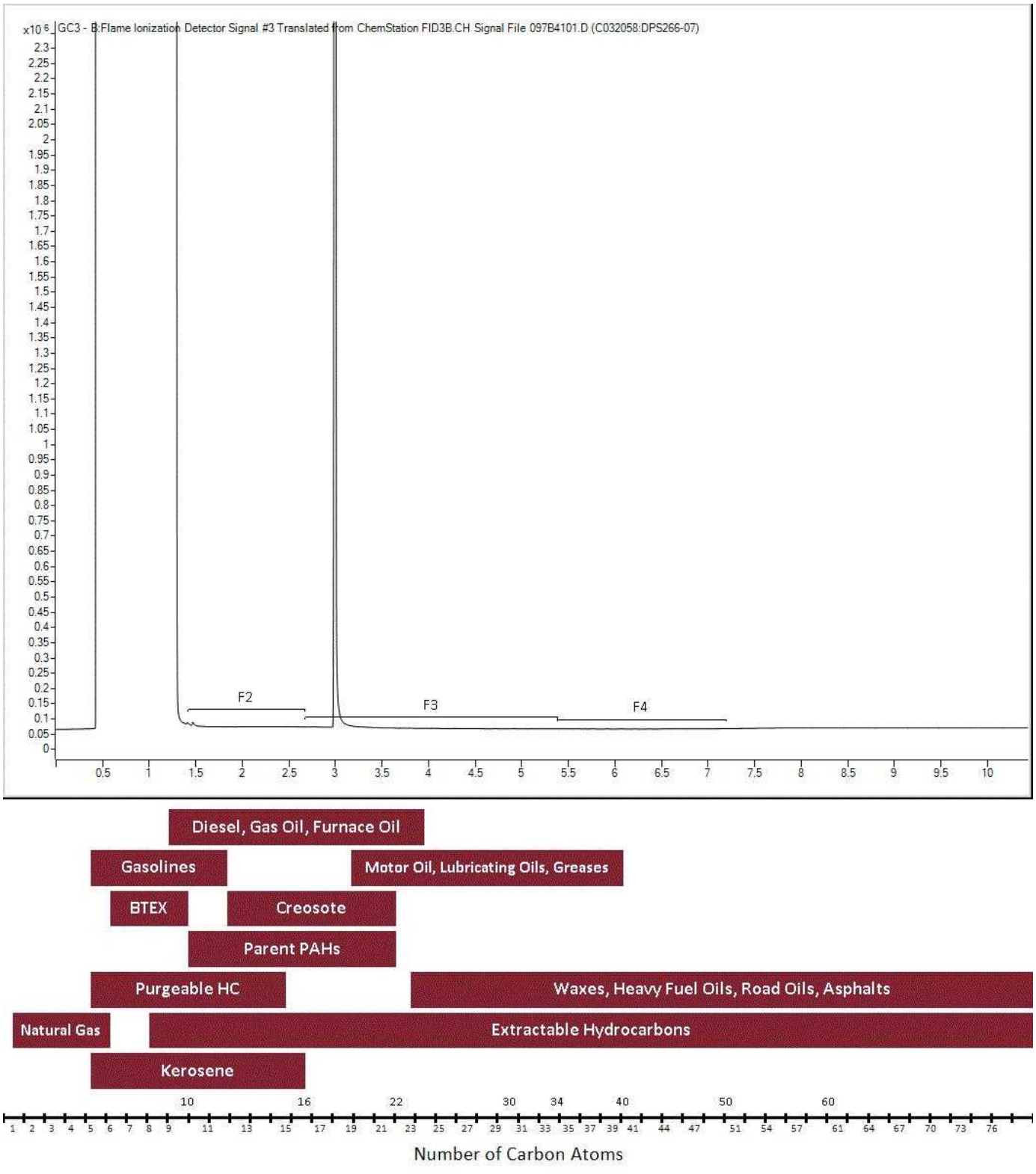


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C565457
Report Date: 2025/07/31
Bureau Veritas Sample: DPS266

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: SNP-DUP2

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

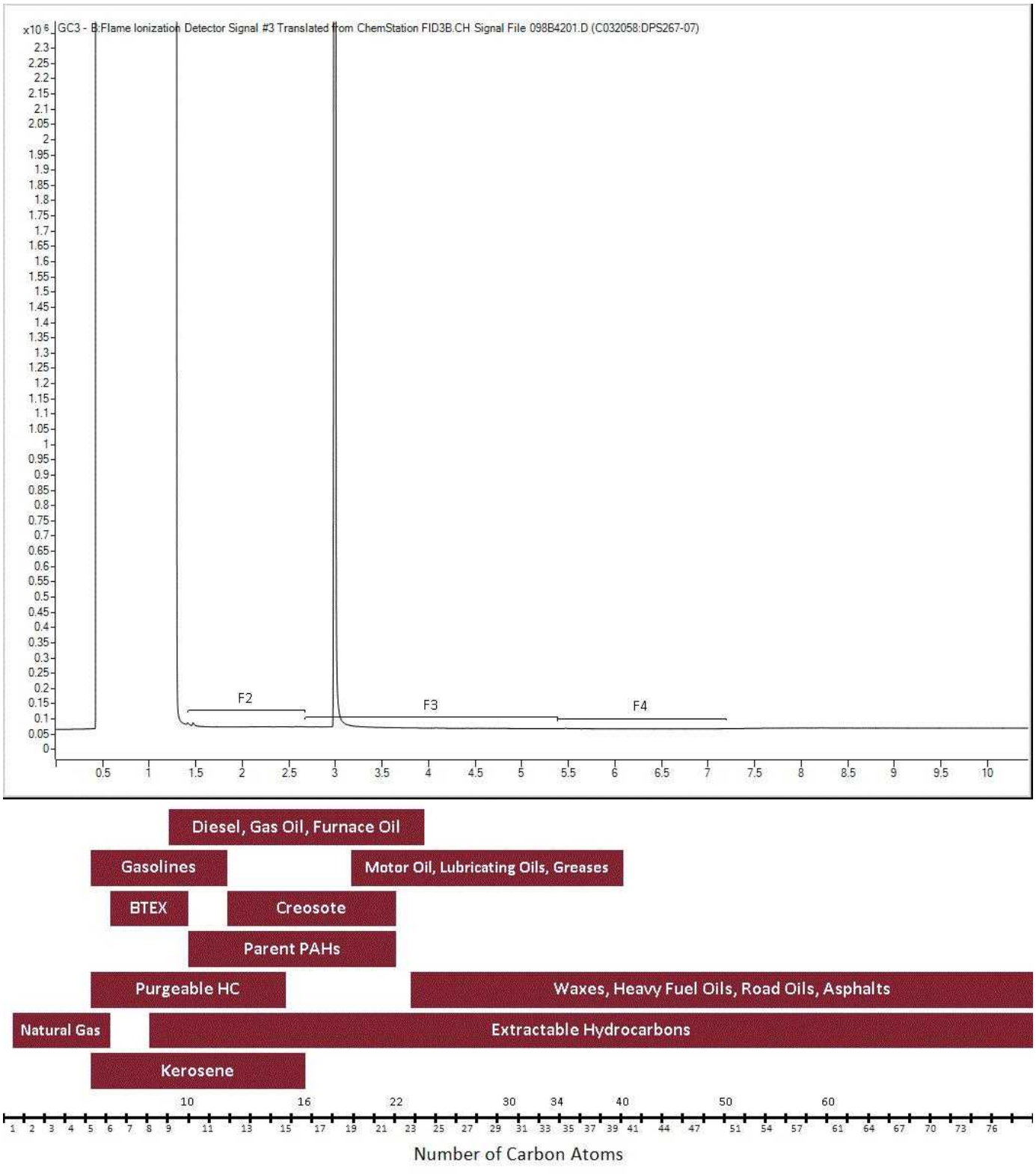


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C565457
Report Date: 2025/07/31
Bureau Veritas Sample: DPS267

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: BI-13-3-4-5

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

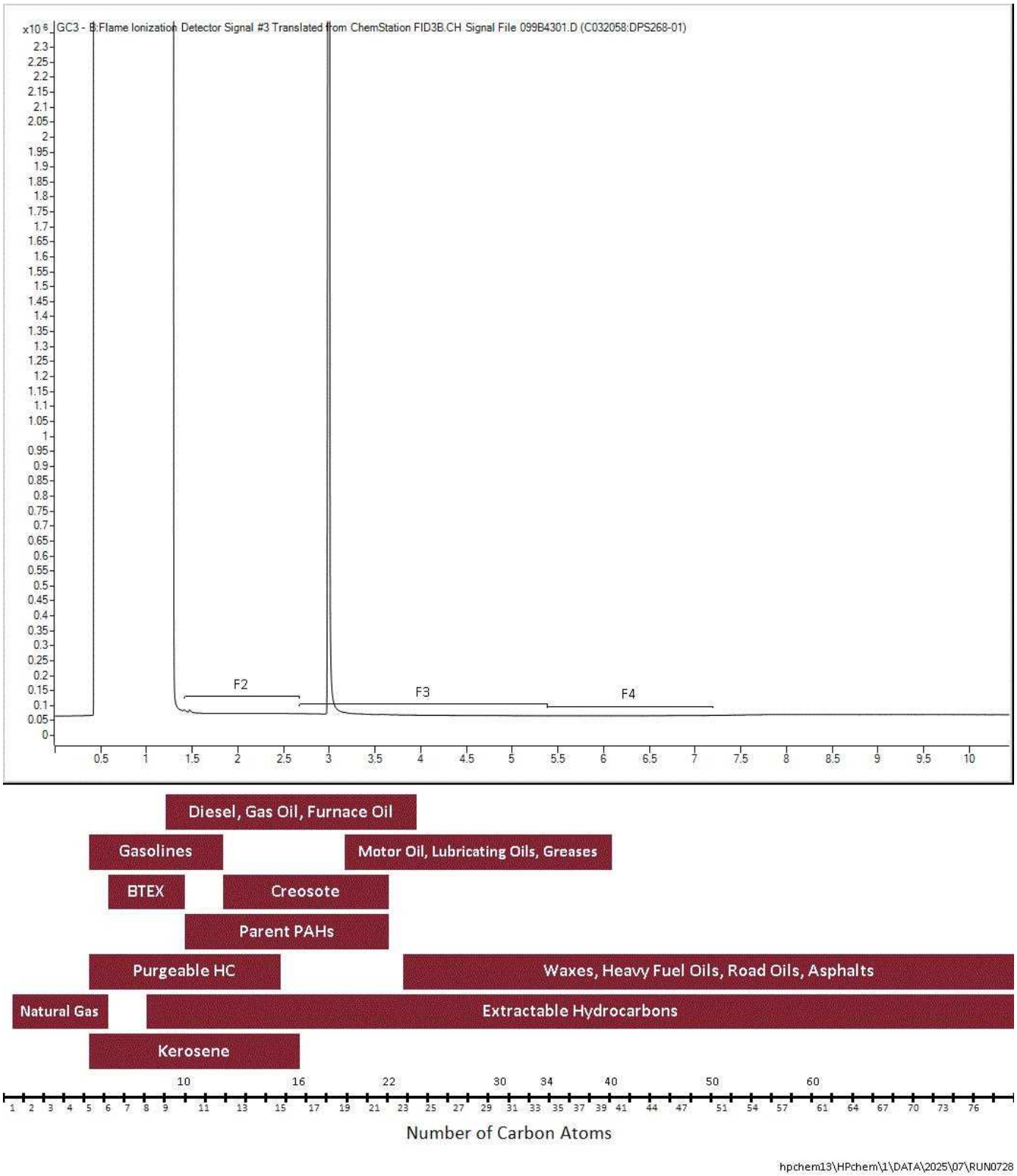


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C565457
Report Date: 2025/07/31
Bureau Veritas Sample: DPS268

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: SNP-FB

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

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EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292270

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY AB ~~T2G~~ T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587 897 6249	Ph: 587 897 6249
Sampler Name (Print): STACY GIBB / LORIAN GLATIOTIS	Consultant Project #: 417085-59897-25100

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS TOT ☒ DIS ☒	MERCURY TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY + Fluoride	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG
1	BIBG-10-1-4	X				9	2025/07/22	13:56	X				X							X	X					X		
2	SNP-DUP 2	X				9	2025/07/22	14:00	X				X							X	X					X		
3	BI-13-3-4-5	X				9	2025/07/22	15:00	X				X							X	X					X		
4	SNP-FB				X	3	2025/07/22	15:05	X				X															
5																												
6																												
7																												
8																												
9																												
10																												

MED2-2025-07-741
C565457

IOL SITE LOCATION: NORMAN WELLS, NT
IOL PROJECT # (if applicable): N/A
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25100

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS:
Email:
canada.chemistry@worley.com
cacal_IORdatatrack@worley.com
stacy.gibb@worley.com
IES 2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required:

	YES	NO	COOLER ID #				YES	NO	COOLER ID # MEAL				YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	7	6	7			TEMP °C	6	6	7			TEMP °C	0	0	-1
SEAL INTACT	✓			1	2	3				1	2	3				1	2	3
COOLING MEDIA PRESENT	✓																	

LAB USE ONLY
MAXXAM JOB #: C565457

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	STACY GIBB	2025/07/24	10:00	1.	NAVREET CHEEMA	2025/07/25	0904
2.	BRENTON NAH	2025/07/25	18:00	2.	KALANDRA	2025/07/26	0620
3.				3.			

SAMPLES
LABELED BY: DBP
VERIFIED BY: KLN

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298630

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/25
Report #: R3702220
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571140
Received: 2025/08/18, 08:00

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	2	AB SOP-00005	SM 24 2320 B m
Send Part to Archive (1)	2		
BTEX/F1 in Water by HS GC/MS/FID (1)	2	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	2		Auto Calc
Cadmium - low level CCME - Dissolved (1)	2		Auto Calc
Cadmium - low level CCME (Total) (1)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	2	AB SOP-00016	SM 24 5220D m
True Colour (1)	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	2	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	2		Auto Calc
Hardness (1)	2		Auto Calc
Mercury (Dissolved) by CV (1, 4)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	2		Auto Calc
Ammonia-N (Total) (1)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	2		Auto Calc
Oil and Grease by IR (1)	2	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	2		Auto Calc
PAH in Water by GC/MS (1)	2	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	2	AB SOP-00080	SM 24 4500 S2-A D Fm

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298630

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/25
Report #: R3702220
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571140
Received: 2025/08/18, 08:00

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue) (1)	2	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total) (1)	2		Auto Calc
Nitrogen (Total) (1)	2	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (1, 8)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	2	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	2	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298630

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/25
Report #: R3702220
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571140

Received: 2025/08/18, 08:00

(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
25 Aug 2025 15:09:18

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DRC487	DRC488		
Sampling Date		2025/08/14 11:15	2025/08/14 10:00		
COC Number		298630	298630		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	0.10	C054694
Volatiles					
Benzene	mg/L	<0.00040	<0.00040	0.00040	C053660
Toluene	mg/L	<0.00040	<0.00040	0.00040	C053660
Ethylbenzene	mg/L	<0.00040	<0.00040	0.00040	C053660
m & p-Xylene	mg/L	<0.00080	<0.00080	0.00080	C053660
o-Xylene	mg/L	<0.00040	<0.00040	0.00040	C053660
Xylenes (Total)	mg/L	<0.00089	<0.00089	0.00089	C053556
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	0.10	C053556
F1 (C6-C10)	mg/L	<0.10	<0.10	0.10	C053660
Extraction Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	93	94		C054694
Instrument Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	103	106		C053660
4-Bromofluorobenzene (sur.)	%	96	101		C053660
D4-1,2-Dichloroethane (sur.)	%	98	102		C053660
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRC487	DRC488			DRC488		
Sampling Date		2025/08/14 11:15	2025/08/14 10:00			2025/08/14 10:00		
COC Number		298630	298630			298630		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**RDL**	**QC Batch**	**AEMP-US-05 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters								
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.28	0.21	0.040	C053747			
Nutrients								
Total Nitrogen (N)	mg/L	0.28	0.21	0.020	C055508	0.20	0.020	C055508

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRC487			DRC487			DRC488		
Sampling Date		2025/08/14 11:15			2025/08/14 11:15			2025/08/14 10:00		
COC Number		298630			298630			298630		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**
Elements										
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	C053586				<0.000020	0.000020	C053586
Total Mercury (Hg)	ug/L	<0.0019	0.0019	C055804	<0.0019	0.0019	C055804	<0.0019	0.0019	C055804
Total Aluminum (Al)	mg/L	0.054	0.0030	C055810				0.014	0.0030	C057246
Total Antimony (Sb)	mg/L	<0.00060	0.00060	C055810				<0.00060	0.00060	C057246
Total Arsenic (As)	mg/L	<0.00020	0.00020	C055810				0.00022	0.00020	C057246
Total Barium (Ba)	mg/L	0.074	0.010	C055820				0.075	0.010	C057294
Total Beryllium (Be)	mg/L	<0.0010	0.0010	C055810				<0.0010	0.0010	C057246
Total Boron (B)	mg/L	0.027	0.020	C055820				0.033	0.020	C057294
Total Calcium (Ca)	mg/L	78	0.30	C055820				77	0.30	C057294
Total Chromium (Cr)	mg/L	<0.0010	0.0010	C055810				<0.0010	0.0010	C057246
Total Cobalt (Co)	mg/L	<0.00030	0.00030	C055810				<0.00030	0.00030	C057246
Total Copper (Cu)	mg/L	<0.0010	0.0010	C055810				<0.0010	0.0010	C057246
Total Iron (Fe)	mg/L	0.14	0.060	C055820				0.065	0.060	C057294
Total Lead (Pb)	mg/L	<0.00020	0.00020	C055810				<0.00020	0.00020	C057246
Total Lithium (Li)	mg/L	<0.020	0.020	C055820				<0.020	0.020	C057294
Total Magnesium (Mg)	mg/L	30	0.20	C055820				30	0.20	C057294
Total Manganese (Mn)	mg/L	0.0076	0.0040	C055820				0.0056	0.0040	C057294
Total Molybdenum (Mo)	mg/L	0.0018	0.00020	C055810				0.0019	0.00020	C057246
Total Nickel (Ni)	mg/L	0.00070	0.00050	C055810				0.00064	0.00050	C057246
Total Phosphorus (P)	mg/L	<0.10	0.10	C055820				<0.10	0.10	C057294
Total Potassium (K)	mg/L	1.1	0.30	C055820				1.1	0.30	C057294
Total Selenium (Se)	mg/L	<0.00020	0.00020	C055810				<0.00020	0.00020	C057246
Total Silicon (Si)	mg/L	2.2	0.50	C055820				2.1	0.50	C057294
Total Silver (Ag)	mg/L	<0.00010	0.00010	C055810				<0.00010	0.00010	C057246
Total Sodium (Na)	mg/L	24	0.50	C055820				23	0.50	C057294
Total Strontium (Sr)	mg/L	1.5	0.020	C055820				1.5	0.020	C057294
Total Sulphur (S)	mg/L	50	0.20	C055820				51	0.20	C057294
Total Thallium (Tl)	mg/L	<0.00020	0.00020	C055810				<0.00020	0.00020	C057246
Total Tin (Sn)	mg/L	<0.0010	0.0010	C055810				<0.0010	0.0010	C057246
Total Titanium (Ti)	mg/L	<0.0010	0.0010	C055810				<0.0010	0.0010	C057246

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRC487			DRC487			DRC488		
Sampling Date		2025/08/14 11:15			2025/08/14 11:15			2025/08/14 10:00		
COC Number		298630			298630			298630		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L	0.0011	0.00010	C055810				0.0011	0.00010	C057246
Total Vanadium (V)	mg/L	<0.0010	0.0010	C055810				<0.0010	0.0010	C057246
Total Zinc (Zn)	mg/L	<0.0030	0.0030	C055810				<0.0030	0.0030	C057246

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRC487			DRC487			DRC488		
Sampling Date		2025/08/14 11:15			2025/08/14 11:15			2025/08/14 10:00		
COC Number		298630			298630			298630		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	330	0.50	C053565				330	0.50	C053565
Ion Balance (% Difference)	%	1.5	N/A	C053566				1.5	N/A	C053566
Nitrate (N)	mg/L	<0.040	0.040	C053574				<0.040	0.040	C053574
Nitrate (NO3)	mg/L	<0.18	0.18	C053573				<0.18	0.18	C053573
Nitrite (NO2)	mg/L	<0.13	0.13	C053573				<0.13	0.13	C053573
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C053676				<0.0020	0.0020	C053676
Demand Parameters										
Chemical Oxygen Demand	mg/L	<10 (1)	10	C055400				<10 (1)	10	C055400
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C053583				<0.000020	0.000020	C053583
Misc. Inorganics										
Conductivity	uS/cm	730	2.0	C056345				730	2.0	C056345
Dissolved Organic Carbon (C)	mg/L	3.6	0.50	C060065				2.8	0.50	C060065
pH	pH	8.10	N/A	C056344				8.04	N/A	C056344
Total Organic Carbon (C)	mg/L	3.6	0.50	C060072	3.4	0.50	C060072	2.5	0.50	C060072
Total Dissolved Solids	mg/L	440	10	C055164				420	10	C055164
Total Suspended Solids	mg/L	2.3	1.0	C055183				1.1	1.0	C055183
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C056342				<1.0	1.0	C056342
Alkalinity (Total as CaCO3)	mg/L	190	1.0	C056342				190	1.0	C056342
Bicarbonate (HCO3)	mg/L	230	1.0	C056342				230	1.0	C056342
Carbonate (CO3)	mg/L	<1.0	1.0	C056342				<1.0	1.0	C056342
Hydroxide (OH)	mg/L	<1.0	1.0	C056342				<1.0	1.0	C056342
Total Sulphide	mg/L	<0.0018	0.0018	C057938				<0.0018	0.0018	C057938
Chloride (Cl)	mg/L	27	1.0	C055499				27	1.0	C055503
Sulphate (SO4)	mg/L	160	5.0	C055499				160	5.0	C055503
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C057178				<0.015	0.015	C057178

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRC487			DRC487			DRC488		
Sampling Date		2025/08/14 11:15			2025/08/14 11:15			2025/08/14 10:00		
COC Number		298630			298630			298630		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L	<0.0030	0.0030	C055899				<0.0030	0.0030	C055899
Nitrite (N)	mg/L	<0.040	0.040	C053795				<0.040	0.040	C053795
Nitrate plus Nitrite (N)	mg/L	<0.040	0.040	C053795				<0.040	0.040	C053795
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C051919				<2.0	2.0	C051919
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C054850				<2.0	2.0	C054850
Physical Properties										
True Colour	PtCo units	6.0	2.0	C054608				6.3	2.0	C054608
Physical Properties										
Turbidity	NTU	2.0	0.10	C054276	2.1	0.10	C054276	<0.10	0.10	C054276

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		DRC488		
Sampling Date		2025/08/14 10:00		
COC Number		298630		
	UNITS	**AEMP-US-05 Lab-Dup**	**RDL**	**QC Batch**
Anions				
Chloride (Cl)	mg/L	27	1.0	C055503
Sulphate (SO4)	mg/L	160	5.0	C055503
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C051919
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C054850

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRC487	DRC488		
Sampling Date		2025/08/14 11:15	2025/08/14 10:00		
COC Number		298630	298630		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**RDL**	**QC Batch**
Polycyclic Aromatics					
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	0.000010	C053734
Acenaphthene	mg/L	<0.00010	<0.00010	0.00010	C054692
Acenaphthylene	mg/L	<0.00010	<0.00010	0.00010	C054692
Acridine	mg/L	<0.000040	<0.000040	0.000040	C054692
Anthracene	mg/L	<0.000010	<0.000010	0.000010	C054692
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	0.0000085	C054692
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C054692
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C054692
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	0.0000085	C054692
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C054692
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	0.0000075	C054692
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	0.000050	C054692
Chrysene	mg/L	<0.0000085	<0.0000085	0.0000085	C054692
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	0.0000075	C054692
Fluoranthene	mg/L	<0.000010	<0.000010	0.000010	C054692
Fluorene	mg/L	<0.000050	<0.000050	0.000050	C054692
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	0.0000085	C054692
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C054692
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C054692
Naphthalene	mg/L	<0.00010	<0.00010	0.00010	C054692
Phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C054692
Perylene	mg/L	<0.000050	<0.000050	0.000050	C054692
Pyrene	mg/L	<0.000020	<0.000020	0.000020	C054692
Quinoline	mg/L	<0.00020	<0.00020	0.00020	C054692
Extraction Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	100	97		C054692
D8-ACENAPHTHYLENE (sur.)	%	102	95		C054692
D8-NAPHTHALENE (sur.)	%	84	80		C054692
TERPHENYL-D14 (sur.)	%	98	96		C054692
RDL = Reportable Detection Limit					

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MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRC487	DRC488	DRC488		
Sampling Date		2025/08/14 11:15	2025/08/14 10:00	2025/08/14 10:00		
COC Number		298630	298630	298630		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**AEMP-US-05 Lab-Dup**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	0.0019	C055811

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRC487	DRC488		
Sampling Date		2025/08/14 11:15	2025/08/14 10:00		
COC Number		298630	298630		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**RDL**	**QC Batch**
Elements					
Dissolved Aluminum (Al)	mg/L	<0.0030	0.0051	0.0030	C058493
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C058493
Dissolved Arsenic (As)	mg/L	<0.00020	<0.00020	0.00020	C058493
Dissolved Barium (Ba)	mg/L	0.078	0.082	0.010	C060320
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C058493
Dissolved Boron (B)	mg/L	0.029	0.029	0.020	C060320
Dissolved Calcium (Ca)	mg/L	77	77	0.30	C060320
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	C058493
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	0.00030	C058493
Dissolved Copper (Cu)	mg/L	<0.0010	<0.0010	0.0010	C058493
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	0.060	C060320
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	C058493
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	0.020	C060320
Dissolved Magnesium (Mg)	mg/L	33	33	0.20	C060320
Dissolved Manganese (Mn)	mg/L	0.0063	0.0064	0.0040	C060320
Dissolved Molybdenum (Mo)	mg/L	0.0017	0.0017	0.00020	C058493
Dissolved Nickel (Ni)	mg/L	0.00056	0.00059	0.00050	C058493
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C060320
Dissolved Potassium (K)	mg/L	1.1	1.1	0.30	C060320
Dissolved Selenium (Se)	mg/L	<0.00020	<0.00020	0.00020	C058493
Dissolved Silicon (Si)	mg/L	2.2	2.3	0.50	C060320
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C058493
Dissolved Sodium (Na)	mg/L	23	22	0.50	C060320
Dissolved Strontium (Sr)	mg/L	1.6	1.6	0.020	C060320
Dissolved Sulphur (S)	mg/L	61	60	0.20	C060320
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C058493
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C058493
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	0.0010	C058493
Dissolved Uranium (U)	mg/L	0.0011	0.0012	0.00010	C058493
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	0.0010	C058493
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	0.0030	C058493
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRC487
Sample ID: AEMP-US-04
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C056342	N/A	2025/08/20	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C053660	N/A	2025/08/22	Wonjeong Park
F1-BTEX	CALC/MS	C053556	N/A	2025/08/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C053583	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C053586	N/A	2025/08/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C055499	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C055400	N/A	2025/08/20	Amy Phan
True Colour	SPEC/COL	C054608	N/A	2025/08/19	Adam Fishleigh
Carbon (DOC)	TECH	C060065	N/A	2025/08/23	Thomas Johnson
Conductivity @25C	COND	C056345	N/A	2025/08/20	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C054694	2025/08/20	2025/08/20	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C053676	N/A	2025/08/22	Automated Statchk
Hardness	CALC	C053565	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C055811	2025/08/20	2025/08/20	Kiran Kumari
Mercury (Total) by CV	CV	C055804	2025/08/20	2025/08/20	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060320	N/A	2025/08/23	Vincy Scaria
Elements by ICP - Total	ICPA	C055820	2025/08/20	2025/08/21	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C055810	2025/08/20	2025/08/21	Jason Bao
Ion Balance	CALC	C053566	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C057178	N/A	2025/08/21	Isabelle White
Nitrate and Nitrite	CALC	C053573	N/A	2025/08/19	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C053795	N/A	2025/08/19	Kristijan Kovac
Nitrate (as N)	CALC	C053574	2025/08/19	2025/08/19	Automated Statchk
Oil and Grease by IR	IR	C051919	2025/08/20	2025/08/21	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C053734	N/A	2025/08/21	Automated Statchk
PAH in Water by GC/MS	GC/MS	C054692	2025/08/20	2025/08/20	Nora Kazemian
pH @25°C	AT/ALK	C056344	N/A	2025/08/20	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C055899	N/A	2025/08/20	Kristijan Kovac
Total Sulphide	SPEC	C057938	2025/08/21	2025/08/22	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C055164	2025/08/20	2025/08/21	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C053747	N/A	2025/08/20	Automated Statchk
Nitrogen (Total)	AC/COL	C055508	2025/08/20	2025/08/20	Yan Lin
Carbon (Total Organic)	TECH	C060072	N/A	2025/08/23	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C054850	2025/08/20	2025/08/21	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C055183	2025/08/20	2025/08/20	Daryl Viktoria Noval
Turbidity	TURB	C054276	N/A	2025/08/19	Daryl Viktoria Noval

Bureau Veritas ID: DRC487 Dup
Sample ID: AEMP-US-04
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (Total) by CV	CV	C055804	2025/08/20	2025/08/20	Kiran Kumari

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Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRC487 Dup
Sample ID: AEMP-US-04
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (Total Organic)	TECH	C060072	N/A	2025/08/23	Thomas Johnson
Turbidity	TURB	C054276	N/A	2025/08/19	Daryl Viktoria Noval

Bureau Veritas ID: DRC488
Sample ID: AEMP-US-05
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C056342	N/A	2025/08/20	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C053660	N/A	2025/08/22	Wonjeong Park
F1-BTEX	CALC/MS	C053556	N/A	2025/08/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C053583	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C053586	N/A	2025/08/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C055503	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C055400	N/A	2025/08/20	Amy Phan
True Colour	SPEC/COL	C054608	N/A	2025/08/19	Adam Fishleigh
Carbon (DOC)	TECH	C060065	N/A	2025/08/23	Thomas Johnson
Conductivity @25C	COND	C056345	N/A	2025/08/20	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C054694	2025/08/20	2025/08/20	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C053676	N/A	2025/08/22	Automated Statchk
Hardness	CALC	C053565	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C055811	2025/08/20	2025/08/20	Kiran Kumari
Mercury (Total) by CV	CV	C055804	2025/08/20	2025/08/20	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060320	N/A	2025/08/23	Vincy Scaria
Elements by ICP - Total	ICPA	C057294	2025/08/21	2025/08/22	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C057246	2025/08/21	2025/08/22	Kevin Huang
Ion Balance	CALC	C053566	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C057178	N/A	2025/08/21	Isabelle White
Nitrate and Nitrite	CALC	C053573	N/A	2025/08/19	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C053795	N/A	2025/08/19	Kristijan Kovac
Nitrate (as N)	CALC	C053574	2025/08/19	2025/08/19	Automated Statchk
Oil and Grease by IR	IR	C051919	2025/08/20	2025/08/21	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C053734	N/A	2025/08/21	Automated Statchk
PAH in Water by GC/MS	GC/MS	C054692	2025/08/20	2025/08/20	Nora Kazemian
pH @25°C	AT/ALK	C056344	N/A	2025/08/20	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C055899	N/A	2025/08/20	Kristijan Kovac
Total Sulphide	SPEC	C057938	2025/08/21	2025/08/22	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C055164	2025/08/20	2025/08/21	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C053747	N/A	2025/08/20	Automated Statchk
Nitrogen (Total)	AC/COL	C055508	2025/08/20	2025/08/20	Yan Lin
Carbon (Total Organic)	TECH	C060072	N/A	2025/08/23	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C054850	2025/08/20	2025/08/21	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C055183	2025/08/20	2025/08/20	Daryl Viktoria Noval

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Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRC488
Sample ID: AEMP-US-05
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	TURB	C054276	N/A	2025/08/19	Daryl Viktoria Noval

Bureau Veritas ID: DRC488 Dup
Sample ID: AEMP-US-05
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride/Sulphate by Auto Colourimetry	KONE	C055503	N/A	2025/08/20	Tyler Orr
Mercury (Dissolved) by CV	CV	C055811	2025/08/20	2025/08/20	Kiran Kumari
Oil and Grease by IR	IR	C051919	2025/08/20	2025/08/21	Ramandeep Ramandeep
Nitrogen (Total)	AC/COL	C055508	2025/08/20	2025/08/20	Yan Lin
Hydrocarbon by IR (Mineral oil & grease)	IR	C054850	2025/08/20	2025/08/21	Ramandeep Ramandeep

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.0°C

Sample DRC487 [AEMP-US-04] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Sample DRC488 [AEMP-US-05] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Results relate only to the items tested.

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Bureau Veritas Job #: C571140
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C051919	RRA	Method Blank	Oil and grease	2025/08/21	<2.0		mg/L	
C053660	WPK	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/22		108	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/22		88	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/22		103	%	50 - 140
			Benzene	2025/08/22	<0.00040		mg/L	
			Toluene	2025/08/22	<0.00040		mg/L	
			Ethylbenzene	2025/08/22	<0.00040		mg/L	
			m & p-Xylene	2025/08/22	<0.00080		mg/L	
			o-Xylene	2025/08/22	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/22	<0.10		mg/L	
C053795	KKC	Method Blank	Nitrite (N)	2025/08/19	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/19	<0.040		mg/L	
C054276	DVN	Method Blank	Turbidity	2025/08/19	<0.10		NTU	
C054608	AFI	Method Blank	True Colour	2025/08/19	<2.0		PtCo units	
C054692	NK3	Method Blank	D10-ANTHRACENE (sur.)	2025/08/20		96	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/20		94	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/20		77	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/20		54	%	50 - 130
			Acenaphthene	2025/08/20	<0.00010		mg/L	
			Acenaphthylene	2025/08/20	<0.00010		mg/L	
			Acridine	2025/08/20	<0.000040		mg/L	
			Anthracene	2025/08/20	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/20	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/20	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/20	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/20	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/20	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/20	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/20	<0.000050		mg/L	
			Chrysene	2025/08/20	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/20	<0.0000075		mg/L	
			Fluoranthene	2025/08/20	<0.000010		mg/L	
			Fluorene	2025/08/20	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/20	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/20	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/20	<0.00010		mg/L	
			Naphthalene	2025/08/20	<0.00010		mg/L	
			Phenanthrene	2025/08/20	<0.000050		mg/L	
			Perylene	2025/08/20	<0.000050		mg/L	
			Pyrene	2025/08/20	<0.000020		mg/L	
			Quinoline	2025/08/20	<0.00020		mg/L	
C054694	CHA	Method Blank	O-TERPHENYL (sur.)	2025/08/20		92	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/20	<0.10		mg/L	
C054850	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/21	<2.0		mg/L	
C055164	DVN	Method Blank	Total Dissolved Solids	2025/08/21	<10		mg/L	
C055183	DVN	Method Blank	Total Suspended Solids	2025/08/20	<1.0		mg/L	
C055400	AP1	Method Blank	Chemical Oxygen Demand	2025/08/20	<10		mg/L	
C055499	TOR	Method Blank	Chloride (Cl)	2025/08/20	<1.0		mg/L	
			Sulphate (SO4)	2025/08/20	<1.0		mg/L	
C055503	TOR	Method Blank	Chloride (Cl)	2025/08/20	<1.0		mg/L	
			Sulphate (SO4)	2025/08/20	<1.0		mg/L	
C055508	YL7	Method Blank	Total Nitrogen (N)	2025/08/20	<0.020		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C055804	KKM	Method Blank	Total Mercury (Hg)	2025/08/20	<0.0019		ug/L	
C055810	JAB	Method Blank	Total Aluminum (Al)	2025/08/21	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/21	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/21	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/21	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/21	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/21	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/21	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/21	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/21	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/21	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/21	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/21	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/21	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/21	<0.0010		mg/L	
			Total Uranium (U)	2025/08/21	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/21	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/21	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/21	<0.0010		mg/L	
C055811	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/20	<0.0019		ug/L	
C055820	KHU	Method Blank	Total Iron (Fe)	2025/08/21	<0.060		mg/L	
			Total Lithium (Li)	2025/08/21	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/21	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/21	<0.0040		mg/L	
			Total Potassium (K)	2025/08/21	<0.30		mg/L	
			Total Sodium (Na)	2025/08/21	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/21	<0.020		mg/L	
			Total Sulphur (S)	2025/08/21	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/21	<0.10		mg/L	
			Total Barium (Ba)	2025/08/21	<0.010		mg/L	
			Total Silicon (Si)	2025/08/21	<0.50		mg/L	
			Total Boron (B)	2025/08/21	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/21	<0.30		mg/L	
C055899	KKC	Method Blank	Orthophosphate (P)	2025/08/20	<0.0030		mg/L	
C056342	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/20	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/20	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/20	<1.0		mg/L	
			Carbonate (CO3)	2025/08/20	<1.0		mg/L	
			Hydroxide (OH)	2025/08/20	<1.0		mg/L	
C056345	AYE	Method Blank	Conductivity	2025/08/20	<2.0		uS/cm	
C057178	ISW	Method Blank	Total Ammonia (N)	2025/08/21	<0.015		mg/L	
C057246	KH2	Method Blank	Total Aluminum (Al)	2025/08/22	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/22	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/22	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/22	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/22	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/22	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/22	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/22	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/22	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/22	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/22	<0.00020		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Thallium (Tl)	2025/08/22	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/22	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/22	<0.0010		mg/L	
			Total Uranium (U)	2025/08/22	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/22	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/22	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/22	<0.0010		mg/L	
C057294	VSC	Method Blank	Total Iron (Fe)	2025/08/22	<0.060		mg/L	
			Total Lithium (Li)	2025/08/22	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/22	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/22	<0.0040		mg/L	
			Total Potassium (K)	2025/08/22	<0.30		mg/L	
			Total Sodium (Na)	2025/08/22	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/22	<0.020		mg/L	
			Total Sulphur (S)	2025/08/22	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/22	<0.10		mg/L	
			Total Barium (Ba)	2025/08/22	<0.010		mg/L	
			Total Silicon (Si)	2025/08/22	<0.50		mg/L	
			Total Boron (B)	2025/08/22	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/22	<0.30		mg/L	
C057938	DSX	Method Blank	Total Sulphide	2025/08/22	<0.0018		mg/L	
C058493	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/22	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/22	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/22	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/22	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/22	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/22	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/22	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/22	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/22	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/22	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/22	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/22	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/22	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/22	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/22	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/22	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/22	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/22	<0.0010		mg/L	
C060065	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/23	<0.50		mg/L	
C060072	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/23	<0.50		mg/L	
C060320	VSC	Method Blank	Dissolved Iron (Fe)	2025/08/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/23	<0.50		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Boron (B)	2025/08/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/23	<0.30		mg/L	
C054276	DVN	RPD [DRC487-02]	Turbidity	2025/08/19	5.5		%	20
C055804	KKM	RPD [DRC487-07]	Total Mercury (Hg)	2025/08/20	NC		%	20
C060072	TJ4	RPD [DRC487-08]	Total Organic Carbon (C)	2025/08/23	7.8		%	20
C051919	RRA	RPD [DRC488-03]	Oil and grease	2025/08/21	NC		%	30
C054850	RRA	RPD [DRC488-03]	Total Petroleum Hydrocarbon	2025/08/21	NC		%	30
C055503	TOR	RPD [DRC488-05]	Chloride (Cl)	2025/08/20	2.0		%	20
			Sulphate (SO4)	2025/08/20	0.53		%	20
C055508	YL7	RPD [DRC488-08]	Total Nitrogen (N)	2025/08/20	3.8		%	20
C055811	KKM	RPD [DRC488-10]	Dissolved Mercury (Hg)	2025/08/20	NC		%	20
C051919	RRA	Matrix Spike [DRC487-03]	Oil and grease	2025/08/21		96	%	70 - 130
C054850	RRA	Matrix Spike [DRC487-03]	Total Petroleum Hydrocarbon	2025/08/21		97	%	70 - 130
C055503	TOR	Matrix Spike [DRC488-05]	Chloride (Cl)	2025/08/20		105	%	80 - 120
			Sulphate (SO4)	2025/08/20		NC	%	80 - 120
C055508	YL7	Matrix Spike [DRC488-08]	Total Nitrogen (N)	2025/08/20		98	%	80 - 120
C055804	KKM	Matrix Spike [DRC488-07]	Total Mercury (Hg)	2025/08/20		94	%	80 - 120
C055811	KKM	Matrix Spike [DRC487-10]	Dissolved Mercury (Hg)	2025/08/20		98	%	80 - 120
C057294	VSC	Matrix Spike [DRC488-11]	Total Iron (Fe)	2025/08/21		97	%	80 - 120
			Total Lithium (Li)	2025/08/21		97	%	80 - 120
			Total Magnesium (Mg)	2025/08/21		100	%	80 - 120
			Total Manganese (Mn)	2025/08/21		91	%	80 - 120
			Total Potassium (K)	2025/08/21		101	%	80 - 120
			Total Sodium (Na)	2025/08/21		102	%	80 - 120
			Total Strontium (Sr)	2025/08/21		93	%	80 - 120
			Total Sulphur (S)	2025/08/21		NC	%	80 - 120
			Total Phosphorus (P)	2025/08/21		96	%	80 - 120
			Total Barium (Ba)	2025/08/21		95	%	80 - 120
			Total Silicon (Si)	2025/08/21		95	%	80 - 120
			Total Boron (B)	2025/08/21		101	%	80 - 120
			Total Calcium (Ca)	2025/08/21		NC	%	80 - 120
C060072	TJ4	Matrix Spike [DRC487-08]	Total Organic Carbon (C)	2025/08/23		106	%	75 - 125
C051919	RRA	LCS	Oil and grease	2025/08/21		98	%	70 - 130
C053660	WPK	LCS	1,4-Difluorobenzene (sur.)	2025/08/22		100	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/22		87	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/22		92	%	50 - 140
			Benzene	2025/08/22		98	%	60 - 130
			Toluene	2025/08/22		101	%	60 - 130
			Ethylbenzene	2025/08/22		98	%	60 - 130
			m & p-Xylene	2025/08/22		97	%	60 - 130
			o-Xylene	2025/08/22		97	%	60 - 130
			F1 (C6-C10)	2025/08/22		107	%	60 - 140
C053795	KKC	LCS	Nitrite (N)	2025/08/19		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/19		105	%	80 - 120
C054276	DVN	LCS	Turbidity	2025/08/19		102	%	80 - 120
C054608	AFI	LCS	True Colour	2025/08/19		90	%	80 - 120
C054692	NK3	LCS	D10-ANTHRACENE (sur.)	2025/08/20		101	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/20		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/20		85	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/20		63	%	50 - 130
			Acenaphthene	2025/08/20		69	%	50 - 130
			Acenaphthylene	2025/08/20		73	%	50 - 130

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			Acridine	2025/08/20		93	%	50 - 130
			Anthracene	2025/08/20		84	%	50 - 130
			Benzo(a)anthracene	2025/08/20		90	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/20		87	%	50 - 130
			Benzo(k)fluoranthene	2025/08/20		104	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/20		84	%	50 - 130
			Benzo(c)phenanthrene	2025/08/20		94	%	50 - 130
			Benzo(a)pyrene	2025/08/20		90	%	50 - 130
			Benzo(e)pyrene	2025/08/20		83	%	50 - 130
			Chrysene	2025/08/20		88	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/20		87	%	50 - 130
			Fluoranthene	2025/08/20		91	%	50 - 130
			Fluorene	2025/08/20		60	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/20		86	%	50 - 130
			1-Methylnaphthalene	2025/08/20		51	%	50 - 130
			2-Methylnaphthalene	2025/08/20		54	%	50 - 130
			Naphthalene	2025/08/20		71	%	50 - 130
			Phenanthrene	2025/08/20		75	%	50 - 130
			Perylene	2025/08/20		84	%	50 - 130
			Pyrene	2025/08/20		93	%	50 - 130
			Quinoline	2025/08/20		98	%	50 - 130
C054694	CHA	LCS	O-TERPHENYL (sur.)	2025/08/20		91	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/20		89	%	60 - 140
C054850	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/21		97	%	70 - 130
C055164	DVN	LCS	Total Dissolved Solids	2025/08/21		94	%	80 - 120
C055183	DVN	LCS	Total Suspended Solids	2025/08/20		96	%	80 - 120
C055400	AP1	LCS	Chemical Oxygen Demand	2025/08/20		101	%	80 - 120
C055499	TOR	LCS	Chloride (Cl)	2025/08/20		105	%	80 - 120
			Sulphate (SO4)	2025/08/20		102	%	80 - 120
C055503	TOR	LCS	Chloride (Cl)	2025/08/20		105	%	80 - 120
			Sulphate (SO4)	2025/08/20		101	%	80 - 120
C055508	YL7	LCS	Total Nitrogen (N)	2025/08/20		102	%	80 - 120
C055804	KKM	LCS	Total Mercury (Hg)	2025/08/20		95	%	80 - 120
C055810	JAB	LCS	Total Aluminum (Al)	2025/08/21		98	%	80 - 120
			Total Chromium (Cr)	2025/08/21		95	%	80 - 120
			Total Cobalt (Co)	2025/08/21		92	%	80 - 120
			Total Copper (Cu)	2025/08/21		91	%	80 - 120
			Total Lead (Pb)	2025/08/21		93	%	80 - 120
			Total Antimony (Sb)	2025/08/21		92	%	80 - 120
			Total Molybdenum (Mo)	2025/08/21		97	%	80 - 120
			Total Nickel (Ni)	2025/08/21		91	%	80 - 120
			Total Selenium (Se)	2025/08/21		80	%	80 - 120
			Total Silver (Ag)	2025/08/21		98	%	80 - 120
			Total Arsenic (As)	2025/08/21		86	%	80 - 120
			Total Thallium (Tl)	2025/08/21		98	%	80 - 120
			Total Tin (Sn)	2025/08/21		96	%	80 - 120
			Total Titanium (Ti)	2025/08/21		99	%	80 - 120
			Total Uranium (U)	2025/08/21		99	%	80 - 120
			Total Vanadium (V)	2025/08/21		93	%	80 - 120
			Total Zinc (Zn)	2025/08/21		78 (1)	%	80 - 120
			Total Beryllium (Be)	2025/08/21		93	%	80 - 120
C055811	KKM	LCS	Dissolved Mercury (Hg)	2025/08/20		99	%	80 - 120

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C055820	KHU	LCS	Total Iron (Fe)	2025/08/21		97	%	80 - 120
			Total Lithium (Li)	2025/08/21		96	%	80 - 120
			Total Magnesium (Mg)	2025/08/21		95	%	80 - 120
			Total Manganese (Mn)	2025/08/21		90	%	80 - 120
			Total Potassium (K)	2025/08/21		100	%	80 - 120
			Total Sodium (Na)	2025/08/21		101	%	80 - 120
			Total Strontium (Sr)	2025/08/21		93	%	80 - 120
			Total Sulphur (S)	2025/08/21		83	%	80 - 120
			Total Phosphorus (P)	2025/08/21		94	%	80 - 120
			Total Barium (Ba)	2025/08/21		93	%	80 - 120
			Total Silicon (Si)	2025/08/21		96	%	80 - 120
			Total Boron (B)	2025/08/21		95	%	80 - 120
			Total Calcium (Ca)	2025/08/21		94	%	80 - 120
C055899	KKC	LCS	Orthophosphate (P)	2025/08/20		103	%	80 - 120
C056342	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/20		98	%	80 - 120
C056344	AYE	LCS	pH	2025/08/20		101	%	97 - 103
C056345	AYE	LCS	Conductivity	2025/08/20		103	%	90 - 110
C057178	ISW	LCS	Total Ammonia (N)	2025/08/21		102	%	80 - 120
C057246	KH2	LCS	Total Aluminum (Al)	2025/08/21		104	%	80 - 120
			Total Chromium (Cr)	2025/08/21		97	%	80 - 120
			Total Cobalt (Co)	2025/08/21		97	%	80 - 120
			Total Copper (Cu)	2025/08/21		99	%	80 - 120
			Total Lead (Pb)	2025/08/21		97	%	80 - 120
			Total Antimony (Sb)	2025/08/21		100	%	80 - 120
			Total Molybdenum (Mo)	2025/08/21		105	%	80 - 120
			Total Nickel (Ni)	2025/08/21		98	%	80 - 120
			Total Selenium (Se)	2025/08/21		98	%	80 - 120
			Total Silver (Ag)	2025/08/21		101	%	80 - 120
			Total Arsenic (As)	2025/08/21		101	%	80 - 120
			Total Thallium (Tl)	2025/08/21		105	%	80 - 120
			Total Tin (Sn)	2025/08/21		100	%	80 - 120
			Total Titanium (Ti)	2025/08/21		105	%	80 - 120
			Total Uranium (U)	2025/08/21		98	%	80 - 120
			Total Vanadium (V)	2025/08/21		97	%	80 - 120
			Total Zinc (Zn)	2025/08/21		108	%	80 - 120
			Total Beryllium (Be)	2025/08/21		103	%	80 - 120
C057294	VSC	LCS	Total Iron (Fe)	2025/08/21		98	%	80 - 120
			Total Lithium (Li)	2025/08/21		95	%	80 - 120
			Total Magnesium (Mg)	2025/08/21		97	%	80 - 120
			Total Manganese (Mn)	2025/08/21		90	%	80 - 120
			Total Potassium (K)	2025/08/21		100	%	80 - 120
			Total Sodium (Na)	2025/08/21		99	%	80 - 120
			Total Strontium (Sr)	2025/08/21		93	%	80 - 120
			Total Sulphur (S)	2025/08/21		86	%	80 - 120
			Total Phosphorus (P)	2025/08/21		95	%	80 - 120
			Total Barium (Ba)	2025/08/21		95	%	80 - 120
			Total Silicon (Si)	2025/08/21		94	%	80 - 120
			Total Boron (B)	2025/08/21		100	%	80 - 120
			Total Calcium (Ca)	2025/08/21		95	%	80 - 120
C057938	DSX	LCS	Total Sulphide	2025/08/22		95	%	80 - 120
C058493	JAB	LCS	Dissolved Aluminum (Al)	2025/08/22		112	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/22		98	%	80 - 120

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Cobalt (Co)	2025/08/22		100	%	80 - 120
			Dissolved Copper (Cu)	2025/08/22		102	%	80 - 120
			Dissolved Lead (Pb)	2025/08/22		98	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/22		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/22		101	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/22		97	%	80 - 120
			Dissolved Selenium (Se)	2025/08/22		100	%	80 - 120
			Dissolved Silver (Ag)	2025/08/22		98	%	80 - 120
			Dissolved Arsenic (As)	2025/08/22		99	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/22		101	%	80 - 120
			Dissolved Tin (Sn)	2025/08/22		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/22		103	%	80 - 120
			Dissolved Uranium (U)	2025/08/22		95	%	80 - 120
			Dissolved Vanadium (V)	2025/08/22		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/22		95	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/22		104	%	80 - 120
C060065	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/23		104	%	80 - 120
C060072	TJ4	LCS	Total Organic Carbon (C)	2025/08/23		102	%	80 - 120
C060320	VSC	LCS	Dissolved Iron (Fe)	2025/08/23		111	%	80 - 120
			Dissolved Lithium (Li)	2025/08/23		95	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/23		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/23		110	%	80 - 120
			Dissolved Potassium (K)	2025/08/23		98	%	80 - 120
			Dissolved Sodium (Na)	2025/08/23		93	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/23		101	%	80 - 120
			Dissolved Sulphur (S)	2025/08/23		110	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/23		110	%	80 - 120
			Dissolved Barium (Ba)	2025/08/23		102	%	80 - 120
			Dissolved Silicon (Si)	2025/08/23		101	%	80 - 120
			Dissolved Boron (B)	2025/08/23		102	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/23		93	%	80 - 120
C055508	YL7	SRM	Total Nitrogen (N)	2025/08/20		102	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

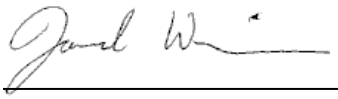
Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571140
Report Date: 2025/08/25

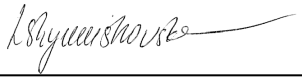
Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

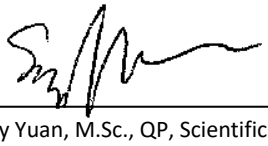
The analytical data and all QC contained in this report were reviewed and validated by:



Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



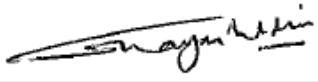
Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics



Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



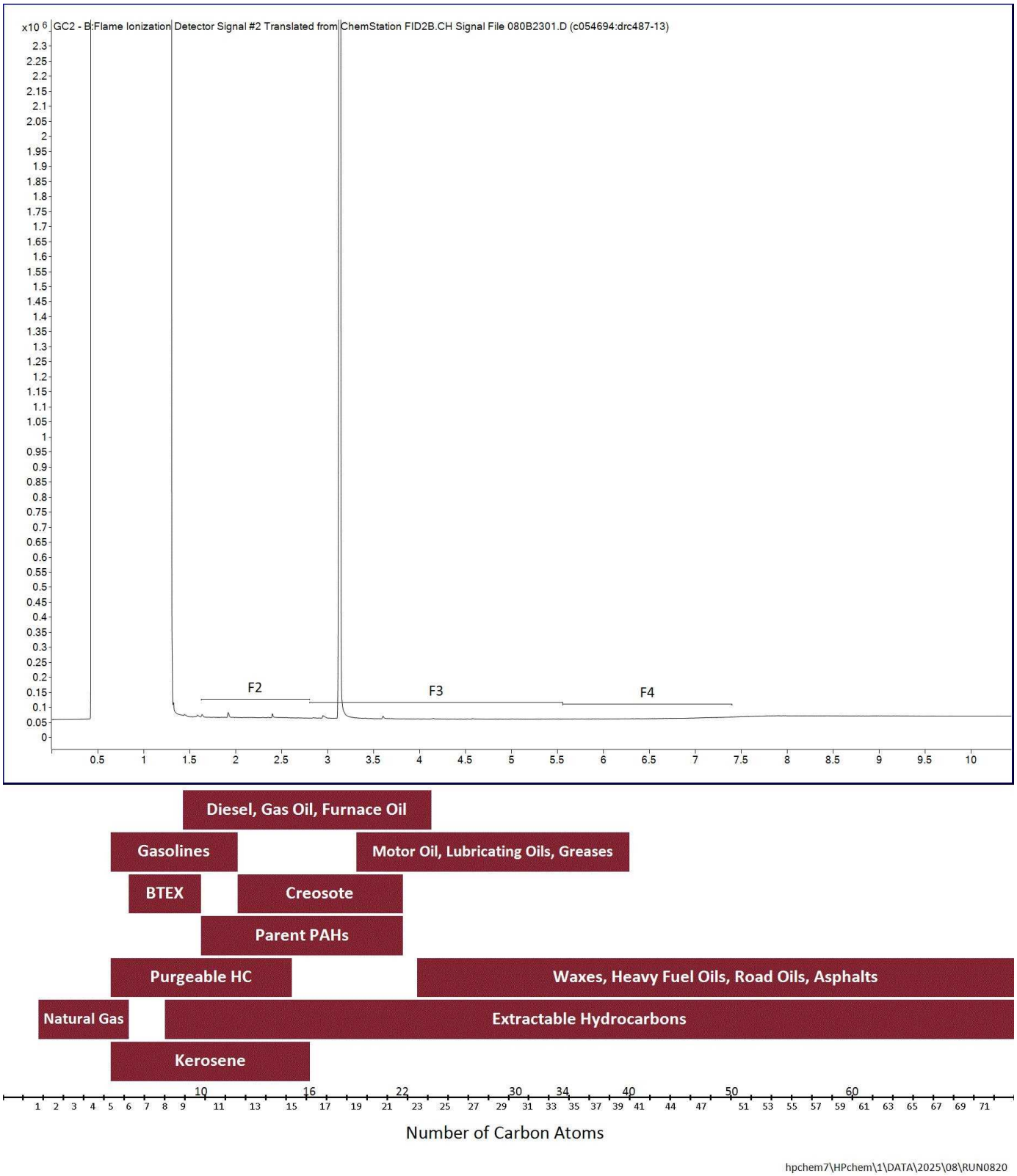
Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C571140
Report Date: 2025/08/25
Bureau Veritas Sample: DRC487

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-US-04

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

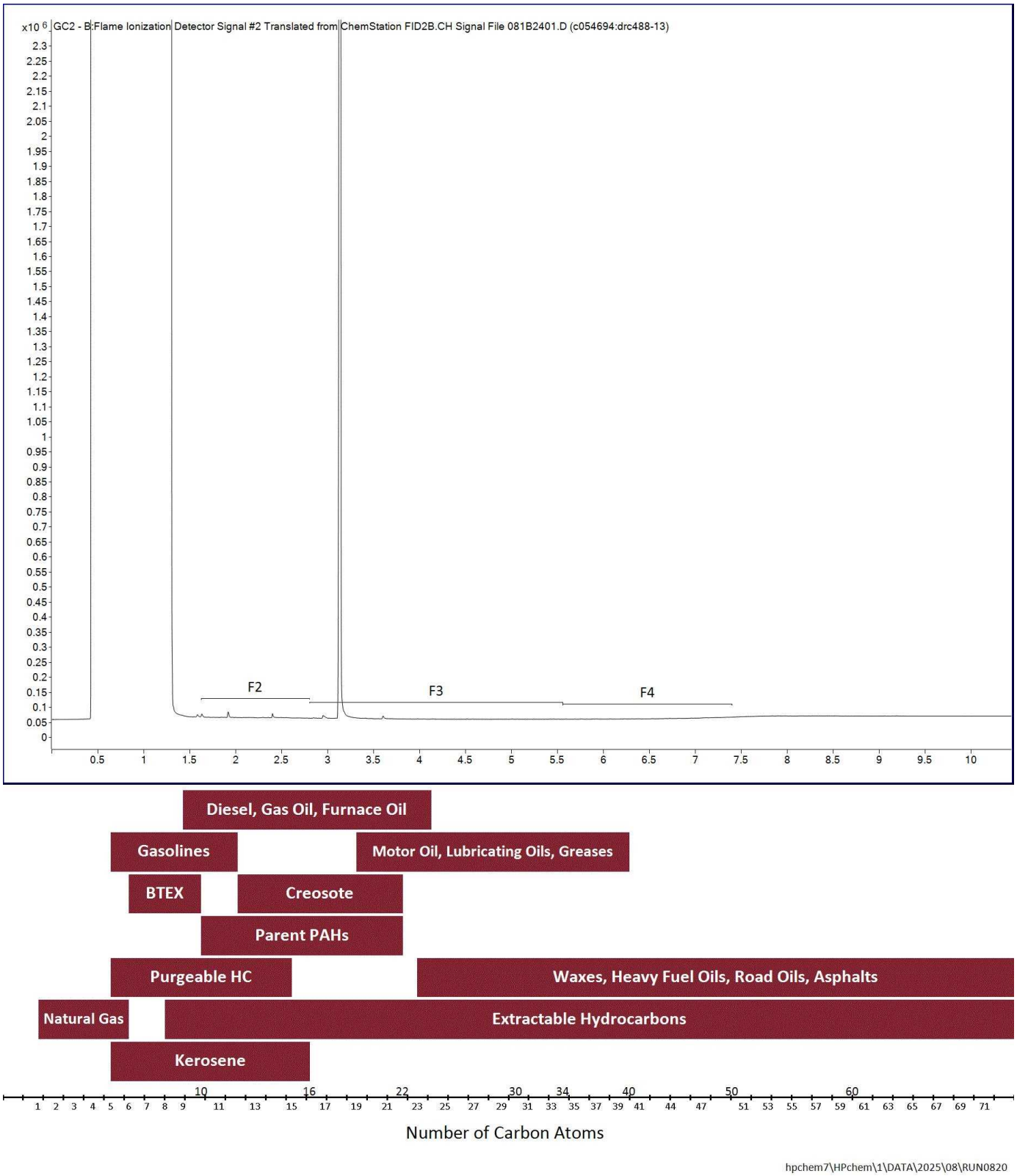


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571140
Report Date: 2025/08/25
Bureau Veritas Sample: DRC488

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-US-05

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

☒ Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
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☐ Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 298630

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGULUBE / BRENDAN CHAPMAN	Consultant Project #: 417085 - ~~59897~~ 25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED
1 AEMP-US-04		X			16	2025/08/14	11:15	X	
2 AEMP-US-05		X			16	2025/08/14	10:00	X	
3									
4									
5									
6									
7									
8									
9									
10									

ANALYSIS REQUESTED

	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS TOT ☒ DIS ☒	MERCURY TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, TDS, Turbidity	Oil and GREASE	TOC, DOC, SULPHIDE	Nitrate, Nitrite, Ammonia (Total) TKN	orthophosphate	Sulphur - total + dissolved	COD	TPH
1 AEMP-US-04		X	X						■	X	X					X			X	X	X	X	X	X	X	X
2 AEMP-US-05		X	X							X	X					X			X	X	X	X	X	X	X	X

MED2-2025-08-461

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085 # - 59897 - 25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (soil, liquid) ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com Cc'd - for data mark@worley.com Shirley.yu@worley.com

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☑
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐

	YES	NO	COOLER ID #				YES	NO	COOLER ID #				YES	NO	COOLER ID #			
SEAL PRESENT	✓						✓											
SEAL INTACT	✓		TEMP °C	6	6	6	✓		TEMP °C	1	3	2			TEMP °C			
COOLING MEDIA PRESENT	✓			1	2	3	✓			1	2	3				1	2	3

Date Required
LAB USE ONLY
MAXXAM JOB #: 417140

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	TINO NGULUBE BRENDAN CHAPMAN	2025/08/15	10:00	1.	NAVREET CHEEMA	2025/08/18	08:00
2.	NAVREET CHEEMA	2025/08/18	1402	2.	ANDRY SKORYKHIN	2025/08/19	06:30
3.				3.			

SAMPLES
LABELED BY: EDZ
VERIFIED BY: JIB

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298633

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/25
Report #: R3702215
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571156
Received: 2025/08/18, 08:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	3	AB SOP-00005	SM 24 2320 B m
Send Part to Archive (1)	3		
BTEX/F1 in Water by HS GC/MS/FID (1)	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	3		Auto Calc
Cadmium - low level CCME - Dissolved (1)	3		Auto Calc
Cadmium - low level CCME (Total) (1)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	3	AB SOP-00016	SM 24 5220D m
True Colour (1)	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	3	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	3	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	3		Auto Calc
Hardness (1)	3		Auto Calc
Mercury (Dissolved) by CV (1, 4)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	3		Auto Calc
Ammonia-N (Total) (1)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	3		Auto Calc
Oil and Grease by IR (1)	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	3		Auto Calc
PAH in Water by GC/MS (1)	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	3	AB SOP-00080	SM 24 4500 S2-A D Fm

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298633

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/25
Report #: R3702215
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571156
Received: 2025/08/18, 08:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Dissolved Solids (Filt. Residue) (1)	3	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total) (1)	3		Auto Calc
Nitrogen (Total) (1)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (1, 8)	3	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	3	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298633

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/25
Report #: R3702215
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571156

Received: 2025/08/18, 08:00

(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
25 Aug 2025 15:08:12

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DRC548	DRC549	DRC550		
Sampling Date		2025/08/12 16:10	2025/08/13 12:10	2025/08/13 11:10		
COC Number		298633	298633	298633		
	UNITS	**AEMP-DS-04**	**AEMP-DS-06**	**AEMP-DS-07**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C054694
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C053660
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C053660
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C053660
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C053660
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C053660
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C054458
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C054458
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C053660
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	92	93	90		C054694
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	104	106	104		C053660
4-Bromofluorobenzene (sur.)	%	100	98	100		C053660
D4-1,2-Dichloroethane (sur.)	%	101	101	97		C053660

RDL = Reportable Detection Limit

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRC548	DRC549		DRC550		
Sampling Date		2025/08/12 16:10	2025/08/13 12:10		2025/08/13 11:10		
COC Number		298633	298633		298633		
	UNITS	**AEMP-DS-04**	**AEMP-DS-06**	**RDL**	**AEMP-DS-07**	**RDL**	**QC Batch**
Calculated Parameters							
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.55	0.60	0.20	0.30	0.040	C054589
Nutrients							
Total Nitrogen (N)	mg/L	0.62 (1)	0.65 (1)	0.20	0.30	0.020	C055508

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRC548			DRC549			DRC550		
Sampling Date		2025/08/12 16:10			2025/08/13 12:10			2025/08/13 11:10		
COC Number		298633			298633			298633		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-07**	**RDL**	**QC Batch**
Elements										
Total Cadmium (Cd)	mg/L	0.00029	0.000020	C053586	0.00050	0.000020	C054730	0.00015	0.000020	C054730
Total Mercury (Hg)	ug/L	0.013	0.0019	C055804	0.019 (1)	0.0038	C055804	0.012	0.0019	C055804
Total Aluminum (Al)	mg/L	5.1	0.0030	C055810	8.9	0.0030	C055810	5.5	0.0030	C057502
Total Antimony (Sb)	mg/L	<0.00060	0.00060	C055810	<0.00060	0.00060	C055810	<0.00060	0.00060	C057502
Total Arsenic (As)	mg/L	0.0042	0.00020	C055810	0.0064	0.00020	C055810	0.0038	0.00020	C057502
Total Barium (Ba)	mg/L	0.17	0.010	C055820	0.23	0.010	C055820	0.14	0.010	C057515
Total Beryllium (Be)	mg/L	<0.0010	0.0010	C055810	<0.0010	0.0010	C055810	<0.0010	0.0010	C057502
Total Boron (B)	mg/L	<0.020	0.020	C055820	<0.020	0.020	C055820	<0.020	0.020	C057515
Total Calcium (Ca)	mg/L	57	0.30	C055820	84	0.30	C055820	59	0.30	C057515
Total Chromium (Cr)	mg/L	0.0087	0.0010	C055810	0.015	0.0010	C055810	0.0086	0.0010	C057502
Total Cobalt (Co)	mg/L	0.0055	0.00030	C055810	0.0099	0.00030	C055810	0.0050	0.00030	C057502
Total Copper (Cu)	mg/L	0.012	0.0010	C055810	0.020	0.0010	C055810	0.011	0.0010	C057502
Total Iron (Fe)	mg/L	11	0.060	C055820	19	0.060	C055820	10	0.060	C057515
Total Lead (Pb)	mg/L	0.0059	0.00020	C055810	0.0097	0.00020	C055810	0.0051	0.00020	C057502
Total Lithium (Li)	mg/L	<0.020	0.020	C055820	0.024	0.020	C055820	<0.020	0.020	C057515
Total Magnesium (Mg)	mg/L	17	0.20	C055820	26	0.20	C055820	17	0.20	C057515
Total Manganese (Mn)	mg/L	0.20	0.0040	C055820	0.32	0.0040	C055820	0.15	0.0040	C057515
Total Molybdenum (Mo)	mg/L	0.0020	0.00020	C055810	0.0023	0.00020	C055810	0.0019	0.00020	C057502
Total Nickel (Ni)	mg/L	0.018	0.00050	C055810	0.031	0.00050	C055810	0.017	0.00050	C057502
Total Phosphorus (P)	mg/L	0.24	0.10	C055820	0.37	0.10	C055820	0.19	0.10	C057515
Total Potassium (K)	mg/L	2.1	0.30	C055820	2.8	0.30	C055820	2.2	0.30	C057515
Total Selenium (Se)	mg/L	0.00057	0.00020	C055810	0.00094	0.00020	C055810	0.00065	0.00020	C057502
Total Silicon (Si)	mg/L	7.0	0.50	C055820	11	0.50	C055820	7.0	0.50	C057515
Total Silver (Ag)	mg/L	<0.00010	0.00010	C055810	<0.00010	0.00010	C055810	0.00013	0.00010	C057502
Total Sodium (Na)	mg/L	7.4	0.50	C055820	8.3	0.50	C055820	6.9	0.50	C057515
Total Strontium (Sr)	mg/L	0.28	0.020	C055820	0.39	0.020	C055820	0.33	0.020	C057515
Total Sulphur (S)	mg/L	14	0.20	C055820	23	0.20	C055820	16	0.20	C057515
Total Thallium (Tl)	mg/L	<0.00020	0.00020	C055810	<0.00020	0.00020	C055810	<0.00020	0.00020	C057502
Total Tin (Sn)	mg/L	<0.0010	0.0010	C055810	<0.0010	0.0010	C055810	<0.0010	0.0010	C057502
Total Titanium (Ti)	mg/L	0.040	0.0010	C055810	0.050	0.0010	C055810	0.033	0.0010	C057502

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRC548			DRC549			DRC550		
Sampling Date		2025/08/12 16:10			2025/08/13 12:10			2025/08/13 11:10		
COC Number		298633			298633			298633		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-07**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L	0.0013	0.00010	C055810	0.0017	0.00010	C055810	0.0012	0.00010	C057502
Total Vanadium (V)	mg/L	0.014	0.0010	C055810	0.023	0.0010	C055810	0.013	0.0010	C057502
Total Zinc (Zn)	mg/L	0.070	0.0030	C055810	0.12	0.0030	C055810	0.070	0.0030	C057502
RDL = Reportable Detection Limit										

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRC548			DRC549			DRC549		
Sampling Date		2025/08/12 16:10			2025/08/13 12:10			2025/08/13 12:10		
COC Number		298633			298633			298633		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-06 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	120	0.50	C054534	170	0.50	C054534			
Ion Balance (% Difference)	%	3.1	N/A	C054546	3.0	N/A	C054546			
Nitrate (N)	mg/L	0.068	0.040	C054561	0.050	0.040	C054561			
Nitrate (NO3)	mg/L	0.30	0.18	C054559	0.22	0.18	C054559			
Nitrite (NO2)	mg/L	<0.13	0.13	C054559	<0.13	0.13	C054559			
Sulphide (as H2S)	mg/L	0.0091	0.0020	C054754	0.030	0.0020	C054754			
Demand Parameters										
Chemical Oxygen Demand	mg/L	43	10	C055400	65	10	C055400			
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C053583	<0.000020	0.000020	C053583			
Misc. Inorganics										
Conductivity	uS/cm	280	2.0	C056345	370	2.0	C056345			
Dissolved Organic Carbon (C)	mg/L	3.2	0.50	C060556	3.7	0.50	C060556	3.7	0.50	C060556
pH	pH	7.14	N/A	C056344	7.36	N/A	C056344			
Total Organic Carbon (C)	mg/L	3.2	0.50	C060072	3.5	0.50	C060072			
Total Dissolved Solids	mg/L	170	10	C053591	200	10	C055161	200	10	C055161
Total Suspended Solids	mg/L	430	1.0	C053541	700 (1)	1.5	C055177			
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C056342	<1.0	1.0	C056342			
Alkalinity (Total as CaCO3)	mg/L	95	1.0	C056342	110	1.0	C056342			
Bicarbonate (HCO3)	mg/L	120	1.0	C056342	130	1.0	C056342			
Carbonate (CO3)	mg/L	<1.0	1.0	C056342	<1.0	1.0	C056342			
Hydroxide (OH)	mg/L	<1.0	1.0	C056342	<1.0	1.0	C056342			
Total Sulphide	mg/L	0.0086	0.0018	C053456	0.028	0.0018	C055470			
Chloride (Cl)	mg/L	6.9	1.0	C055499	7.2	1.0	C055499			
Sulphate (SO4)	mg/L	44	1.0	C055499	74	1.0	C055499			
Nutrients										
Total Ammonia (N)	mg/L	0.028	0.015	C057178	0.017	0.015	C057178			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Detection limit raised based on sample volume used for analysis.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571156
Report Date: 2025/08/25

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRC548			DRC549			DRC549		
Sampling Date		2025/08/12 16:10			2025/08/13 12:10			2025/08/13 12:10		
COC Number		298633			298633			298633		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-06 Lab-Dup**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L	<0.0030	0.0030	C055899	<0.0030	0.0030	C055899			
Nitrite (N)	mg/L	<0.040	0.040	C055560	<0.040	0.040	C055560			
Nitrate plus Nitrite (N)	mg/L	0.068	0.040	C055560	0.050	0.040	C055560			
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C051919	<2.0	2.0	C051919			
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C054850	<2.0	2.0	C054850			
Physical Properties										
True Colour	PtCo units	9.9	2.0	C055918	9.2	2.0	C055918			
Physical Properties										
Turbidity	NTU	280	0.10	C054282	450	0.10	C054282			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRC550		
Sampling Date		2025/08/13 11:10		
COC Number		298633		
	UNITS	**AEMP-DS-07**	**RDL**	**QC Batch**
Calculated Parameters				
Hardness (CaCO3)	mg/L	140	0.50	C054534
Ion Balance (% Difference)	%	5.0	N/A	C054546
Nitrate (N)	mg/L	<0.040	0.040	C054561
Nitrate (NO3)	mg/L	<0.18	0.18	C054559
Nitrite (NO2)	mg/L	<0.13	0.13	C054559
Sulphide (as H2S)	mg/L	0.027	0.0020	C054754
Demand Parameters				
Chemical Oxygen Demand	mg/L	53	10	C055400
Elements				
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C054728
Misc. Inorganics				
Conductivity	uS/cm	310	2.0	C056345
Dissolved Organic Carbon (C)	mg/L	4.4	0.50	C060556
pH	pH	7.17	N/A	C056344
Total Organic Carbon (C)	mg/L	3.9	0.50	C060072
Total Dissolved Solids	mg/L	160	10	C055161
Total Suspended Solids	mg/L	370 (1)	1.5	C055177
Anions				
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C056342
Alkalinity (Total as CaCO3)	mg/L	110	1.0	C056342
Bicarbonate (HCO3)	mg/L	130	1.0	C056342
Carbonate (CO3)	mg/L	<1.0	1.0	C056342
Hydroxide (OH)	mg/L	<1.0	1.0	C056342
Total Sulphide	mg/L	0.026	0.0018	C055470
Chloride (Cl)	mg/L	5.8	1.0	C055499
Sulphate (SO4)	mg/L	49	1.0	C055499
Nutrients				
Total Ammonia (N)	mg/L	<0.015	0.015	C057178
Orthophosphate (P)	mg/L	<0.0030	0.0030	C055899

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limit raised based on sample volume used for analysis.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571156
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Task Order#: 417085-59897
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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRC550		
Sampling Date		2025/08/13 11:10		
COC Number		298633		
	UNITS	**AEMP-DS-07**	**RDL**	**QC Batch**
Nitrite (N)	mg/L	<0.040	0.040	C055560
Nitrate plus Nitrite (N)	mg/L	<0.040	0.040	C055560
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C051919
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C054850
Physical Properties				
True Colour	PtCo units	8.9	2.0	C055918
Physical Properties				
Turbidity	NTU	310	0.10	C054282
RDL = Reportable Detection Limit				

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRC548	DRC549	DRC550		
Sampling Date		2025/08/12 16:10	2025/08/13 12:10	2025/08/13 11:10		
COC Number		298633	298633	298633		
	UNITS	**AEMP-DS-04**	**AEMP-DS-06**	**AEMP-DS-07**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C053734
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C054692
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C054692
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C054692
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C054692
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C054692
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C054692
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C054692
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C054692
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C054692
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C054692
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C054692
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C054692
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C054692
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C054692
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C054692
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C054692
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C054692
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C054692
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C054692
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C054692
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C054692
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C054692
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C054692
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	101	103	95		C054692
D8-ACENAPHTHYLENE (sur.)	%	94	104	95		C054692
D8-NAPHTHALENE (sur.)	%	81	92	80		C054692
TERPHENYL-D14 (sur.)	%	97	102	92		C054692
RDL = Reportable Detection Limit						

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRC548	DRC549	DRC550		
Sampling Date		2025/08/12 16:10	2025/08/13 12:10	2025/08/13 11:10		
COC Number		298633	298633	298633		
	UNITS	**AEMP-DS-04**	**AEMP-DS-06**	**AEMP-DS-07**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	0.0029	<0.0019	0.0019	C055811
RDL = Reportable Detection Limit						

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRC548		DRC549			DRC549		
Sampling Date		2025/08/12 16:10		2025/08/13 12:10			2025/08/13 12:10		
COC Number		298633		298633			298633		
	UNITS	**AEMP-DS-04**	**QC Batch**	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-06 Lab-Dup**	**RDL**	**QC Batch**
Elements									
Dissolved Aluminum (Al)	mg/L	0.020	C057249	0.048	0.0030	C057245			
Dissolved Antimony (Sb)	mg/L	<0.00060	C057249	<0.00060	0.00060	C057245			
Dissolved Arsenic (As)	mg/L	0.00048	C057249	0.00029	0.00020	C057245			
Dissolved Barium (Ba)	mg/L	0.051	C060635	0.062	0.010	C060645	0.056	0.010	C060645
Dissolved Beryllium (Be)	mg/L	<0.0010	C057249	<0.0010	0.0010	C057245			
Dissolved Boron (B)	mg/L	<0.020	C060635	<0.020	0.020	C060645	<0.020	0.020	C060645
Dissolved Calcium (Ca)	mg/L	33	C060635	43	0.30	C060645	43	0.30	C060645
Dissolved Chromium (Cr)	mg/L	<0.0010	C057249	<0.0010	0.0010	C057245			
Dissolved Cobalt (Co)	mg/L	<0.00030	C057249	<0.00030	0.00030	C057245			
Dissolved Copper (Cu)	mg/L	<0.0010	C057249	0.0013	0.0010	C057245			
Dissolved Iron (Fe)	mg/L	<0.060	C060635	<0.060	0.060	C060645	<0.060	0.060	C060645
Dissolved Lead (Pb)	mg/L	<0.00020	C057249	<0.00020	0.00020	C057245			
Dissolved Lithium (Li)	mg/L	<0.020	C060635	<0.020	0.020	C060645	<0.020	0.020	C060645
Dissolved Magnesium (Mg)	mg/L	10	C060635	15	0.20	C060645	15	0.20	C060645
Dissolved Manganese (Mn)	mg/L	0.012	C060635	0.014	0.0040	C060645	0.015	0.0040	C060645
Dissolved Molybdenum (Mo)	mg/L	0.0012	C057249	0.0012	0.00020	C057245			
Dissolved Nickel (Ni)	mg/L	0.0011	C057249	0.0015	0.00050	C057245			
Dissolved Phosphorus (P)	mg/L	<0.10	C060635	<0.10	0.10	C060645	<0.10	0.10	C060645
Dissolved Potassium (K)	mg/L	0.87	C060635	0.86	0.30	C060645	0.88	0.30	C060645
Dissolved Selenium (Se)	mg/L	0.00043	C057249	0.00058	0.00020	C057245			
Dissolved Silicon (Si)	mg/L	1.6	C060635	1.7	0.50	C060645	1.7	0.50	C060645
Dissolved Silver (Ag)	mg/L	<0.00010	C057249	<0.00010	0.00010	C057245			
Dissolved Sodium (Na)	mg/L	7.3	C060635	8.0	0.50	C060645	8.0	0.50	C060645
Dissolved Strontium (Sr)	mg/L	0.24	C060635	0.33	0.020	C060645	0.33	0.020	C060645
Dissolved Sulphur (S)	mg/L	15	C060635	26	0.20	C060645	26	0.20	C060645
Dissolved Thallium (Tl)	mg/L	<0.00020	C057249	<0.00020	0.00020	C057245			
Dissolved Tin (Sn)	mg/L	<0.0010	C057249	<0.0010	0.0010	C057245			
Dissolved Titanium (Ti)	mg/L	<0.0010	C057249	<0.0010	0.0010	C057245			
Dissolved Uranium (U)	mg/L	0.00087	C057249	0.0010	0.00010	C057245			
Dissolved Vanadium (V)	mg/L	<0.0010	C057249	<0.0010	0.0010	C057245			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRC548		DRC549			DRC549		
Sampling Date		2025/08/12 16:10		2025/08/13 12:10			2025/08/13 12:10		
COC Number		298633		298633			298633		
	UNITS	**AEMP-DS-04**	**QC Batch**	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-06 Lab-Dup**	**RDL**	**QC Batch**
Dissolved Zinc (Zn)	mg/L	<0.0030	C057249	<0.0030	0.0030	C057245			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRC550		
Sampling Date		2025/08/13 11:10		
COC Number		298633		
	UNITS	**AEMP-DS-07**	**RDL**	**QC Batch**
Elements				
Dissolved Aluminum (Al)	mg/L	0.032	0.0030	C057249
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	C057249
Dissolved Arsenic (As)	mg/L	0.00029	0.00020	C057249
Dissolved Barium (Ba)	mg/L	0.045	0.010	C060645
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	C057249
Dissolved Boron (B)	mg/L	<0.020	0.020	C060645
Dissolved Calcium (Ca)	mg/L	36	0.30	C060645
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	C057249
Dissolved Cobalt (Co)	mg/L	<0.00030	0.00030	C057249
Dissolved Copper (Cu)	mg/L	0.0013	0.0010	C057249
Dissolved Iron (Fe)	mg/L	<0.060	0.060	C060645
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	C057249
Dissolved Lithium (Li)	mg/L	<0.020	0.020	C060645
Dissolved Magnesium (Mg)	mg/L	11	0.20	C060645
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0040	C060645
Dissolved Molybdenum (Mo)	mg/L	0.0013	0.00020	C057249
Dissolved Nickel (Ni)	mg/L	0.0011	0.00050	C057249
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	C060645
Dissolved Potassium (K)	mg/L	0.84	0.30	C060645
Dissolved Selenium (Se)	mg/L	0.00046	0.00020	C057249
Dissolved Silicon (Si)	mg/L	1.7	0.50	C060645
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	C057249
Dissolved Sodium (Na)	mg/L	6.6	0.50	C060645
Dissolved Strontium (Sr)	mg/L	0.29	0.020	C060645
Dissolved Sulphur (S)	mg/L	17	0.20	C060645
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	C057249
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	C057249
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	C057249
Dissolved Uranium (U)	mg/L	0.00091	0.00010	C057249
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	C057249
Dissolved Zinc (Zn)	mg/L	<0.0030	0.0030	C057249
RDL = Reportable Detection Limit				

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRC548
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/08/12
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C056342	N/A	2025/08/20	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C053660	N/A	2025/08/23	Wonjeong Park
F1-BTEX	CALC/MS	C054458	N/A	2025/08/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C053583	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C053586	N/A	2025/08/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C055499	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C055400	N/A	2025/08/20	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Carbon (DOC)	TECH	C060556	N/A	2025/08/24	Jill Yuen
Conductivity @25C	COND	C056345	N/A	2025/08/20	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C054694	2025/08/20	2025/08/20	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C054754	N/A	2025/08/20	Automated Statchk
Hardness	CALC	C054534	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C055811	2025/08/20	2025/08/20	Kiran Kumari
Mercury (Total) by CV	CV	C055804	2025/08/20	2025/08/20	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060635	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C055820	2025/08/20	2025/08/21	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C057249	N/A	2025/08/21	Jason Bao
Elements by ICPMS - Total	ICPM	C055810	2025/08/20	2025/08/21	Jason Bao
Ion Balance	CALC	C054546	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C057178	N/A	2025/08/21	Isabelle White
Nitrate and Nitrite	CALC	C054559	N/A	2025/08/20	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C055560	N/A	2025/08/20	Kristijan Kovac
Nitrate (as N)	CALC	C054561	2025/08/20	2025/08/20	Automated Statchk
Oil and Grease by IR	IR	C051919	2025/08/20	2025/08/21	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C053734	N/A	2025/08/21	Automated Statchk
PAH in Water by GC/MS	GC/MS	C054692	2025/08/20	2025/08/20	Nora Kazemian
pH @25°C	AT/ALK	C056344	N/A	2025/08/20	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C055899	N/A	2025/08/20	Kristijan Kovac
Total Sulphide	SPEC	C053456	2025/08/19	2025/08/20	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C053591	2025/08/19	2025/08/20	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C054589	N/A	2025/08/20	Automated Statchk
Nitrogen (Total)	AC/COL	C055508	2025/08/20	2025/08/20	Yan Lin
Carbon (Total Organic)	TECH	C060072	N/A	2025/08/23	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C054850	2025/08/20	2025/08/21	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C053541	2025/08/19	2025/08/20	Haydee Estilong
Turbidity	TURB	C054282	N/A	2025/08/19	Daryl Viktoria Noval

Bureau Veritas ID: DRC549
Sample ID: AEMP-DS-06
Matrix: Water

Collected: 2025/08/13
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C056342	N/A	2025/08/20	Ayesha Ayesha

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRC549
Sample ID: AEMP-DS-06
Matrix: Water

Collected: 2025/08/13
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C053660	N/A	2025/08/23	Wonjeong Park
F1-BTEX	CALC/MS	C054458	N/A	2025/08/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C053583	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C054730	N/A	2025/08/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C055499	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C055400	N/A	2025/08/20	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Carbon (DOC)	TECH	C060556	N/A	2025/08/24	Jill Yuen
Conductivity @25C	COND	C056345	N/A	2025/08/20	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C054694	2025/08/20	2025/08/20	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C054754	N/A	2025/08/21	Automated Statchk
Hardness	CALC	C054534	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C055811	2025/08/20	2025/08/20	Kiran Kumari
Mercury (Total) by CV	CV	C055804	2025/08/20	2025/08/20	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060645	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C055820	2025/08/20	2025/08/21	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C057245	N/A	2025/08/21	Jason Bao
Elements by ICPMS - Total	ICPM	C055810	2025/08/20	2025/08/21	Jason Bao
Ion Balance	CALC	C054546	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C057178	N/A	2025/08/21	Isabelle White
Nitrate and Nitrite	CALC	C054559	N/A	2025/08/20	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C055560	N/A	2025/08/20	Kristijan Kovac
Nitrate (as N)	CALC	C054561	2025/08/20	2025/08/20	Automated Statchk
Oil and Grease by IR	IR	C051919	2025/08/20	2025/08/21	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C053734	N/A	2025/08/21	Automated Statchk
PAH in Water by GC/MS	GC/MS	C054692	2025/08/20	2025/08/20	Nora Kazemian
pH @25°C	AT/ALK	C056344	N/A	2025/08/20	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C055899	N/A	2025/08/20	Kristijan Kovac
Total Sulphide	SPEC	C055470	2025/08/20	2025/08/21	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C055161	2025/08/20	2025/08/21	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C054589	N/A	2025/08/20	Automated Statchk
Nitrogen (Total)	AC/COL	C055508	2025/08/20	2025/08/20	Yan Lin
Carbon (Total Organic)	TECH	C060072	N/A	2025/08/23	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C054850	2025/08/20	2025/08/21	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C055177	2025/08/20	2025/08/20	Haydee Estilong
Turbidity	TURB	C054282	N/A	2025/08/19	Daryl Viktoria Noval

Bureau Veritas ID: DRC549 Dup
Sample ID: AEMP-DS-06
Matrix: Water

Collected: 2025/08/13
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (DOC)	TECH	C060556	N/A	2025/08/24	Jill Yuen
Elements by ICP - Dissolved	ICPA	C060645	N/A	2025/08/24	Bailey Morrison

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Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRC549 Dup
Sample ID: AEMP-DS-06
Matrix: Water

Collected: 2025/08/13
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids (Filt. Residue)	BAL	C055161	2025/08/20	2025/08/21	Haydee Estilong

Bureau Veritas ID: DRC550
Sample ID: AEMP-DS-07
Matrix: Water

Collected: 2025/08/13
Relinquished: 2025/08/15
Received: 2025/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C056342	N/A	2025/08/20	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C053660	N/A	2025/08/23	Wonjeong Park
F1-BTEX	CALC/MS	C054458	N/A	2025/08/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C054728	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C054730	N/A	2025/08/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C055499	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C055400	N/A	2025/08/20	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Carbon (DOC)	TECH	C060556	N/A	2025/08/24	Jill Yuen
Conductivity @25C	COND	C056345	N/A	2025/08/20	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C054694	2025/08/20	2025/08/20	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C054754	N/A	2025/08/21	Automated Statchk
Hardness	CALC	C054534	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C055811	2025/08/20	2025/08/20	Kiran Kumari
Mercury (Total) by CV	CV	C055804	2025/08/20	2025/08/20	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060645	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C057515	2025/08/21	2025/08/21	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C057249	N/A	2025/08/21	Jason Bao
Elements by ICPMS - Total	ICPM	C057502	2025/08/21	2025/08/21	Kevin Huang
Ion Balance	CALC	C054546	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C057178	N/A	2025/08/21	Isabelle White
Nitrate and Nitrite	CALC	C054559	N/A	2025/08/20	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C055560	N/A	2025/08/20	Kristijan Kovac
Nitrate (as N)	CALC	C054561	2025/08/20	2025/08/20	Automated Statchk
Oil and Grease by IR	IR	C051919	2025/08/20	2025/08/21	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C053734	N/A	2025/08/21	Automated Statchk
PAH in Water by GC/MS	GC/MS	C054692	2025/08/20	2025/08/20	Nora Kazemian
pH @25°C	AT/ALK	C056344	N/A	2025/08/20	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C055899	N/A	2025/08/20	Kristijan Kovac
Total Sulphide	SPEC	C055470	2025/08/20	2025/08/21	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C055161	2025/08/20	2025/08/21	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C054589	N/A	2025/08/20	Automated Statchk
Nitrogen (Total)	AC/COL	C055508	2025/08/20	2025/08/20	Yan Lin
Carbon (Total Organic)	TECH	C060072	N/A	2025/08/23	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C054850	2025/08/20	2025/08/21	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C055177	2025/08/20	2025/08/20	Haydee Estilong
Turbidity	TURB	C054282	N/A	2025/08/19	Daryl Viktoria Noval

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.0°C

Sample DRC548 [AEMP-DS-04] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for True Colour.

Sample DRC549 [AEMP-DS-06] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for True Colour.

Sample DRC550 [AEMP-DS-07] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for True Colour.

Results relate only to the items tested.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571156
Report Date: 2025/08/25

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C051919	RRA	Method Blank	Oil and grease	2025/08/21	<2.0		mg/L	
C053456	NJD	Method Blank	Total Sulphide	2025/08/20	<0.0018		mg/L	
C053541	HE1	Method Blank	Total Suspended Solids	2025/08/19	<1.0		mg/L	
C053591	HE1	Method Blank	Total Dissolved Solids	2025/08/19	<10		mg/L	
C053660	WPK	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/22		108	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/22		88	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/22		103	%	50 - 140
			Benzene	2025/08/22	<0.00040		mg/L	
			Toluene	2025/08/22	<0.00040		mg/L	
			Ethylbenzene	2025/08/22	<0.00040		mg/L	
			m & p-Xylene	2025/08/22	<0.00080		mg/L	
			o-Xylene	2025/08/22	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/22	<0.10		mg/L	
C054282	DVN	Method Blank	Turbidity	2025/08/19	<0.10		NTU	
C054692	NK3	Method Blank	D10-ANTHRACENE (sur.)	2025/08/20		96	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/20		94	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/20		77	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/20		54	%	50 - 130
			Acenaphthene	2025/08/20	<0.00010		mg/L	
			Acenaphthylene	2025/08/20	<0.00010		mg/L	
			Acridine	2025/08/20	<0.000040		mg/L	
			Anthracene	2025/08/20	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/20	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/20	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/20	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/20	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/20	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/20	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/20	<0.000050		mg/L	
			Chrysene	2025/08/20	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/20	<0.0000075		mg/L	
			Fluoranthene	2025/08/20	<0.000010		mg/L	
			Fluorene	2025/08/20	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/20	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/20	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/20	<0.00010		mg/L	
			Naphthalene	2025/08/20	<0.00010		mg/L	
			Phenanthrene	2025/08/20	<0.000050		mg/L	
			Perylene	2025/08/20	<0.000050		mg/L	
			Pyrene	2025/08/20	<0.000020		mg/L	
			Quinoline	2025/08/20	<0.00020		mg/L	
C054694	CHA	Method Blank	O-TERPHENYL (sur.)	2025/08/20		92	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/20	<0.10		mg/L	
C054850	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/21	<2.0		mg/L	
C055161	HE1	Method Blank	Total Dissolved Solids	2025/08/21	<10		mg/L	
C055177	HE1	Method Blank	Total Suspended Solids	2025/08/20	<1.0		mg/L	
C055400	AP1	Method Blank	Chemical Oxygen Demand	2025/08/20	<10		mg/L	
C055470	NJD	Method Blank	Total Sulphide	2025/08/21	<0.0018		mg/L	
C055499	TOR	Method Blank	Chloride (Cl)	2025/08/20	<1.0		mg/L	
			Sulphate (SO4)	2025/08/20	<1.0		mg/L	
C055508	YL7	Method Blank	Total Nitrogen (N)	2025/08/20	<0.020		mg/L	
C055560	KKC	Method Blank	Nitrite (N)	2025/08/20	<0.040		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Nitrate plus Nitrite (N)	2025/08/20	<0.040		mg/L	
C055804	KKM	Method Blank	Total Mercury (Hg)	2025/08/20	<0.0019		ug/L	
C055810	JAB	Method Blank	Total Aluminum (Al)	2025/08/21	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/21	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/21	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/21	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/21	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/21	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/21	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/21	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/21	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/21	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/21	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/21	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/21	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/21	<0.0010		mg/L	
			Total Uranium (U)	2025/08/21	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/21	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/21	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/21	<0.0010		mg/L	
C055811	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/20	<0.0019		ug/L	
C055820	KHU	Method Blank	Total Iron (Fe)	2025/08/21	<0.060		mg/L	
			Total Lithium (Li)	2025/08/21	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/21	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/21	<0.0040		mg/L	
			Total Potassium (K)	2025/08/21	<0.30		mg/L	
			Total Sodium (Na)	2025/08/21	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/21	<0.020		mg/L	
			Total Sulphur (S)	2025/08/21	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/21	<0.10		mg/L	
			Total Barium (Ba)	2025/08/21	<0.010		mg/L	
			Total Silicon (Si)	2025/08/21	<0.50		mg/L	
			Total Boron (B)	2025/08/21	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/21	<0.30		mg/L	
C055899	KKC	Method Blank	Orthophosphate (P)	2025/08/20	<0.0030		mg/L	
C055918	KKC	Method Blank	True Colour	2025/08/20	<2.0		PtCo units	
C056342	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/20	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/20	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/20	<1.0		mg/L	
			Carbonate (CO3)	2025/08/20	<1.0		mg/L	
			Hydroxide (OH)	2025/08/20	<1.0		mg/L	
C056345	AYE	Method Blank	Conductivity	2025/08/20	<2.0		uS/cm	
C057178	ISW	Method Blank	Total Ammonia (N)	2025/08/21	<0.015		mg/L	
C057245	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/21	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/21	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/21	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/21	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/21	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/21	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/21	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/21	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/21	<0.00020		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Silver (Ag)	2025/08/21	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/21	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/21	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/21	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/21	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/21	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/21	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/21	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/21	<0.0010		mg/L	
C057249	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/21	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/21	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/21	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/21	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/21	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/21	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/21	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/21	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/21	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/21	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/21	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/21	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/21	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/21	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/21	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/21	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/21	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/21	<0.0010		mg/L	
C057502	KH2	Method Blank	Total Aluminum (Al)	2025/08/21	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/21	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/21	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/21	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/21	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/21	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/21	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/21	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/21	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/21	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/21	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/21	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/21	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/21	<0.0010		mg/L	
			Total Uranium (U)	2025/08/21	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/21	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/21	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/21	<0.0010		mg/L	
C057515	VSC	Method Blank	Total Iron (Fe)	2025/08/22	<0.060		mg/L	
			Total Lithium (Li)	2025/08/22	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/22	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/22	<0.0040		mg/L	
			Total Potassium (K)	2025/08/22	<0.30		mg/L	
			Total Sodium (Na)	2025/08/22	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/22	<0.020		mg/L	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Sulphur (S)	2025/08/22	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/22	<0.10		mg/L	
			Total Barium (Ba)	2025/08/22	<0.010		mg/L	
			Total Silicon (Si)	2025/08/22	<0.50		mg/L	
			Total Boron (B)	2025/08/22	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/22	<0.30		mg/L	
C060072	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/23	<0.50		mg/L	
C060556	JYU	Method Blank	Dissolved Organic Carbon (C)	2025/08/24	<0.50		mg/L	
C060635	BYM	Method Blank	Dissolved Iron (Fe)	2025/08/24	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/24	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/24	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/24	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/24	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/24	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/24	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/24	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/24	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/24	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/24	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/24	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/24	<0.30		mg/L	
C060645	BYM	Method Blank	Dissolved Iron (Fe)	2025/08/24	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/24	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/24	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/24	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/24	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/24	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/24	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/24	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/24	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/24	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/24	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/24	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/24	<0.30		mg/L	
C055161	HE1	RPD [DRC549-14]	Total Dissolved Solids	2025/08/21	0		%	20
C060556	JYU	RPD [DRC549-02]	Dissolved Organic Carbon (C)	2025/08/24	1.2		%	20
C060645	BYM	RPD [DRC549-04]	Dissolved Iron (Fe)	2025/08/24	NC		%	20
			Dissolved Lithium (Li)	2025/08/24	NC		%	20
			Dissolved Magnesium (Mg)	2025/08/24	0.17		%	20
			Dissolved Manganese (Mn)	2025/08/24	3.7		%	20
			Dissolved Potassium (K)	2025/08/24	2.3		%	20
			Dissolved Sodium (Na)	2025/08/24	0.11		%	20
			Dissolved Strontium (Sr)	2025/08/24	0.075		%	20
			Dissolved Sulphur (S)	2025/08/24	0.53		%	20
			Dissolved Phosphorus (P)	2025/08/24	NC		%	20
			Dissolved Barium (Ba)	2025/08/24	9.6		%	20
			Dissolved Silicon (Si)	2025/08/24	0.12		%	20
			Dissolved Boron (B)	2025/08/24	NC		%	20
			Dissolved Calcium (Ca)	2025/08/24	0.064		%	20
C055161	HE1	Matrix Spike [DRC549-14]	Total Dissolved Solids	2025/08/21		93	%	80 - 120
C055820	KHU	Matrix Spike [DRC549-05]	Total Iron (Fe)	2025/08/21		NC	%	80 - 120
			Total Lithium (Li)	2025/08/21		95	%	80 - 120

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			Total Magnesium (Mg)	2025/08/21		96	%	80 - 120
			Total Manganese (Mn)	2025/08/21		90	%	80 - 120
			Total Potassium (K)	2025/08/21		98	%	80 - 120
			Total Sodium (Na)	2025/08/21		100	%	80 - 120
			Total Strontium (Sr)	2025/08/21		90	%	80 - 120
			Total Sulphur (S)	2025/08/21		84	%	80 - 120
			Total Phosphorus (P)	2025/08/21		92	%	80 - 120
			Total Barium (Ba)	2025/08/21		92	%	80 - 120
			Total Silicon (Si)	2025/08/21		NC	%	80 - 120
			Total Boron (B)	2025/08/21		94	%	80 - 120
			Total Calcium (Ca)	2025/08/21		NC	%	80 - 120
C060556	JYU	Matrix Spike [DRC549-02]	Dissolved Organic Carbon (C)	2025/08/24		99	%	75 - 125
C060645	BYM	Matrix Spike [DRC549-04]	Dissolved Iron (Fe)	2025/08/24		110	%	80 - 120
			Dissolved Lithium (Li)	2025/08/24		90	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/24		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/24		105	%	80 - 120
			Dissolved Potassium (K)	2025/08/24		93	%	80 - 120
			Dissolved Sodium (Na)	2025/08/24		89	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/24		93	%	80 - 120
			Dissolved Sulphur (S)	2025/08/24		108	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/24		104	%	80 - 120
			Dissolved Barium (Ba)	2025/08/24		98	%	80 - 120
			Dissolved Silicon (Si)	2025/08/24		100	%	80 - 120
			Dissolved Boron (B)	2025/08/24		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/24		88	%	80 - 120
C051919	RRA	LCS	Oil and grease	2025/08/21		98	%	70 - 130
C053456	NJD	LCS	Total Sulphide	2025/08/20		98	%	80 - 120
C053541	HE1	LCS	Total Suspended Solids	2025/08/19		98	%	80 - 120
C053591	HE1	LCS	Total Dissolved Solids	2025/08/19		96	%	80 - 120
C053660	WPK	LCS	1,4-Difluorobenzene (sur.)	2025/08/22		100	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/22		87	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/22		92	%	50 - 140
			Benzene	2025/08/22		98	%	60 - 130
			Toluene	2025/08/22		101	%	60 - 130
			Ethylbenzene	2025/08/22		98	%	60 - 130
			m & p-Xylene	2025/08/22		97	%	60 - 130
			o-Xylene	2025/08/22		97	%	60 - 130
			F1 (C6-C10)	2025/08/22		107	%	60 - 140
C054282	DVN	LCS	Turbidity	2025/08/19		101	%	80 - 120
C054692	NK3	LCS	D10-ANTHRACENE (sur.)	2025/08/20		101	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/20		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/20		85	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/20		63	%	50 - 130
			Acenaphthene	2025/08/20		69	%	50 - 130
			Acenaphthylene	2025/08/20		73	%	50 - 130
			Acridine	2025/08/20		93	%	50 - 130
			Anthracene	2025/08/20		84	%	50 - 130
			Benzo(a)anthracene	2025/08/20		90	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/20		87	%	50 - 130
			Benzo(k)fluoranthene	2025/08/20		104	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/20		84	%	50 - 130
			Benzo(c)phenanthrene	2025/08/20		94	%	50 - 130

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			Benzo(a)pyrene	2025/08/20		90	%	50 - 130
			Benzo(e)pyrene	2025/08/20		83	%	50 - 130
			Chrysene	2025/08/20		88	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/20		87	%	50 - 130
			Fluoranthene	2025/08/20		91	%	50 - 130
			Fluorene	2025/08/20		60	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/20		86	%	50 - 130
			1-Methylnaphthalene	2025/08/20		51	%	50 - 130
			2-Methylnaphthalene	2025/08/20		54	%	50 - 130
			Naphthalene	2025/08/20		71	%	50 - 130
			Phenanthrene	2025/08/20		75	%	50 - 130
			Perylene	2025/08/20		84	%	50 - 130
			Pyrene	2025/08/20		93	%	50 - 130
			Quinoline	2025/08/20		98	%	50 - 130
C054694	CHA	LCS	O-TERPHENYL (sur.)	2025/08/20		91	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/20		89	%	60 - 140
C054850	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/21		97	%	70 - 130
C055161	HE1	LCS	Total Dissolved Solids	2025/08/21		97	%	80 - 120
C055177	HE1	LCS	Total Suspended Solids	2025/08/20		100	%	80 - 120
C055400	AP1	LCS	Chemical Oxygen Demand	2025/08/20		101	%	80 - 120
C055470	NJD	LCS	Total Sulphide	2025/08/21		98	%	80 - 120
C055499	TOR	LCS	Chloride (Cl)	2025/08/20		105	%	80 - 120
			Sulphate (SO4)	2025/08/20		102	%	80 - 120
C055508	YL7	LCS	Total Nitrogen (N)	2025/08/20		102	%	80 - 120
C055560	KKC	LCS	Nitrite (N)	2025/08/20		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/20		104	%	80 - 120
C055804	KKM	LCS	Total Mercury (Hg)	2025/08/20		95	%	80 - 120
C055810	JAB	LCS	Total Aluminum (Al)	2025/08/21		98	%	80 - 120
			Total Chromium (Cr)	2025/08/21		95	%	80 - 120
			Total Cobalt (Co)	2025/08/21		92	%	80 - 120
			Total Copper (Cu)	2025/08/21		91	%	80 - 120
			Total Lead (Pb)	2025/08/21		93	%	80 - 120
			Total Antimony (Sb)	2025/08/21		92	%	80 - 120
			Total Molybdenum (Mo)	2025/08/21		97	%	80 - 120
			Total Nickel (Ni)	2025/08/21		91	%	80 - 120
			Total Selenium (Se)	2025/08/21		80	%	80 - 120
			Total Silver (Ag)	2025/08/21		98	%	80 - 120
			Total Arsenic (As)	2025/08/21		86	%	80 - 120
			Total Thallium (Tl)	2025/08/21		98	%	80 - 120
			Total Tin (Sn)	2025/08/21		96	%	80 - 120
			Total Titanium (Ti)	2025/08/21		99	%	80 - 120
			Total Uranium (U)	2025/08/21		99	%	80 - 120
			Total Vanadium (V)	2025/08/21		93	%	80 - 120
			Total Zinc (Zn)	2025/08/21		78 (1)	%	80 - 120
			Total Beryllium (Be)	2025/08/21		93	%	80 - 120
C055811	KKM	LCS	Dissolved Mercury (Hg)	2025/08/20		99	%	80 - 120
C055820	KHU	LCS	Total Iron (Fe)	2025/08/21		97	%	80 - 120
			Total Lithium (Li)	2025/08/21		96	%	80 - 120
			Total Magnesium (Mg)	2025/08/21		95	%	80 - 120
			Total Manganese (Mn)	2025/08/21		90	%	80 - 120
			Total Potassium (K)	2025/08/21		100	%	80 - 120
			Total Sodium (Na)	2025/08/21		101	%	80 - 120

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Strontium (Sr)	2025/08/21		93	%	80 - 120
			Total Sulphur (S)	2025/08/21		83	%	80 - 120
			Total Phosphorus (P)	2025/08/21		94	%	80 - 120
			Total Barium (Ba)	2025/08/21		93	%	80 - 120
			Total Silicon (Si)	2025/08/21		96	%	80 - 120
			Total Boron (B)	2025/08/21		95	%	80 - 120
			Total Calcium (Ca)	2025/08/21		94	%	80 - 120
C055899	KKC	LCS	Orthophosphate (P)	2025/08/20		103	%	80 - 120
C055918	KKC	LCS	True Colour	2025/08/20		91	%	80 - 120
C056342	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/20		98	%	80 - 120
C056344	AYE	LCS	pH	2025/08/20		101	%	97 - 103
C056345	AYE	LCS	Conductivity	2025/08/20		103	%	90 - 110
C057178	ISW	LCS	Total Ammonia (N)	2025/08/21		102	%	80 - 120
C057245	JAB	LCS	Dissolved Aluminum (Al)	2025/08/21		103	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/21		100	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/21		99	%	80 - 120
			Dissolved Copper (Cu)	2025/08/21		100	%	80 - 120
			Dissolved Lead (Pb)	2025/08/21		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/21		103	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/21		103	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/21		99	%	80 - 120
			Dissolved Selenium (Se)	2025/08/21		102	%	80 - 120
			Dissolved Silver (Ag)	2025/08/21		103	%	80 - 120
			Dissolved Arsenic (As)	2025/08/21		102	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/21		100	%	80 - 120
			Dissolved Tin (Sn)	2025/08/21		102	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/21		110	%	80 - 120
			Dissolved Uranium (U)	2025/08/21		101	%	80 - 120
			Dissolved Vanadium (V)	2025/08/21		100	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/21		100	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/21		98	%	80 - 120
C057249	JAB	LCS	Dissolved Aluminum (Al)	2025/08/21		107	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/21		102	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/21		99	%	80 - 120
			Dissolved Copper (Cu)	2025/08/21		100	%	80 - 120
			Dissolved Lead (Pb)	2025/08/21		100	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/21		104	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/21		104	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/21		99	%	80 - 120
			Dissolved Selenium (Se)	2025/08/21		100	%	80 - 120
			Dissolved Silver (Ag)	2025/08/21		102	%	80 - 120
			Dissolved Arsenic (As)	2025/08/21		103	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/21		102	%	80 - 120
			Dissolved Tin (Sn)	2025/08/21		102	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/21		105	%	80 - 120
			Dissolved Uranium (U)	2025/08/21		102	%	80 - 120
			Dissolved Vanadium (V)	2025/08/21		102	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/21		99	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/21		104	%	80 - 120
C057502	KH2	LCS	Total Aluminum (Al)	2025/08/21		103	%	80 - 120
			Total Chromium (Cr)	2025/08/21		98	%	80 - 120
			Total Cobalt (Co)	2025/08/21		98	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Copper (Cu)	2025/08/21		99	%	80 - 120
			Total Lead (Pb)	2025/08/21		100	%	80 - 120
			Total Antimony (Sb)	2025/08/21		101	%	80 - 120
			Total Molybdenum (Mo)	2025/08/21		105	%	80 - 120
			Total Nickel (Ni)	2025/08/21		98	%	80 - 120
			Total Selenium (Se)	2025/08/21		100	%	80 - 120
			Total Silver (Ag)	2025/08/21		102	%	80 - 120
			Total Arsenic (As)	2025/08/21		103	%	80 - 120
			Total Thallium (Tl)	2025/08/21		107	%	80 - 120
			Total Tin (Sn)	2025/08/21		99	%	80 - 120
			Total Titanium (Ti)	2025/08/21		105	%	80 - 120
			Total Uranium (U)	2025/08/21		100	%	80 - 120
			Total Vanadium (V)	2025/08/21		98	%	80 - 120
			Total Zinc (Zn)	2025/08/21		99	%	80 - 120
			Total Beryllium (Be)	2025/08/21		104	%	80 - 120
C057515	VSC	LCS	Total Iron (Fe)	2025/08/21		101	%	80 - 120
			Total Lithium (Li)	2025/08/21		98	%	80 - 120
			Total Magnesium (Mg)	2025/08/21		100	%	80 - 120
			Total Manganese (Mn)	2025/08/21		94	%	80 - 120
			Total Potassium (K)	2025/08/21		103	%	80 - 120
			Total Sodium (Na)	2025/08/21		103	%	80 - 120
			Total Strontium (Sr)	2025/08/21		97	%	80 - 120
			Total Sulphur (S)	2025/08/21		89	%	80 - 120
			Total Phosphorus (P)	2025/08/21		99	%	80 - 120
			Total Barium (Ba)	2025/08/21		97	%	80 - 120
			Total Silicon (Si)	2025/08/21		99	%	80 - 120
			Total Boron (B)	2025/08/21		103	%	80 - 120
			Total Calcium (Ca)	2025/08/21		97	%	80 - 120
C060072	TJ4	LCS	Total Organic Carbon (C)	2025/08/23		102	%	80 - 120
C060556	JYU	LCS	Dissolved Organic Carbon (C)	2025/08/24		103	%	80 - 120
C060635	BYM	LCS	Dissolved Iron (Fe)	2025/08/24		108	%	80 - 120
			Dissolved Lithium (Li)	2025/08/24		95	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/24		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/24		103	%	80 - 120
			Dissolved Potassium (K)	2025/08/24		98	%	80 - 120
			Dissolved Sodium (Na)	2025/08/24		96	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/24		98	%	80 - 120
			Dissolved Sulphur (S)	2025/08/24		104	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/24		102	%	80 - 120
			Dissolved Barium (Ba)	2025/08/24		101	%	80 - 120
			Dissolved Silicon (Si)	2025/08/24		101	%	80 - 120
			Dissolved Boron (B)	2025/08/24		98	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/24		96	%	80 - 120
C060645	BYM	LCS	Dissolved Iron (Fe)	2025/08/24		108	%	80 - 120
			Dissolved Lithium (Li)	2025/08/24		92	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/24		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/24		103	%	80 - 120
			Dissolved Potassium (K)	2025/08/24		95	%	80 - 120
			Dissolved Sodium (Na)	2025/08/24		93	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/24		98	%	80 - 120
			Dissolved Sulphur (S)	2025/08/24		107	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/24		105	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Barium (Ba)	2025/08/24		101	%	80 - 120
			Dissolved Silicon (Si)	2025/08/24		102	%	80 - 120
			Dissolved Boron (B)	2025/08/24		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/24		93	%	80 - 120
C055508	YL7	SRM	Total Nitrogen (N)	2025/08/20		102	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

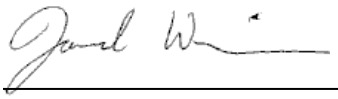
Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C571156
Report Date: 2025/08/25

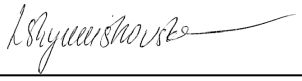
Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

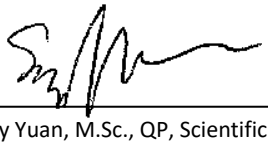
The analytical data and all QC contained in this report were reviewed and validated by:



Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



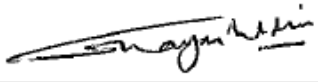
Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics



Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



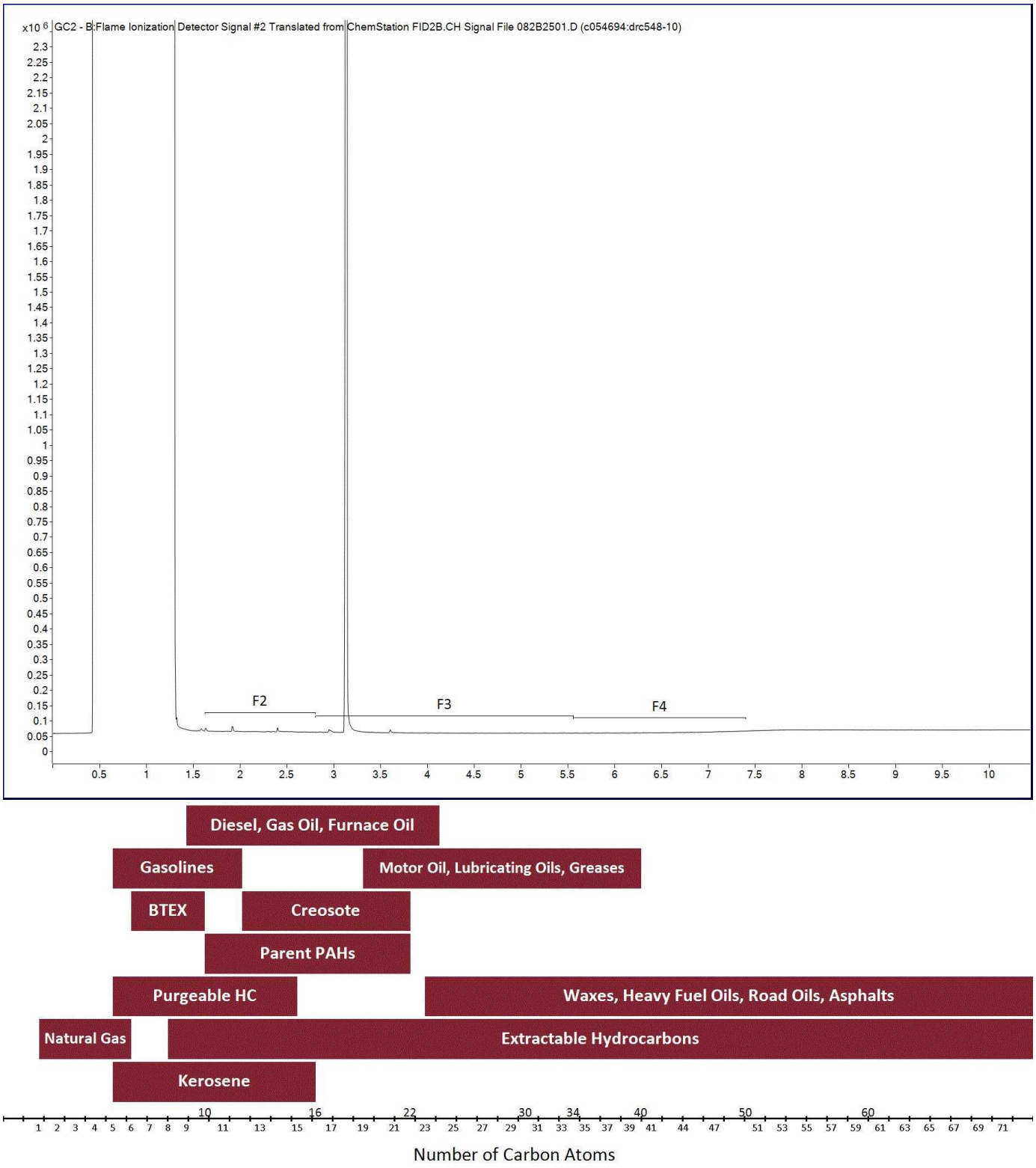
Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C571156
Report Date: 2025/08/25
Bureau Veritas Sample: DRC548

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DS-04

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

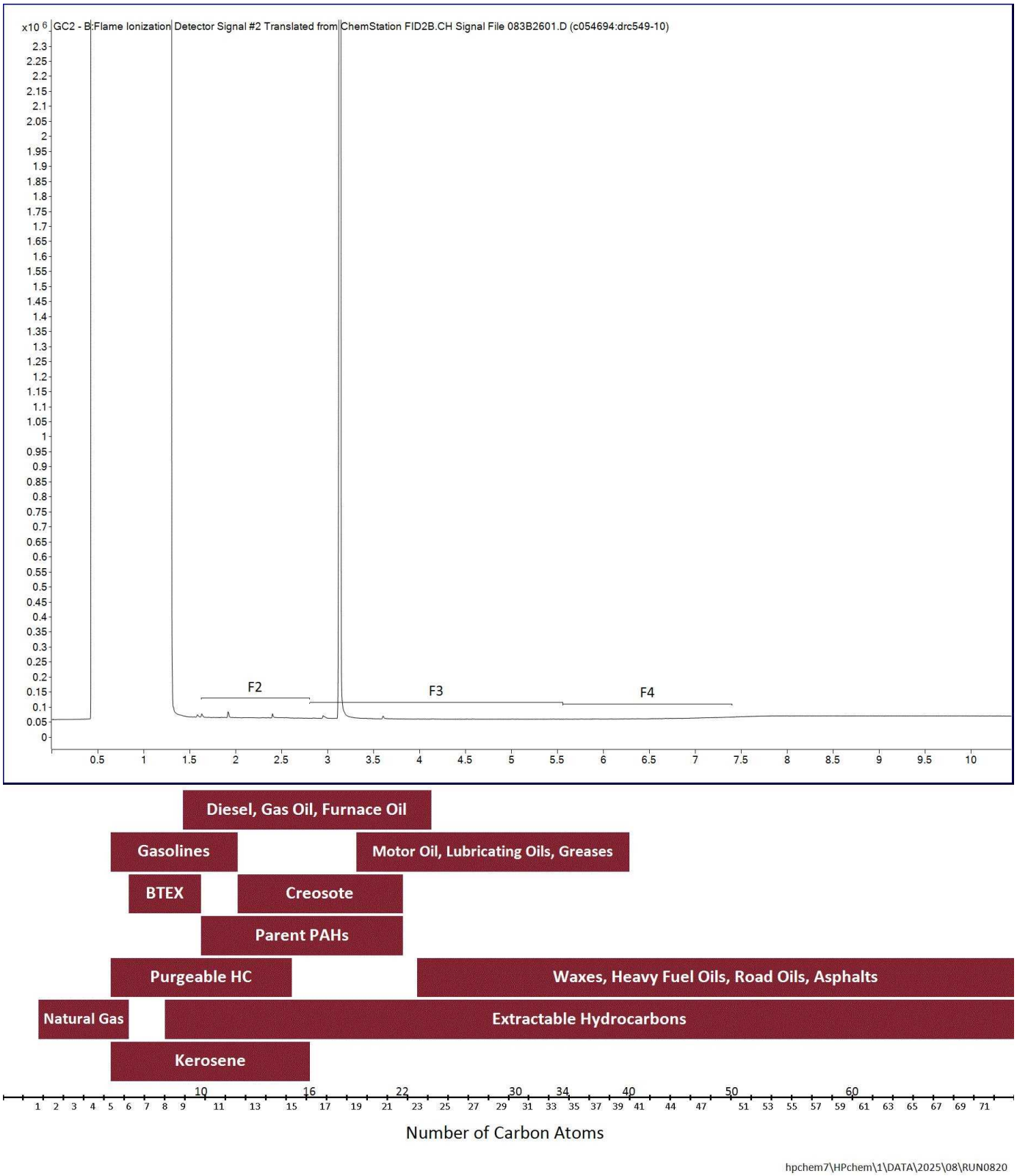


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571156
Report Date: 2025/08/25
Bureau Veritas Sample: DRC549

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DS-06

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

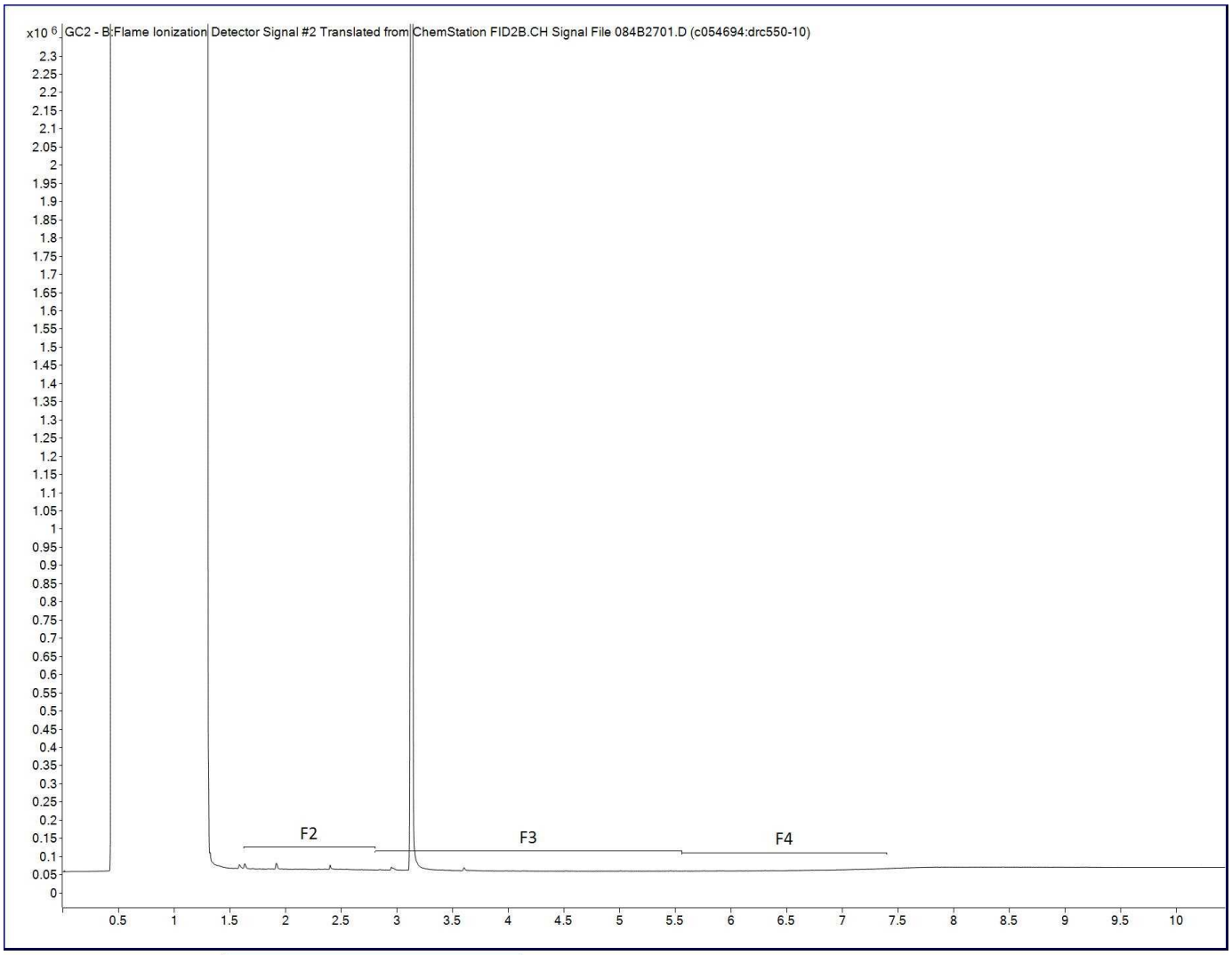


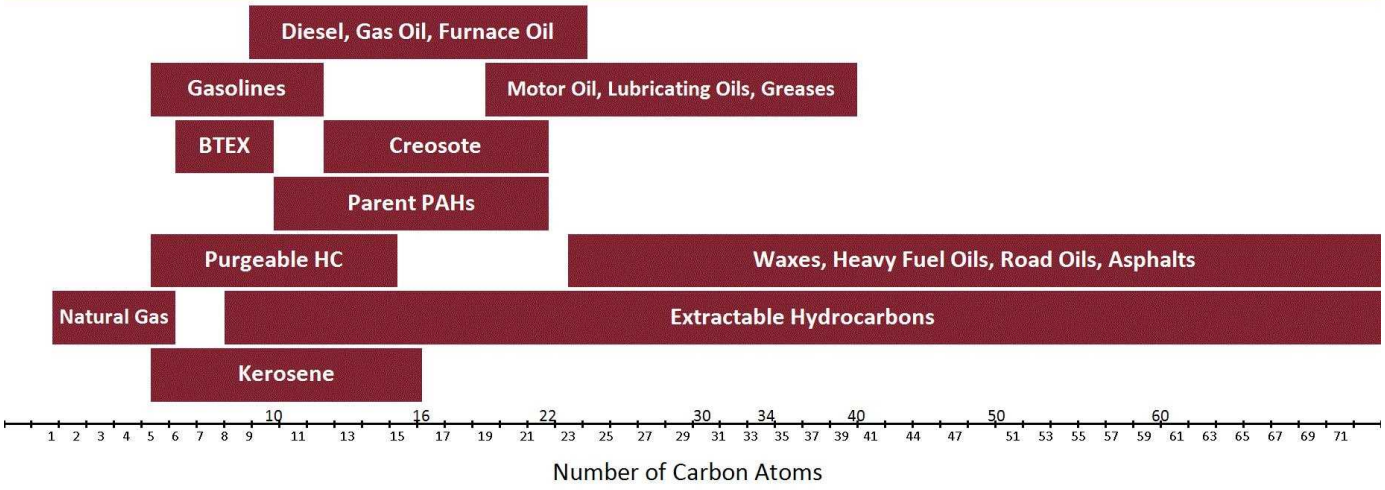
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571156
Report Date: 2025/08/25
Bureau Veritas Sample: DRC550

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DS-07

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram





hpchem7\HPchem\1\DATA\2025\08\RUN0820

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

C571156
2025/08/18 08:00

Maxxam
A Bureau Veritas Group Company

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4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

☐ Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 298633

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☑ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGWUBE/BRENDAN CHAPMAN	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH HYDROMETER	REGULATED METALS: TOT ☐ DIS ☐	MERCURY: TOTAL ☐ DISSOLVED ☐	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, TURBIDITY	OIL and GREASE	TOC, DOC, SULPHIDE	NITRATE, NITRITE, AMMONIA (TOTAL), TKN	ORTHOPHOSPHATE	SULPHUR - Total and DISSOLVED	COD	TPH.
1 AEMP-DS-04		X			16	2025/08/12	16:10	X			X	X							X	X					X			X	X	X	X	X	X	X	X
2 AEMP-DS-06		X			16	2025/08/13	12:10	X			X	X							X	X					X			X	X	X	X	X	X	X	X
3 AEMP-DS-07		X			16	2025/08/13	11:10	X			X	X							X	X					X			X	X	X	X	X	X	X	X
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

MED2-2025-08-462

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com cacal-IORdatatrack@worley.com stacy.gibb@worley.com IES A2601436 Please include NV

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

LAB USE ONLY
MAXXAM JOB #

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	6	4	5
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID # MC414			
SEAL PRESENT	✓		TEMP °C	4	4	2
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	—					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	TINO NGWUBE	2025/08/15	10:00	1.	MAUREEN CHEEMA	2025/08/18	0800
2. MaunCheema	MAUREEN CHEEMA	2025/08/18	1402	2.	ANDRII SKORUPSKYY	2025/08/19	06:30
3.				3.			

SAMPLES
LABELED BY:
VERIFIED BY:

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Maxxam
A Bureau Veritas Group Company

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EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 298633

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGULUBE/BRENDAN CHAPMAN	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☐	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, TURBIDITY	OIL and GREASE	TOC, DOC, SULPHIDE	NITRATE, NITRITE, AMMONIA (TOTAL), TKN	CARBONATE/BICARBONATE	SULPHUR - Total and DISSOLVED	COD	TPH
1 AEMP-DS-04		X			16	2025/08/12	16:40	X			X	X							X	X					X			X	X	X	X	X	X	X	X
2 AEMP-DS-06		X			16	2025/08/13	~~14:30~~ 12:30	X			X	X							X	X					X			X	X	X	X	X	X	X	X
3 AEMP-DS-07		X			16	2025/08/13	11:10	X			X	X							X	X					X			X	X	X	X	X	X	X	X
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

MED2-2025-08-462

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com cacal-IOR.datatrack@worley.com stacy.gibb@worley.com IES A2601436 Please include NVI

JARS USED & NOT SUBMITTED Enter N/A for Water: N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐ (2 days) ☐ (1 day) ☐ (same day) ☐
Date Required

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	6	4	5
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID # MCHK			
SEAL PRESENT	—		TEMP °C	4	4	2
SEAL INTACT	—			1	2	3
COOLING MEDIA PRESENT	—					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C	1	2	3
SEAL INTACT						
COOLING MEDIA PRESENT						

LAB USE ONLY
MAXXAM JOB # C47156

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	TINO NGULUBE	2025/08/15	10:00	1.	NAVREET CHEEMA	2025/08/18	0800
2.	NAVREET CHEEMA	2025/08/18	1402	2.	ANDRII SKORNYAKOV	2025/08/19	06:30
3.				3.			

SAMPLES
LABELED BY: EPL
VERIFIED BY: JTB

COC-1010 (06/2016) IOL-AB

White: Maxxam - Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298632

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702898
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571386
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	2	AB SOP-00005	SM 24 2320 B m
Send Part to Archive	2		
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	2		Auto Calc
Cadmium - low level CCME (Total)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	2	AB SOP-00016	SM 24 5220D m
True Colour	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons (F2-F4 in water) (2)	3	AB SOP-00037	CCME PHC-CWS m
Sulphide (as H2S)	2		Auto Calc
Hardness	2		Auto Calc
Mercury (Dissolved) by CV (3)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	2		Auto Calc
Ammonia-N (Total)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	2		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	2	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	2	AB SOP-00065	SM 24 2540 C m

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Bureau Veritas - Partial Rush Results

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298632

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702898
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571386
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	2		Auto Calc
Nitrogen (Total)	2	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	2	AB SOP-00061	SM 24 2540 D m
Turbidity	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298632

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702898
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571386

Received: 2025/08/19, 15:00

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
26 Aug 2025 17:05:23

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Job #: C571386
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE187	DRE188	DRE189		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21	2025/08/15 17:30		
COC Number		298632	298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**AEMP-DUP3-FIELD BLANK**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056686
F3 (C16-C34 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056686
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	<0.20	<0.20	0.20	C056686
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056158
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056158
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056158
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C056158
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056158
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C055430
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C055430
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C056158
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	101	101	100		C056686
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	104	104	105		C056158
4-Bromofluorobenzene (sur.)	%	99	98	98		C056158
D4-1,2-Dichloroethane (sur.)	%	117	117	118		C056158
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

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TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRE187		DRE188		
Sampling Date		2025/08/15 13:20		2025/08/15 13:21		
COC Number		298632		298632		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Calculated Parameters						
Nitrate (N)	mg/L	0.041	C055467	<0.040	0.040	C055467
Nitrate (NO3)	mg/L	0.18	C055456	<0.18	0.18	C055456
Nitrite (NO2)	mg/L	<0.13	C055456	<0.13	0.13	C055456
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.26	C055228	0.29	0.20	C055228
Nutrients						
Nitrite (N)	mg/L	<0.040	C057503	<0.040	0.040	C057506
Nitrate plus Nitrite (N)	mg/L	0.041	C057503	<0.040	0.040	C057506
Total Nitrogen (N)	mg/L	0.30 (1)	C057078	0.29 (1)	0.20	C057078

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas - Partial/Rush Results

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE187	DRE188		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21		
COC Number		298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Elements					
Total Cadmium (Cd)	mg/L	0.00019	0.00014	0.000020	C055197
Total Mercury (Hg)	ug/L	0.0054	0.0058	0.0019	C057722
Total Aluminum (Al)	mg/L	2.6	2.6	0.0030	C061165
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C061165
Total Arsenic (As)	mg/L	0.0020	0.0022	0.00020	C061165
Total Barium (Ba)	mg/L	0.098	0.098	0.010	C061178
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C061165
Total Boron (B)	mg/L	<0.020	<0.020	0.020	C061178
Total Calcium (Ca)	mg/L	47	47	0.30	C061178
Total Chromium (Cr)	mg/L	0.0040	0.0076	0.0010	C061165
Total Cobalt (Co)	mg/L	0.0022	0.0032	0.00030	C061165
Total Copper (Cu)	mg/L	0.0051	0.0055	0.0010	C061165
Total Iron (Fe)	mg/L	5.1	5.2	0.060	C061178
Total Lead (Pb)	mg/L	0.0023	0.0023	0.00020	C061165
Total Lithium (Li)	mg/L	<0.020	<0.020	0.020	C061178
Total Magnesium (Mg)	mg/L	15	15	0.20	C061178
Total Manganese (Mn)	mg/L	0.088	0.094	0.0040	C061178
Total Molybdenum (Mo)	mg/L	0.0016	0.0016	0.00020	C061165
Total Nickel (Ni)	mg/L	0.0087	0.039	0.00050	C061165
Total Phosphorus (P)	mg/L	<0.10	0.11	0.10	C061178
Total Potassium (K)	mg/L	1.7	1.6	0.30	C061178
Total Selenium (Se)	mg/L	0.00047	0.00044	0.00020	C061165
Total Silicon (Si)	mg/L	4.3	4.3	0.50	C061178
Total Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C061165
Total Sodium (Na)	mg/L	8.5	8.5	0.50	C061178
Total Strontium (Sr)	mg/L	0.34	0.34	0.020	C061178
Total Sulphur (S)	mg/L	16	16	0.20	C061178
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C061165
Total Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C061165
Total Titanium (Ti)	mg/L	0.025	0.022	0.0010	C061165
Total Uranium (U)	mg/L	0.0011	0.0011	0.00010	C061165
RDL = Reportable Detection Limit					

Bureau Veritas - Partial/Rush Results

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE187	DRE188		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21		
COC Number		298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0066	0.0067	0.0010	C061165
Total Zinc (Zn)	mg/L	0.042	0.093	0.0030	C061165
RDL = Reportable Detection Limit					

Bureau Veritas - Partial/Rush Results

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Bureau Veritas Job #: C571386
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE187		DRE188			DRE188		
Sampling Date		2025/08/15 13:20		2025/08/15 13:21			2025/08/15 13:21		
COC Number		298632		298632			298632		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**	**AEMP-DUP-2 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters									
Hardness (CaCO3)	mg/L	140	C055581	140	0.50	C055583			
Ion Balance (% Difference)	%	1.3	C055587	3.2	N/A	C055587			
Sulphide (as H2S)	mg/L	<0.0020	C055332	0.031	0.0020	C055332			
Demand Parameters									
Chemical Oxygen Demand	mg/L	35	C057740	25	10	C057740			
Misc. Inorganics									
Conductivity	uS/cm	310	C057850	310	2.0	C057850			
Dissolved Organic Carbon (C)	mg/L	3.1	C062390	3.4	0.50	C062390			
pH	pH	7.35	C057848	7.43	N/A	C057848			
Total Organic Carbon (C)	mg/L	3.3	C062424	2.7	0.50	C062424			
Total Dissolved Solids	mg/L	180	C057038	180	10	C057038			
Total Suspended Solids	mg/L	150	C056171	170	1.0	C056171			
Anions									
Alkalinity (PP as CaCO3)	mg/L	<1.0	C057849	<1.0	1.0	C057849			
Alkalinity (Total as CaCO3)	mg/L	100	C057849	100	1.0	C057849			
Bicarbonate (HCO3)	mg/L	120	C057849	120	1.0	C057849			
Carbonate (CO3)	mg/L	<1.0	C057849	<1.0	1.0	C057849			
Hydroxide (OH)	mg/L	<1.0	C057849	<1.0	1.0	C057849			
Total Sulphide	mg/L	<0.0018	C058130	0.029	0.0018	C058130			
Chloride (Cl)	mg/L	8.1	C057535	8.4	1.0	C058175			
Sulphate (SO4)	mg/L	50	C057535	51	1.0	C058175			
Nutrients									
Total Ammonia (N)	mg/L	<0.015	C060686	<0.015	0.015	C060686			
Orthophosphate (P)	mg/L	<0.0030	C058481	<0.0030	0.0030	C058481			
Misc. Organics									
Oil and grease	mg/L	<2.0	C056531	<2.0	2.0	C056531	<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	C056617	<2.0	2.0	C056617	<2.0	2.0	C056617
Physical Properties									
True Colour	PtCo units	7.3	C063513	6.8	2.0	C063513			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

Bureau Veritas - Partial/Rush Results

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Bureau Veritas Job #: C571386
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE187		DRE188			DRE188		
Sampling Date		2025/08/15 13:20		2025/08/15 13:21			2025/08/15 13:21		
COC Number		298632		298632			298632		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**	**AEMP-DUP-2 Lab-Dup**	**RDL**	**QC Batch**
Physical Properties									
Turbidity	NTU	110	C056145	140	0.10	C062658			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		DRE189		
Sampling Date		2025/08/15 17:30		
COC Number		298632		
	UNITS	**AEMP-DUP3-FIELD BLANK**	**RDL**	**QC Batch**
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617

RDL = Reportable Detection Limit

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRE187	DRE188	DRE189		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21	2025/08/15 17:30		
COC Number		298632	298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**AEMP-DUP3-FIELD BLANK**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C055595
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C056370
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056370
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056370
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056370
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056370
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C056370
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C056370
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	92	90	88		C056370
D8-ACENAPHTHYLENE (sur.)	%	79	79	76		C056370
D8-NAPHTHALENE (sur.)	%	69	69	69		C056370
TERPHENYL-D14 (sur.)	%	96	97	94		C056370
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRE187	DRE188		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21		
COC Number		298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Elements					
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C057692
RDL = Reportable Detection Limit					

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE187		DRE188		
Sampling Date		2025/08/15 13:20		2025/08/15 13:21		
COC Number		298632		298632		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Elements						
Dissolved Barium (Ba)	mg/L	0.047	C062669	0.045	0.010	C060142
Dissolved Boron (B)	mg/L	<0.020	C062669	<0.020	0.020	C060142
Dissolved Calcium (Ca)	mg/L	37	C062669	36	0.30	C060142
Dissolved Iron (Fe)	mg/L	<0.060	C062669	<0.060	0.060	C060142
Dissolved Lithium (Li)	mg/L	<0.020	C062669	<0.020	0.020	C060142
Dissolved Magnesium (Mg)	mg/L	12	C062669	11	0.20	C060142
Dissolved Manganese (Mn)	mg/L	<0.0040	C062669	<0.0040	0.0040	C060142
Dissolved Phosphorus (P)	mg/L	<0.10	C062669	<0.10	0.10	C060142
Dissolved Potassium (K)	mg/L	0.87	C062669	0.95	0.30	C060142
Dissolved Silicon (Si)	mg/L	1.5	C062669	1.5	0.50	C060142
Dissolved Sodium (Na)	mg/L	8.1	C062669	8.2	0.50	C060142
Dissolved Strontium (Sr)	mg/L	0.31	C062669	0.28	0.020	C060142
Dissolved Sulphur (S)	mg/L	16	C062669	16	0.20	C060142

RDL = Reportable Detection Limit

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571386
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE187
Sample ID: AEMP-DS-02
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056158	N/A	2025/08/22	Darrus Ong
F1-BTEX	CALC/MS	C055430	N/A	2025/08/25	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055197	N/A	2025/08/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C057740	N/A	2025/08/21	Thi Boi Tran Nguyen
True Colour	SPEC/COL	C063513	N/A	2025/08/26	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056686	2025/08/22	2025/08/22	Grace (Quan) Guo
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055581	N/A	2025/08/26	Automated Statchk
Mercury (Dissolved) by CV	CV	C057692	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057722	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C062669	N/A	2025/08/26	Bailey Morrison
Elements by ICP - Total	ICPA	C061178	2025/08/25	2025/08/25	Bailey Morrison
Elements by ICPMS - Total	ICPM	C061165	2025/08/25	2025/08/26	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/26	Automated Statchk
Ammonia-N (Total)	KONE	C060686	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055456	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055467	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055595	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056370	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057038	2025/08/21	2025/08/22	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C057078	2025/08/21	2025/08/21	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C056171	2025/08/20	2025/08/21	Thi Boi Tran Nguyen
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE188
Sample ID: AEMP-DUP-2
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056158	N/A	2025/08/22	Darrus Ong
F1-BTEX	CALC/MS	C055430	N/A	2025/08/25	Automated Statchk

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Bureau Veritas - Partial/Rush Results

Bureau Veritas Job #: C571386
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE188
Sample ID: AEMP-DUP-2
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cadmium - low level CCME (Total)	CALC	C055197	N/A	2025/08/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C058175	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C057740	N/A	2025/08/21	Thi Boi Tran Nguyen
True Colour	SPEC/COL	C063513	N/A	2025/08/26	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056686	2025/08/22	2025/08/22	Grace (Quan) Guo
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/23	Automated Statchk
Mercury (Dissolved) by CV	CV	C057692	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057722	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060142	N/A	2025/08/23	Vincy Scaria
Elements by ICP - Total	ICPA	C061178	2025/08/25	2025/08/25	Bailey Morrison
Elements by ICPMS - Total	ICPM	C061165	2025/08/25	2025/08/25	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/23	Automated Statchk
Ammonia-N (Total)	KONE	C060686	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055456	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057506	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055467	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055595	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056370	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057038	2025/08/21	2025/08/22	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C057078	2025/08/21	2025/08/21	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C056171	2025/08/20	2025/08/21	Thi Boi Tran Nguyen
Turbidity	TURB	C062658	N/A	2025/08/26	Coralynn Topping

Bureau Veritas ID: DRE188 Dup
Sample ID: AEMP-DUP-2
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep

Bureau Veritas - Partial/Rush Results

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Bureau Veritas Job #: C571386
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE189
Sample ID: AEMP-DUP3-FIELD BLANK
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056158	N/A	2025/08/22	Darrus Ong
F1-BTEX	CALC/MS	C055430	N/A	2025/08/25	Automated Statchk
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056686	2025/08/22	2025/08/22	Grace (Quan) Guo
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055595	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056370	2025/08/22	2025/08/22	Jiby Uthup
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep

Bureau Veritas - Partial/Rush Results

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Bureau Veritas - Partial/Rush Results

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.0°C

Sample DRE187 [AEMP-DS-02] : Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity.

Sample DRE188 [AEMP-DUP-2] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

RESULTS OF CHEMICAL ANALYSES OF WATER Comments

Sample DRE187 [AEMP-DS-02] True Colour: Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.
Sample DRE188 [AEMP-DUP-2] True Colour: Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.
Sample DRE188 [AEMP-DUP-2] Turbidity: Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DRE187	AEMP-DS-02	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.
DRE187	AEMP-DS-02	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DRE187	AEMP-DS-02	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DRE187	AEMP-DS-02	Water	TURB	SPP	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DRE188	AEMP-DUP-2	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.
DRE188	AEMP-DUP-2	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DRE188	AEMP-DUP-2	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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Bureau Veritas - Partial/Rush Results

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DRE188	AEMP-DUP-2	Water	TURB	SPP	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C056145	DSX	Method Blank	Turbidity	2025/08/20	<0.10		NTU	
C056158	DO1	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/23		107	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/23		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/23		102	%	50 - 140
			Benzene	2025/08/23	<0.00040		mg/L	
			Toluene	2025/08/23	<0.00040		mg/L	
			Ethylbenzene	2025/08/23	<0.00040		mg/L	
			m & p-Xylene	2025/08/23	<0.00080		mg/L	
			o-Xylene	2025/08/23	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/23	<0.10		mg/L	
C056171	TNY	Method Blank	Total Suspended Solids	2025/08/21	<1.0		mg/L	
C056370	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/08/22		90	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		96	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		73	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		56	%	50 - 130
			Acenaphthene	2025/08/22	<0.00010		mg/L	
			Acenaphthylene	2025/08/22	<0.00010		mg/L	
			Acridine	2025/08/22	<0.000040		mg/L	
			Anthracene	2025/08/22	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/22	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/22	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/22	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/22	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/22	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/22	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/22	<0.000050		mg/L	
			Chrysene	2025/08/22	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/22	<0.0000075		mg/L	
			Fluoranthene	2025/08/22	<0.000010		mg/L	
			Fluorene	2025/08/22	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/22	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/22	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/22	<0.00010		mg/L	
			Naphthalene	2025/08/22	<0.00010		mg/L	
			Phenanthrene	2025/08/22	<0.000050		mg/L	
			Perylene	2025/08/22	<0.000050		mg/L	
			Pyrene	2025/08/22	<0.000020		mg/L	
			Quinoline	2025/08/22	<0.00020		mg/L	
C056531	RRA	Method Blank	Oil and grease	2025/08/25	<2.0		mg/L	
C056617	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/25	<2.0		mg/L	
C056686	GG3	Method Blank	O-TERPHENYL (sur.)	2025/08/22		100	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F3 (C16-C34 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F4 (C34-C50 Hydrocarbons)	2025/08/22	<0.20		mg/L	
C057038	DVN	Method Blank	Total Dissolved Solids	2025/08/22	<10		mg/L	
C057078	YL7	Method Blank	Total Nitrogen (N)	2025/08/21	<0.020		mg/L	
C057503	KKC	Method Blank	Nitrite (N)	2025/08/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/21	<0.040		mg/L	
C057506	KKC	Method Blank	Nitrite (N)	2025/08/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/21	<0.040		mg/L	
C057535	TOR	Method Blank	Chloride (Cl)	2025/08/21	<1.0		mg/L	
			Sulphate (SO4)	2025/08/21	<1.0		mg/L	

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C057692	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057722	KKM	Method Blank	Total Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057740	TNY	Method Blank	Chemical Oxygen Demand	2025/08/21	<10		mg/L	
C057849	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/22	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/22	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/22	<1.0		mg/L	
			Carbonate (CO3)	2025/08/22	<1.0		mg/L	
			Hydroxide (OH)	2025/08/22	<1.0		mg/L	
C057850	AYE	Method Blank	Conductivity	2025/08/22	<2.0		uS/cm	
C058130	IDV	Method Blank	Total Sulphide	2025/08/23	<0.0018		mg/L	
C058175	TOR	Method Blank	Chloride (Cl)	2025/08/21	<1.0		mg/L	
			Sulphate (SO4)	2025/08/21	<1.0		mg/L	
C058481	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C060142	VSC	Method Blank	Dissolved Iron (Fe)	2025/08/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/23	<0.30		mg/L	
C060686	ISW	Method Blank	Total Ammonia (N)	2025/08/24	<0.015		mg/L	
C061165	JAB	Method Blank	Total Aluminum (Al)	2025/08/26	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/26	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/26	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/26	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/26	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/26	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/26	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/26	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/26	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/26	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/26	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/26	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/26	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/26	<0.0010		mg/L	
			Total Uranium (U)	2025/08/26	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/26	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/26	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/26	<0.0010		mg/L	
C061178	BYM	Method Blank	Total Iron (Fe)	2025/08/26	<0.060		mg/L	
			Total Lithium (Li)	2025/08/26	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/26	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/26	<0.0040		mg/L	
			Total Potassium (K)	2025/08/26	<0.30		mg/L	
			Total Sodium (Na)	2025/08/26	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/26	<0.020		mg/L	

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Sulphur (S)	2025/08/26	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/26	<0.10		mg/L	
			Total Barium (Ba)	2025/08/26	<0.010		mg/L	
			Total Silicon (Si)	2025/08/26	<0.50		mg/L	
			Total Boron (B)	2025/08/26	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/26	<0.30		mg/L	
C062390	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C062424	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C062658	CT6	Method Blank	Turbidity	2025/08/26	<0.10		NTU	
C062669	BYM	Method Blank	Dissolved Iron (Fe)	2025/08/26	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/26	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/26	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/26	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/26	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/26	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/26	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/26	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/26	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/26	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/26	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/26	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/26	<0.30		mg/L	
C063513	AFI	Method Blank	True Colour	2025/08/26	<2.0		PtCo units	
C056531	RRA	RPD [DRE188-01]	Oil and grease	2025/08/25	NC		%	30
C056617	RRA	RPD [DRE188-01]	Total Petroleum Hydrocarbon	2025/08/25	NC		%	30
C056531	RRA	Matrix Spike [DRE187-01]	Oil and grease	2025/08/25		95	%	70 - 130
C056617	RRA	Matrix Spike [DRE187-01]	Total Petroleum Hydrocarbon	2025/08/25		96	%	70 - 130
C056145	DSX	LCS	Turbidity	2025/08/20		100	%	80 - 120
C056158	DO1	LCS	1,4-Difluorobenzene (sur.)	2025/08/22		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/22		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/22		114	%	50 - 140
			Benzene	2025/08/22		104	%	60 - 130
			Toluene	2025/08/22		96	%	60 - 130
			Ethylbenzene	2025/08/22		100	%	60 - 130
			m & p-Xylene	2025/08/22		94	%	60 - 130
			o-Xylene	2025/08/22		95	%	60 - 130
			F1 (C6-C10)	2025/08/22		110	%	60 - 140
C056171	TNY	LCS	Total Suspended Solids	2025/08/21		97	%	80 - 120
C056370	JU2	LCS	D10-ANTHRACENE (sur.)	2025/08/22		96	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		84	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		69	%	50 - 130
			Acenaphthene	2025/08/22		83	%	50 - 130
			Acenaphthylene	2025/08/22		80	%	50 - 130
			Acridine	2025/08/22		80	%	50 - 130
			Anthracene	2025/08/22		81	%	50 - 130
			Benzo(a)anthracene	2025/08/22		91	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/22		91	%	50 - 130
			Benzo(k)fluoranthene	2025/08/22		101	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/22		89	%	50 - 130
			Benzo(c)phenanthrene	2025/08/22		97	%	50 - 130
			Benzo(a)pyrene	2025/08/22		87	%	50 - 130

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzo(e)pyrene	2025/08/22		86	%	50 - 130
			Chrysene	2025/08/22		91	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/22		88	%	50 - 130
			Fluoranthene	2025/08/22		88	%	50 - 130
			Fluorene	2025/08/22		85	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/22		87	%	50 - 130
			1-Methylnaphthalene	2025/08/22		68	%	50 - 130
			2-Methylnaphthalene	2025/08/22		75	%	50 - 130
			Naphthalene	2025/08/22		79	%	50 - 130
			Phenanthrene	2025/08/22		86	%	50 - 130
			Perylene	2025/08/22		87	%	50 - 130
			Pyrene	2025/08/22		89	%	50 - 130
			Quinoline	2025/08/22		102	%	50 - 130
C056531	RRA	LCS	Oil and grease	2025/08/25		96	%	70 - 130
C056617	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/25		95	%	70 - 130
C056686	GG3	LCS	O-TERPHENYL (sur.)	2025/08/22		102	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22		97	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2025/08/22		105	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2025/08/22		100	%	60 - 140
C057038	DVN	LCS	Total Dissolved Solids	2025/08/22		98	%	80 - 120
C057078	YL7	LCS	Total Nitrogen (N)	2025/08/21		103	%	80 - 120
C057503	KKC	LCS	Nitrite (N)	2025/08/22		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/22		101	%	80 - 120
C057506	KKC	LCS	Nitrite (N)	2025/08/21		103	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/21		99	%	80 - 120
C057535	TOR	LCS	Chloride (Cl)	2025/08/21		99	%	80 - 120
			Sulphate (SO4)	2025/08/21		100	%	80 - 120
C057692	KKM	LCS	Dissolved Mercury (Hg)	2025/08/21		102	%	80 - 120
C057722	KKM	LCS	Total Mercury (Hg)	2025/08/21		103	%	80 - 120
C057740	TNY	LCS	Chemical Oxygen Demand	2025/08/21		101	%	80 - 120
C057848	AYE	LCS	pH	2025/08/22		100	%	97 - 103
C057849	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/22		98	%	80 - 120
C057850	AYE	LCS	Conductivity	2025/08/22		102	%	90 - 110
C058130	IDV	LCS	Total Sulphide	2025/08/23		93	%	80 - 120
C058175	TOR	LCS	Chloride (Cl)	2025/08/21		100	%	80 - 120
			Sulphate (SO4)	2025/08/21		103	%	80 - 120
C058481	AFI	LCS	Orthophosphate (P)	2025/08/21		97	%	80 - 120
C060142	VSC	LCS	Dissolved Iron (Fe)	2025/08/23		104	%	80 - 120
			Dissolved Lithium (Li)	2025/08/23		99	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/23		102	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/23		100	%	80 - 120
			Dissolved Potassium (K)	2025/08/23		99	%	80 - 120
			Dissolved Sodium (Na)	2025/08/23		100	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/23		94	%	80 - 120
			Dissolved Sulphur (S)	2025/08/23		99	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/23		102	%	80 - 120
			Dissolved Barium (Ba)	2025/08/23		99	%	80 - 120
			Dissolved Silicon (Si)	2025/08/23		96	%	80 - 120
			Dissolved Boron (B)	2025/08/23		100	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/23		102	%	80 - 120
C060686	ISW	LCS	Total Ammonia (N)	2025/08/24		106	%	80 - 120
C061165	JAB	LCS	Total Aluminum (Al)	2025/08/25		107	%	80 - 120

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Chromium (Cr)	2025/08/25		98	%	80 - 120
			Total Cobalt (Co)	2025/08/25		97	%	80 - 120
			Total Copper (Cu)	2025/08/25		98	%	80 - 120
			Total Lead (Pb)	2025/08/25		103	%	80 - 120
			Total Antimony (Sb)	2025/08/25		104	%	80 - 120
			Total Molybdenum (Mo)	2025/08/25		104	%	80 - 120
			Total Nickel (Ni)	2025/08/25		97	%	80 - 120
			Total Selenium (Se)	2025/08/25		102	%	80 - 120
			Total Silver (Ag)	2025/08/25		103	%	80 - 120
			Total Arsenic (As)	2025/08/25		103	%	80 - 120
			Total Thallium (Tl)	2025/08/25		112	%	80 - 120
			Total Tin (Sn)	2025/08/25		102	%	80 - 120
			Total Titanium (Ti)	2025/08/25		104	%	80 - 120
			Total Uranium (U)	2025/08/25		108	%	80 - 120
			Total Vanadium (V)	2025/08/25		97	%	80 - 120
			Total Zinc (Zn)	2025/08/25		99	%	80 - 120
			Total Beryllium (Be)	2025/08/25		109	%	80 - 120
C061178	BYM	LCS	Total Iron (Fe)	2025/08/25		116	%	80 - 120
			Total Lithium (Li)	2025/08/25		102	%	80 - 120
			Total Magnesium (Mg)	2025/08/25		107	%	80 - 120
			Total Manganese (Mn)	2025/08/25		111	%	80 - 120
			Total Potassium (K)	2025/08/25		106	%	80 - 120
			Total Sodium (Na)	2025/08/25		103	%	80 - 120
			Total Strontium (Sr)	2025/08/25		100	%	80 - 120
			Total Sulphur (S)	2025/08/25		91	%	80 - 120
			Total Phosphorus (P)	2025/08/25		103	%	80 - 120
			Total Barium (Ba)	2025/08/25		103	%	80 - 120
			Total Silicon (Si)	2025/08/25		101	%	80 - 120
			Total Boron (B)	2025/08/25		106	%	80 - 120
			Total Calcium (Ca)	2025/08/25		102	%	80 - 120
C062390	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/26		101	%	80 - 120
C062424	TJ4	LCS	Total Organic Carbon (C)	2025/08/26		98	%	80 - 120
C062658	CT6	LCS	Turbidity	2025/08/26		100	%	80 - 120
C062669	BYM	LCS	Dissolved Iron (Fe)	2025/08/26		110	%	80 - 120
			Dissolved Lithium (Li)	2025/08/26		96	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/26		102	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/26		106	%	80 - 120
			Dissolved Potassium (K)	2025/08/26		100	%	80 - 120
			Dissolved Sodium (Na)	2025/08/26		97	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/26		98	%	80 - 120
			Dissolved Sulphur (S)	2025/08/26		98	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/26		100	%	80 - 120
			Dissolved Barium (Ba)	2025/08/26		100	%	80 - 120
			Dissolved Silicon (Si)	2025/08/26		96	%	80 - 120
			Dissolved Boron (B)	2025/08/26		102	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/26		99	%	80 - 120
C063513	AFI	LCS	True Colour	2025/08/26		94	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C057078	YL7	SRM	Total Nitrogen (N)	2025/08/21		106	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas - Partial/Rush Results

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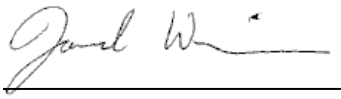
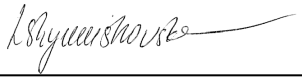
Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

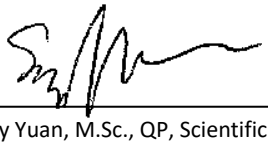
The analytical data and all QC contained in this report were reviewed and validated by:



Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics



Sandy Yuan, M.Sc., QP, Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 298632

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☑ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGULUBE / BRENDAN CHAPMAN	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED (Preserved)
1 AEMP-DS-02		X			16	2025/08/15	13:20	X	
2 AEMP-DUP 2		X			16	2025/08/15	13:21	X	
3 AEMP-DUP 3-FIELD BLANK				X	6	2025/08/16	17:30		X
4									
5									
6									
7									
8									
9									
10									

ANALYSIS REQUESTED

VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS TOT ☒ DIS ☒	MERCURY TOTAL ☒ DISSOLVED ☒	SALINITY SOIL PLEASE INCLUDE MU	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, TURBIDITY	OIL and GREASE	TOC, DOC, SULPHIDE	NITRATE, NITRITE, AMMONIA (TOTAL), TKN	ORTHOPHOSPHATE	SULPHUR - TOTAL + DISSOLVED	COD	TPH
	X	X	X						X	X					X			X	X	X	X	X	X	X
	X	X	X						X	X					X			X	X	X	X	X	X	X
	X	X	X																X					X

MCAL-2025-08-1375

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com canada-fordatatruck@worley.com stacy.gibb@worley.com Please include MU
IES A2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐

Date Required

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	0	0	0
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

RELINQUISHED BY:	DATE:	TIME (24 HR)	RECEIVED BY:	DATE:	TIME (24 HR)
1. TINO NGULUBE	2025/08/17	10:00	1. JASON BIL	20250819	1500
2.			2.		
3.			3.		

LAB USE ONLY
MAXXAM JOB #

SAMPLES
LABELED BY:
VERIFIED BY:

C571386
2025/08/19 15:00

COC 1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298632

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/27
Report #: R3703334
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571386
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	2	AB SOP-00005	SM 24 2320 B m
Send Part to Archive	2		
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	2		Auto Calc
Cadmium - low level CCME (Total)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	2	AB SOP-00016	SM 24 5220D m
True Colour	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons (F2-F4 in water) (2)	3	AB SOP-00037	CCME PHC-CWS m
Sulphide (as H2S)	2		Auto Calc
Hardness	2		Auto Calc
Mercury (Dissolved) by CV (3)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	2		Auto Calc
Ammonia-N (Total)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	2		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	2	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	2	AB SOP-00065	SM 24 2540 C m

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298632

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/27
Report #: R3703334
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571386
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	2		Auto Calc
Nitrogen (Total)	2	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	2	AB SOP-00061	SM 24 2540 D m
Turbidity	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298632

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/27
Report #: R3703334
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571386

Received: 2025/08/19, 15:00

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Jasbirjit Kaur
Customer Solutions Representative
27 Aug 2025 17:53:33

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE187	DRE188	DRE189		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21	2025/08/15 17:30		
COC Number		298632	298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**AEMP-DUP3-FIELD BLANK**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056686
F3 (C16-C34 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056686
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	<0.20	<0.20	0.20	C056686
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056158
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056158
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056158
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C056158
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056158
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C055430
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C055430
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C056158
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	101	101	100		C056686
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	104	104	105		C056158
4-Bromofluorobenzene (sur.)	%	99	98	98		C056158
D4-1,2-Dichloroethane (sur.)	%	117	117	118		C056158
RDL = Reportable Detection Limit						

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Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRE187		DRE188		
Sampling Date		2025/08/15 13:20		2025/08/15 13:21		
COC Number		298632		298632		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Calculated Parameters						
Nitrate (N)	mg/L	0.041	C055467	<0.040	0.040	C055467
Nitrate (NO3)	mg/L	0.18	C055456	<0.18	0.18	C055456
Nitrite (NO2)	mg/L	<0.13	C055456	<0.13	0.13	C055456
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.26	C055228	0.29	0.20	C055228
Nutrients						
Nitrite (N)	mg/L	<0.040	C057503	<0.040	0.040	C057506
Nitrate plus Nitrite (N)	mg/L	0.041	C057503	<0.040	0.040	C057506
Total Nitrogen (N)	mg/L	0.30 (1)	C057078	0.29 (1)	0.20	C057078

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE187	DRE188		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21		
COC Number		298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Elements					
Total Cadmium (Cd)	mg/L	0.00019	0.00014	0.000020	C055197
Total Mercury (Hg)	ug/L	0.0054	0.0058	0.0019	C057722
Total Aluminum (Al)	mg/L	2.6	2.6	0.0030	C061165
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C061165
Total Arsenic (As)	mg/L	0.0020	0.0022	0.00020	C061165
Total Barium (Ba)	mg/L	0.098	0.098	0.010	C061178
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C061165
Total Boron (B)	mg/L	<0.020	<0.020	0.020	C061178
Total Calcium (Ca)	mg/L	47	47	0.30	C061178
Total Chromium (Cr)	mg/L	0.0040	0.0076	0.0010	C061165
Total Cobalt (Co)	mg/L	0.0022	0.0032	0.00030	C061165
Total Copper (Cu)	mg/L	0.0051	0.0055	0.0010	C061165
Total Iron (Fe)	mg/L	5.1	5.2	0.060	C061178
Total Lead (Pb)	mg/L	0.0023	0.0023	0.00020	C061165
Total Lithium (Li)	mg/L	<0.020	<0.020	0.020	C061178
Total Magnesium (Mg)	mg/L	15	15	0.20	C061178
Total Manganese (Mn)	mg/L	0.088	0.094	0.0040	C061178
Total Molybdenum (Mo)	mg/L	0.0016	0.0016	0.00020	C061165
Total Nickel (Ni)	mg/L	0.0087	0.039	0.00050	C061165
Total Phosphorus (P)	mg/L	<0.10	0.11	0.10	C061178
Total Potassium (K)	mg/L	1.7	1.6	0.30	C061178
Total Selenium (Se)	mg/L	0.00047	0.00044	0.00020	C061165
Total Silicon (Si)	mg/L	4.3	4.3	0.50	C061178
Total Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C061165
Total Sodium (Na)	mg/L	8.5	8.5	0.50	C061178
Total Strontium (Sr)	mg/L	0.34	0.34	0.020	C061178
Total Sulphur (S)	mg/L	16	16	0.20	C061178
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C061165
Total Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C061165
Total Titanium (Ti)	mg/L	0.025	0.022	0.0010	C061165
Total Uranium (U)	mg/L	0.0011	0.0011	0.00010	C061165
RDL = Reportable Detection Limit					

Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE187	DRE188		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21		
COC Number		298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0066	0.0067	0.0010	C061165
Total Zinc (Zn)	mg/L	0.042	0.093	0.0030	C061165
RDL = Reportable Detection Limit					

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE187		DRE188			DRE188		
Sampling Date		2025/08/15 13:20		2025/08/15 13:21			2025/08/15 13:21		
COC Number		298632		298632			298632		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**	**AEMP-DUP-2 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters									
Hardness (CaCO3)	mg/L	140	C055581	140	0.50	C055583			
Ion Balance (% Difference)	%	1.3	C055587	3.2	N/A	C055587			
Sulphide (as H2S)	mg/L	<0.0020	C055332	0.031	0.0020	C055332			
Demand Parameters									
Chemical Oxygen Demand	mg/L	35	C057740	25	10	C057740			
Elements									
Dissolved Cadmium (Cd)	mg/L	0.000023	C055566	<0.000020	0.000020	C055566			
Misc. Inorganics									
Conductivity	uS/cm	310	C057850	310	2.0	C057850			
Dissolved Organic Carbon (C)	mg/L	3.1	C062390	3.4	0.50	C062390			
pH	pH	7.35	C057848	7.43	N/A	C057848			
Total Organic Carbon (C)	mg/L	3.3	C062424	2.7	0.50	C062424			
Total Dissolved Solids	mg/L	180	C057038	180	10	C057038			
Total Suspended Solids	mg/L	150	C056171	170	1.0	C056171			
Anions									
Alkalinity (PP as CaCO3)	mg/L	<1.0	C057849	<1.0	1.0	C057849			
Alkalinity (Total as CaCO3)	mg/L	100	C057849	100	1.0	C057849			
Bicarbonate (HCO3)	mg/L	120	C057849	120	1.0	C057849			
Carbonate (CO3)	mg/L	<1.0	C057849	<1.0	1.0	C057849			
Hydroxide (OH)	mg/L	<1.0	C057849	<1.0	1.0	C057849			
Total Sulphide	mg/L	<0.0018	C058130	0.029	0.0018	C058130			
Chloride (Cl)	mg/L	8.1	C057535	8.4	1.0	C058175			
Sulphate (SO4)	mg/L	50	C057535	51	1.0	C058175			
Nutrients									
Total Ammonia (N)	mg/L	<0.015	C060686	<0.015	0.015	C060686			
Orthophosphate (P)	mg/L	<0.0030	C058481	<0.0030	0.0030	C058481			
Misc. Organics									
Oil and grease	mg/L	<2.0	C056531	<2.0	2.0	C056531	<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	C056617	<2.0	2.0	C056617	<2.0	2.0	C056617

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE187		DRE188			DRE188		
Sampling Date		2025/08/15 13:20		2025/08/15 13:21			2025/08/15 13:21		
COC Number		298632		298632			298632		
	UNITS	**AEMP-DS-02**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**	**AEMP-DUP-2 Lab-Dup**	**RDL**	**QC Batch**
Physical Properties									
True Colour	PtCo units	7.3	C063513	6.8	2.0	C063513			
Physical Properties									
Turbidity	NTU	110	C056145	140	0.10	C062658			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		DRE189		
Sampling Date		2025/08/15 17:30		
COC Number		298632		
	UNITS	**AEMP-DUP3-FIELD BLANK**	**RDL**	**QC Batch**
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617

RDL = Reportable Detection Limit

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRE187	DRE188	DRE189		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21	2025/08/15 17:30		
COC Number		298632	298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**AEMP-DUP3-FIELD BLANK**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C055595
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C056370
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056370
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056370
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056370
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056370
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056370
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056370
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056370
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C056370
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C056370
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	92	90	88		C056370
D8-ACENAPHTHYLENE (sur.)	%	79	79	76		C056370
D8-NAPHTHALENE (sur.)	%	69	69	69		C056370
TERPHENYL-D14 (sur.)	%	96	97	94		C056370
RDL = Reportable Detection Limit						

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRE187	DRE188		
Sampling Date		2025/08/15 13:20	2025/08/15 13:21		
COC Number		298632	298632		
	UNITS	**AEMP-DS-02**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Elements					
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C057692
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE187			DRE187			DRE188		
Sampling Date		2025/08/15 13:20			2025/08/15 13:20			2025/08/15 13:21		
COC Number		298632			298632			298632		
	UNITS	**AEMP-DS-02**	**RDL**	**QC Batch**	**AEMP-DS-02 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Elements										
Dissolved Aluminum (Al)	mg/L	0.029	0.0030	C063929	0.028	0.0030	C063929	0.036	0.0030	C057256
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	C063929	<0.00060	0.00060	C063929	<0.00060	0.00060	C057256
Dissolved Arsenic (As)	mg/L	0.00031	0.00020	C063929	0.00033	0.00020	C063929	0.00029	0.00020	C057256
Dissolved Barium (Ba)	mg/L	0.047	0.010	C062669				0.045	0.010	C060142
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	C063929	<0.0010	0.0010	C063929	<0.0010	0.0010	C057256
Dissolved Boron (B)	mg/L	<0.020	0.020	C062669				<0.020	0.020	C060142
Dissolved Calcium (Ca)	mg/L	37	0.30	C062669				36	0.30	C060142
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	C063929	<0.0010	0.0010	C063929	<0.0010	0.0010	C057256
Dissolved Cobalt (Co)	mg/L	<0.00030	0.00030	C063929	<0.00030	0.00030	C063929	<0.00030	0.00030	C057256
Dissolved Copper (Cu)	mg/L	<0.0010	0.0010	C063929	<0.0010	0.0010	C063929	0.0011	0.0010	C057256
Dissolved Iron (Fe)	mg/L	<0.060	0.060	C062669				<0.060	0.060	C060142
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	C063929	<0.00020	0.00020	C063929	<0.00020	0.00020	C057256
Dissolved Lithium (Li)	mg/L	<0.020	0.020	C062669				<0.020	0.020	C060142
Dissolved Magnesium (Mg)	mg/L	12	0.20	C062669				11	0.20	C060142
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0040	C062669				<0.0040	0.0040	C060142
Dissolved Molybdenum (Mo)	mg/L	0.0011	0.00020	C063929	0.0011	0.00020	C063929	0.0011	0.00020	C057256
Dissolved Nickel (Ni)	mg/L	0.00097	0.00050	C063929	0.00093	0.00050	C063929	0.00095	0.00050	C057256
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	C062669				<0.10	0.10	C060142
Dissolved Potassium (K)	mg/L	0.87	0.30	C062669				0.95	0.30	C060142
Dissolved Selenium (Se)	mg/L	0.00044	0.00020	C063929	0.00036	0.00020	C063929	0.00038	0.00020	C057256
Dissolved Silicon (Si)	mg/L	1.5	0.50	C062669				1.5	0.50	C060142
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	C063929	<0.00010	0.00010	C063929	<0.00010	0.00010	C057256
Dissolved Sodium (Na)	mg/L	8.1	0.50	C062669				8.2	0.50	C060142
Dissolved Strontium (Sr)	mg/L	0.31	0.020	C062669				0.28	0.020	C060142
Dissolved Sulphur (S)	mg/L	16	0.20	C062669				16	0.20	C060142
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	C063929	<0.00020	0.00020	C063929	<0.00020	0.00020	C057256
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	C063929	<0.0010	0.0010	C063929	0.0015	0.0010	C057256
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	C063929	<0.0010	0.0010	C063929	<0.0010	0.0010	C057256
Dissolved Uranium (U)	mg/L	0.00089	0.00010	C063929	0.00085	0.00010	C063929	0.00087	0.00010	C057256
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	C063929	<0.0010	0.0010	C063929	<0.0010	0.0010	C057256

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Report Date: 2025/08/27

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Task Order#: 417085-59897
Site#:
Site Location: NWT
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE187			DRE187			DRE188		
Sampling Date		2025/08/15 13:20			2025/08/15 13:20			2025/08/15 13:21		
COC Number		298632			298632			298632		
	UNITS	**AEMP-DS-02**	**RDL**	**QC Batch**	**AEMP-DS-02 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP-2**	**RDL**	**QC Batch**
Dissolved Zinc (Zn)	mg/L	<0.0030	0.0030	C063929	<0.0030	0.0030	C063929	<0.0030	0.0030	C057256

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE187
Sample ID: AEMP-DS-02
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056158	N/A	2025/08/22	Darrus Ong
F1-BTEX	CALC/MS	C055430	N/A	2025/08/25	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/27	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055197	N/A	2025/08/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C057740	N/A	2025/08/21	Thi Boi Tran Nguyen
True Colour	SPEC/COL	C063513	N/A	2025/08/26	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056686	2025/08/22	2025/08/22	Grace (Quan) Guo
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055581	N/A	2025/08/26	Automated Statchk
Mercury (Dissolved) by CV	CV	C057692	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057722	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C062669	N/A	2025/08/26	Bailey Morrison
Elements by ICP - Total	ICPA	C061178	2025/08/25	2025/08/25	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C063929	N/A	2025/08/27	Ye Hyun KIM
Elements by ICPMS - Total	ICPM	C061165	2025/08/25	2025/08/26	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/26	Automated Statchk
Ammonia-N (Total)	KONE	C060686	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055456	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055467	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055595	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056370	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057038	2025/08/21	2025/08/22	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C057078	2025/08/21	2025/08/21	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C056171	2025/08/20	2025/08/21	Thi Boi Tran Nguyen
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE187 Dup
Sample ID: AEMP-DS-02
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICPMS - Dissolved	ICPM	C063929	N/A	2025/08/27	Ye Hyun KIM

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Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE188
Sample ID: AEMP-DUP-2
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056158	N/A	2025/08/22	Darrus Ong
F1-BTEX	CALC/MS	C055430	N/A	2025/08/25	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055197	N/A	2025/08/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C058175	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C057740	N/A	2025/08/21	Thi Boi Tran Nguyen
True Colour	SPEC/COL	C063513	N/A	2025/08/26	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056686	2025/08/22	2025/08/22	Grace (Quan) Guo
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/23	Automated Statchk
Mercury (Dissolved) by CV	CV	C057692	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057722	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060142	N/A	2025/08/23	Vincy Scaria
Elements by ICP - Total	ICPA	C061178	2025/08/25	2025/08/25	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C057256	N/A	2025/08/21	Jason Bao
Elements by ICPMS - Total	ICPM	C061165	2025/08/25	2025/08/25	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/23	Automated Statchk
Ammonia-N (Total)	KONE	C060686	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055456	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057506	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055467	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055595	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056370	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057038	2025/08/21	2025/08/22	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C057078	2025/08/21	2025/08/21	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C056171	2025/08/20	2025/08/21	Thi Boi Tran Nguyen
Turbidity	TURB	C062658	N/A	2025/08/26	Coralynn Topping

Bureau Veritas ID: DRE188 Dup
Sample ID: AEMP-DUP-2
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep

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Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE188 Dup
Sample ID: AEMP-DUP-2
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep

Bureau Veritas ID: DRE189
Sample ID: AEMP-DUP3-FIELD BLANK
Matrix: Water

Collected: 2025/08/15
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056158	N/A	2025/08/22	Darrus Ong
F1-BTEX	CALC/MS	C055430	N/A	2025/08/25	Automated Statchk
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056686	2025/08/22	2025/08/22	Grace (Quan) Guo
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055595	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056370	2025/08/22	2025/08/22	Jiby Uthup
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.0°C

Sample DRE187 [AEMP-DS-02] : Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Turbidity.

Sample DRE188 [AEMP-DUP-2] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

RESULTS OF CHEMICAL ANALYSES OF WATER Comments

Sample DRE187 [AEMP-DS-02] True Colour: Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.
Sample DRE188 [AEMP-DUP-2] True Colour: Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.
Sample DRE188 [AEMP-DUP-2] Turbidity: Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DRE187	AEMP-DS-02	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.
DRE187	AEMP-DS-02	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DRE187	AEMP-DS-02	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DRE187	AEMP-DS-02	Water	TURB	SPP	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DRE188	AEMP-DUP-2	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.
DRE188	AEMP-DUP-2	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DRE188	AEMP-DUP-2	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DRE188	AEMP-DUP-2	Water	TURB	SPP	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C056145	DSX	Method Blank	Turbidity	2025/08/20	<0.10		NTU	
C056158	DO1	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/23		107	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/23		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/23		102	%	50 - 140
			Benzene	2025/08/23	<0.00040		mg/L	
			Toluene	2025/08/23	<0.00040		mg/L	
			Ethylbenzene	2025/08/23	<0.00040		mg/L	
			m & p-Xylene	2025/08/23	<0.00080		mg/L	
			o-Xylene	2025/08/23	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/23	<0.10		mg/L	
C056171	TNY	Method Blank	Total Suspended Solids	2025/08/21	<1.0		mg/L	
C056370	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/08/22		90	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		96	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		73	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		56	%	50 - 130
			Acenaphthene	2025/08/22	<0.00010		mg/L	
			Acenaphthylene	2025/08/22	<0.00010		mg/L	
			Acridine	2025/08/22	<0.000040		mg/L	
			Anthracene	2025/08/22	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/22	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/22	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/22	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/22	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/22	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/22	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/22	<0.000050		mg/L	
			Chrysene	2025/08/22	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/22	<0.0000075		mg/L	
			Fluoranthene	2025/08/22	<0.000010		mg/L	
			Fluorene	2025/08/22	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/22	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/22	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/22	<0.00010		mg/L	
			Naphthalene	2025/08/22	<0.00010		mg/L	
			Phenanthrene	2025/08/22	<0.000050		mg/L	
			Perylene	2025/08/22	<0.000050		mg/L	
			Pyrene	2025/08/22	<0.000020		mg/L	
			Quinoline	2025/08/22	<0.00020		mg/L	
C056531	RRA	Method Blank	Oil and grease	2025/08/25	<2.0		mg/L	
C056617	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/25	<2.0		mg/L	
C056686	GG3	Method Blank	O-TERPHENYL (sur.)	2025/08/22		100	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F3 (C16-C34 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F4 (C34-C50 Hydrocarbons)	2025/08/22	<0.20		mg/L	
C057038	DVN	Method Blank	Total Dissolved Solids	2025/08/22	<10		mg/L	
C057078	YL7	Method Blank	Total Nitrogen (N)	2025/08/21	<0.020		mg/L	
C057256	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/21	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/21	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/21	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/21	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/21	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/21	<0.00060		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Molybdenum (Mo)	2025/08/21	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/21	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/21	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/21	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/21	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/21	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/21	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/21	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/21	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/21	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/21	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/21	<0.0010		mg/L	
C057503	KKC	Method Blank	Nitrite (N)	2025/08/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/21	<0.040		mg/L	
C057506	KKC	Method Blank	Nitrite (N)	2025/08/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/21	<0.040		mg/L	
C057535	TOR	Method Blank	Chloride (Cl)	2025/08/21	<1.0		mg/L	
			Sulphate (SO4)	2025/08/21	<1.0		mg/L	
C057692	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057722	KKM	Method Blank	Total Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057740	TNY	Method Blank	Chemical Oxygen Demand	2025/08/21	<10		mg/L	
C057849	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/22	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/22	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/22	<1.0		mg/L	
			Carbonate (CO3)	2025/08/22	<1.0		mg/L	
			Hydroxide (OH)	2025/08/22	<1.0		mg/L	
C057850	AYE	Method Blank	Conductivity	2025/08/22	<2.0		uS/cm	
C058130	IDV	Method Blank	Total Sulphide	2025/08/23	<0.0018		mg/L	
C058175	TOR	Method Blank	Chloride (Cl)	2025/08/21	<1.0		mg/L	
			Sulphate (SO4)	2025/08/21	<1.0		mg/L	
C058481	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C060142	VSC	Method Blank	Dissolved Iron (Fe)	2025/08/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/23	<0.30		mg/L	
C060686	ISW	Method Blank	Total Ammonia (N)	2025/08/24	<0.015		mg/L	
C061165	JAB	Method Blank	Total Aluminum (Al)	2025/08/26	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/26	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/26	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/26	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/26	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/26	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/26	<0.00020		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Nickel (Ni)	2025/08/26	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/26	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/26	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/26	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/26	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/26	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/26	<0.0010		mg/L	
			Total Uranium (U)	2025/08/26	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/26	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/26	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/26	<0.0010		mg/L	
C061178	BYM	Method Blank	Total Iron (Fe)	2025/08/26	<0.060		mg/L	
			Total Lithium (Li)	2025/08/26	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/26	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/26	<0.0040		mg/L	
			Total Potassium (K)	2025/08/26	<0.30		mg/L	
			Total Sodium (Na)	2025/08/26	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/26	<0.020		mg/L	
			Total Sulphur (S)	2025/08/26	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/26	<0.10		mg/L	
			Total Barium (Ba)	2025/08/26	<0.010		mg/L	
			Total Silicon (Si)	2025/08/26	<0.50		mg/L	
			Total Boron (B)	2025/08/26	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/26	<0.30		mg/L	
C062390	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C062424	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C062658	CT6	Method Blank	Turbidity	2025/08/26	<0.10		NTU	
C062669	BYM	Method Blank	Dissolved Iron (Fe)	2025/08/26	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/26	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/26	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/26	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/26	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/26	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/26	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/26	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/26	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/26	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/26	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/26	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/26	<0.30		mg/L	
C063513	AFI	Method Blank	True Colour	2025/08/26	<2.0		PtCo units	
C063929	YHK	Method Blank	Dissolved Aluminum (Al)	2025/08/27	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/27	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/27	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/27	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/27	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/27	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/27	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/27	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/27	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/27	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/27	<0.00020		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Thallium (Tl)	2025/08/27	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/27	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/27	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/27	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/27	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/27	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/27	<0.0010		mg/L	
C063929	YHK	RPD [DRE187-10]	Dissolved Aluminum (Al)	2025/08/27	3.7		%	20
			Dissolved Chromium (Cr)	2025/08/27	NC		%	20
			Dissolved Cobalt (Co)	2025/08/27	NC		%	20
			Dissolved Copper (Cu)	2025/08/27	NC		%	20
			Dissolved Lead (Pb)	2025/08/27	NC		%	20
			Dissolved Antimony (Sb)	2025/08/27	NC		%	20
			Dissolved Molybdenum (Mo)	2025/08/27	0		%	20
			Dissolved Nickel (Ni)	2025/08/27	3.6		%	20
			Dissolved Selenium (Se)	2025/08/27	NC		%	20
			Dissolved Silver (Ag)	2025/08/27	NC		%	20
			Dissolved Arsenic (As)	2025/08/27	7.7		%	20
			Dissolved Thallium (Tl)	2025/08/27	NC		%	20
			Dissolved Tin (Sn)	2025/08/27	NC		%	20
			Dissolved Titanium (Ti)	2025/08/27	NC		%	20
			Dissolved Uranium (U)	2025/08/27	4.7		%	20
			Dissolved Vanadium (V)	2025/08/27	NC		%	20
			Dissolved Zinc (Zn)	2025/08/27	NC		%	20
			Dissolved Beryllium (Be)	2025/08/27	NC		%	20
C056531	RRA	RPD [DRE188-01]	Oil and grease	2025/08/25	NC		%	30
C056617	RRA	RPD [DRE188-01]	Total Petroleum Hydrocarbon	2025/08/25	NC		%	30
C056531	RRA	Matrix Spike [DRE187-01]	Oil and grease	2025/08/25		95	%	70 - 130
C056617	RRA	Matrix Spike [DRE187-01]	Total Petroleum Hydrocarbon	2025/08/25		96	%	70 - 130
C063929	YHK	Matrix Spike [DRE187-10]	Dissolved Aluminum (Al)	2025/08/27		115	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/27		105	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/27		101	%	80 - 120
			Dissolved Copper (Cu)	2025/08/27		99	%	80 - 120
			Dissolved Lead (Pb)	2025/08/27		105	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/27		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/27		108	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/27		100	%	80 - 120
			Dissolved Selenium (Se)	2025/08/27		90	%	80 - 120
			Dissolved Silver (Ag)	2025/08/27		99	%	80 - 120
			Dissolved Arsenic (As)	2025/08/27		99	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/27		108	%	80 - 120
			Dissolved Tin (Sn)	2025/08/27		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/27		108	%	80 - 120
			Dissolved Uranium (U)	2025/08/27		103	%	80 - 120
			Dissolved Vanadium (V)	2025/08/27		107	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/27		92	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/27		116	%	80 - 120
C056145	DSX	LCS	Turbidity	2025/08/20		100	%	80 - 120
C056158	DO1	LCS	1,4-Difluorobenzene (sur.)	2025/08/22		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/22		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/22		114	%	50 - 140
			Benzene	2025/08/22		104	%	60 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Toluene	2025/08/22		96	%	60 - 130
			Ethylbenzene	2025/08/22		100	%	60 - 130
			m & p-Xylene	2025/08/22		94	%	60 - 130
			o-Xylene	2025/08/22		95	%	60 - 130
			F1 (C6-C10)	2025/08/22		110	%	60 - 140
C056171	TNY	LCS	Total Suspended Solids	2025/08/21		97	%	80 - 120
C056370	JU2	LCS	D10-ANTHRACENE (sur.)	2025/08/22		96	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		84	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		69	%	50 - 130
			Acenaphthene	2025/08/22		83	%	50 - 130
			Acenaphthylene	2025/08/22		80	%	50 - 130
			Acridine	2025/08/22		80	%	50 - 130
			Anthracene	2025/08/22		81	%	50 - 130
			Benzo(a)anthracene	2025/08/22		91	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/22		91	%	50 - 130
			Benzo(k)fluoranthene	2025/08/22		101	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/22		89	%	50 - 130
			Benzo(c)phenanthrene	2025/08/22		97	%	50 - 130
			Benzo(a)pyrene	2025/08/22		87	%	50 - 130
			Benzo(e)pyrene	2025/08/22		86	%	50 - 130
			Chrysene	2025/08/22		91	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/22		88	%	50 - 130
			Fluoranthene	2025/08/22		88	%	50 - 130
			Fluorene	2025/08/22		85	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/22		87	%	50 - 130
			1-Methylnaphthalene	2025/08/22		68	%	50 - 130
			2-Methylnaphthalene	2025/08/22		75	%	50 - 130
			Naphthalene	2025/08/22		79	%	50 - 130
			Phenanthrene	2025/08/22		86	%	50 - 130
			Perylene	2025/08/22		87	%	50 - 130
			Pyrene	2025/08/22		89	%	50 - 130
			Quinoline	2025/08/22		102	%	50 - 130
C056531	RRA	LCS	Oil and grease	2025/08/25		96	%	70 - 130
C056617	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/25		95	%	70 - 130
C056686	GG3	LCS	O-TERPHENYL (sur.)	2025/08/22		102	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22		97	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2025/08/22		105	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2025/08/22		100	%	60 - 140
C057038	DVN	LCS	Total Dissolved Solids	2025/08/22		98	%	80 - 120
C057078	YL7	LCS	Total Nitrogen (N)	2025/08/21		103	%	80 - 120
C057256	JAB	LCS	Dissolved Aluminum (Al)	2025/08/21		105	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/21		108	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/21		99	%	80 - 120
			Dissolved Copper (Cu)	2025/08/21		101	%	80 - 120
			Dissolved Lead (Pb)	2025/08/21		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/21		103	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/21		102	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/21		105	%	80 - 120
			Dissolved Selenium (Se)	2025/08/21		99	%	80 - 120
			Dissolved Silver (Ag)	2025/08/21		99	%	80 - 120
			Dissolved Arsenic (As)	2025/08/21		103	%	80 - 120

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Thallium (Tl)	2025/08/21		101	%	80 - 120
			Dissolved Tin (Sn)	2025/08/21		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/21		101	%	80 - 120
			Dissolved Uranium (U)	2025/08/21		100	%	80 - 120
			Dissolved Vanadium (V)	2025/08/21		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/21		98	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/21		101	%	80 - 120
C057503	KKC	LCS	Nitrite (N)	2025/08/22		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/22		101	%	80 - 120
C057506	KKC	LCS	Nitrite (N)	2025/08/21		103	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/21		99	%	80 - 120
C057535	TOR	LCS	Chloride (Cl)	2025/08/21		99	%	80 - 120
			Sulphate (SO4)	2025/08/21		100	%	80 - 120
C057692	KKM	LCS	Dissolved Mercury (Hg)	2025/08/21		102	%	80 - 120
C057722	KKM	LCS	Total Mercury (Hg)	2025/08/21		103	%	80 - 120
C057740	TNY	LCS	Chemical Oxygen Demand	2025/08/21		101	%	80 - 120
C057848	AYE	LCS	pH	2025/08/22		100	%	97 - 103
C057849	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/22		98	%	80 - 120
C057850	AYE	LCS	Conductivity	2025/08/22		102	%	90 - 110
C058130	IDV	LCS	Total Sulphide	2025/08/23		93	%	80 - 120
C058175	TOR	LCS	Chloride (Cl)	2025/08/21		100	%	80 - 120
			Sulphate (SO4)	2025/08/21		103	%	80 - 120
C058481	AFI	LCS	Orthophosphate (P)	2025/08/21		97	%	80 - 120
C060142	VSC	LCS	Dissolved Iron (Fe)	2025/08/23		104	%	80 - 120
			Dissolved Lithium (Li)	2025/08/23		99	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/23		102	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/23		100	%	80 - 120
			Dissolved Potassium (K)	2025/08/23		99	%	80 - 120
			Dissolved Sodium (Na)	2025/08/23		100	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/23		94	%	80 - 120
			Dissolved Sulphur (S)	2025/08/23		99	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/23		102	%	80 - 120
			Dissolved Barium (Ba)	2025/08/23		99	%	80 - 120
			Dissolved Silicon (Si)	2025/08/23		96	%	80 - 120
			Dissolved Boron (B)	2025/08/23		100	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/23		102	%	80 - 120
C060686	ISW	LCS	Total Ammonia (N)	2025/08/24		106	%	80 - 120
C061165	JAB	LCS	Total Aluminum (Al)	2025/08/25		107	%	80 - 120
			Total Chromium (Cr)	2025/08/25		98	%	80 - 120
			Total Cobalt (Co)	2025/08/25		97	%	80 - 120
			Total Copper (Cu)	2025/08/25		98	%	80 - 120
			Total Lead (Pb)	2025/08/25		103	%	80 - 120
			Total Antimony (Sb)	2025/08/25		104	%	80 - 120
			Total Molybdenum (Mo)	2025/08/25		104	%	80 - 120
			Total Nickel (Ni)	2025/08/25		97	%	80 - 120
			Total Selenium (Se)	2025/08/25		102	%	80 - 120
			Total Silver (Ag)	2025/08/25		103	%	80 - 120
			Total Arsenic (As)	2025/08/25		103	%	80 - 120
			Total Thallium (Tl)	2025/08/25		112	%	80 - 120
			Total Tin (Sn)	2025/08/25		102	%	80 - 120
			Total Titanium (Ti)	2025/08/25		104	%	80 - 120
			Total Uranium (U)	2025/08/25		108	%	80 - 120

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Vanadium (V)	2025/08/25		97	%	80 - 120
			Total Zinc (Zn)	2025/08/25		99	%	80 - 120
			Total Beryllium (Be)	2025/08/25		109	%	80 - 120
C061178	BYM	LCS	Total Iron (Fe)	2025/08/25		116	%	80 - 120
			Total Lithium (Li)	2025/08/25		102	%	80 - 120
			Total Magnesium (Mg)	2025/08/25		107	%	80 - 120
			Total Manganese (Mn)	2025/08/25		111	%	80 - 120
			Total Potassium (K)	2025/08/25		106	%	80 - 120
			Total Sodium (Na)	2025/08/25		103	%	80 - 120
			Total Strontium (Sr)	2025/08/25		100	%	80 - 120
			Total Sulphur (S)	2025/08/25		91	%	80 - 120
			Total Phosphorus (P)	2025/08/25		103	%	80 - 120
			Total Barium (Ba)	2025/08/25		103	%	80 - 120
			Total Silicon (Si)	2025/08/25		101	%	80 - 120
			Total Boron (B)	2025/08/25		106	%	80 - 120
			Total Calcium (Ca)	2025/08/25		102	%	80 - 120
C062390	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/26		101	%	80 - 120
C062424	TJ4	LCS	Total Organic Carbon (C)	2025/08/26		98	%	80 - 120
C062658	CT6	LCS	Turbidity	2025/08/26		100	%	80 - 120
C062669	BYM	LCS	Dissolved Iron (Fe)	2025/08/26		110	%	80 - 120
			Dissolved Lithium (Li)	2025/08/26		96	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/26		102	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/26		106	%	80 - 120
			Dissolved Potassium (K)	2025/08/26		100	%	80 - 120
			Dissolved Sodium (Na)	2025/08/26		97	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/26		98	%	80 - 120
			Dissolved Sulphur (S)	2025/08/26		98	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/26		100	%	80 - 120
			Dissolved Barium (Ba)	2025/08/26		100	%	80 - 120
			Dissolved Silicon (Si)	2025/08/26		96	%	80 - 120
			Dissolved Boron (B)	2025/08/26		102	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/26		99	%	80 - 120
C063513	AFI	LCS	True Colour	2025/08/26		94	%	80 - 120
C063929	YHK	LCS	Dissolved Aluminum (Al)	2025/08/27		112	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/27		108	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/27		102	%	80 - 120
			Dissolved Copper (Cu)	2025/08/27		100	%	80 - 120
			Dissolved Lead (Pb)	2025/08/27		104	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/27		99	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/27		108	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/27		102	%	80 - 120
			Dissolved Selenium (Se)	2025/08/27		88	%	80 - 120
			Dissolved Silver (Ag)	2025/08/27		98	%	80 - 120
			Dissolved Arsenic (As)	2025/08/27		97	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/27		105	%	80 - 120
			Dissolved Tin (Sn)	2025/08/27		99	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/27		101	%	80 - 120
			Dissolved Uranium (U)	2025/08/27		101	%	80 - 120
			Dissolved Vanadium (V)	2025/08/27		108	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/27		89	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/27		112	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C057078	YL7	SRM	Total Nitrogen (N)	2025/08/21		106	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571386
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics

Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Sandy Yuan, M.Sc., QP, Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

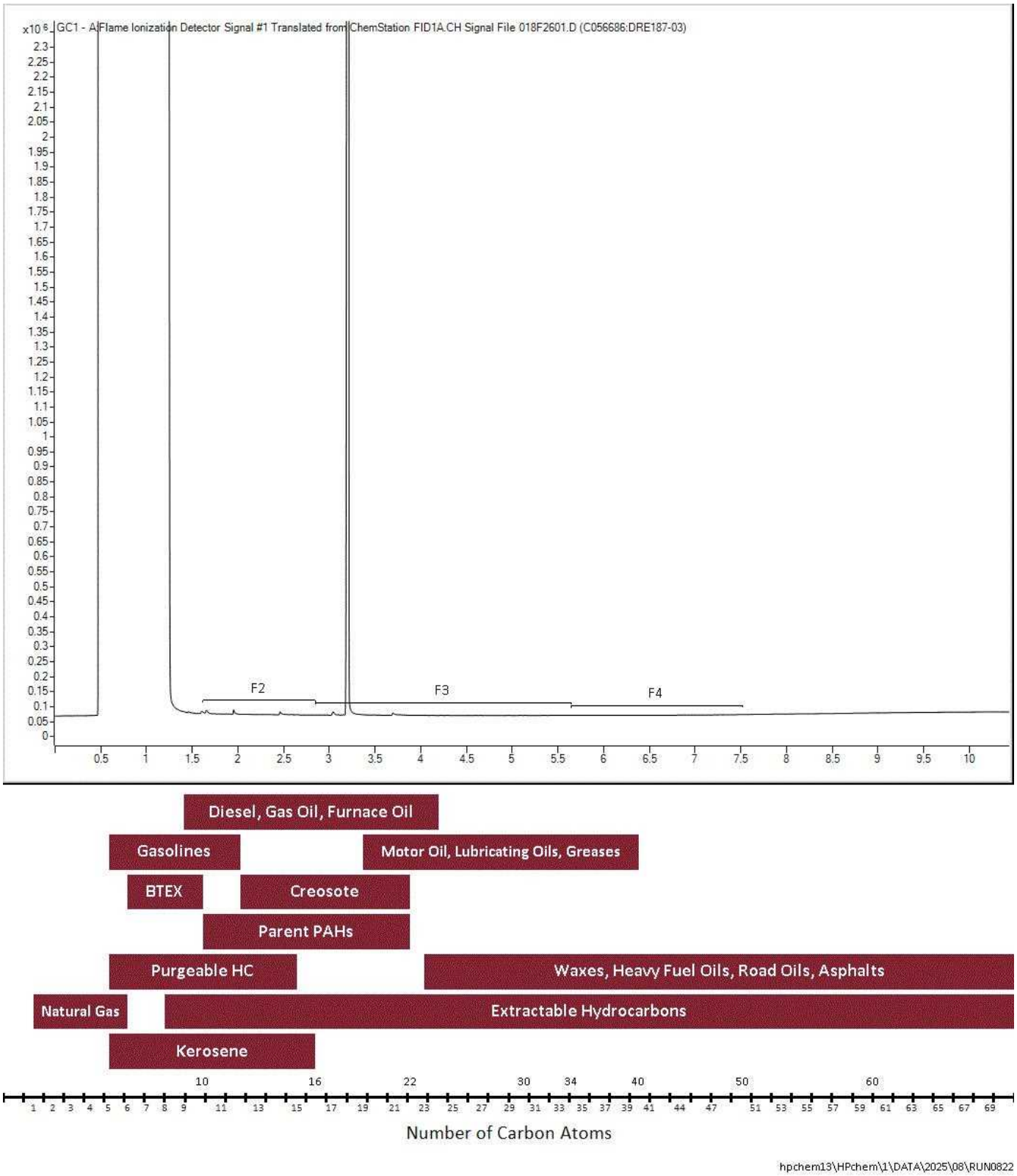
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571386
Report Date: 2025/08/27
Bureau Veritas Sample: DRE187

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DS-02

CCME Hydrocarbons (F2-F4 in water) Chromatogram

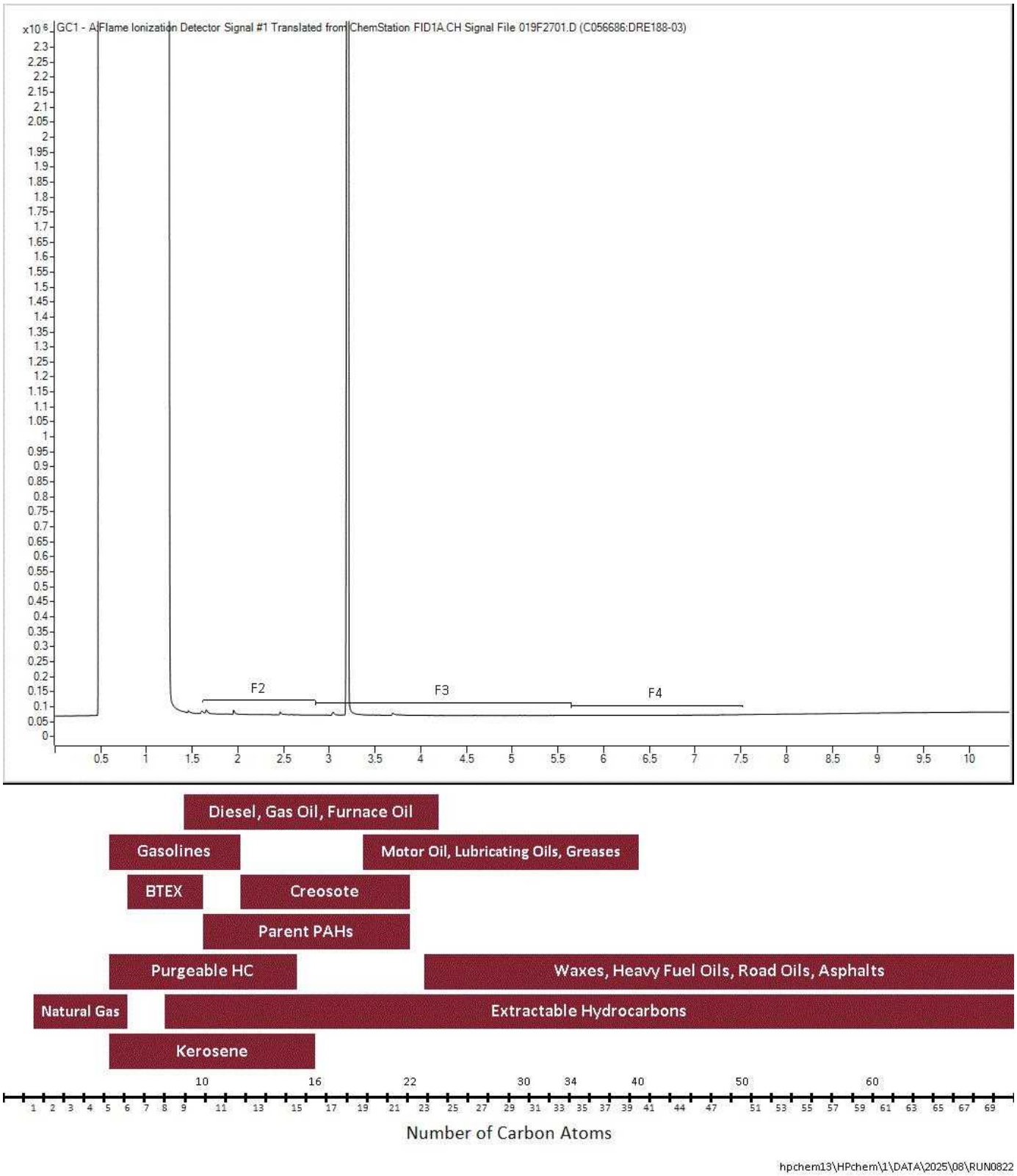


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571386
Report Date: 2025/08/27
Bureau Veritas Sample: DRE188

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DUP-2

CCME Hydrocarbons (F2-F4 in water) Chromatogram

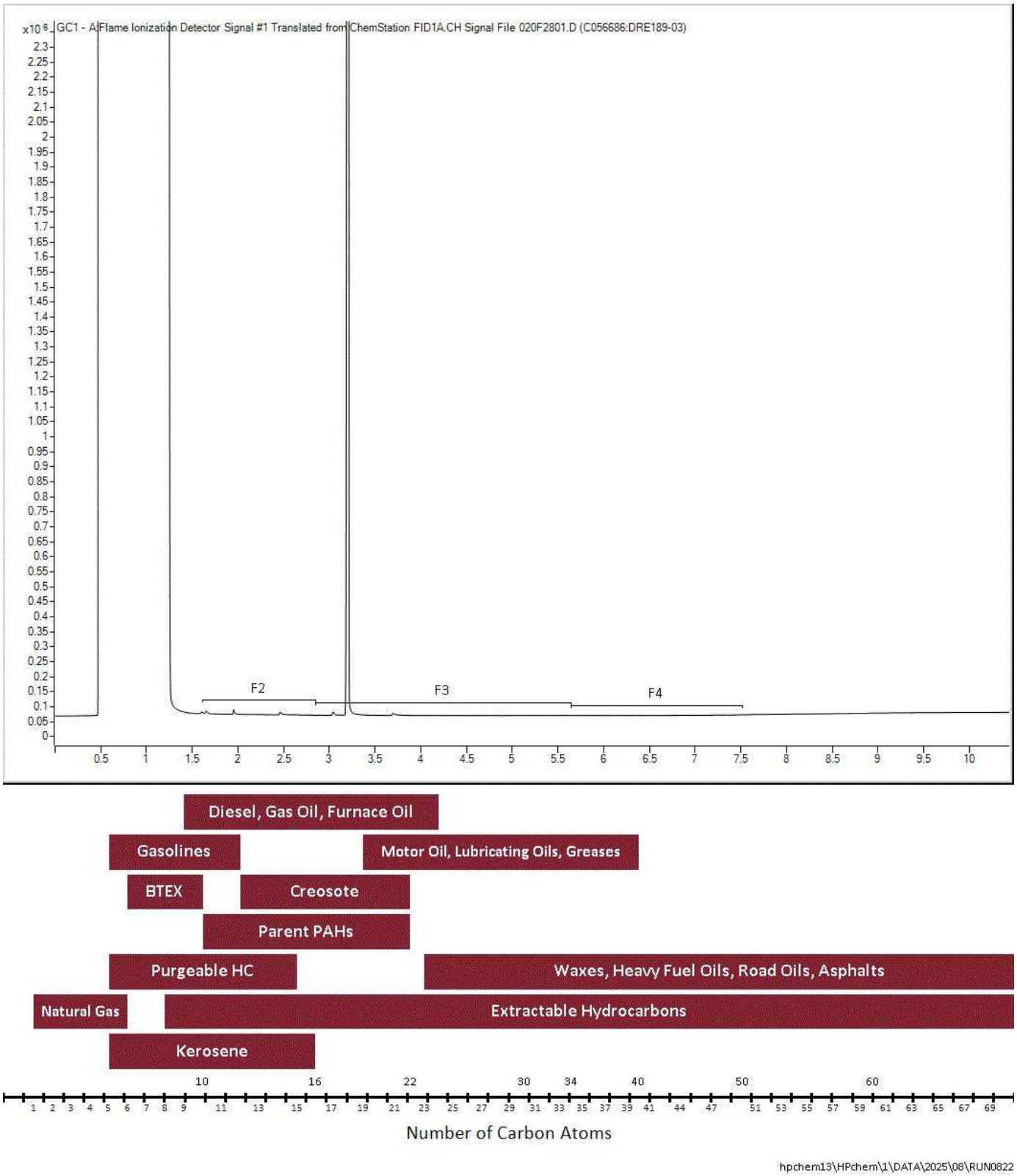


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571386
Report Date: 2025/08/27
Bureau Veritas Sample: DRE189

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DUP3-FIELD BLANK

CCME Hydrocarbons (F2-F4 in water) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
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Fax: (403) 735-2240
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9331 - 48 Street, T6B 2R4
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Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 298632

INVOICE INFORMATION

Company Name: ☑ Imperial Oil ☐ ExxonMobil
Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE
CALGARY, AB
T2C 3E7
Email: alex.haigh@worley.com
Ph: 587-897-6249
Sampler Name (Print): TINO NGULUBE / BRENDAN CHAPMAN

REPORT INFORMATION

Company Name: WORLEY
Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE
CALGARY, AB T2C 3E7
Email: alex.haigh@worley.com
Ph: 587-897-6249
Consultant Project #: 417085-59897-25200

ANALYSIS REQUESTED

FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED / Preserved	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS TOT ☒ DIS ☒	MERCURY TOTAL ☒ DISSOLVED ☒	SALINITY SOIL PLEASE INCLUDE MU	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, TURBIDITY	OIL and GREASE	TOC, DOC, SULPHIDE	NITRATE, NITRITE, AMMONIA (TOTAL), TKN	ORTHOPHOSPHATE	SULPHUR - TOTAL + DISSOLVED	COD	TPH
1 AEMP-DS-02		X			16	2025/08/15	13:20	X			X	X	X						X	X					X			X	X	X	X	X	X	X
2 AEMP-DUP 2		X			16	2025/08/15	13:21	X			X	X	X						X	X					X			X	X	X	X	X	X	X
3 AEMP-DUP 3-FIELD BLANK				X	6	2025/08/16	17:30		X		X	X	X																X						X
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

MCAL-2025-08-1375

IOL SITE LOCATION: NORMAN WELLS, NT
IOL PROJECT # (if applicable): N/A
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com canada-ford-data-intake@worley.com stacy.gibb@worley.com Please include MU
IES A2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

LAB USE ONLY
MAXXAM JOB #

SAMPLES
LABELED BY:
VERIFIED BY:

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	0	0	0
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1	TINO NGULUBE	2025/08/17	10:00	1.	JASON BIL	20250819	1500
2				2.			
3				3.			

C571386
2025/08/19 15:00

C of C 010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298636

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702900
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571439
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
Send Part to Archive	3		
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	3	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons (F2-F4 in water) (2)	3	AB SOP-00037	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 298636

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702900
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571439
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	3	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Task Order#: 417085-59897
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Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
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Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571439

Received: 2025/08/19, 15:00

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
26 Aug 2025 17:08:57

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE444	DRE445	DRE446		
Sampling Date		2025/08/14 15:05	2025/08/14 15:08	2025/08/16 09:50		
COC Number		298636	298636	298636		
	UNITS	**AEMP-DS-01**	**AEMP-DUP1**	**AEMP-DS-05**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056367
F3 (C16-C34 Hydrocarbons)	mg/L	0.26	0.12	<0.10	0.10	C056367
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	<0.20	<0.20	0.20	C056367
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C059563
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C059563
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C059563
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C059563
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C059563
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C055430
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C055430
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C059563
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	96	97	97		C056367
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	91	102	94		C059563
4-Bromofluorobenzene (sur.)	%	114	113	113		C059563
D4-1,2-Dichloroethane (sur.)	%	87	97	86		C059563
RDL = Reportable Detection Limit						

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRE444			DRE444			DRE445		
Sampling Date		2025/08/14 15:05			2025/08/14 15:05			2025/08/14 15:08		
COC Number		298636			298636			298636		
	UNITS	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Calculated Parameters										
Nitrate (N)	mg/L	<0.040	0.040	C055467				<0.040	0.040	C055467
Nitrate (NO3)	mg/L	<0.18	0.18	C055456				<0.18	0.18	C055456
Nitrite (NO2)	mg/L	<0.13	0.13	C055456				<0.13	0.13	C055456
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.17	0.040	C055228				0.27	0.20	C055228
Nutrients										
Nitrite (N)	mg/L	<0.040	0.040	C057503				<0.040	0.040	C057503
Nitrate plus Nitrite (N)	mg/L	<0.040	0.040	C057503				<0.040	0.040	C057503
Total Nitrogen (N)	mg/L	0.17	0.020	C057078	0.19	0.020	C057078	0.27 (1)	0.20	C057078

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas ID		DRE446		
Sampling Date		2025/08/16 09:50		
COC Number		298636		
	UNITS	**AEMP-DS-05**	**RDL**	**QC Batch**
Calculated Parameters				
Nitrate (N)	mg/L	<0.040	0.040	C055467
Nitrate (NO3)	mg/L	<0.18	0.18	C055456
Nitrite (NO2)	mg/L	<0.13	0.13	C055456
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.34	0.20	C055228
Nutrients				
Nitrite (N)	mg/L	<0.040	0.040	C057503
Nitrate plus Nitrite (N)	mg/L	<0.040	0.040	C057503
Total Nitrogen (N)	mg/L	0.34 (1)	0.20	C057078

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE444			DRE444			DRE445		
Sampling Date		2025/08/14 15:05			2025/08/14 15:05			2025/08/14 15:08		
COC Number		298636			298636			298636		
	UNITS	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Elements										
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	C055197				<0.000020	0.000020	C055197
Total Mercury (Hg)	ug/L	<0.0019	0.0019	C057584	<0.0019	0.0019	C057584	<0.0019	0.0019	C057584
Total Aluminum (Al)	mg/L	0.11	0.0030	C061165				0.015	0.0030	C059336
Total Antimony (Sb)	mg/L	<0.00060	0.00060	C061165				<0.00060	0.00060	C059336
Total Arsenic (As)	mg/L	0.00028	0.00020	C061165				0.00024	0.00020	C059336
Total Barium (Ba)	mg/L	0.086	0.010	C061178				0.084	0.010	C059340
Total Beryllium (Be)	mg/L	<0.0010	0.0010	C061165				<0.0010	0.0010	C059336
Total Boron (B)	mg/L	0.033	0.020	C061178				0.037	0.020	C059340
Total Calcium (Ca)	mg/L	84	0.30	C061178				78	0.30	C059340
Total Chromium (Cr)	mg/L	<0.0010	0.0010	C061165				<0.0010	0.0010	C059336
Total Cobalt (Co)	mg/L	<0.00030	0.00030	C061165				<0.00030	0.00030	C059336
Total Copper (Cu)	mg/L	<0.0010	0.0010	C061165				<0.0010	0.0010	C059336
Total Iron (Fe)	mg/L	0.27	0.060	C061178				<0.060	0.060	C059340
Total Lead (Pb)	mg/L	<0.00020	0.00020	C061165				<0.00020	0.00020	C059336
Total Lithium (Li)	mg/L	<0.020	0.020	C061178				<0.020	0.020	C059340
Total Magnesium (Mg)	mg/L	33	0.20	C061178				32	0.20	C059340
Total Manganese (Mn)	mg/L	0.012	0.0040	C061178				0.0070	0.0040	C059340
Total Molybdenum (Mo)	mg/L	0.0019	0.00020	C061165				0.0020	0.00020	C059336
Total Nickel (Ni)	mg/L	0.00092	0.00050	C061165				0.00054	0.00050	C059336
Total Phosphorus (P)	mg/L	<0.10	0.10	C061178				<0.10	0.10	C059340
Total Potassium (K)	mg/L	1.2	0.30	C061178				1.1	0.30	C059340
Total Selenium (Se)	mg/L	0.00020	0.00020	C061165				<0.00020	0.00020	C059336
Total Silicon (Si)	mg/L	2.4	0.50	C061178				2.4	0.50	C059340
Total Silver (Ag)	mg/L	<0.00010	0.00010	C061165				<0.00010	0.00010	C059336
Total Sodium (Na)	mg/L	25	0.50	C061178				25	0.50	C059340
Total Strontium (Sr)	mg/L	1.6	0.020	C061178				1.6	0.020	C059340
Total Sulphur (S)	mg/L	54	0.20	C061178				58	0.20	C059340
Total Thallium (Tl)	mg/L	<0.00020	0.00020	C061165				<0.00020	0.00020	C059336
Total Tin (Sn)	mg/L	<0.0010	0.0010	C061165				<0.0010	0.0010	C059336
Total Titanium (Ti)	mg/L	0.0013	0.0010	C061165				<0.0010	0.0010	C059336

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE444			DRE444			DRE445		
Sampling Date		2025/08/14 15:05			2025/08/14 15:05			2025/08/14 15:08		
COC Number		298636			298636			298636		
	UNITS	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L	0.0012	0.00010	C061165				0.0011	0.00010	C059336
Total Vanadium (V)	mg/L	<0.0010	0.0010	C061165				<0.0010	0.0010	C059336
Total Zinc (Zn)	mg/L	<0.0030	0.0030	C061165				<0.0030	0.0030	C059336

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE446			DRE446		
Sampling Date		2025/08/16 09:50			2025/08/16 09:50		
COC Number		298636			298636		
	UNITS	**AEMP-DS-05**	**RDL**	**QC Batch**	**AEMP-DS-05 Lab-Dup**	**RDL**	**QC Batch**
Elements							
Total Cadmium (Cd)	mg/L	0.00036	0.000020	C055197			
Total Mercury (Hg)	ug/L	0.015 (1)	0.0038	C057584			
Total Aluminum (Al)	mg/L	7.2	0.0030	C061165	7.2	0.0030	C061165
Total Antimony (Sb)	mg/L	<0.00060	0.00060	C061165	<0.00060	0.00060	C061165
Total Arsenic (As)	mg/L	0.0055	0.00020	C061165	0.0055	0.00020	C061165
Total Barium (Ba)	mg/L	0.21	0.010	C061178	0.21	0.010	C061178
Total Beryllium (Be)	mg/L	<0.0010	0.0010	C061165	<0.0010	0.0010	C061165
Total Boron (B)	mg/L	<0.020	0.020	C061178	<0.020	0.020	C061178
Total Calcium (Ca)	mg/L	75	0.30	C061178	74	0.30	C061178
Total Chromium (Cr)	mg/L	0.011	0.0010	C061165	0.011	0.0010	C061165
Total Cobalt (Co)	mg/L	0.0072	0.00030	C061165	0.0070	0.00030	C061165
Total Copper (Cu)	mg/L	0.015	0.0010	C061165	0.014	0.0010	C061165
Total Iron (Fe)	mg/L	16	0.060	C061178	16	0.060	C061178
Total Lead (Pb)	mg/L	0.0070	0.00020	C061165	0.0070	0.00020	C061165
Total Lithium (Li)	mg/L	<0.020	0.020	C061178	<0.020	0.020	C061178
Total Magnesium (Mg)	mg/L	24	0.20	C061178	24	0.20	C061178
Total Manganese (Mn)	mg/L	0.30	0.0040	C061178	0.30	0.0040	C061178
Total Molybdenum (Mo)	mg/L	0.0023	0.00020	C061165	0.0023	0.00020	C061165
Total Nickel (Ni)	mg/L	0.023	0.00050	C061165	0.023	0.00050	C061165
Total Phosphorus (P)	mg/L	0.30	0.10	C061178	0.29	0.10	C061178
Total Potassium (K)	mg/L	2.6	0.30	C061178	2.6	0.30	C061178
Total Selenium (Se)	mg/L	0.00073	0.00020	C061165	0.00073	0.00020	C061165
Total Silicon (Si)	mg/L	9.3	0.50	C061178	9.2	0.50	C061178
Total Silver (Ag)	mg/L	<0.00010	0.00010	C061165	<0.00010	0.00010	C061165
Total Sodium (Na)	mg/L	7.5	0.50	C061178	7.5	0.50	C061178
Total Strontium (Sr)	mg/L	0.34	0.020	C061178	0.34	0.020	C061178
Total Sulphur (S)	mg/L	17	0.20	C061178	17	0.20	C061178
Total Thallium (Tl)	mg/L	<0.00020	0.00020	C061165	<0.00020	0.00020	C061165
Total Tin (Sn)	mg/L	<0.0010	0.0010	C061165	<0.0010	0.0010	C061165

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C571439
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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE446			DRE446		
Sampling Date		2025/08/16 09:50			2025/08/16 09:50		
COC Number		298636			298636		
	UNITS	**AEMP-DS-05**	**RDL**	**QC Batch**	**AEMP-DS-05 Lab-Dup**	**RDL**	**QC Batch**
Total Titanium (Ti)	mg/L	0.049	0.0010	C061165	0.055	0.0010	C061165
Total Uranium (U)	mg/L	0.0015	0.00010	C061165	0.0015	0.00010	C061165
Total Vanadium (V)	mg/L	0.018	0.0010	C061165	0.018	0.0010	C061165
Total Zinc (Zn)	mg/L	0.11	0.0030	C061165	0.12	0.0030	C061165

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

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Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE444	DRE445			DRE446		
Sampling Date		2025/08/14 15:05	2025/08/14 15:08			2025/08/16 09:50		
COC Number		298636	298636			298636		
	UNITS	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Calculated Parameters								
Hardness (CaCO3)	mg/L	320	330	0.50	C055583	130	0.50	C055583
Ion Balance (% Difference)	%	3.0	2.2	N/A	C055587	3.3	N/A	C055587
Sulphide (as H2S)	mg/L	0.0038	0.0065	0.0020	C055332	0.020	0.0020	C055332
Demand Parameters								
Chemical Oxygen Demand	mg/L	<10 (1)	<10 (1)	10	C057740	73	10	C057740
Elements								
Dissolved Cadmium (Cd)	mg/L	<0.000020	<0.000020	0.000020	C055566	<0.000020	0.000020	C055566
Misc. Inorganics								
Conductivity	uS/cm	730	730	2.0	C057850	300	2.0	C057850
Dissolved Organic Carbon (C)	mg/L	2.6	2.6	0.50	C062390	3.7	0.50	C062390
pH	pH	8.22	8.19	N/A	C057848	7.45	N/A	C057848
Total Organic Carbon (C)	mg/L	2.7	2.4	0.50	C062424	3.3	0.50	C062424
Total Dissolved Solids	mg/L	440	440	10	C056272	180	10	C057040
Total Suspended Solids	mg/L	6.7 (2)	1.2 (2)	1.0	C062360	540 (3)	1.5	C057077
Anions								
Alkalinity (PP as CaCO3)	mg/L	<1.0	<1.0	1.0	C057849	<1.0	1.0	C057849
Alkalinity (Total as CaCO3)	mg/L	190	190	1.0	C057849	100	1.0	C057849
Bicarbonate (HCO3)	mg/L	230	230	1.0	C057849	120	1.0	C057849
Carbonate (CO3)	mg/L	<1.0	<1.0	1.0	C057849	<1.0	1.0	C057849
Hydroxide (OH)	mg/L	<1.0	<1.0	1.0	C057849	<1.0	1.0	C057849
Total Sulphide	mg/L	0.0036	0.0061	0.0018	C057930	0.019	0.0018	C058130
Chloride (Cl)	mg/L	26	25	1.0	C057535	6.4	1.0	C057535
Sulphate (SO4)	mg/L	170	170	5.0	C057535	49	1.0	C057535
Nutrients								
Total Ammonia (N)	mg/L	<0.015	<0.015	0.015	C060686	<0.015	0.015	C060687
Orthophosphate (P)	mg/L	<0.0030	<0.0030	0.0030	C058481	<0.0030	0.0030	C058481

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.
(2) Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.
(3) Detection limit raised based on sample volume used for analysis.

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE444	DRE445			DRE446		
Sampling Date		2025/08/14 15:05	2025/08/14 15:08			2025/08/16 09:50		
COC Number		298636	298636			298636		
	UNITS	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Misc. Organics								
Oil and grease	mg/L	<2.0	<2.0	2.0	C056531	<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	<2.0	2.0	C056617	<2.0	2.0	C056617
Physical Properties								
True Colour	PtCo units	6.4	6.7	2.0	C058049	8.5	2.0	C058049
Physical Properties								
Turbidity	NTU	2.3	0.16	0.10	C062658	290	0.10	C056145
RDL = Reportable Detection Limit								

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRE444	DRE445	DRE446		
Sampling Date		2025/08/14 15:05	2025/08/14 15:08	2025/08/16 09:50		
COC Number		298636	298636	298636		
	UNITS	**AEMP-DS-01**	**AEMP-DUP1**	**AEMP-DS-05**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C055598
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C056360
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C056360
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C056360
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	104	90	97		C056360
D8-ACENAPHTHYLENE (sur.)	%	101	92	90		C056360
D8-NAPHTHALENE (sur.)	%	78	75	68		C056360
TERPHENYL-D14 (sur.)	%	104	89	97		C056360

RDL = Reportable Detection Limit

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRE444	DRE445	DRE446		
Sampling Date		2025/08/14 15:05	2025/08/14 15:08	2025/08/16 09:50		
COC Number		298636	298636	298636		
	UNITS	**AEMP-DS-01**	**AEMP-DUP1**	**AEMP-DS-05**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	0.0019	C057726
RDL = Reportable Detection Limit						

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE444		DRE445			DRE445		
Sampling Date		2025/08/14 15:05		2025/08/14 15:08			2025/08/14 15:08		
COC Number		298636		298636			298636		
	UNITS	**AEMP-DS-01**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**	**AEMP-DUP1 Lab-Dup**	**RDL**	**QC Batch**
Elements									
Dissolved Aluminum (Al)	mg/L	0.0079	C057256	0.0036	0.0030	C057261	0.0036	0.0030	C057261
Dissolved Antimony (Sb)	mg/L	<0.00060	C057256	<0.00060	0.00060	C057261	<0.00060	0.00060	C057261
Dissolved Arsenic (As)	mg/L	<0.00020	C057256	0.00020	0.00020	C057261	<0.00020	0.00020	C057261
Dissolved Barium (Ba)	mg/L	0.083	C060315	0.081	0.010	C060315			
Dissolved Beryllium (Be)	mg/L	<0.0010	C057256	<0.0010	0.0010	C057261	<0.0010	0.0010	C057261
Dissolved Boron (B)	mg/L	0.032	C060315	0.033	0.020	C060315			
Dissolved Calcium (Ca)	mg/L	75	C060315	75	0.30	C060315			
Dissolved Chromium (Cr)	mg/L	<0.0010	C057256	<0.0010	0.0010	C057261	<0.0010	0.0010	C057261
Dissolved Cobalt (Co)	mg/L	<0.00030	C057256	<0.00030	0.00030	C057261	<0.00030	0.00030	C057261
Dissolved Copper (Cu)	mg/L	<0.0010	C057256	<0.0010	0.0010	C057261	<0.0010	0.0010	C057261
Dissolved Iron (Fe)	mg/L	<0.060	C060315	<0.060	0.060	C060315			
Dissolved Lead (Pb)	mg/L	<0.00020	C057256	<0.00020	0.00020	C057261	<0.00020	0.00020	C057261
Dissolved Lithium (Li)	mg/L	<0.020	C060315	<0.020	0.020	C060315			
Dissolved Magnesium (Mg)	mg/L	33	C060315	33	0.20	C060315			
Dissolved Manganese (Mn)	mg/L	0.0062	C060315	0.0089	0.0040	C060315			
Dissolved Molybdenum (Mo)	mg/L	0.0017	C057256	0.0018	0.00020	C057261	0.0016	0.00020	C057261
Dissolved Nickel (Ni)	mg/L	0.00056	C057256	0.00052	0.00050	C057261	0.00050	0.00050	C057261
Dissolved Phosphorus (P)	mg/L	<0.10	C060315	<0.10	0.10	C060315			
Dissolved Potassium (K)	mg/L	1.1	C060315	1.1	0.30	C060315			
Dissolved Selenium (Se)	mg/L	<0.00020	C057256	<0.00020	0.00020	C057261	<0.00020	0.00020	C057261
Dissolved Silicon (Si)	mg/L	2.2	C060315	2.2	0.50	C060315			
Dissolved Silver (Ag)	mg/L	<0.00010	C057256	<0.00010	0.00010	C057261	<0.00010	0.00010	C057261
Dissolved Sodium (Na)	mg/L	24	C060315	23	0.50	C060315			
Dissolved Strontium (Sr)	mg/L	1.6	C060315	1.6	0.020	C060315			
Dissolved Sulphur (S)	mg/L	60	C060315	62	0.20	C060315			
Dissolved Thallium (Tl)	mg/L	<0.00020	C057256	<0.00020	0.00020	C057261	<0.00020	0.00020	C057261
Dissolved Tin (Sn)	mg/L	<0.0010	C057256	<0.0010	0.0010	C057261	<0.0010	0.0010	C057261
Dissolved Titanium (Ti)	mg/L	<0.0010	C057256	<0.0010	0.0010	C057261	<0.0010	0.0010	C057261
Dissolved Uranium (U)	mg/L	0.0011	C057256	0.0011	0.00010	C057261	0.0010	0.00010	C057261
Dissolved Vanadium (V)	mg/L	<0.0010	C057256	<0.0010	0.0010	C057261	<0.0010	0.0010	C057261

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE444		DRE445			DRE445		
Sampling Date		2025/08/14 15:05		2025/08/14 15:08			2025/08/14 15:08		
COC Number		298636		298636			298636		
	UNITS	**AEMP-DS-01**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**	**AEMP-DUP1 Lab-Dup**	**RDL**	**QC Batch**
Dissolved Zinc (Zn)	mg/L	<0.0030	C057256	<0.0030	0.0030	C057261	<0.0030	0.0030	C057261

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE446		
Sampling Date		2025/08/16 09:50		
COC Number		298636		
	UNITS	**AEMP-DS-05**	**RDL**	**QC Batch**
Elements				
Dissolved Aluminum (Al)	mg/L	0.053	0.0030	C057256
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	C057256
Dissolved Arsenic (As)	mg/L	0.00034	0.00020	C057256
Dissolved Barium (Ba)	mg/L	0.049	0.010	C060315
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	C057256
Dissolved Boron (B)	mg/L	<0.020	0.020	C060315
Dissolved Calcium (Ca)	mg/L	35	0.30	C060315
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	C057256
Dissolved Cobalt (Co)	mg/L	<0.00030	0.00030	C057256
Dissolved Copper (Cu)	mg/L	0.0012	0.0010	C057256
Dissolved Iron (Fe)	mg/L	<0.060	0.060	C060315
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	C057256
Dissolved Lithium (Li)	mg/L	<0.020	0.020	C060315
Dissolved Magnesium (Mg)	mg/L	11	0.20	C060315
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0040	C060315
Dissolved Molybdenum (Mo)	mg/L	0.0011	0.00020	C057256
Dissolved Nickel (Ni)	mg/L	0.0010	0.00050	C057256
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	C060315
Dissolved Potassium (K)	mg/L	0.78	0.30	C060315
Dissolved Selenium (Se)	mg/L	0.00040	0.00020	C057256
Dissolved Silicon (Si)	mg/L	1.7	0.50	C060315
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	C057256
Dissolved Sodium (Na)	mg/L	6.6	0.50	C060315
Dissolved Strontium (Sr)	mg/L	0.26	0.020	C060315
Dissolved Sulphur (S)	mg/L	17	0.20	C060315
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	C057256
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	C057256
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	C057256
Dissolved Uranium (U)	mg/L	0.00091	0.00010	C057256
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	C057256
Dissolved Zinc (Zn)	mg/L	<0.0030	0.0030	C057256
RDL = Reportable Detection Limit				

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE444
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059563	N/A	2025/08/25	Stephane Nadon
F1-BTEX	CALC/MS	C055430	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055197	N/A	2025/08/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C057740	N/A	2025/08/21	Thi Boi Tran Nguyen
True Colour	SPEC/COL	C058049	N/A	2025/08/21	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/22	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/21	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060315	N/A	2025/08/23	Vincy Scaria
Elements by ICP - Total	ICPA	C061178	2025/08/25	2025/08/26	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C057256	N/A	2025/08/21	Jason Bao
Elements by ICPMS - Total	ICPM	C061165	2025/08/25	2025/08/26	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060686	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055456	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055467	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C057930	2025/08/21	2025/08/21	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C056272	2025/08/20	2025/08/21	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C057078	2025/08/21	2025/08/22	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C062360	2025/08/26	2025/08/26	Haydee Estilong
Turbidity	TURB	C062658	N/A	2025/08/26	Coralynn Topping

Bureau Veritas ID: DRE444 Dup
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE444 Dup
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrogen (Total)	AC/COL	C057078	2025/08/21	2025/08/22	Yan Lin

Bureau Veritas ID: DRE445
Sample ID: AEMP-DUP1
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059563	N/A	2025/08/25	Stephane Nadon
F1-BTEX	CALC/MS	C055430	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055197	N/A	2025/08/23	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C057740	N/A	2025/08/21	Thi Boi Tran Nguyen
True Colour	SPEC/COL	C058049	N/A	2025/08/21	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/22	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/21	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060315	N/A	2025/08/23	Vincy Scaria
Elements by ICP - Total	ICPA	C059340	2025/08/22	2025/08/22	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C057261	N/A	2025/08/21	Jason Bao
Elements by ICPMS - Total	ICPM	C059336	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060686	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055456	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055467	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C057930	2025/08/21	2025/08/21	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C056272	2025/08/20	2025/08/21	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C057078	2025/08/21	2025/08/21	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C062360	2025/08/26	2025/08/26	Haydee Estilong
Turbidity	TURB	C062658	N/A	2025/08/26	Coralynn Topping

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE445 Dup
Sample ID: AEMP-DUP1
Matrix: Water

Collected: 2025/08/14
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICPMS - Dissolved	ICPM	C057261	N/A	2025/08/21	Jason Bao

Bureau Veritas ID: DRE446
Sample ID: AEMP-DS-05
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059563	N/A	2025/08/25	Stephane Nadon
F1-BTEX	CALC/MS	C055430	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055197	N/A	2025/08/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C057740	N/A	2025/08/21	Thi Boi Tran Nguyen
True Colour	SPEC/COL	C058049	N/A	2025/08/21	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/22	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060315	N/A	2025/08/23	Vincy Scaria
Elements by ICP - Total	ICPA	C061178	2025/08/25	2025/08/25	Bailey Morrison
Elements by ICPMS - Dissolved	ICPM	C057256	N/A	2025/08/21	Jason Bao
Elements by ICPMS - Total	ICPM	C061165	2025/08/25	2025/08/26	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060687	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055456	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055467	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C057078	2025/08/21	2025/08/21	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE446 Dup
Sample ID: AEMP-DS-05
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICP - Total	ICPA	C061178	2025/08/25	2025/08/25	Bailey Morrison
Elements by ICPMS - Total	ICPM	C061165	2025/08/25	2025/08/26	Jason Bao

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Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.3°C

Sample DRE444 [AEMP-DS-01] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for Total Suspended Solids (NFR).

Sample DRE445 [AEMP-DUP1] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for Total Suspended Solids (NFR).

Sample DRE446 [AEMP-DS-05] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DRE444	AEMP-DS-01	Water	TSS	INORG	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.
DRE444	AEMP-DS-01	Water	TURB	SPP	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.
DRE445	AEMP-DUP1	Water	TSS	INORG	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.
DRE445	AEMP-DUP1	Water	TURB	SPP	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C056145	DSX	Method Blank	Turbidity	2025/08/20	<0.10		NTU	
C056272	DVN	Method Blank	Total Dissolved Solids	2025/08/21	<10		mg/L	
C056360	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/08/23		83	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/23		78	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/23		78	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/23		54	%	50 - 130
			Acenaphthene	2025/08/23	<0.00010		mg/L	
			Acenaphthylene	2025/08/23	<0.00010		mg/L	
			Acridine	2025/08/23	<0.000040		mg/L	
			Anthracene	2025/08/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/23	<0.000050		mg/L	
			Chrysene	2025/08/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/23	<0.0000075		mg/L	
			Fluoranthene	2025/08/23	<0.000010		mg/L	
			Fluorene	2025/08/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			Naphthalene	2025/08/23	<0.00010		mg/L	
			Phenanthrene	2025/08/23	<0.000050		mg/L	
			Perylene	2025/08/23	<0.000050		mg/L	
			Pyrene	2025/08/23	<0.000020		mg/L	
			Quinoline	2025/08/23	<0.00020		mg/L	
C056367	AAX	Method Blank	O-TERPHENYL (sur.)	2025/08/22		97	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F3 (C16-C34 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F4 (C34-C50 Hydrocarbons)	2025/08/22	<0.20		mg/L	
C056531	RRA	Method Blank	Oil and grease	2025/08/25	<2.0		mg/L	
C056617	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/25	<2.0		mg/L	
C057040	TNY	Method Blank	Total Dissolved Solids	2025/08/22	<10		mg/L	
C057077	HE1	Method Blank	Total Suspended Solids	2025/08/22	<1.0		mg/L	
C057078	YL7	Method Blank	Total Nitrogen (N)	2025/08/21	<0.020		mg/L	
C057256	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/21	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/21	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/21	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/21	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/21	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/21	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/21	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/21	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/21	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/21	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/21	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/21	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/21	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/21	<0.0010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Uranium (U)	2025/08/21	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/21	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/21	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/21	<0.0010		mg/L	
C057261	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/21	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/21	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/21	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/21	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/21	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/21	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/21	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/21	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/21	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/21	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/21	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/21	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/21	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/21	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/21	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/21	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/21	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/21	<0.0010		mg/L	
C057503	KKC	Method Blank	Nitrite (N)	2025/08/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/21	<0.040		mg/L	
C057535	TOR	Method Blank	Chloride (Cl)	2025/08/21	<1.0		mg/L	
			Sulphate (SO4)	2025/08/21	<1.0		mg/L	
C057584	KKM	Method Blank	Total Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057726	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057740	TNY	Method Blank	Chemical Oxygen Demand	2025/08/21	<10		mg/L	
C057849	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/22	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/22	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/22	<1.0		mg/L	
			Carbonate (CO3)	2025/08/22	<1.0		mg/L	
			Hydroxide (OH)	2025/08/22	<1.0		mg/L	
C057850	AYE	Method Blank	Conductivity	2025/08/22	<2.0		uS/cm	
C057930	NJD	Method Blank	Total Sulphide	2025/08/21	<0.0018		mg/L	
C058049	AFI	Method Blank	True Colour	2025/08/21	<2.0		PtCo units	
C058130	IDV	Method Blank	Total Sulphide	2025/08/23	<0.0018		mg/L	
C058481	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C059336	JAB	Method Blank	Total Aluminum (Al)	2025/08/23	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/23	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/23	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/23	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/23	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/23	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/23	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/23	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/23	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/23	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/23	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/23	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/23	<0.0010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Titanium (Ti)	2025/08/23	<0.0010		mg/L	
			Total Uranium (U)	2025/08/23	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/23	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/23	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/23	<0.0010		mg/L	
C059340	KHU	Method Blank	Total Iron (Fe)	2025/08/22	<0.060		mg/L	
			Total Lithium (Li)	2025/08/22	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/22	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/22	<0.0040		mg/L	
			Total Potassium (K)	2025/08/22	<0.30		mg/L	
			Total Sodium (Na)	2025/08/22	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/22	<0.020		mg/L	
			Total Sulphur (S)	2025/08/22	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/22	<0.10		mg/L	
			Total Barium (Ba)	2025/08/22	<0.010		mg/L	
			Total Silicon (Si)	2025/08/22	<0.50		mg/L	
			Total Boron (B)	2025/08/22	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/22	<0.30		mg/L	
C059563	SNA	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/25		109	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/25		97	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/25		110	%	50 - 140
			Benzene	2025/08/25	<0.00040		mg/L	
			Toluene	2025/08/25	<0.00040		mg/L	
			Ethylbenzene	2025/08/25	<0.00040		mg/L	
			m & p-Xylene	2025/08/25	<0.00080		mg/L	
			o-Xylene	2025/08/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/25	<0.10		mg/L	
C060315	VSC	Method Blank	Dissolved Iron (Fe)	2025/08/23	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/23	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/23	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/23	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/23	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/23	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/23	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/23	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/23	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/23	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/23	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/23	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/23	<0.30		mg/L	
C060686	ISW	Method Blank	Total Ammonia (N)	2025/08/24	<0.015		mg/L	
C060687	ISW	Method Blank	Total Ammonia (N)	2025/08/24	<0.015		mg/L	
C061165	JAB	Method Blank	Total Aluminum (Al)	2025/08/26	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/26	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/26	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/26	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/26	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/26	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/26	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/26	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/26	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/26	<0.00010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Arsenic (As)	2025/08/26	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/26	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/26	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/26	<0.0010		mg/L	
			Total Uranium (U)	2025/08/26	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/26	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/26	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/26	<0.0010		mg/L	
C061178	BYM	Method Blank	Total Iron (Fe)	2025/08/26	<0.060		mg/L	
			Total Lithium (Li)	2025/08/26	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/26	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/26	<0.0040		mg/L	
			Total Potassium (K)	2025/08/26	<0.30		mg/L	
			Total Sodium (Na)	2025/08/26	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/26	<0.020		mg/L	
			Total Sulphur (S)	2025/08/26	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/26	<0.10		mg/L	
			Total Barium (Ba)	2025/08/26	<0.010		mg/L	
			Total Silicon (Si)	2025/08/26	<0.50		mg/L	
			Total Boron (B)	2025/08/26	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/26	<0.30		mg/L	
C062360	HE1	Method Blank	Total Suspended Solids	2025/08/26	<1.0		mg/L	
C062390	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C062424	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C062658	CT6	Method Blank	Turbidity	2025/08/26	<0.10		NTU	
C057078	YL7	RPD [DRE444-05]	Total Nitrogen (N)	2025/08/22	9.5		%	20
C057584	KKM	RPD [DRE444-13]	Total Mercury (Hg)	2025/08/21	NC		%	20
C057261	JAB	RPD [DRE445-04]	Dissolved Aluminum (Al)	2025/08/21	0.056		%	20
			Dissolved Chromium (Cr)	2025/08/21	NC		%	20
			Dissolved Cobalt (Co)	2025/08/21	NC		%	20
			Dissolved Copper (Cu)	2025/08/21	NC		%	20
			Dissolved Lead (Pb)	2025/08/21	NC		%	20
			Dissolved Antimony (Sb)	2025/08/21	NC		%	20
			Dissolved Molybdenum (Mo)	2025/08/21	8.1		%	20
			Dissolved Nickel (Ni)	2025/08/21	2.5		%	20
			Dissolved Selenium (Se)	2025/08/21	NC		%	20
			Dissolved Silver (Ag)	2025/08/21	NC		%	20
			Dissolved Arsenic (As)	2025/08/21	1.9		%	20
			Dissolved Thallium (Tl)	2025/08/21	NC		%	20
			Dissolved Tin (Sn)	2025/08/21	NC		%	20
			Dissolved Titanium (Ti)	2025/08/21	NC		%	20
			Dissolved Uranium (U)	2025/08/21	2.9		%	20
			Dissolved Vanadium (V)	2025/08/21	NC		%	20
			Dissolved Zinc (Zn)	2025/08/21	NC		%	20
			Dissolved Beryllium (Be)	2025/08/21	NC		%	20
C061165	JAB	RPD [DRE446-03]	Total Aluminum (Al)	2025/08/26	0.12		%	20
			Total Chromium (Cr)	2025/08/26	3.3		%	20
			Total Cobalt (Co)	2025/08/26	2.1		%	20
			Total Copper (Cu)	2025/08/26	1.5		%	20
			Total Lead (Pb)	2025/08/26	1.0		%	20
			Total Antimony (Sb)	2025/08/26	NC		%	20
			Total Molybdenum (Mo)	2025/08/26	1.0		%	20

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Nickel (Ni)	2025/08/26	2.1		%	20
			Total Selenium (Se)	2025/08/26	0.11		%	20
			Total Silver (Ag)	2025/08/26	NC		%	20
			Total Arsenic (As)	2025/08/26	0.80		%	20
			Total Thallium (Tl)	2025/08/26	NC		%	20
			Total Tin (Sn)	2025/08/26	NC		%	20
			Total Titanium (Ti)	2025/08/26	12		%	20
			Total Uranium (U)	2025/08/26	2.9		%	20
			Total Vanadium (V)	2025/08/26	1.1		%	20
			Total Zinc (Zn)	2025/08/26	8.4		%	20
			Total Beryllium (Be)	2025/08/26	NC		%	20
C061178	BYM	RPD [DRE446-03]	Total Iron (Fe)	2025/08/25	1.8		%	20
			Total Lithium (Li)	2025/08/25	NC		%	20
			Total Magnesium (Mg)	2025/08/25	1.6		%	20
			Total Manganese (Mn)	2025/08/25	2.1		%	20
			Total Potassium (K)	2025/08/25	0.15		%	20
			Total Sodium (Na)	2025/08/25	0.64		%	20
			Total Strontium (Sr)	2025/08/25	1.7		%	20
			Total Sulphur (S)	2025/08/25	0.76		%	20
			Total Phosphorus (P)	2025/08/25	4.6		%	20
			Total Barium (Ba)	2025/08/25	3.4		%	20
			Total Silicon (Si)	2025/08/25	0.97		%	20
			Total Boron (B)	2025/08/25	NC		%	20
			Total Calcium (Ca)	2025/08/25	1.1		%	20
C057078	YL7	Matrix Spike [DRE444-05]	Total Nitrogen (N)	2025/08/22		106	%	80 - 120
C057261	JAB	Matrix Spike [DRE445-04]	Dissolved Aluminum (Al)	2025/08/21		107	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/21		96	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/21		94	%	80 - 120
			Dissolved Copper (Cu)	2025/08/21		94	%	80 - 120
			Dissolved Lead (Pb)	2025/08/21		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/21		103	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/21		105	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/21		94	%	80 - 120
			Dissolved Selenium (Se)	2025/08/21		101	%	80 - 120
			Dissolved Silver (Ag)	2025/08/21		98	%	80 - 120
			Dissolved Arsenic (As)	2025/08/21		102	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/21		104	%	80 - 120
			Dissolved Tin (Sn)	2025/08/21		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/21		113	%	80 - 120
			Dissolved Uranium (U)	2025/08/21		101	%	80 - 120
			Dissolved Vanadium (V)	2025/08/21		98	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/21		101	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/21		109	%	80 - 120
C057584	KKM	Matrix Spike [DRE445-13]	Total Mercury (Hg)	2025/08/21		81	%	80 - 120
C056145	DSX	LCS	Turbidity	2025/08/20		100	%	80 - 120
C056272	DVN	LCS	Total Dissolved Solids	2025/08/21		97	%	80 - 120
C056360	JU2	LCS	D10-ANTHRACENE (sur.)	2025/08/22		102	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		102	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		113	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		87	%	50 - 130
			Acenaphthene	2025/08/22		71	%	50 - 130
			Acenaphthylene	2025/08/22		93	%	50 - 130

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			Acridine	2025/08/22		90	%	50 - 130
			Anthracene	2025/08/22		85	%	50 - 130
			Benzo(a)anthracene	2025/08/22		89	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/22		88	%	50 - 130
			Benzo(k)fluoranthene	2025/08/22		103	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/22		84	%	50 - 130
			Benzo(c)phenanthrene	2025/08/22		95	%	50 - 130
			Benzo(a)pyrene	2025/08/22		89	%	50 - 130
			Benzo(e)pyrene	2025/08/22		83	%	50 - 130
			Chrysene	2025/08/22		90	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/22		86	%	50 - 130
			Fluoranthene	2025/08/22		92	%	50 - 130
			Fluorene	2025/08/22		86	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/22		85	%	50 - 130
			1-Methylnaphthalene	2025/08/22		60	%	50 - 130
			2-Methylnaphthalene	2025/08/22		64	%	50 - 130
			Naphthalene	2025/08/22		76	%	50 - 130
			Phenanthrene	2025/08/22		82	%	50 - 130
			Perylene	2025/08/22		83	%	50 - 130
			Pyrene	2025/08/22		92	%	50 - 130
			Quinoline	2025/08/22		96	%	50 - 130
C056367	AAX	LCS	O-TERPHENYL (sur.)	2025/08/22		103	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22		91	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2025/08/22		100	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2025/08/22		92	%	60 - 140
C056531	RRA	LCS	Oil and grease	2025/08/25		96	%	70 - 130
C056617	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/25		95	%	70 - 130
C057040	TNY	LCS	Total Dissolved Solids	2025/08/22		94	%	80 - 120
C057077	HE1	LCS	Total Suspended Solids	2025/08/22		95	%	80 - 120
C057078	YL7	LCS	Total Nitrogen (N)	2025/08/21		103	%	80 - 120
C057256	JAB	LCS	Dissolved Aluminum (Al)	2025/08/21		105	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/21		108	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/21		99	%	80 - 120
			Dissolved Copper (Cu)	2025/08/21		101	%	80 - 120
			Dissolved Lead (Pb)	2025/08/21		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/21		103	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/21		102	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/21		105	%	80 - 120
			Dissolved Selenium (Se)	2025/08/21		99	%	80 - 120
			Dissolved Silver (Ag)	2025/08/21		99	%	80 - 120
			Dissolved Arsenic (As)	2025/08/21		103	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/21		101	%	80 - 120
			Dissolved Tin (Sn)	2025/08/21		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/21		101	%	80 - 120
			Dissolved Uranium (U)	2025/08/21		100	%	80 - 120
			Dissolved Vanadium (V)	2025/08/21		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/21		98	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/21		101	%	80 - 120
C057261	JAB	LCS	Dissolved Aluminum (Al)	2025/08/21		107	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/21		99	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/21		97	%	80 - 120
			Dissolved Copper (Cu)	2025/08/21		97	%	80 - 120

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Lead (Pb)	2025/08/21		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/21		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/21		102	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/21		103	%	80 - 120
			Dissolved Selenium (Se)	2025/08/21		102	%	80 - 120
			Dissolved Silver (Ag)	2025/08/21		99	%	80 - 120
			Dissolved Arsenic (As)	2025/08/21		101	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/21		101	%	80 - 120
			Dissolved Tin (Sn)	2025/08/21		100	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/21		100	%	80 - 120
			Dissolved Uranium (U)	2025/08/21		100	%	80 - 120
			Dissolved Vanadium (V)	2025/08/21		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/21		104	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/21		106	%	80 - 120
C057503	KKC	LCS	Nitrite (N)	2025/08/22		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/22		101	%	80 - 120
C057535	TOR	LCS	Chloride (Cl)	2025/08/21		99	%	80 - 120
			Sulphate (SO4)	2025/08/21		100	%	80 - 120
C057584	KKM	LCS	Total Mercury (Hg)	2025/08/21		102	%	80 - 120
C057726	KKM	LCS	Dissolved Mercury (Hg)	2025/08/21		100	%	80 - 120
C057740	TNY	LCS	Chemical Oxygen Demand	2025/08/21		101	%	80 - 120
C057848	AYE	LCS	pH	2025/08/22		100	%	97 - 103
C057849	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/22		98	%	80 - 120
C057850	AYE	LCS	Conductivity	2025/08/22		102	%	90 - 110
C057930	NJD	LCS	Total Sulphide	2025/08/21		98	%	80 - 120
C058049	AFI	LCS	True Colour	2025/08/21		91	%	80 - 120
C058130	IDV	LCS	Total Sulphide	2025/08/23		93	%	80 - 120
C058481	AFI	LCS	Orthophosphate (P)	2025/08/21		97	%	80 - 120
C059336	JAB	LCS	Total Aluminum (Al)	2025/08/23		104	%	80 - 120
			Total Chromium (Cr)	2025/08/23		97	%	80 - 120
			Total Cobalt (Co)	2025/08/23		97	%	80 - 120
			Total Copper (Cu)	2025/08/23		97	%	80 - 120
			Total Lead (Pb)	2025/08/23		101	%	80 - 120
			Total Antimony (Sb)	2025/08/23		103	%	80 - 120
			Total Molybdenum (Mo)	2025/08/23		103	%	80 - 120
			Total Nickel (Ni)	2025/08/23		97	%	80 - 120
			Total Selenium (Se)	2025/08/23		103	%	80 - 120
			Total Silver (Ag)	2025/08/23		99	%	80 - 120
			Total Arsenic (As)	2025/08/23		103	%	80 - 120
			Total Thallium (Tl)	2025/08/23		105	%	80 - 120
			Total Tin (Sn)	2025/08/23		103	%	80 - 120
			Total Titanium (Ti)	2025/08/23		102	%	80 - 120
			Total Uranium (U)	2025/08/23		104	%	80 - 120
			Total Vanadium (V)	2025/08/23		97	%	80 - 120
			Total Zinc (Zn)	2025/08/23		100	%	80 - 120
			Total Beryllium (Be)	2025/08/23		105	%	80 - 120
C059340	KHU	LCS	Total Iron (Fe)	2025/08/22		107	%	80 - 120
			Total Lithium (Li)	2025/08/22		97	%	80 - 120
			Total Magnesium (Mg)	2025/08/22		105	%	80 - 120
			Total Manganese (Mn)	2025/08/22		110	%	80 - 120
			Total Potassium (K)	2025/08/22		98	%	80 - 120
			Total Sodium (Na)	2025/08/22		102	%	80 - 120

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Strontium (Sr)	2025/08/22		102	%	80 - 120
			Total Sulphur (S)	2025/08/22		97	%	80 - 120
			Total Phosphorus (P)	2025/08/22		110	%	80 - 120
			Total Barium (Ba)	2025/08/22		105	%	80 - 120
			Total Silicon (Si)	2025/08/22		109	%	80 - 120
			Total Boron (B)	2025/08/22		103	%	80 - 120
			Total Calcium (Ca)	2025/08/22		95	%	80 - 120
C059563	SNA	LCS	1,4-Difluorobenzene (sur.)	2025/08/25		110	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/25		97	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/25		106	%	50 - 140
			Benzene	2025/08/25		91	%	60 - 130
			Toluene	2025/08/25		96	%	60 - 130
			Ethylbenzene	2025/08/25		85	%	60 - 130
			m & p-Xylene	2025/08/25		86	%	60 - 130
			o-Xylene	2025/08/25		84	%	60 - 130
			F1 (C6-C10)	2025/08/25		96	%	60 - 140
C060315	VSC	LCS	Dissolved Iron (Fe)	2025/08/23		111	%	80 - 120
			Dissolved Lithium (Li)	2025/08/23		95	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/23		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/23		110	%	80 - 120
			Dissolved Potassium (K)	2025/08/23		97	%	80 - 120
			Dissolved Sodium (Na)	2025/08/23		93	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/23		100	%	80 - 120
			Dissolved Sulphur (S)	2025/08/23		110	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/23		111	%	80 - 120
			Dissolved Barium (Ba)	2025/08/23		102	%	80 - 120
			Dissolved Silicon (Si)	2025/08/23		101	%	80 - 120
			Dissolved Boron (B)	2025/08/23		102	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/23		93	%	80 - 120
C060686	ISW	LCS	Total Ammonia (N)	2025/08/24		106	%	80 - 120
C060687	ISW	LCS	Total Ammonia (N)	2025/08/24		103	%	80 - 120
C061165	JAB	LCS	Total Aluminum (Al)	2025/08/25		107	%	80 - 120
			Total Chromium (Cr)	2025/08/25		98	%	80 - 120
			Total Cobalt (Co)	2025/08/25		97	%	80 - 120
			Total Copper (Cu)	2025/08/25		98	%	80 - 120
			Total Lead (Pb)	2025/08/25		103	%	80 - 120
			Total Antimony (Sb)	2025/08/25		104	%	80 - 120
			Total Molybdenum (Mo)	2025/08/25		104	%	80 - 120
			Total Nickel (Ni)	2025/08/25		97	%	80 - 120
			Total Selenium (Se)	2025/08/25		102	%	80 - 120
			Total Silver (Ag)	2025/08/25		103	%	80 - 120
			Total Arsenic (As)	2025/08/25		103	%	80 - 120
			Total Thallium (Tl)	2025/08/25		112	%	80 - 120
			Total Tin (Sn)	2025/08/25		102	%	80 - 120
			Total Titanium (Ti)	2025/08/25		104	%	80 - 120
			Total Uranium (U)	2025/08/25		108	%	80 - 120
			Total Vanadium (V)	2025/08/25		97	%	80 - 120
			Total Zinc (Zn)	2025/08/25		99	%	80 - 120
			Total Beryllium (Be)	2025/08/25		109	%	80 - 120
C061178	BYM	LCS	Total Iron (Fe)	2025/08/25		116	%	80 - 120
			Total Lithium (Li)	2025/08/25		102	%	80 - 120
			Total Magnesium (Mg)	2025/08/25		107	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Manganese (Mn)	2025/08/25		111	%	80 - 120
			Total Potassium (K)	2025/08/25		106	%	80 - 120
			Total Sodium (Na)	2025/08/25		103	%	80 - 120
			Total Strontium (Sr)	2025/08/25		100	%	80 - 120
			Total Sulphur (S)	2025/08/25		91	%	80 - 120
			Total Phosphorus (P)	2025/08/25		103	%	80 - 120
			Total Barium (Ba)	2025/08/25		103	%	80 - 120
			Total Silicon (Si)	2025/08/25		101	%	80 - 120
			Total Boron (B)	2025/08/25		106	%	80 - 120
			Total Calcium (Ca)	2025/08/25		102	%	80 - 120
C062360	HE1	LCS	Total Suspended Solids	2025/08/26		97	%	80 - 120
C062390	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/26		101	%	80 - 120
C062424	TJ4	LCS	Total Organic Carbon (C)	2025/08/26		98	%	80 - 120
C062658	CT6	LCS	Turbidity	2025/08/26		100	%	80 - 120
C057078	YL7	SRM	Total Nitrogen (N)	2025/08/21		106	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571439
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Janet Gao, B.Sc., QP, Supervisor, Organics

Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics

Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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VALIDATION SIGNATURE PAGE(CONT'D)

The analytical data and all QC contained in this report were reviewed and validated by:

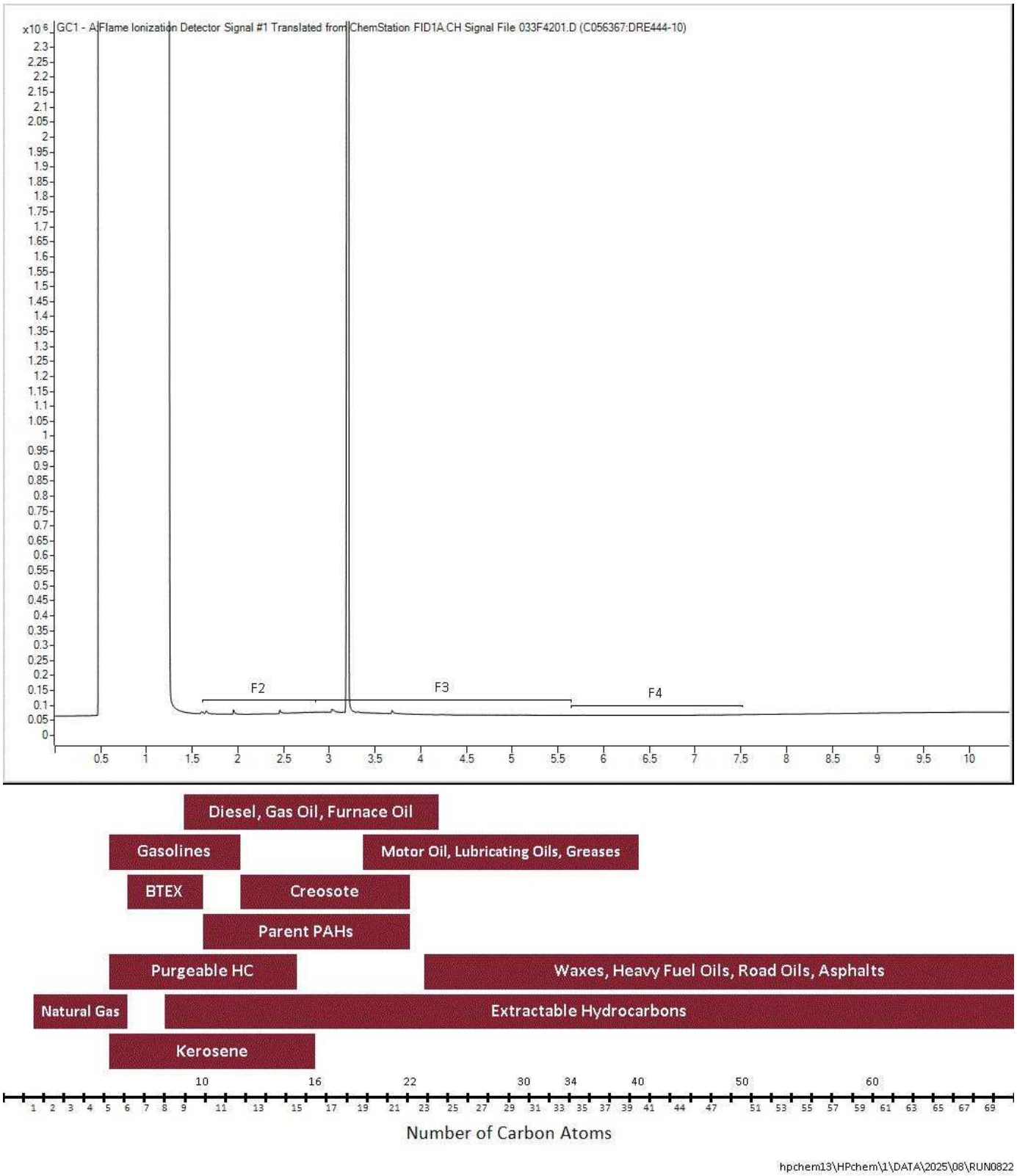
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571439
Report Date: 2025/08/26
Bureau Veritas Sample: DRE444

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DS-01

CCME Hydrocarbons (F2-F4 in water) Chromatogram

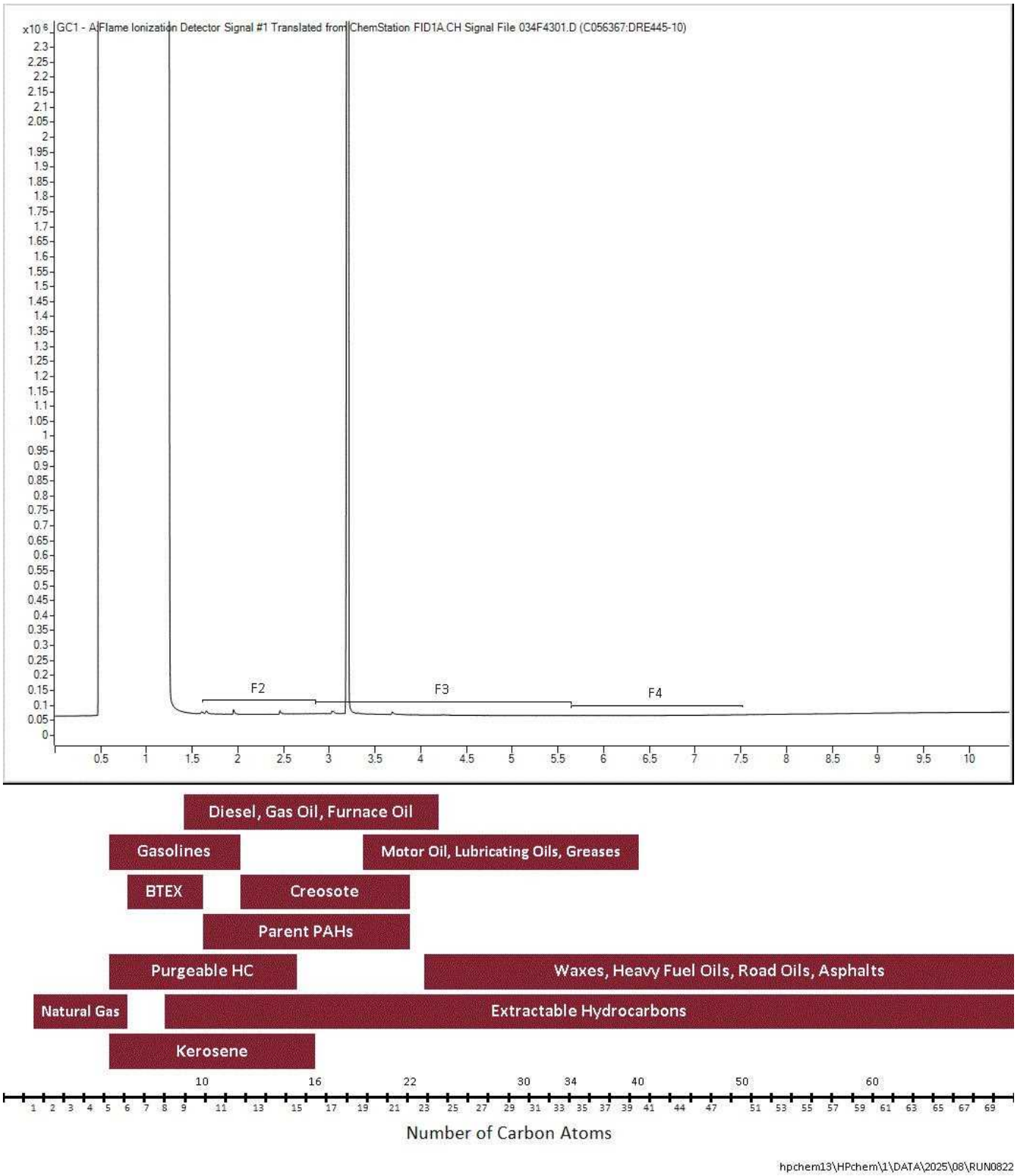


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571439
Report Date: 2025/08/26
Bureau Veritas Sample: DRE445

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DUP1

CCME Hydrocarbons (F2-F4 in water) Chromatogram

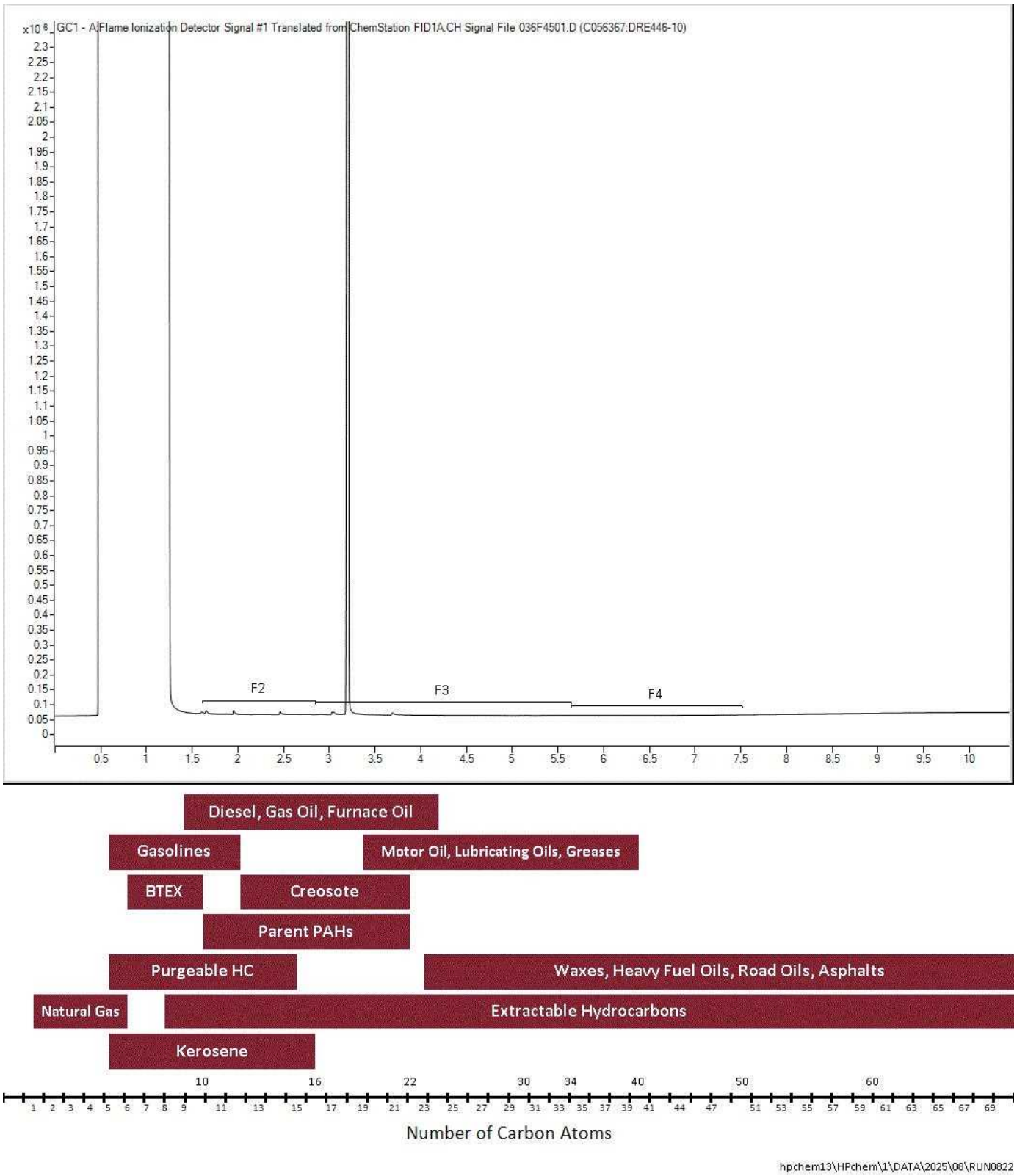


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571439
Report Date: 2025/08/26
Bureau Veritas Sample: DRE446

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DS-05

CCME Hydrocarbons (F2-F4 in water) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
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9331 - 48 Street, T6B 2R4
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Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 298636

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☑ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGWENBE / BRENDAN CHAPMAN	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS TOT ☒ DIS ☒	MERCURY TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, Turbidity	OIL and GREASE	TOC, DOC, SULPHIDE	NITRATE, NITRITE, AMMONIA (Total) TKN	ORTHOPHOSPHATE	SULPHUR - TOTAL + DISSOLVED	COD	TPH
1 AEMP-DS-01		X			16	2025/08/14	15:05	X			X	X	X						X	X					X			X	X	X	X	X	X	X	X
2 AEMP-DUP1		X			16	2025/08/14	15:08	X			X	X	X						X	X					X			X	X	X	X	X	X	X	X
3 AEMP-DS-05		X			16	2025/08/16	09:50	X			X		X						X	X					X			X	X	X	X	X	X	X	X
4																																				
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				

MCAL-2025-08-1373
C571439

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com calcal-IORdatatrack@worley.com stacy.gibb@worley.com
FES A26014361 Please include MU.

JARS USED & NOT SUBMITTED Enter N/A for Water: N/A

TURNAROUND TIME
Standard (5 days) ☑
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

	YES	NO	COOLER ID #				YES	NO	COOLER ID #				YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	0	0	1	SEAL PRESENT			TEMP °C			SEAL PRESENT			TEMP °C		
SEAL INTACT	✓			1	2	3	SEAL INTACT				1	2	3	SEAL INTACT			1	2	3
COOLING MEDIA PRESENT	✓						COOLING MEDIA PRESENT							COOLING MEDIA PRESENT					

LAB USE ONLY
MAXXAM JOB # C571439

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	TINO NGWENBE	2025/08/17	10:00	1.	JASON BIL	2025/08/19	1500
2.				2.			
3.				3.			

SAMPLES
LABELED BY: EPL
VERIFIED BY: SIC

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298634

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702849
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571470
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
Send Part to Archive	3		
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	3	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons (F2-F4 in water) (2)	3	AB SOP-00037	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298634

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702849
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571470
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	3	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Bureau Veritas - Partial/Rush Results

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298634

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702849
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571470
Received: 2025/08/19, 15:00

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
26 Aug 2025 16:17:31

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE566	DRE567	DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35	2025/08/16 11:40		
COC Number		298634	298634	298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**AEMP-DS-09**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056367
F3 (C16-C34 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056367
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	<0.20	<0.20	0.20	C056367
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056186
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056186
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056186
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C056186
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056186
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C055564
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C055564
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C056186
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	97	98	100		C056367
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	104	105	103		C056186
4-Bromofluorobenzene (sur.)	%	102	102	100		C056186
D4-1,2-Dichloroethane (sur.)	%	104	104	97		C056186
RDL = Reportable Detection Limit						

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571470
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRE566	DRE567	DRE568			DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35	2025/08/16 11:40			2025/08/16 11:40		
COC Number		298634	298634	298634			298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**AEMP-DS-09**	**RDL**	**QC Batch**	**AEMP-DS-09 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters									
Nitrate (N)	mg/L	0.060	0.063	0.063	0.040	C055725			
Nitrate (NO3)	mg/L	0.27	0.28	0.28	0.18	C055593			
Nitrite (NO2)	mg/L	<0.13	<0.13	<0.13	0.13	C055593			
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	0.21	<0.20	0.20	C055228			
Nutrients									
Nitrite (N)	mg/L	<0.040	<0.040	<0.040	0.040	C056589			
Nitrate plus Nitrite (N)	mg/L	0.060	0.063	0.063	0.040	C056589			
Total Nitrogen (N)	mg/L	0.23 (1)	0.27 (1)	0.24 (1)	0.20	C058633	0.30	0.20	C058633

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE566		DRE567		DRE568		
Sampling Date		2025/08/16 12:45		2025/08/16 10:35		2025/08/16 11:40		
COC Number		298634		298634		298634		
	UNITS	**AEMP-DS-03**	**RDL**	**AEMP-DS-08**	**RDL**	**AEMP-DS-09**	**RDL**	**QC Batch**
Elements								
Total Cadmium (Cd)	mg/L	0.00022	0.000020	0.00023	0.000020	0.00023	0.000020	C055569
Total Mercury (Hg)	ug/L	0.010	0.0019	0.025 (1)	0.0038	0.012	0.0019	C057584
Total Aluminum (Al)	mg/L	4.6	0.0030	5.1	0.0030	4.9	0.0030	C059534
Total Antimony (Sb)	mg/L	<0.00060	0.00060	<0.00060	0.00060	<0.00060	0.00060	C059534
Total Arsenic (As)	mg/L	0.0032	0.00020	0.0042	0.00020	0.0036	0.00020	C059534
Total Barium (Ba)	mg/L	0.13	0.010	0.15	0.010	0.14	0.010	C059542
Total Beryllium (Be)	mg/L	<0.0010	0.0010	<0.0010	0.0010	<0.0010	0.0010	C059534
Total Boron (B)	mg/L	<0.020	0.020	<0.020	0.020	<0.020	0.020	C059542
Total Calcium (Ca)	mg/L	56	0.30	63	0.30	60	0.30	C059542
Total Chromium (Cr)	mg/L	0.0073	0.0010	0.0083	0.0010	0.0074	0.0010	C059534
Total Cobalt (Co)	mg/L	0.0045	0.00030	0.0054	0.00030	0.0050	0.00030	C059534
Total Copper (Cu)	mg/L	0.0091	0.0010	0.011	0.0010	0.010	0.0010	C059534
Total Iron (Fe)	mg/L	9.0	0.060	11	0.060	10	0.060	C059542
Total Lead (Pb)	mg/L	0.0039	0.00020	0.0050	0.00020	0.0044	0.00020	C059534
Total Lithium (Li)	mg/L	<0.020	0.020	<0.020	0.020	<0.020	0.020	C059542
Total Magnesium (Mg)	mg/L	18	0.20	20	0.20	19	0.20	C059542
Total Manganese (Mn)	mg/L	0.16	0.0040	0.21	0.0040	0.18	0.0040	C059542
Total Molybdenum (Mo)	mg/L	0.0017	0.00020	0.0019	0.00020	0.0018	0.00020	C059534
Total Nickel (Ni)	mg/L	0.014	0.00050	0.017	0.00050	0.016	0.00050	C059534
Total Phosphorus (P)	mg/L	0.16	0.10	0.22	0.10	0.16	0.10	C059542
Total Potassium (K)	mg/L	2.2	0.30	2.2	0.30	2.2	0.30	C059542
Total Selenium (Se)	mg/L	0.00070	0.00020	0.00065	0.00020	0.00077	0.00020	C059534
Total Silicon (Si)	mg/L	6.7	0.50	7.2	0.50	7.0	0.50	C059542
Total Silver (Ag)	mg/L	<0.00010	0.00010	<0.00010	0.00010	<0.00010	0.00010	C059534
Total Sodium (Na)	mg/L	7.1	0.50	7.2	0.50	7.1	0.50	C059542
Total Strontium (Sr)	mg/L	0.30	0.020	0.28	0.020	0.31	0.020	C059542
Total Sulphur (S)	mg/L	20	0.20	17	0.20	21	0.20	C059542
Total Thallium (Tl)	mg/L	<0.00020	0.00020	<0.00020	0.00020	<0.00020	0.00020	C059534
Total Tin (Sn)	mg/L	<0.0010	0.0010	<0.0010	0.0010	<0.0010	0.0010	C059534
Total Titanium (Ti)	mg/L	0.036	0.0010	0.041	0.0010	0.038	0.0010	C059534

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571470
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE566		DRE567		DRE568		
Sampling Date		2025/08/16 12:45		2025/08/16 10:35		2025/08/16 11:40		
COC Number		298634		298634		298634		
	UNITS	**AEMP-DS-03**	**RDL**	**AEMP-DS-08**	**RDL**	**AEMP-DS-09**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L	0.0014	0.00010	0.0014	0.00010	0.0014	0.00010	C059534
Total Vanadium (V)	mg/L	0.011	0.0010	0.013	0.0010	0.012	0.0010	C059534
Total Zinc (Zn)	mg/L	0.076	0.0030	0.078	0.0030	0.077	0.0030	C059534
RDL = Reportable Detection Limit								

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571470
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE566			DRE566			DRE567		
Sampling Date		2025/08/16 12:45			2025/08/16 12:45			2025/08/16 10:35		
COC Number		298634			298634			298634		
	UNITS	**AEMP-DS-03**	**RDL**	**QC Batch**	**AEMP-DS-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-08**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	170	0.50	C055583				150	0.50	C055583
Ion Balance (% Difference)	%	1.0	N/A	C055587				0.14	N/A	C055587
Sulphide (as H2S)	mg/L	0.011	0.0020	C055332				0.011	0.0020	C055332
Demand Parameters										
Chemical Oxygen Demand	mg/L	36	10	C058717	39	10	C058717	37	10	C058717
Elements										
Dissolved Cadmium (Cd)	mg/L	0.000024	0.000020	C055566				<0.000020	0.000020	C055566
Misc. Inorganics										
Conductivity	uS/cm	330	2.0	C057850				300	2.0	C057850
Dissolved Organic Carbon (C)	mg/L	3.8	0.50	C061610						
pH	pH	7.40	N/A	C057848				7.32	N/A	C057848
Total Organic Carbon (C)	mg/L	3.1	0.50	C062424	3.1	0.50	C062424			
Total Dissolved Solids	mg/L	200	10	C057040				160	10	C057040
Total Suspended Solids	mg/L	230	1.0	C057077				510 (1)	1.5	C057077
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Alkalinity (Total as CaCO3)	mg/L	110	1.0	C057849				100	1.0	C057849
Bicarbonate (HCO3)	mg/L	130	1.0	C057849				130	1.0	C057849
Carbonate (CO3)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Hydroxide (OH)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Total Sulphide	mg/L	0.010	0.0018	C058130				0.011	0.0018	C058130
Chloride (Cl)	mg/L	6.1	1.0	C056706				6.6	1.0	C056706
Sulphate (SO4)	mg/L	58	1.0	C056706				47	1.0	C056706
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C061141				0.025	0.015	C061141
Orthophosphate (P)	mg/L	<0.0030	0.0030	C057450				<0.0030	0.0030	C057450
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C056531				<2.0	2.0	C056531

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Detection limit raised based on sample volume used for analysis.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571470
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE566			DRE566			DRE567		
Sampling Date		2025/08/16 12:45			2025/08/16 12:45			2025/08/16 10:35		
COC Number		298634			298634			298634		
	UNITS	**AEMP-DS-03**	**RDL**	**QC Batch**	**AEMP-DS-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-08**	**RDL**	**QC Batch**
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617				<2.0	2.0	C056617
Physical Properties										
True Colour	PtCo units	8.7	2.0	C055918				9.7	2.0	C055918
Physical Properties										
Turbidity	NTU	220	0.10	C056145				260	0.10	C056145

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE568		
Sampling Date		2025/08/16 11:40		
COC Number		298634		
	UNITS	**AEMP-DS-09**	**RDL**	**QC Batch**
Calculated Parameters				
Hardness (CaCO3)	mg/L	170	0.50	C055583
Ion Balance (% Difference)	%	2.8	N/A	C055587
Sulphide (as H2S)	mg/L	0.035	0.0020	C055332
Demand Parameters				
Chemical Oxygen Demand	mg/L	62	10	C058717
Elements				
Dissolved Cadmium (Cd)	mg/L	0.000042	0.000020	C055566
Misc. Inorganics				
Conductivity	uS/cm	340	2.0	C057850
pH	pH	7.42	N/A	C057848
Total Dissolved Solids	mg/L	200	10	C057040
Total Suspended Solids	mg/L	300 (1)	1.5	C057077
Anions				
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C057849
Alkalinity (Total as CaCO3)	mg/L	110	1.0	C057849
Bicarbonate (HCO3)	mg/L	130	1.0	C057849
Carbonate (CO3)	mg/L	<1.0	1.0	C057849
Hydroxide (OH)	mg/L	<1.0	1.0	C057849
Total Sulphide	mg/L	0.033	0.0018	C058130
Chloride (Cl)	mg/L	5.7	1.0	C056706
Sulphate (SO4)	mg/L	59	1.0	C056706
Nutrients				
Total Ammonia (N)	mg/L	<0.015	0.015	C061141
Orthophosphate (P)	mg/L	<0.0030	0.0030	C057450
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617
Physical Properties				
True Colour	PtCo units	8.7	2.0	C055918

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limit raised based on sample volume used for analysis.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571470
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE568		
Sampling Date		2025/08/16 11:40		
COC Number		298634		
	UNITS	**AEMP-DS-09**	**RDL**	**QC Batch**
Physical Properties				
Turbidity	NTU	260	0.10	C056145
RDL = Reportable Detection Limit				

Bureau Veritas - Partial/Rush Results

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRE566	DRE567	DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35	2025/08/16 11:40		
COC Number		298634	298634	298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**AEMP-DS-09**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C055598
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C056360
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C056360
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C056360
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	100	101	101		C056360
D8-ACENAPHTHYLENE (sur.)	%	106	105	103		C056360
D8-NAPHTHALENE (sur.)	%	81	80	73		C056360
TERPHENYL-D14 (sur.)	%	95	97	97		C056360
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRE566	DRE567	DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35	2025/08/16 11:40		
COC Number		298634	298634	298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**AEMP-DS-09**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	0.0019	C057726
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE566	DRE567		DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35		2025/08/16 11:40		
COC Number		298634	298634		298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**QC Batch**	**AEMP-DS-09**	**RDL**	**QC Batch**
Elements							
Dissolved Aluminum (Al)	mg/L	0.072	0.056	C058493	0.068	0.0030	C058408
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	C058493	<0.00060	0.00060	C058408
Dissolved Arsenic (As)	mg/L	<0.00020	<0.00020	C058493	0.00038	0.00020	C058408
Dissolved Barium (Ba)	mg/L	0.051	0.046	C060647	0.054	0.010	C060647
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Boron (B)	mg/L	<0.020	<0.020	C060647	<0.020	0.020	C060647
Dissolved Calcium (Ca)	mg/L	44	39	C060647	45	0.30	C060647
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	C058493	<0.00030	0.00030	C058408
Dissolved Copper (Cu)	mg/L	0.0013	0.0012	C058493	0.0014	0.0010	C058408
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	C060647	<0.060	0.060	C060647
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	C058493	<0.00020	0.00020	C058408
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	C060647	<0.020	0.020	C060647
Dissolved Magnesium (Mg)	mg/L	13	12	C060647	14	0.20	C060647
Dissolved Manganese (Mn)	mg/L	<0.0040	<0.0040	C060647	0.0041	0.0040	C060647
Dissolved Molybdenum (Mo)	mg/L	0.0012	0.0010	C058493	0.0013	0.00020	C058408
Dissolved Nickel (Ni)	mg/L	0.0011	0.00091	C058493	0.0012	0.00050	C058408
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	C060647	<0.10	0.10	C060647
Dissolved Potassium (K)	mg/L	0.94	0.94	C060647	0.93	0.30	C060647
Dissolved Selenium (Se)	mg/L	0.00041	0.00038	C058493	0.00054	0.00020	C058408
Dissolved Silicon (Si)	mg/L	1.8	1.7	C060647	1.8	0.50	C060647
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	C058493	<0.00010	0.00010	C058408
Dissolved Sodium (Na)	mg/L	7.2	7.4	C060647	7.3	0.50	C060647
Dissolved Strontium (Sr)	mg/L	0.30	0.26	C060647	0.29	0.020	C060647
Dissolved Sulphur (S)	mg/L	21	17	C060647	21	0.20	C060647
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	C058493	<0.00020	0.00020	C058408
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Uranium (U)	mg/L	0.00095	0.00084	C058493	0.0010	0.00010	C058408
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	C058493	<0.0030	0.0030	C058408
RDL = Reportable Detection Limit							

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE566
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056186	N/A	2025/08/25	Qiliang (Alex) Wu
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/24	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C056706	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Carbon (DOC)	TECH	C061610	N/A	2025/08/25	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/22	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059542	2025/08/22	2025/08/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059534	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C061141	N/A	2025/08/25	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/21	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C056589	N/A	2025/08/20	Adam Fishleigh
Nitrate (as N)	CALC	C055725	2025/08/21	2025/08/21	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C057450	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE566 Dup
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE566 Dup
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson

Bureau Veritas ID: DRE567
Sample ID: AEMP-DS-08
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056186	N/A	2025/08/25	Qiliang (Alex) Wu
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/24	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C056706	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/22	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059542	2025/08/22	2025/08/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059534	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C061141	N/A	2025/08/25	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/21	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C056589	N/A	2025/08/20	Adam Fishleigh
Nitrate (as N)	CALC	C055725	2025/08/21	2025/08/21	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C057450	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE568
Sample ID: AEMP-DS-09
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056186	N/A	2025/08/25	Qiliang (Alex) Wu
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/23	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/24	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C056706	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/23	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059542	2025/08/22	2025/08/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C058408	N/A	2025/08/22	Kevin Huang
Elements by ICPMS - Total	ICPM	C059534	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C061141	N/A	2025/08/25	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/21	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C056589	N/A	2025/08/20	Adam Fishleigh
Nitrate (as N)	CALC	C055725	2025/08/21	2025/08/21	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C057450	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE568 Dup
Sample ID: AEMP-DS-09
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.3°C

Sample DRE566 [AEMP-DS-03] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Sample DRE567 [AEMP-DS-08] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Sample DRE568 [AEMP-DS-09] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Results relate only to the items tested.

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C055918	KKC	Method Blank	True Colour	2025/08/20	<2.0		PtCo units	
C056145	DSX	Method Blank	Turbidity	2025/08/20	<0.10		NTU	
C056186	QW1	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/25		105	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/25		100	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/25		104	%	50 - 140
			Benzene	2025/08/25	<0.00040		mg/L	
			Toluene	2025/08/25	<0.00040		mg/L	
			Ethylbenzene	2025/08/25	<0.00040		mg/L	
			m & p-Xylene	2025/08/25	<0.00080		mg/L	
			o-Xylene	2025/08/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/25	<0.10		mg/L	
C056360	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/08/23		83	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/23		78	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/23		78	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/23		54	%	50 - 130
			Acenaphthene	2025/08/23	<0.00010		mg/L	
			Acenaphthylene	2025/08/23	<0.00010		mg/L	
			Acridine	2025/08/23	<0.000040		mg/L	
			Anthracene	2025/08/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/23	<0.000050		mg/L	
			Chrysene	2025/08/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/23	<0.0000075		mg/L	
			Fluoranthene	2025/08/23	<0.000010		mg/L	
			Fluorene	2025/08/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			Naphthalene	2025/08/23	<0.00010		mg/L	
			Phenanthrene	2025/08/23	<0.000050		mg/L	
			Perylene	2025/08/23	<0.000050		mg/L	
			Pyrene	2025/08/23	<0.000020		mg/L	
			Quinoline	2025/08/23	<0.00020		mg/L	
C056367	AAX	Method Blank	O-TERPHENYL (sur.)	2025/08/22		97	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F3 (C16-C34 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F4 (C34-C50 Hydrocarbons)	2025/08/22	<0.20		mg/L	
C056531	RRA	Method Blank	Oil and grease	2025/08/25	<2.0		mg/L	
C056589	AFI	Method Blank	Nitrite (N)	2025/08/20	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/20	<0.040		mg/L	
C056617	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/25	<2.0		mg/L	
C056706	TOR	Method Blank	Chloride (Cl)	2025/08/20	<1.0		mg/L	
			Sulphate (SO4)	2025/08/20	<1.0		mg/L	
C057040	TNY	Method Blank	Total Dissolved Solids	2025/08/22	<10		mg/L	
C057077	HE1	Method Blank	Total Suspended Solids	2025/08/22	<1.0		mg/L	
C057450	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C057584	KKM	Method Blank	Total Mercury (Hg)	2025/08/21	<0.0019		ug/L	

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C057726	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057849	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/22	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/22	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/22	<1.0		mg/L	
			Carbonate (CO3)	2025/08/22	<1.0		mg/L	
			Hydroxide (OH)	2025/08/22	<1.0		mg/L	
C057850	AYE	Method Blank	Conductivity	2025/08/22	<2.0		uS/cm	
C058130	IDV	Method Blank	Total Sulphide	2025/08/23	<0.0018		mg/L	
C058408	KH2	Method Blank	Dissolved Aluminum (Al)	2025/08/22	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/22	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/22	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/22	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/22	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/22	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/22	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/22	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/22	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/22	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/22	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/22	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/22	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/22	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/22	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/22	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/22	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/22	<0.0010		mg/L	
C058493	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/22	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/22	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/22	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/22	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/22	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/22	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/22	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/22	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/22	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/22	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/22	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/22	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/22	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/22	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/22	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/22	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/22	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/22	<0.0010		mg/L	
C058633	YL7	Method Blank	Total Nitrogen (N)	2025/08/22	<0.020		mg/L	
C058717	AP1	Method Blank	Chemical Oxygen Demand	2025/08/22	<10		mg/L	
C059534	JAB	Method Blank	Total Aluminum (Al)	2025/08/23	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/23	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/23	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/23	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/23	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/23	<0.00060		mg/L	

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Molybdenum (Mo)	2025/08/23	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/23	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/23	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/23	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/23	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/23	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/23	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/23	<0.0010		mg/L	
			Total Uranium (U)	2025/08/23	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/23	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/23	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/23	<0.0010		mg/L	
C059542	VSC	Method Blank	Total Iron (Fe)	2025/08/24	<0.060		mg/L	
			Total Lithium (Li)	2025/08/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/24	<0.0040		mg/L	
			Total Potassium (K)	2025/08/24	<0.30		mg/L	
			Total Sodium (Na)	2025/08/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/24	<0.020		mg/L	
			Total Sulphur (S)	2025/08/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/24	<0.10		mg/L	
			Total Barium (Ba)	2025/08/24	<0.010		mg/L	
			Total Silicon (Si)	2025/08/24	<0.50		mg/L	
			Total Boron (B)	2025/08/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/24	<0.30		mg/L	
C060647	BYM	Method Blank	Dissolved Iron (Fe)	2025/08/24	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/24	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/24	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/24	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/24	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/24	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/24	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/24	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/24	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/24	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/24	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/24	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/24	<0.30		mg/L	
C061141	ISW	Method Blank	Total Ammonia (N)	2025/08/25	<0.015		mg/L	
C061610	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/25	<0.50		mg/L	
C062424	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C058717	AP1	RPD [DRE566-05]	Chemical Oxygen Demand	2025/08/22	8.2		%	20
C062424	TJ4	RPD [DRE566-05]	Total Organic Carbon (C)	2025/08/26	0.92		%	20
C058633	YL7	RPD [DRE568-05]	Total Nitrogen (N)	2025/08/22	NC		%	20
C058633	YL7	Matrix Spike [DRE568-05]	Total Nitrogen (N)	2025/08/22		111	%	80 - 120
C058717	AP1	Matrix Spike [DRE566-05]	Chemical Oxygen Demand	2025/08/22		114	%	80 - 120
C062424	TJ4	Matrix Spike [DRE566-05]	Total Organic Carbon (C)	2025/08/26		101	%	75 - 125
C055918	KKC	LCS	True Colour	2025/08/20		91	%	80 - 120
C056145	DSX	LCS	Turbidity	2025/08/20		100	%	80 - 120
C056186	QW1	LCS	1,4-Difluorobenzene (sur.)	2025/08/25		103	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/25		100	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/25		106	%	50 - 140

Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzene	2025/08/25		83	%	60 - 130
			Toluene	2025/08/25		81	%	60 - 130
			Ethylbenzene	2025/08/25		82	%	60 - 130
			m & p-Xylene	2025/08/25		80	%	60 - 130
			o-Xylene	2025/08/25		80	%	60 - 130
			F1 (C6-C10)	2025/08/25		101	%	60 - 140
C056360	JU2	LCS	D10-ANTHRACENE (sur.)	2025/08/22		102	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		102	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		113	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		87	%	50 - 130
			Acenaphthene	2025/08/22		71	%	50 - 130
			Acenaphthylene	2025/08/22		93	%	50 - 130
			Acridine	2025/08/22		90	%	50 - 130
			Anthracene	2025/08/22		85	%	50 - 130
			Benzo(a)anthracene	2025/08/22		89	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/22		88	%	50 - 130
			Benzo(k)fluoranthene	2025/08/22		103	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/22		84	%	50 - 130
			Benzo(c)phenanthrene	2025/08/22		95	%	50 - 130
			Benzo(a)pyrene	2025/08/22		89	%	50 - 130
			Benzo(e)pyrene	2025/08/22		83	%	50 - 130
			Chrysene	2025/08/22		90	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/22		86	%	50 - 130
			Fluoranthene	2025/08/22		92	%	50 - 130
			Fluorene	2025/08/22		86	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/22		85	%	50 - 130
			1-Methylnaphthalene	2025/08/22		60	%	50 - 130
			2-Methylnaphthalene	2025/08/22		64	%	50 - 130
			Naphthalene	2025/08/22		76	%	50 - 130
			Phenanthrene	2025/08/22		82	%	50 - 130
			Perylene	2025/08/22		83	%	50 - 130
			Pyrene	2025/08/22		92	%	50 - 130
			Quinoline	2025/08/22		96	%	50 - 130
C056367	AAX	LCS	O-TERPHENYL (sur.)	2025/08/22		103	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22		91	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2025/08/22		100	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2025/08/22		92	%	60 - 140
C056531	RRA	LCS	Oil and grease	2025/08/25		96	%	70 - 130
C056589	AFI	LCS	Nitrite (N)	2025/08/20		101	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/20		100	%	80 - 120
C056617	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/25		95	%	70 - 130
C056706	TOR	LCS	Chloride (Cl)	2025/08/20		105	%	80 - 120
			Sulphate (SO4)	2025/08/20		100	%	80 - 120
C057040	TNY	LCS	Total Dissolved Solids	2025/08/22		94	%	80 - 120
C057077	HE1	LCS	Total Suspended Solids	2025/08/22		95	%	80 - 120
C057450	AFI	LCS	Orthophosphate (P)	2025/08/21		98	%	80 - 120
C057584	KKM	LCS	Total Mercury (Hg)	2025/08/21		102	%	80 - 120
C057726	KKM	LCS	Dissolved Mercury (Hg)	2025/08/21		100	%	80 - 120
C057848	AYE	LCS	pH	2025/08/22		100	%	97 - 103
C057849	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/22		98	%	80 - 120
C057850	AYE	LCS	Conductivity	2025/08/22		102	%	90 - 110
C058130	IDV	LCS	Total Sulphide	2025/08/23		93	%	80 - 120

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C058408	KH2	LCS	Dissolved Aluminum (Al)	2025/08/22		104	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/22		97	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/22		96	%	80 - 120
			Dissolved Copper (Cu)	2025/08/22		98	%	80 - 120
			Dissolved Lead (Pb)	2025/08/22		97	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/22		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/22		100	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/22		97	%	80 - 120
			Dissolved Selenium (Se)	2025/08/22		103	%	80 - 120
			Dissolved Silver (Ag)	2025/08/22		96	%	80 - 120
			Dissolved Arsenic (As)	2025/08/22		102	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/22		100	%	80 - 120
			Dissolved Tin (Sn)	2025/08/22		100	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/22		100	%	80 - 120
			Dissolved Uranium (U)	2025/08/22		99	%	80 - 120
			Dissolved Vanadium (V)	2025/08/22		98	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/22		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/22		97	%	80 - 120
C058493	JAB	LCS	Dissolved Aluminum (Al)	2025/08/22		112	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/22		98	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/22		100	%	80 - 120
			Dissolved Copper (Cu)	2025/08/22		102	%	80 - 120
			Dissolved Lead (Pb)	2025/08/22		98	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/22		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/22		101	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/22		97	%	80 - 120
			Dissolved Selenium (Se)	2025/08/22		100	%	80 - 120
			Dissolved Silver (Ag)	2025/08/22		98	%	80 - 120
			Dissolved Arsenic (As)	2025/08/22		99	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/22		101	%	80 - 120
			Dissolved Tin (Sn)	2025/08/22		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/22		103	%	80 - 120
			Dissolved Uranium (U)	2025/08/22		95	%	80 - 120
			Dissolved Vanadium (V)	2025/08/22		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/22		95	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/22		104	%	80 - 120
C058633	YL7	LCS	Total Nitrogen (N)	2025/08/22		100	%	80 - 120
C058717	AP1	LCS	Chemical Oxygen Demand	2025/08/22		101	%	80 - 120
C059534	JAB	LCS	Total Aluminum (Al)	2025/08/23		107	%	80 - 120
			Total Chromium (Cr)	2025/08/23		102	%	80 - 120
			Total Cobalt (Co)	2025/08/23		101	%	80 - 120
			Total Copper (Cu)	2025/08/23		100	%	80 - 120
			Total Lead (Pb)	2025/08/23		103	%	80 - 120
			Total Antimony (Sb)	2025/08/23		112	%	80 - 120
			Total Molybdenum (Mo)	2025/08/23		109	%	80 - 120
			Total Nickel (Ni)	2025/08/23		100	%	80 - 120
			Total Selenium (Se)	2025/08/23		106	%	80 - 120
			Total Silver (Ag)	2025/08/23		107	%	80 - 120
			Total Arsenic (As)	2025/08/23		103	%	80 - 120
			Total Thallium (Tl)	2025/08/23		105	%	80 - 120
			Total Tin (Sn)	2025/08/23		109	%	80 - 120
			Total Titanium (Ti)	2025/08/23		108	%	80 - 120

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Uranium (U)	2025/08/23		109	%	80 - 120
			Total Vanadium (V)	2025/08/23		102	%	80 - 120
			Total Zinc (Zn)	2025/08/23		101	%	80 - 120
			Total Beryllium (Be)	2025/08/23		114	%	80 - 120
C059542	VSC	LCS	Total Iron (Fe)	2025/08/24		105	%	80 - 120
			Total Lithium (Li)	2025/08/24		105	%	80 - 120
			Total Magnesium (Mg)	2025/08/24		107	%	80 - 120
			Total Manganese (Mn)	2025/08/24		102	%	80 - 120
			Total Potassium (K)	2025/08/24		101	%	80 - 120
			Total Sodium (Na)	2025/08/24		102	%	80 - 120
			Total Strontium (Sr)	2025/08/24		99	%	80 - 120
			Total Sulphur (S)	2025/08/24		94	%	80 - 120
			Total Phosphorus (P)	2025/08/24		107	%	80 - 120
			Total Barium (Ba)	2025/08/24		104	%	80 - 120
			Total Silicon (Si)	2025/08/24		103	%	80 - 120
			Total Boron (B)	2025/08/24		105	%	80 - 120
			Total Calcium (Ca)	2025/08/24		103	%	80 - 120
C060647	BYM	LCS	Dissolved Iron (Fe)	2025/08/24		99	%	80 - 120
			Dissolved Lithium (Li)	2025/08/24		100	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/24		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/24		94	%	80 - 120
			Dissolved Potassium (K)	2025/08/24		106	%	80 - 120
			Dissolved Sodium (Na)	2025/08/24		101	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/24		98	%	80 - 120
			Dissolved Sulphur (S)	2025/08/24		101	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/24		102	%	80 - 120
			Dissolved Barium (Ba)	2025/08/24		99	%	80 - 120
			Dissolved Silicon (Si)	2025/08/24		96	%	80 - 120
			Dissolved Boron (B)	2025/08/24		100	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/24		102	%	80 - 120
C061141	ISW	LCS	Total Ammonia (N)	2025/08/25		103	%	80 - 120
C061610	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/25		100	%	80 - 120
C062424	TJ4	LCS	Total Organic Carbon (C)	2025/08/26		98	%	80 - 120
C058633	YL7	SRM	Total Nitrogen (N)	2025/08/22		108	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics

Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas - Partial/Rush Results

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Bureau Veritas - Partial/Rush Results

Maxxam
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EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 298634

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGUYEN / BRENDAN CHAPMAN	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, TURBIDITY	OIL and GREASE	TOC, DOC, SULPHIDE	NITRITE, NITRATE, AMMONIA (Global), TKN	ORTHOPHOSPHATE	SULPHUR - TOTAL + DISSOLVED	COD	TPH
1 AEMP-DS-03		X			16	2025/08/16	12:45	X			X	X	X						X	X					X			X	X	X	X	X	X	X	X
2 AEMP-DS-08		X			16	2025/08/16	10:35	X			X	X	X						X	X					X			X	X	X	X	X	X	X	X
3 AEMP-DS-09		X			16	2025/08/16	11:40	X			X	X	X						X	X					X			X	X	X	X	X	X	X	X
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

MCAL-2025-08-1371
C571470

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email. canada.chemistry@worley.com cacal-IOR.data.intake@worley.com stacy.gibb@worley@worley.com Please include IES A2601436 MU

JARS USED & NOT SUBMITTED Enter N/A for Water: N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	1	1	9
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

LAB USE ONLY
MAXXAM JOB # C571470

SAMPLES
LABELED BY: EPL
VERIFIED BY: SLC

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	TINO NGUYEN	2025/08/17	10:00	1.	JASON BIL	20250819	1500
2.				2.			
3.				3.			

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298634

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/27
Report #: R3703351
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571470
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
Send Part to Archive	3		
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	3	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons (F2-F4 in water) (2)	3	AB SOP-00037	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571470
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	3	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571470

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reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Jasbirjit Kaur
Customer Solutions Representative
27 Aug 2025 18:33:43

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C571470
Report Date: 2025/08/27

Advisian
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AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE566	DRE567	DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35	2025/08/16 11:40		
COC Number		298634	298634	298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**AEMP-DS-09**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056367
F3 (C16-C34 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C056367
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	<0.20	<0.20	0.20	C056367
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056186
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056186
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056186
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C056186
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C056186
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C055564
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C055564
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C056186
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	97	98	100		C056367
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	104	105	103		C056186
4-Bromofluorobenzene (sur.)	%	102	102	100		C056186
D4-1,2-Dichloroethane (sur.)	%	104	104	97		C056186
RDL = Reportable Detection Limit						

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TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRE566	DRE567	DRE568			DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35	2025/08/16 11:40			2025/08/16 11:40		
COC Number		298634	298634	298634			298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**AEMP-DS-09**	**RDL**	**QC Batch**	**AEMP-DS-09 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters									
Nitrate (N)	mg/L	0.060	0.063	0.063	0.040	C055725			
Nitrate (NO3)	mg/L	0.27	0.28	0.28	0.18	C055593			
Nitrite (NO2)	mg/L	<0.13	<0.13	<0.13	0.13	C055593			
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	0.21	<0.20	0.20	C055228			
Nutrients									
Nitrite (N)	mg/L	<0.040	<0.040	<0.040	0.040	C056589			
Nitrate plus Nitrite (N)	mg/L	0.060	0.063	0.063	0.040	C056589			
Total Nitrogen (N)	mg/L	0.23 (1)	0.27 (1)	0.24 (1)	0.20	C058633	0.30	0.20	C058633

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE566		DRE567		DRE568		
Sampling Date		2025/08/16 12:45		2025/08/16 10:35		2025/08/16 11:40		
COC Number		298634		298634		298634		
	UNITS	**AEMP-DS-03**	**RDL**	**AEMP-DS-08**	**RDL**	**AEMP-DS-09**	**RDL**	**QC Batch**
Elements								
Total Cadmium (Cd)	mg/L	0.00022	0.000020	0.00023	0.000020	0.00023	0.000020	C055569
Total Mercury (Hg)	ug/L	0.010	0.0019	0.025 (1)	0.0038	0.012	0.0019	C057584
Total Aluminum (Al)	mg/L	4.6	0.0030	5.1	0.0030	4.9	0.0030	C059534
Total Antimony (Sb)	mg/L	<0.00060	0.00060	<0.00060	0.00060	<0.00060	0.00060	C059534
Total Arsenic (As)	mg/L	0.0032	0.00020	0.0042	0.00020	0.0036	0.00020	C059534
Total Barium (Ba)	mg/L	0.13	0.010	0.15	0.010	0.14	0.010	C059542
Total Beryllium (Be)	mg/L	<0.0010	0.0010	<0.0010	0.0010	<0.0010	0.0010	C059534
Total Boron (B)	mg/L	<0.020	0.020	<0.020	0.020	<0.020	0.020	C059542
Total Calcium (Ca)	mg/L	56	0.30	63	0.30	60	0.30	C059542
Total Chromium (Cr)	mg/L	0.0073	0.0010	0.0083	0.0010	0.0074	0.0010	C059534
Total Cobalt (Co)	mg/L	0.0045	0.00030	0.0054	0.00030	0.0050	0.00030	C059534
Total Copper (Cu)	mg/L	0.0091	0.0010	0.011	0.0010	0.010	0.0010	C059534
Total Iron (Fe)	mg/L	9.0	0.060	11	0.060	10	0.060	C059542
Total Lead (Pb)	mg/L	0.0039	0.00020	0.0050	0.00020	0.0044	0.00020	C059534
Total Lithium (Li)	mg/L	<0.020	0.020	<0.020	0.020	<0.020	0.020	C059542
Total Magnesium (Mg)	mg/L	18	0.20	20	0.20	19	0.20	C059542
Total Manganese (Mn)	mg/L	0.16	0.0040	0.21	0.0040	0.18	0.0040	C059542
Total Molybdenum (Mo)	mg/L	0.0017	0.00020	0.0019	0.00020	0.0018	0.00020	C059534
Total Nickel (Ni)	mg/L	0.014	0.00050	0.017	0.00050	0.016	0.00050	C059534
Total Phosphorus (P)	mg/L	0.16	0.10	0.22	0.10	0.16	0.10	C059542
Total Potassium (K)	mg/L	2.2	0.30	2.2	0.30	2.2	0.30	C059542
Total Selenium (Se)	mg/L	0.00070	0.00020	0.00065	0.00020	0.00077	0.00020	C059534
Total Silicon (Si)	mg/L	6.7	0.50	7.2	0.50	7.0	0.50	C059542
Total Silver (Ag)	mg/L	<0.00010	0.00010	<0.00010	0.00010	<0.00010	0.00010	C059534
Total Sodium (Na)	mg/L	7.1	0.50	7.2	0.50	7.1	0.50	C059542
Total Strontium (Sr)	mg/L	0.30	0.020	0.28	0.020	0.31	0.020	C059542
Total Sulphur (S)	mg/L	20	0.20	17	0.20	21	0.20	C059542
Total Thallium (Tl)	mg/L	<0.00020	0.00020	<0.00020	0.00020	<0.00020	0.00020	C059534
Total Tin (Sn)	mg/L	<0.0010	0.0010	<0.0010	0.0010	<0.0010	0.0010	C059534
Total Titanium (Ti)	mg/L	0.036	0.0010	0.041	0.0010	0.038	0.0010	C059534

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C571470
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Advisian
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REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE566		DRE567		DRE568		
Sampling Date		2025/08/16 12:45		2025/08/16 10:35		2025/08/16 11:40		
COC Number		298634		298634		298634		
	UNITS	**AEMP-DS-03**	**RDL**	**AEMP-DS-08**	**RDL**	**AEMP-DS-09**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L	0.0014	0.00010	0.0014	0.00010	0.0014	0.00010	C059534
Total Vanadium (V)	mg/L	0.011	0.0010	0.013	0.0010	0.012	0.0010	C059534
Total Zinc (Zn)	mg/L	0.076	0.0030	0.078	0.0030	0.077	0.0030	C059534
RDL = Reportable Detection Limit								

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE566			DRE566			DRE567		
Sampling Date		2025/08/16 12:45			2025/08/16 12:45			2025/08/16 10:35		
COC Number		298634			298634			298634		
	UNITS	**AEMP-DS-03**	**RDL**	**QC Batch**	**AEMP-DS-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-08**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	170	0.50	C055583				150	0.50	C055583
Ion Balance (% Difference)	%	1.0	N/A	C055587				0.14	N/A	C055587
Sulphide (as H2S)	mg/L	0.011	0.0020	C055332				0.011	0.0020	C055332
Demand Parameters										
Chemical Oxygen Demand	mg/L	36	10	C058717	39	10	C058717	37	10	C058717
Elements										
Dissolved Cadmium (Cd)	mg/L	0.000024	0.000020	C055566				<0.000020	0.000020	C055566
Misc. Inorganics										
Conductivity	uS/cm	330	2.0	C057850				300	2.0	C057850
Dissolved Organic Carbon (C)	mg/L	3.8	0.50	C061610				4.6	0.50	C064358
pH	pH	7.40	N/A	C057848				7.32	N/A	C057848
Total Organic Carbon (C)	mg/L	3.1	0.50	C062424	3.1	0.50	C062424	3.4	0.50	C064028
Total Dissolved Solids	mg/L	200	10	C057040				160	10	C057040
Total Suspended Solids	mg/L	230	1.0	C057077				510 (1)	1.5	C057077
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Alkalinity (Total as CaCO3)	mg/L	110	1.0	C057849				100	1.0	C057849
Bicarbonate (HCO3)	mg/L	130	1.0	C057849				130	1.0	C057849
Carbonate (CO3)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Hydroxide (OH)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Total Sulphide	mg/L	0.010	0.0018	C058130				0.011	0.0018	C058130
Chloride (Cl)	mg/L	6.1	1.0	C056706				6.6	1.0	C056706
Sulphate (SO4)	mg/L	58	1.0	C056706				47	1.0	C056706
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C061141				0.025	0.015	C061141
Orthophosphate (P)	mg/L	<0.0030	0.0030	C057450				<0.0030	0.0030	C057450
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C056531				<2.0	2.0	C056531

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Detection limit raised based on sample volume used for analysis.

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE566			DRE566			DRE567		
Sampling Date		2025/08/16 12:45			2025/08/16 12:45			2025/08/16 10:35		
COC Number		298634			298634			298634		
	UNITS	**AEMP-DS-03**	**RDL**	**QC Batch**	**AEMP-DS-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-08**	**RDL**	**QC Batch**
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617				<2.0	2.0	C056617
Physical Properties										
True Colour	PtCo units	8.7	2.0	C055918				9.7	2.0	C055918
Physical Properties										
Turbidity	NTU	220	0.10	C056145				260	0.10	C056145

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE568			DRE568		
Sampling Date		2025/08/16 11:40			2025/08/16 11:40		
COC Number		298634			298634		
	UNITS	**AEMP-DS-09**	**RDL**	**QC Batch**	**AEMP-DS-09 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters							
Hardness (CaCO3)	mg/L	170	0.50	C055583			
Ion Balance (% Difference)	%	2.8	N/A	C055587			
Sulphide (as H2S)	mg/L	0.035	0.0020	C055332			
Demand Parameters							
Chemical Oxygen Demand	mg/L	62	10	C058717			
Elements							
Dissolved Cadmium (Cd)	mg/L	0.000042	0.000020	C055566			
Misc. Inorganics							
Conductivity	uS/cm	340	2.0	C057850			
Dissolved Organic Carbon (C)	mg/L	4.0	0.50	C064358	4.1	0.50	C064358
pH	pH	7.42	N/A	C057848			
Total Organic Carbon (C)	mg/L	3.6	0.50	C064028			
Total Dissolved Solids	mg/L	200	10	C057040			
Total Suspended Solids	mg/L	300 (1)	1.5	C057077			
Anions							
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C057849			
Alkalinity (Total as CaCO3)	mg/L	110	1.0	C057849			
Bicarbonate (HCO3)	mg/L	130	1.0	C057849			
Carbonate (CO3)	mg/L	<1.0	1.0	C057849			
Hydroxide (OH)	mg/L	<1.0	1.0	C057849			
Total Sulphide	mg/L	0.033	0.0018	C058130			
Chloride (Cl)	mg/L	5.7	1.0	C056706			
Sulphate (SO4)	mg/L	59	1.0	C056706			
Nutrients							
Total Ammonia (N)	mg/L	<0.015	0.015	C061141			
Orthophosphate (P)	mg/L	<0.0030	0.0030	C057450			
Misc. Organics							
Oil and grease	mg/L	<2.0	2.0	C056531			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Detection limit raised based on sample volume used for analysis.

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Bureau Veritas Job #: C571470
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE568			DRE568		
Sampling Date		2025/08/16 11:40			2025/08/16 11:40		
COC Number		298634			298634		
	UNITS	**AEMP-DS-09**	**RDL**	**QC Batch**	**AEMP-DS-09 Lab-Dup**	**RDL**	**QC Batch**
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617			
Physical Properties							
True Colour	PtCo units	8.7	2.0	C055918			
Physical Properties							
Turbidity	NTU	260	0.10	C056145			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Advisian
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Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRE566	DRE567	DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35	2025/08/16 11:40		
COC Number		298634	298634	298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**AEMP-DS-09**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C055598
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C056360
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C056360
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C056360
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	100	101	101		C056360
D8-ACENAPHTHYLENE (sur.)	%	106	105	103		C056360
D8-NAPHTHALENE (sur.)	%	81	80	73		C056360
TERPHENYL-D14 (sur.)	%	95	97	97		C056360

RDL = Reportable Detection Limit

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Bureau Veritas Job #: C571470
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRE566	DRE567	DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35	2025/08/16 11:40		
COC Number		298634	298634	298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**AEMP-DS-09**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	0.0019	C057726
RDL = Reportable Detection Limit						

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE566	DRE567		DRE568		
Sampling Date		2025/08/16 12:45	2025/08/16 10:35		2025/08/16 11:40		
COC Number		298634	298634		298634		
	UNITS	**AEMP-DS-03**	**AEMP-DS-08**	**QC Batch**	**AEMP-DS-09**	**RDL**	**QC Batch**
Elements							
Dissolved Aluminum (Al)	mg/L	0.072	0.056	C058493	0.068	0.0030	C058408
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	C058493	<0.00060	0.00060	C058408
Dissolved Arsenic (As)	mg/L	<0.00020	<0.00020	C058493	0.00038	0.00020	C058408
Dissolved Barium (Ba)	mg/L	0.051	0.046	C060647	0.054	0.010	C060647
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Boron (B)	mg/L	<0.020	<0.020	C060647	<0.020	0.020	C060647
Dissolved Calcium (Ca)	mg/L	44	39	C060647	45	0.30	C060647
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	C058493	<0.00030	0.00030	C058408
Dissolved Copper (Cu)	mg/L	0.0013	0.0012	C058493	0.0014	0.0010	C058408
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	C060647	<0.060	0.060	C060647
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	C058493	<0.00020	0.00020	C058408
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	C060647	<0.020	0.020	C060647
Dissolved Magnesium (Mg)	mg/L	13	12	C060647	14	0.20	C060647
Dissolved Manganese (Mn)	mg/L	<0.0040	<0.0040	C060647	0.0041	0.0040	C060647
Dissolved Molybdenum (Mo)	mg/L	0.0012	0.0010	C058493	0.0013	0.00020	C058408
Dissolved Nickel (Ni)	mg/L	0.0011	0.00091	C058493	0.0012	0.00050	C058408
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	C060647	<0.10	0.10	C060647
Dissolved Potassium (K)	mg/L	0.94	0.94	C060647	0.93	0.30	C060647
Dissolved Selenium (Se)	mg/L	0.00041	0.00038	C058493	0.00054	0.00020	C058408
Dissolved Silicon (Si)	mg/L	1.8	1.7	C060647	1.8	0.50	C060647
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	C058493	<0.00010	0.00010	C058408
Dissolved Sodium (Na)	mg/L	7.2	7.4	C060647	7.3	0.50	C060647
Dissolved Strontium (Sr)	mg/L	0.30	0.26	C060647	0.29	0.020	C060647
Dissolved Sulphur (S)	mg/L	21	17	C060647	21	0.20	C060647
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	C058493	<0.00020	0.00020	C058408
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Uranium (U)	mg/L	0.00095	0.00084	C058493	0.0010	0.00010	C058408
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	C058493	<0.0010	0.0010	C058408
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	C058493	<0.0030	0.0030	C058408
RDL = Reportable Detection Limit							

Bureau Veritas Job #: C571470
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE566
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056186	N/A	2025/08/25	Qiliang (Alex) Wu
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/24	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C056706	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Carbon (DOC)	TECH	C061610	N/A	2025/08/25	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/22	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059542	2025/08/22	2025/08/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059534	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C061141	N/A	2025/08/25	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/21	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C056589	N/A	2025/08/20	Adam Fishleigh
Nitrate (as N)	CALC	C055725	2025/08/21	2025/08/21	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C057450	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE566 Dup
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan

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Bureau Veritas Job #: C571470
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE566 Dup
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson

Bureau Veritas ID: DRE567
Sample ID: AEMP-DS-08
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056186	N/A	2025/08/25	Qiliang (Alex) Wu
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/24	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C056706	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Carbon (DOC)	TECH	C064358	N/A	2025/08/27	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/22	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059542	2025/08/22	2025/08/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059534	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C061141	N/A	2025/08/25	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/21	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C056589	N/A	2025/08/20	Adam Fishleigh
Nitrate (as N)	CALC	C055725	2025/08/21	2025/08/21	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C057450	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Carbon (Total Organic)	TECH	C064028	N/A	2025/08/27	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

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Bureau Veritas Job #: C571470
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE568
Sample ID: AEMP-DS-09
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C056186	N/A	2025/08/25	Qiliang (Alex) Wu
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/23	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/24	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C056706	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Carbon (DOC)	TECH	C064358	N/A	2025/08/27	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/23	Abu Dani Alex
Sulphide (as H2S)	CALC	C055332	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059542	2025/08/22	2025/08/24	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C058408	N/A	2025/08/22	Kevin Huang
Elements by ICPMS - Total	ICPM	C059534	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C061141	N/A	2025/08/25	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/21	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C056589	N/A	2025/08/20	Adam Fishleigh
Nitrate (as N)	CALC	C055725	2025/08/21	2025/08/21	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C057450	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Carbon (Total Organic)	TECH	C064028	N/A	2025/08/27	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056145	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE568 Dup
Sample ID: AEMP-DS-09
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (DOC)	TECH	C064358	N/A	2025/08/27	Thomas Johnson

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Bureau Veritas Job #: C571470
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE568 Dup
Sample ID: AEMP-DS-09
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.3°C

Sample DRE566 [AEMP-DS-03] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Sample DRE567 [AEMP-DS-08] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Sample DRE568 [AEMP-DS-09] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Results relate only to the items tested.

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Bureau Veritas Job #: C571470
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C055918	KKC	Method Blank	True Colour	2025/08/20	<2.0		PtCo units	
C056145	DSX	Method Blank	Turbidity	2025/08/20	<0.10		NTU	
C056186	QW1	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/25		105	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/25		100	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/25		104	%	50 - 140
			Benzene	2025/08/25	<0.00040		mg/L	
			Toluene	2025/08/25	<0.00040		mg/L	
			Ethylbenzene	2025/08/25	<0.00040		mg/L	
			m & p-Xylene	2025/08/25	<0.00080		mg/L	
			o-Xylene	2025/08/25	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/25	<0.10		mg/L	
C056360	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/08/23		83	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/23		78	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/23		78	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/23		54	%	50 - 130
			Acenaphthene	2025/08/23	<0.00010		mg/L	
			Acenaphthylene	2025/08/23	<0.00010		mg/L	
			Acridine	2025/08/23	<0.000040		mg/L	
			Anthracene	2025/08/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/23	<0.000050		mg/L	
			Chrysene	2025/08/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/23	<0.0000075		mg/L	
			Fluoranthene	2025/08/23	<0.000010		mg/L	
			Fluorene	2025/08/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			Naphthalene	2025/08/23	<0.00010		mg/L	
			Phenanthrene	2025/08/23	<0.000050		mg/L	
			Perylene	2025/08/23	<0.000050		mg/L	
			Pyrene	2025/08/23	<0.000020		mg/L	
			Quinoline	2025/08/23	<0.00020		mg/L	
C056367	AAX	Method Blank	O-TERPHENYL (sur.)	2025/08/22		97	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F3 (C16-C34 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F4 (C34-C50 Hydrocarbons)	2025/08/22	<0.20		mg/L	
C056531	RRA	Method Blank	Oil and grease	2025/08/25	<2.0		mg/L	
C056589	AFI	Method Blank	Nitrite (N)	2025/08/20	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/20	<0.040		mg/L	
C056617	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/25	<2.0		mg/L	
C056706	TOR	Method Blank	Chloride (Cl)	2025/08/20	<1.0		mg/L	
			Sulphate (SO4)	2025/08/20	<1.0		mg/L	
C057040	TNY	Method Blank	Total Dissolved Solids	2025/08/22	<10		mg/L	
C057077	HE1	Method Blank	Total Suspended Solids	2025/08/22	<1.0		mg/L	
C057450	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C057584	KKM	Method Blank	Total Mercury (Hg)	2025/08/21	<0.0019		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C057726	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057849	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/22	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/22	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/22	<1.0		mg/L	
			Carbonate (CO3)	2025/08/22	<1.0		mg/L	
			Hydroxide (OH)	2025/08/22	<1.0		mg/L	
C057850	AYE	Method Blank	Conductivity	2025/08/22	<2.0		uS/cm	
C058130	IDV	Method Blank	Total Sulphide	2025/08/23	<0.0018		mg/L	
C058408	KH2	Method Blank	Dissolved Aluminum (Al)	2025/08/22	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/22	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/22	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/22	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/22	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/22	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/22	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/22	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/22	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/22	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/22	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/22	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/22	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/22	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/22	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/22	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/22	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/22	<0.0010		mg/L	
C058493	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/22	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/22	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/22	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/22	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/22	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/22	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/22	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/22	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/22	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/22	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/22	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/22	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/22	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/22	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/22	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/22	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/22	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/22	<0.0010		mg/L	
C058633	YL7	Method Blank	Total Nitrogen (N)	2025/08/22	<0.020		mg/L	
C058717	AP1	Method Blank	Chemical Oxygen Demand	2025/08/22	<10		mg/L	
C059534	JAB	Method Blank	Total Aluminum (Al)	2025/08/23	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/23	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/23	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/23	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/23	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/23	<0.00060		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Molybdenum (Mo)	2025/08/23	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/23	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/23	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/23	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/23	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/23	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/23	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/23	<0.0010		mg/L	
			Total Uranium (U)	2025/08/23	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/23	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/23	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/23	<0.0010		mg/L	
C059542	VSC	Method Blank	Total Iron (Fe)	2025/08/24	<0.060		mg/L	
			Total Lithium (Li)	2025/08/24	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/24	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/24	<0.0040		mg/L	
			Total Potassium (K)	2025/08/24	<0.30		mg/L	
			Total Sodium (Na)	2025/08/24	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/24	<0.020		mg/L	
			Total Sulphur (S)	2025/08/24	<0.20		mg/L	
			Total Phosphorus (P)	2025/08/24	<0.10		mg/L	
			Total Barium (Ba)	2025/08/24	<0.010		mg/L	
			Total Silicon (Si)	2025/08/24	<0.50		mg/L	
			Total Boron (B)	2025/08/24	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/24	<0.30		mg/L	
C060647	BYM	Method Blank	Dissolved Iron (Fe)	2025/08/24	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/24	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/24	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/24	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/24	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/24	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/24	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/24	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/24	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/24	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/24	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/24	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/24	<0.30		mg/L	
C061141	ISW	Method Blank	Total Ammonia (N)	2025/08/25	<0.015		mg/L	
C061610	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/25	<0.50		mg/L	
C062424	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C064028	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/27	<0.50		mg/L	
C064358	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/27	<0.50		mg/L	
C058717	AP1	RPD [DRE566-05]	Chemical Oxygen Demand	2025/08/22	8.2		%	20
C062424	TJ4	RPD [DRE566-05]	Total Organic Carbon (C)	2025/08/26	0.92		%	20
C058633	YL7	RPD [DRE568-05]	Total Nitrogen (N)	2025/08/22	NC		%	20
C064358	TJ4	RPD [DRE568-06]	Dissolved Organic Carbon (C)	2025/08/27	1.7		%	20
C058633	YL7	Matrix Spike [DRE568-05]	Total Nitrogen (N)	2025/08/22		111	%	80 - 120
C058717	AP1	Matrix Spike [DRE566-05]	Chemical Oxygen Demand	2025/08/22		114	%	80 - 120
C062424	TJ4	Matrix Spike [DRE566-05]	Total Organic Carbon (C)	2025/08/26		101	%	75 - 125
C064358	TJ4	Matrix Spike [DRE568-06]	Dissolved Organic Carbon (C)	2025/08/27		103	%	75 - 125
C055918	KKC	LCS	True Colour	2025/08/20		91	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C056145	DSX	LCS	Turbidity	2025/08/20		100	%	80 - 120
C056186	QW1	LCS	1,4-Difluorobenzene (sur.)	2025/08/25		103	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/25		100	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/25		106	%	50 - 140
			Benzene	2025/08/25		83	%	60 - 130
			Toluene	2025/08/25		81	%	60 - 130
			Ethylbenzene	2025/08/25		82	%	60 - 130
			m & p-Xylene	2025/08/25		80	%	60 - 130
			o-Xylene	2025/08/25		80	%	60 - 130
			F1 (C6-C10)	2025/08/25		101	%	60 - 140
C056360	JU2	LCS	D10-ANTHRACENE (sur.)	2025/08/22		102	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		102	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		113	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		87	%	50 - 130
			Acenaphthene	2025/08/22		71	%	50 - 130
			Acenaphthylene	2025/08/22		93	%	50 - 130
			Acridine	2025/08/22		90	%	50 - 130
			Anthracene	2025/08/22		85	%	50 - 130
			Benzo(a)anthracene	2025/08/22		89	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/22		88	%	50 - 130
			Benzo(k)fluoranthene	2025/08/22		103	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/22		84	%	50 - 130
			Benzo(c)phenanthrene	2025/08/22		95	%	50 - 130
			Benzo(a)pyrene	2025/08/22		89	%	50 - 130
			Benzo(e)pyrene	2025/08/22		83	%	50 - 130
			Chrysene	2025/08/22		90	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/22		86	%	50 - 130
			Fluoranthene	2025/08/22		92	%	50 - 130
			Fluorene	2025/08/22		86	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/22		85	%	50 - 130
			1-Methylnaphthalene	2025/08/22		60	%	50 - 130
			2-Methylnaphthalene	2025/08/22		64	%	50 - 130
			Naphthalene	2025/08/22		76	%	50 - 130
			Phenanthrene	2025/08/22		82	%	50 - 130
			Perylene	2025/08/22		83	%	50 - 130
			Pyrene	2025/08/22		92	%	50 - 130
			Quinoline	2025/08/22		96	%	50 - 130
C056367	AAX	LCS	O-TERPHENYL (sur.)	2025/08/22		103	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22		91	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2025/08/22		100	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2025/08/22		92	%	60 - 140
C056531	RRA	LCS	Oil and grease	2025/08/25		96	%	70 - 130
C056589	AFI	LCS	Nitrite (N)	2025/08/20		101	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/20		100	%	80 - 120
C056617	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/25		95	%	70 - 130
C056706	TOR	LCS	Chloride (Cl)	2025/08/20		105	%	80 - 120
			Sulphate (SO4)	2025/08/20		100	%	80 - 120
C057040	TNY	LCS	Total Dissolved Solids	2025/08/22		94	%	80 - 120
C057077	HE1	LCS	Total Suspended Solids	2025/08/22		95	%	80 - 120
C057450	AFI	LCS	Orthophosphate (P)	2025/08/21		98	%	80 - 120
C057584	KKM	LCS	Total Mercury (Hg)	2025/08/21		102	%	80 - 120
C057726	KKM	LCS	Dissolved Mercury (Hg)	2025/08/21		100	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C057848	AYE	LCS	pH	2025/08/22		100	%	97 - 103
C057849	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/22		98	%	80 - 120
C057850	AYE	LCS	Conductivity	2025/08/22		102	%	90 - 110
C058130	IDV	LCS	Total Sulphide	2025/08/23		93	%	80 - 120
C058408	KH2	LCS	Dissolved Aluminum (Al)	2025/08/22		104	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/22		97	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/22		96	%	80 - 120
			Dissolved Copper (Cu)	2025/08/22		98	%	80 - 120
			Dissolved Lead (Pb)	2025/08/22		97	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/22		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/22		100	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/22		97	%	80 - 120
			Dissolved Selenium (Se)	2025/08/22		103	%	80 - 120
			Dissolved Silver (Ag)	2025/08/22		96	%	80 - 120
			Dissolved Arsenic (As)	2025/08/22		102	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/22		100	%	80 - 120
			Dissolved Tin (Sn)	2025/08/22		100	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/22		100	%	80 - 120
			Dissolved Uranium (U)	2025/08/22		99	%	80 - 120
			Dissolved Vanadium (V)	2025/08/22		98	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/22		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/22		97	%	80 - 120
C058493	JAB	LCS	Dissolved Aluminum (Al)	2025/08/22		112	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/22		98	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/22		100	%	80 - 120
			Dissolved Copper (Cu)	2025/08/22		102	%	80 - 120
			Dissolved Lead (Pb)	2025/08/22		98	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/22		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/22		101	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/22		97	%	80 - 120
			Dissolved Selenium (Se)	2025/08/22		100	%	80 - 120
			Dissolved Silver (Ag)	2025/08/22		98	%	80 - 120
			Dissolved Arsenic (As)	2025/08/22		99	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/22		101	%	80 - 120
			Dissolved Tin (Sn)	2025/08/22		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/22		103	%	80 - 120
			Dissolved Uranium (U)	2025/08/22		95	%	80 - 120
			Dissolved Vanadium (V)	2025/08/22		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/22		95	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/22		104	%	80 - 120
C058633	YL7	LCS	Total Nitrogen (N)	2025/08/22		100	%	80 - 120
C058717	AP1	LCS	Chemical Oxygen Demand	2025/08/22		101	%	80 - 120
C059534	JAB	LCS	Total Aluminum (Al)	2025/08/23		107	%	80 - 120
			Total Chromium (Cr)	2025/08/23		102	%	80 - 120
			Total Cobalt (Co)	2025/08/23		101	%	80 - 120
			Total Copper (Cu)	2025/08/23		100	%	80 - 120
			Total Lead (Pb)	2025/08/23		103	%	80 - 120
			Total Antimony (Sb)	2025/08/23		112	%	80 - 120
			Total Molybdenum (Mo)	2025/08/23		109	%	80 - 120
			Total Nickel (Ni)	2025/08/23		100	%	80 - 120
			Total Selenium (Se)	2025/08/23		106	%	80 - 120
			Total Silver (Ag)	2025/08/23		107	%	80 - 120

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Arsenic (As)	2025/08/23		103	%	80 - 120
			Total Thallium (Tl)	2025/08/23		105	%	80 - 120
			Total Tin (Sn)	2025/08/23		109	%	80 - 120
			Total Titanium (Ti)	2025/08/23		108	%	80 - 120
			Total Uranium (U)	2025/08/23		109	%	80 - 120
			Total Vanadium (V)	2025/08/23		102	%	80 - 120
			Total Zinc (Zn)	2025/08/23		101	%	80 - 120
			Total Beryllium (Be)	2025/08/23		114	%	80 - 120
C059542	VSC	LCS	Total Iron (Fe)	2025/08/24		105	%	80 - 120
			Total Lithium (Li)	2025/08/24		105	%	80 - 120
			Total Magnesium (Mg)	2025/08/24		107	%	80 - 120
			Total Manganese (Mn)	2025/08/24		102	%	80 - 120
			Total Potassium (K)	2025/08/24		101	%	80 - 120
			Total Sodium (Na)	2025/08/24		102	%	80 - 120
			Total Strontium (Sr)	2025/08/24		99	%	80 - 120
			Total Sulphur (S)	2025/08/24		94	%	80 - 120
			Total Phosphorus (P)	2025/08/24		107	%	80 - 120
			Total Barium (Ba)	2025/08/24		104	%	80 - 120
			Total Silicon (Si)	2025/08/24		103	%	80 - 120
			Total Boron (B)	2025/08/24		105	%	80 - 120
			Total Calcium (Ca)	2025/08/24		103	%	80 - 120
C060647	BYM	LCS	Dissolved Iron (Fe)	2025/08/24		99	%	80 - 120
			Dissolved Lithium (Li)	2025/08/24		100	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/24		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/24		94	%	80 - 120
			Dissolved Potassium (K)	2025/08/24		106	%	80 - 120
			Dissolved Sodium (Na)	2025/08/24		101	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/24		98	%	80 - 120
			Dissolved Sulphur (S)	2025/08/24		101	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/24		102	%	80 - 120
			Dissolved Barium (Ba)	2025/08/24		99	%	80 - 120
			Dissolved Silicon (Si)	2025/08/24		96	%	80 - 120
			Dissolved Boron (B)	2025/08/24		100	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/24		102	%	80 - 120
C061141	ISW	LCS	Total Ammonia (N)	2025/08/25		103	%	80 - 120
C061610	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/25		100	%	80 - 120
C062424	TJ4	LCS	Total Organic Carbon (C)	2025/08/26		98	%	80 - 120
C064028	TJ4	LCS	Total Organic Carbon (C)	2025/08/27		103	%	80 - 120
C064358	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/27		104	%	80 - 120
C058633	YL7	SRM	Total Nitrogen (N)	2025/08/22		108	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

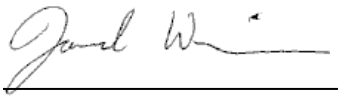
Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571470
Report Date: 2025/08/27

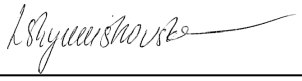
Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

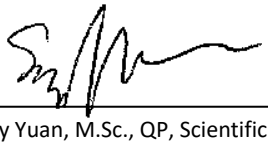
The analytical data and all QC contained in this report were reviewed and validated by:



Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



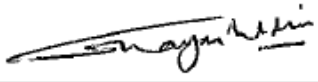
Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics



Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

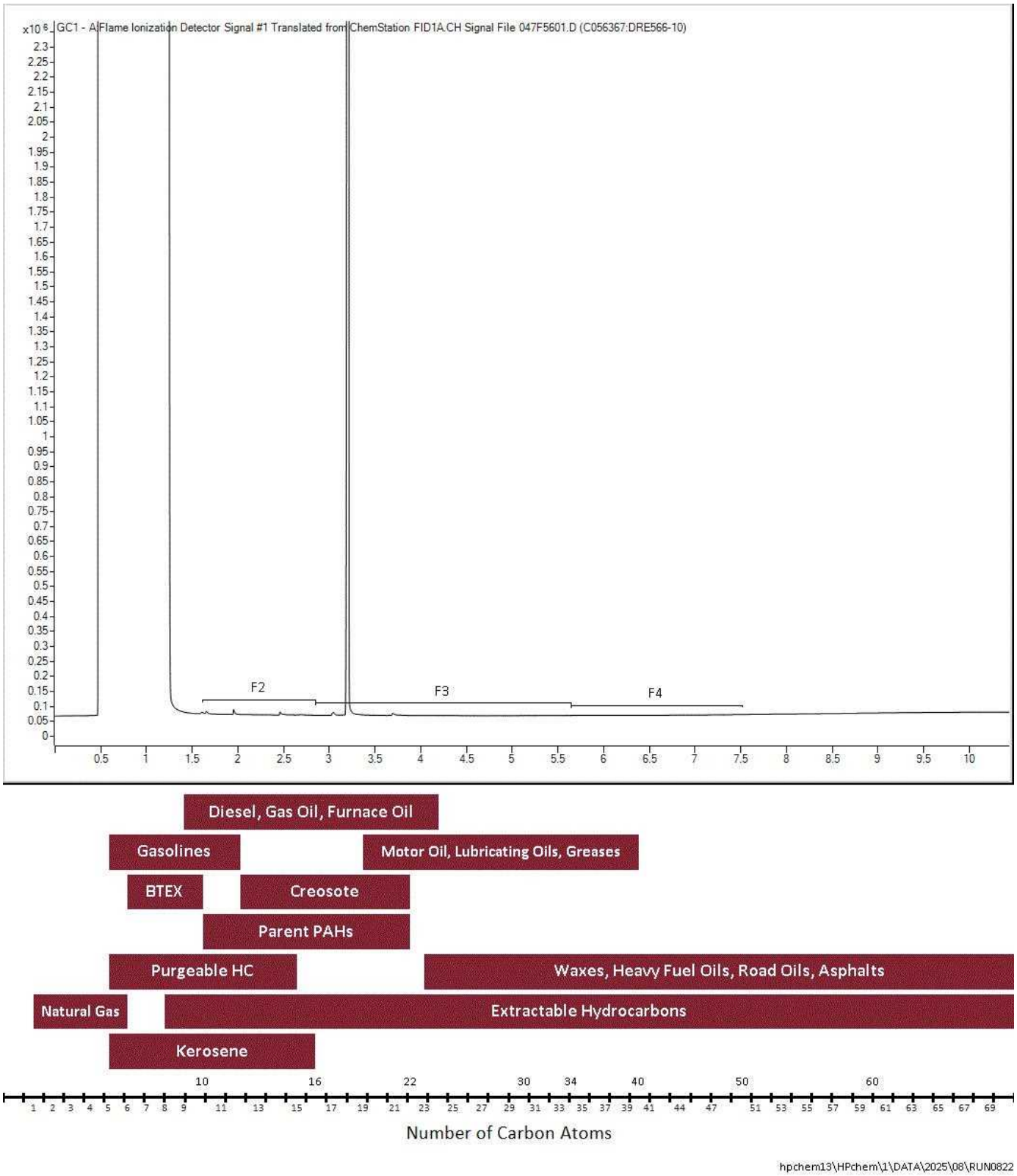
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571470
Report Date: 2025/08/27
Bureau Veritas Sample: DRE566

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-03

CCME Hydrocarbons (F2-F4 in water) Chromatogram

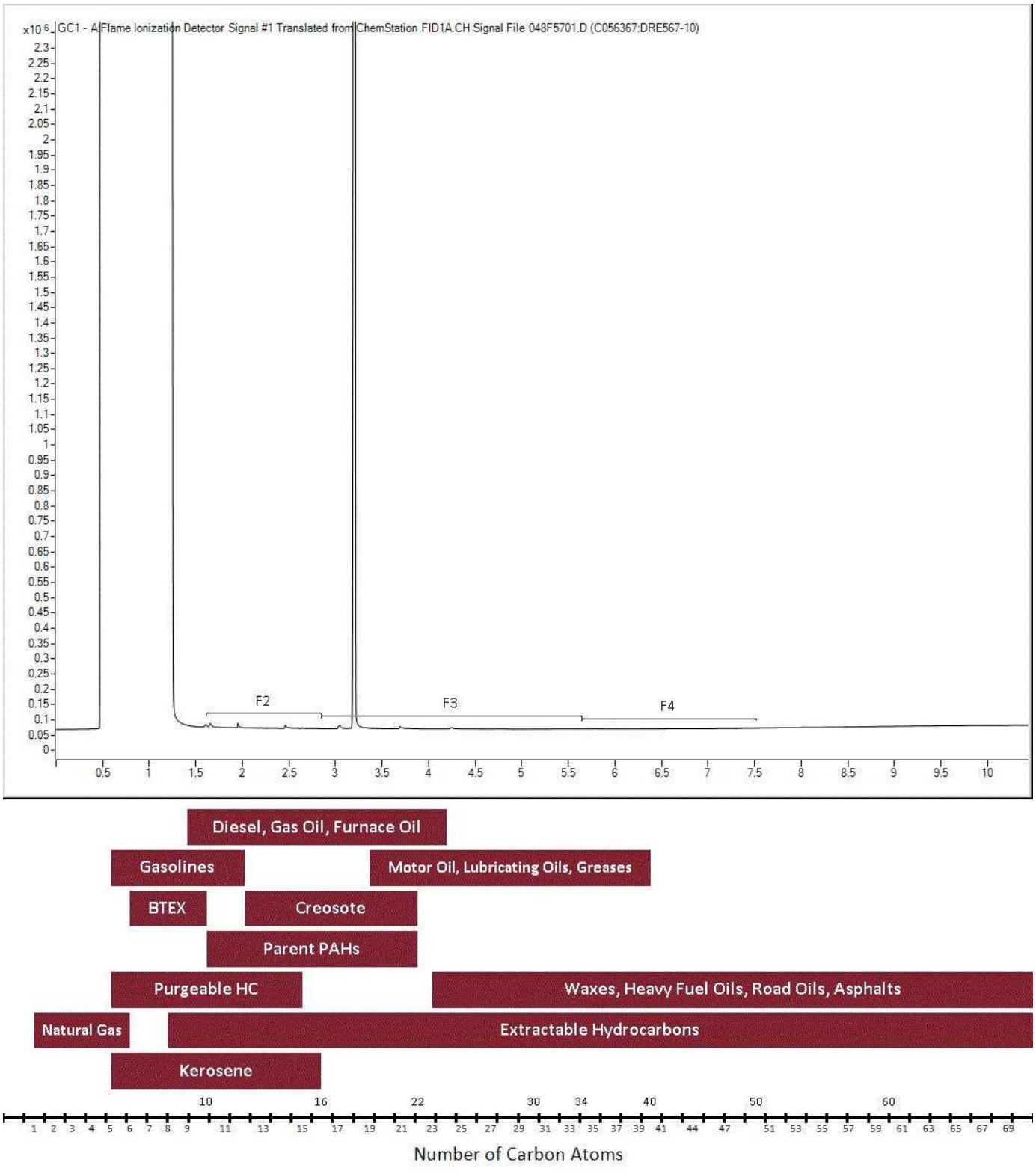


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571470
Report Date: 2025/08/27
Bureau Veritas Sample: DRE567

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-08

CCME Hydrocarbons (F2-F4 in water) Chromatogram

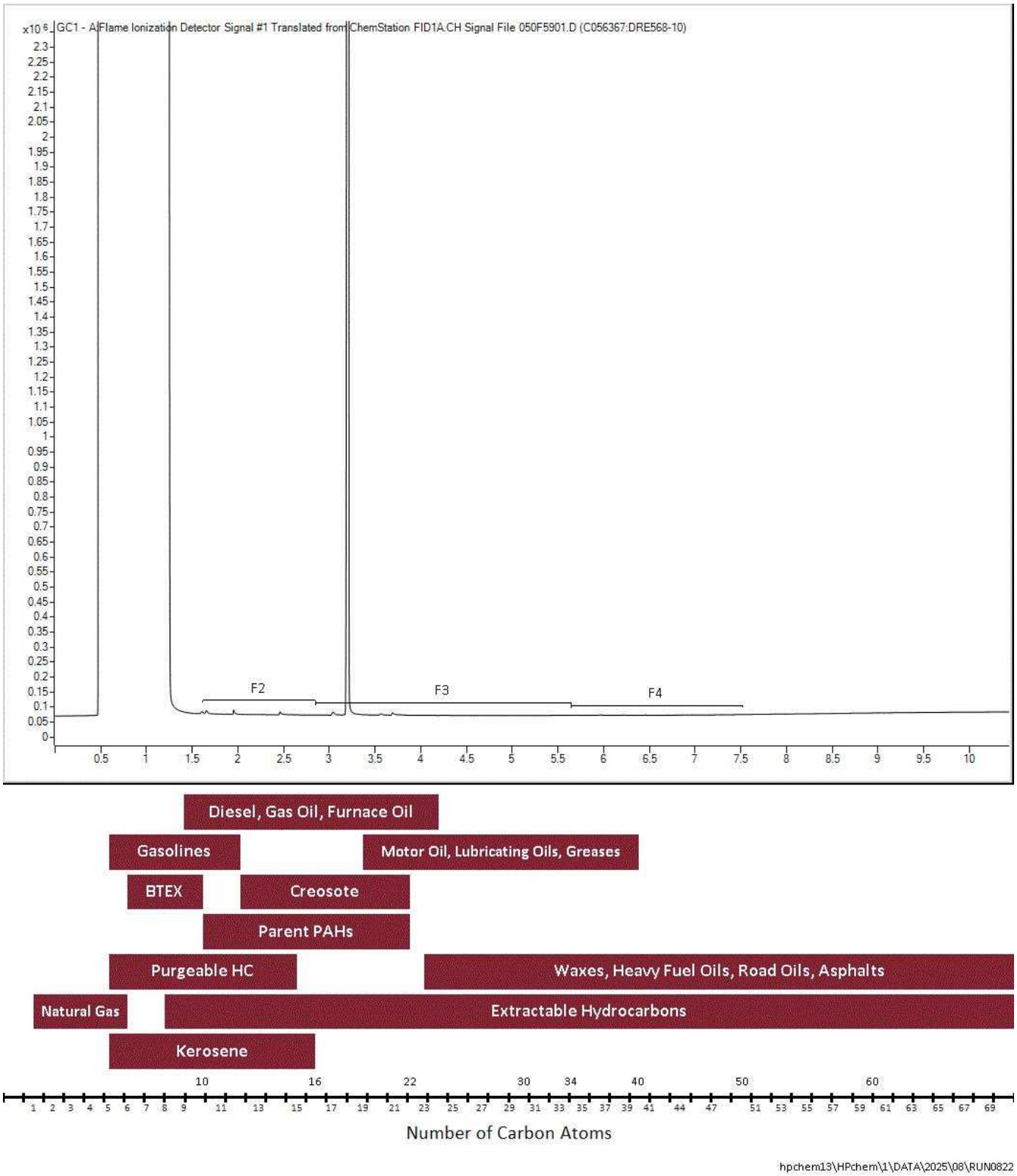


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571470
Report Date: 2025/08/27
Bureau Veritas Sample: DRE568

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-09

CCME Hydrocarbons (F2-F4 in water) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM
CHAIN-OF-CUSTODY RECORD

C of C # 298634

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGOLOBE / BRENDAN CHAPMAN	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, TURBIDITY	OIL and GREASE	TOC, DOC, SULPHIDE	NITRITE, NITRATE, AMMONIA (Total), TKN	ORTHOPHOSPHATE	SULPHUR - TOTAL + DISSOLVED	COD	TPH
1 AEMP-DS-03		X			16	2025/08/16	12:45	X			X	X	X						X	X					X			X	X	X	X	X	X	X	X
2 AEMP-DS-08		X			16	2025/08/16	10:35	X			X	X	X						X	X					X			X	X	X	X	X	X	X	X
3 AEMP-DS-09		X			16	2025/08/16	11:40	X			X	X	X						X	X					X			X	X	X	X	X	X	X	X
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

MCAL-2025-08-1371
C571470

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email. canada.chemistry@worley.com cacal-IOR.data.intake@worley.com stacy.gibb@worley@worley.com Please include MU
IES A2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	1	1	9
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

LAB USE ONLY
MAXXAM JOB # C571470

SAMPLES
LABELED BY: EPL
VERIFIED BY: SLC

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	TINO NGOLOBE	2025/08/17	10:00	1.	JASON BIL	20250819	1500
2.				2.			
3.				3.			

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298635

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702852
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571494
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
Send Part to Archive	3		
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	3	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons (F2-F4 in water) (2)	3	AB SOP-00037	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298635

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702852
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571494
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	3	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Bureau Veritas - Partial/Rush Results

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298635

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/26
Report #: R3702852
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C571494
Received: 2025/08/19, 15:00

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
26 Aug 2025 16:20:44

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571494
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE632			DRE632			DRE633		
Sampling Date		2025/08/16 14:40			2025/08/16 14:40			2025/08/16 16:00		
COC Number		298635			298635			298635		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	0.10	C056367				<0.10	0.10	C056367
F3 (C16-C34 Hydrocarbons)	mg/L	<0.10	0.10	C056367				<0.10	0.10	C056367
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	0.20	C056367				<0.20	0.20	C056367
Volatiles										
Benzene	mg/L	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577
Toluene	mg/L	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577
Ethylbenzene	mg/L	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577
m & p-Xylene	mg/L	<0.00080	0.00080	C059577	<0.00080	0.00080	C059577	<0.00080	0.00080	C059577
o-Xylene	mg/L	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577
Xylenes (Total)	mg/L	<0.00089	0.00089	C055564				<0.00089	0.00089	C055564
F1 (C6-C10) - BTEX	mg/L	<0.10	0.10	C055564				<0.10	0.10	C055564
F1 (C6-C10)	mg/L	<0.10	0.10	C059577	<0.10	0.10	C059577	<0.10	0.10	C059577
Extraction Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	95		C056367				100		C056367
Instrument Surrogate Recovery (%)										
1,4-Difluorobenzene (sur.)	%	96		C059577	95		C059577	95		C059577
4-Bromofluorobenzene (sur.)	%	116		C059577	119		C059577	117		C059577
D4-1,2-Dichloroethane (sur.)	%	116		C059577	121		C059577	119		C059577

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas - Partial/Rush Results

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE634		
Sampling Date		2025/08/16 16:58		
COC Number		298635		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	0.10	C056367
F3 (C16-C34 Hydrocarbons)	mg/L	<0.10	0.10	C056367
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	0.20	C056367
Volatiles				
Benzene	mg/L	<0.00040	0.00040	C059577
Toluene	mg/L	<0.00040	0.00040	C059577
Ethylbenzene	mg/L	<0.00040	0.00040	C059577
m & p-Xylene	mg/L	<0.00080	0.00080	C059577
o-Xylene	mg/L	<0.00040	0.00040	C059577
Xylenes (Total)	mg/L	<0.00089	0.00089	C055564
F1 (C6-C10) - BTEX	mg/L	<0.10	0.10	C055564
F1 (C6-C10)	mg/L	<0.10	0.10	C059577
Extraction Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	98		C056367
Instrument Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	95		C059577
4-Bromofluorobenzene (sur.)	%	117		C059577
D4-1,2-Dichloroethane (sur.)	%	117		C059577
RDL = Reportable Detection Limit				

Bureau Veritas - Partial/Rush Results

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRE632		DRE633		DRE634		
Sampling Date		2025/08/16 14:40		2025/08/16 16:00		2025/08/16 16:58		
COC Number		298635		298635		298635		
	UNITS	**AEMP-US-01**	**QC Batch**	**AEMP-US-02**	**QC Batch**	**AEMP-US-03**	**RDL**	**QC Batch**
Calculated Parameters								
Nitrate (N)	mg/L	0.077	C055725	0.052	C055725	0.048	0.040	C055725
Nitrate (NO3)	mg/L	0.34	C055593	0.23	C055593	0.21	0.18	C055593
Nitrite (NO2)	mg/L	<0.13	C055593	<0.13	C055593	<0.13	0.13	C055593
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	C055228	<0.20	C055228	<0.20	0.20	C055228
Nutrients								
Nitrite (N)	mg/L	<0.040	C056589	<0.040	C057503	<0.040	0.040	C057503
Nitrate plus Nitrite (N)	mg/L	0.077	C056589	0.052	C057503	0.048	0.040	C057503
Total Nitrogen (N)	mg/L	0.21 (1)	C058633	0.24	C058763	0.23 (1)	0.20	C058633

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Elements						
Total Cadmium (Cd)	mg/L	0.000098	0.00014	0.00015	0.000020	C055569
Total Mercury (Hg)	ug/L	0.0028	0.0058	0.0061	0.0019	C057584
Total Aluminum (Al)	mg/L	2.2	2.7	2.6	0.0030	C059336
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	<0.00060	0.00060	C059336
Total Arsenic (As)	mg/L	0.0010	0.0020	0.0020	0.00020	C059336
Total Barium (Ba)	mg/L	0.076	0.092	0.086	0.010	C059340
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C059336
Total Boron (B)	mg/L	<0.020	<0.020	<0.020	0.020	C059340
Total Calcium (Ca)	mg/L	33	41	39	0.30	C059340
Total Chromium (Cr)	mg/L	0.0029	0.0040	0.0038	0.0010	C059336
Total Cobalt (Co)	mg/L	0.0012	0.0025	0.0023	0.00030	C059336
Total Copper (Cu)	mg/L	0.0030	0.0058	0.0051	0.0010	C059336
Total Iron (Fe)	mg/L	2.5	5.3	4.9	0.060	C059340
Total Lead (Pb)	mg/L	0.0011	0.0024	0.0021	0.00020	C059336
Total Lithium (Li)	mg/L	<0.020	<0.020	<0.020	0.020	C059340
Total Magnesium (Mg)	mg/L	11	14	13	0.20	C059340
Total Manganese (Mn)	mg/L	0.043	0.098	0.087	0.0040	C059340
Total Molybdenum (Mo)	mg/L	0.0010	0.0013	0.0013	0.00020	C059336
Total Nickel (Ni)	mg/L	0.0042	0.0084	0.0078	0.00050	C059336
Total Phosphorus (P)	mg/L	<0.10	0.10	<0.10	0.10	C059340
Total Potassium (K)	mg/L	1.6	1.6	1.6	0.30	C059340
Total Selenium (Se)	mg/L	0.00032	0.00049	0.00047	0.00020	C059336
Total Silicon (Si)	mg/L	7.1	4.8	4.6	0.50	C059340
Total Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C059336
Total Sodium (Na)	mg/L	8.2	8.0	7.6	0.50	C059340
Total Strontium (Sr)	mg/L	0.24	0.30	0.26	0.020	C059340
Total Sulphur (S)	mg/L	13	16	15	0.20	C059340
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C059336
Total Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C059336
Total Titanium (Ti)	mg/L	0.046	0.023	0.021	0.0010	C059336
Total Uranium (U)	mg/L	0.00083	0.00099	0.00098	0.00010	C059336
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0049	0.0065	0.0063	0.0010	C059336
Total Zinc (Zn)	mg/L	0.012	0.047	0.050	0.0030	C059336
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571494
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE632			DRE633		DRE634		
Sampling Date		2025/08/16 14:40			2025/08/16 16:00		2025/08/16 16:58		
COC Number		298635			298635		298635		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-02**	**QC Batch**	**AEMP-US-03**	**RDL**	**QC Batch**
Calculated Parameters									
Hardness (CaCO3)	mg/L	120	0.50	C055583	140	C055583	130	0.50	C055583
Ion Balance (% Difference)	%	0.28	N/A	C055587	0.84	C055587	0.87	N/A	C055587
Sulphide (as H2S)	mg/L	0.012	0.0020	C055724	0.012	C055724	0.011	0.0020	C055724
Demand Parameters									
Chemical Oxygen Demand	mg/L	17	10	C058717	29	C058717	28	10	C058717
Elements									
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C055566	<0.000020	C055566	<0.000020	0.000020	C055566
Misc. Inorganics									
Conductivity	uS/cm	270	2.0	C057850	290	C057850	280	2.0	C057850
Dissolved Organic Carbon (C)	mg/L				2.8	C062390	3.2	0.50	C062390
pH	pH	7.41	N/A	C057848	7.37	C057848	7.28	N/A	C057848
Total Organic Carbon (C)	mg/L				2.5	C062424	2.6	0.50	C062424
Total Dissolved Solids	mg/L	150	10	C057040	160	C057040	160	10	C057040
Total Suspended Solids	mg/L	56	1.0	C057077	160	C057077	190	1.0	C057077
Anions									
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C057849	<1.0	C057849	<1.0	1.0	C057849
Alkalinity (Total as CaCO3)	mg/L	90	1.0	C057849	99	C057849	97	1.0	C057849
Bicarbonate (HCO3)	mg/L	110	1.0	C057849	120	C057849	120	1.0	C057849
Carbonate (CO3)	mg/L	<1.0	1.0	C057849	<1.0	C057849	<1.0	1.0	C057849
Hydroxide (OH)	mg/L	<1.0	1.0	C057849	<1.0	C057849	<1.0	1.0	C057849
Total Sulphide	mg/L	0.012	0.0018	C058130	0.012	C058130	0.010	0.0018	C058130
Chloride (Cl)	mg/L	9.3	1.0	C056706	7.5	C057535	7.4	1.0	C057535
Sulphate (SO4)	mg/L	38	1.0	C056706	47	C057535	44	1.0	C057535
Nutrients									
Total Ammonia (N)	mg/L	<0.015	0.015	C060689	<0.015	C060686	<0.015	0.015	C060689
Orthophosphate (P)	mg/L	<0.0030	0.0030	C057450	<0.0030	C058481	<0.0030	0.0030	C058481
Misc. Organics									
Oil and grease	mg/L	<2.0	2.0	C056531	<2.0	C056531	<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617	<2.0	C056617	<2.0	2.0	C056617

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571494
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE632			DRE633		DRE634		
Sampling Date		2025/08/16 14:40			2025/08/16 16:00		2025/08/16 16:58		
COC Number		298635			298635		298635		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-02**	**QC Batch**	**AEMP-US-03**	**RDL**	**QC Batch**
Physical Properties									
True Colour	PtCo units	5.9	2.0	C055918	6.2	C058049	8.3	2.0	C058049
Physical Properties									
Turbidity	NTU	71	0.10	C056154	120	C056154	170	0.10	C056154
RDL = Reportable Detection Limit									

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C055598
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C056360
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C056360
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C056360
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	98	100	99		C056360
D8-ACENAPHTHYLENE (sur.)	%	101	103	105		C056360
D8-NAPHTHALENE (sur.)	%	77	77	80		C056360
TERPHENYL-D14 (sur.)	%	93	95	94		C056360
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	0.0034	0.0037	0.0019	C057726
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Elements						
Dissolved Aluminum (Al)	mg/L	0.035	0.039	0.044	0.0030	C058493
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	<0.00060	0.00060	C058493
Dissolved Arsenic (As)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C058493
Dissolved Barium (Ba)	mg/L	0.040	0.044	0.043	0.010	C060647
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Boron (B)	mg/L	<0.020	<0.020	<0.020	0.020	C060647
Dissolved Calcium (Ca)	mg/L	32	36	35	0.30	C060647
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	<0.00030	0.00030	C058493
Dissolved Copper (Cu)	mg/L	0.0012	0.0011	0.0011	0.0010	C058493
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	<0.060	0.060	C060647
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C058493
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	<0.020	0.020	C060647
Dissolved Magnesium (Mg)	mg/L	11	12	11	0.20	C060647
Dissolved Manganese (Mn)	mg/L	<0.0040	<0.0040	<0.0040	0.0040	C060647
Dissolved Molybdenum (Mo)	mg/L	0.00083	0.00099	0.00088	0.00020	C058493
Dissolved Nickel (Ni)	mg/L	0.00088	0.00084	0.00094	0.00050	C058493
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	<0.10	0.10	C060647
Dissolved Potassium (K)	mg/L	0.89	0.93	0.88	0.30	C060647
Dissolved Selenium (Se)	mg/L	0.00025	0.00030	0.00031	0.00020	C058493
Dissolved Silicon (Si)	mg/L	1.5	1.5	1.5	0.50	C060647
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C058493
Dissolved Sodium (Na)	mg/L	8.5	8.1	7.7	0.50	C060647
Dissolved Strontium (Sr)	mg/L	0.23	0.28	0.25	0.020	C060647
Dissolved Sulphur (S)	mg/L	13	16	15	0.20	C060647
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C058493
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Uranium (U)	mg/L	0.00065	0.00079	0.00073	0.00010	C058493
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	<0.0030	0.0030	C058493
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE632
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059577	N/A	2025/08/26	Stephane Nadon
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/23	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C056706	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/23	Abu Dani Alex
Sulphide (as H2S)	CALC	C055724	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059340	2025/08/22	2025/08/22	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059336	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060689	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/21	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C056589	N/A	2025/08/20	Adam Fishleigh
Nitrate (as N)	CALC	C055725	2025/08/21	2025/08/21	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C057450	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056154	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE632 Dup
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059577	N/A	2025/08/26	Stephane Nadon

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE633
Sample ID: AEMP-US-02
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059577	N/A	2025/08/26	Stephane Nadon
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/23	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C058049	N/A	2025/08/21	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/23	Abu Dani Alex
Sulphide (as H2S)	CALC	C055724	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059340	2025/08/22	2025/08/22	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059336	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060686	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055725	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/25	Automated Statchk
Nitrogen (Total)	AC/COL	C058763	2025/08/22	2025/08/25	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056154	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE634
Sample ID: AEMP-US-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571494
Report Date: 2025/08/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE634
Sample ID: AEMP-US-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059577	N/A	2025/08/26	Stephane Nadon
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/23	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C058049	N/A	2025/08/21	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/23	Abu Dani Alex
Sulphide (as H2S)	CALC	C055724	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059340	2025/08/22	2025/08/22	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059336	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060689	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055725	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056154	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas - Partial/Rush Results

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Bureau Veritas - Partial/Rush Results

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.7°C

Note: C of C not signed/dated by Consultant. Chain of custody was not relinquished with time. Proceeded.
Note: Bottles listed on C of C, but not found in shipment. For AEMP-US-01, 16 containers were listed on chain of custody but received only 15. Proceeded.
Client was notified via email.

Sample DRE632 [AEMP-US-01] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Sample DRE633 [AEMP-US-02] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DRE634 [AEMP-US-03] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Results relate only to the items tested.

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C055918	KKC	Method Blank	True Colour	2025/08/20	<2.0		PtCo units	
C056154	DSX	Method Blank	Turbidity	2025/08/20	<0.10		NTU	
C056360	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/08/23		83	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/23		78	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/23		78	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/23		54	%	50 - 130
			Acenaphthene	2025/08/23	<0.00010		mg/L	
			Acenaphthylene	2025/08/23	<0.00010		mg/L	
			Acridine	2025/08/23	<0.000040		mg/L	
			Anthracene	2025/08/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/23	<0.000050		mg/L	
			Chrysene	2025/08/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/23	<0.0000075		mg/L	
			Fluoranthene	2025/08/23	<0.000010		mg/L	
			Fluorene	2025/08/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			Naphthalene	2025/08/23	<0.00010		mg/L	
			Phenanthrene	2025/08/23	<0.000050		mg/L	
			Perylene	2025/08/23	<0.000050		mg/L	
			Pyrene	2025/08/23	<0.000020		mg/L	
			Quinoline	2025/08/23	<0.00020		mg/L	
C056367	AAX	Method Blank	O-TERPHENYL (sur.)	2025/08/22		97	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F3 (C16-C34 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F4 (C34-C50 Hydrocarbons)	2025/08/22	<0.20		mg/L	
C056531	RRA	Method Blank	Oil and grease	2025/08/25	<2.0		mg/L	
C056589	AFI	Method Blank	Nitrite (N)	2025/08/20	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/20	<0.040		mg/L	
C056617	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/25	<2.0		mg/L	
C056706	TOR	Method Blank	Chloride (Cl)	2025/08/20	<1.0		mg/L	
			Sulphate (SO4)	2025/08/20	<1.0		mg/L	
C057040	TNY	Method Blank	Total Dissolved Solids	2025/08/22	<10		mg/L	
C057077	HE1	Method Blank	Total Suspended Solids	2025/08/22	<1.0		mg/L	
C057450	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C057503	KKC	Method Blank	Nitrite (N)	2025/08/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/21	<0.040		mg/L	
C057535	TOR	Method Blank	Chloride (Cl)	2025/08/21	<1.0		mg/L	
			Sulphate (SO4)	2025/08/21	<1.0		mg/L	
C057584	KKM	Method Blank	Total Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057726	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057849	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/22	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/22	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/22	<1.0		mg/L	
			Carbonate (CO3)	2025/08/22	<1.0		mg/L	

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Hydroxide (OH)	2025/08/22	<1.0		mg/L	
C057850	AYE	Method Blank	Conductivity	2025/08/22	<2.0		uS/cm	
C058049	AFI	Method Blank	True Colour	2025/08/21	<2.0		PtCo units	
C058130	IDV	Method Blank	Total Sulphide	2025/08/23	<0.0018		mg/L	
C058481	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C058493	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/22	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/22	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/22	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/22	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/22	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/22	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/22	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/22	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/22	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/22	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/22	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/22	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/22	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/22	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/22	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/22	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/22	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/22	<0.0010		mg/L	
C058633	YL7	Method Blank	Total Nitrogen (N)	2025/08/22	<0.020		mg/L	
C058717	AP1	Method Blank	Chemical Oxygen Demand	2025/08/22	<10		mg/L	
C058763	YL7	Method Blank	Total Nitrogen (N)	2025/08/25	<0.020		mg/L	
C059336	JAB	Method Blank	Total Aluminum (Al)	2025/08/23	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/23	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/23	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/23	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/23	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/23	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/23	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/23	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/23	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/23	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/23	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/23	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/23	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/23	<0.0010		mg/L	
			Total Uranium (U)	2025/08/23	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/23	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/23	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/23	<0.0010		mg/L	
C059340	KHU	Method Blank	Total Iron (Fe)	2025/08/22	<0.060		mg/L	
			Total Lithium (Li)	2025/08/22	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/22	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/22	<0.0040		mg/L	
			Total Potassium (K)	2025/08/22	<0.30		mg/L	
			Total Sodium (Na)	2025/08/22	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/22	<0.020		mg/L	
			Total Sulphur (S)	2025/08/22	<0.20		mg/L	

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Phosphorus (P)	2025/08/22	<0.10		mg/L	
			Total Barium (Ba)	2025/08/22	<0.010		mg/L	
			Total Silicon (Si)	2025/08/22	<0.50		mg/L	
			Total Boron (B)	2025/08/22	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/22	<0.30		mg/L	
C059577	SNA	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/26		96	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/26		119	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/26		121	%	50 - 140
			Benzene	2025/08/26	<0.00040		mg/L	
			Toluene	2025/08/26	<0.00040		mg/L	
			Ethylbenzene	2025/08/26	<0.00040		mg/L	
			m & p-Xylene	2025/08/26	<0.00080		mg/L	
			o-Xylene	2025/08/26	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/26	<0.10		mg/L	
C060647	BYM	Method Blank	Dissolved Iron (Fe)	2025/08/24	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/24	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/24	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/24	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/24	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/24	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/24	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/24	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/24	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/24	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/24	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/24	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/24	<0.30		mg/L	
C060686	ISW	Method Blank	Total Ammonia (N)	2025/08/24	<0.015		mg/L	
C060689	ISW	Method Blank	Total Ammonia (N)	2025/08/24	<0.015		mg/L	
C062390	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C062424	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C059577	SNA	RPD [DRE632-11]	Benzene	2025/08/26	NC		%	30
			Toluene	2025/08/26	NC		%	30
			Ethylbenzene	2025/08/26	NC		%	30
			m & p-Xylene	2025/08/26	NC		%	30
			o-Xylene	2025/08/26	NC		%	30
			F1 (C6-C10)	2025/08/26	NC		%	30
C059577	SNA	Matrix Spike [DRE633-11]	1,4-Difluorobenzene (sur.)	2025/08/26		92	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/26		123	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/26		115	%	50 - 140
			Benzene	2025/08/26		101	%	50 - 140
			Toluene	2025/08/26		99	%	50 - 140
			Ethylbenzene	2025/08/26		97	%	50 - 140
			m & p-Xylene	2025/08/26		92	%	50 - 140
			o-Xylene	2025/08/26		93	%	50 - 140
			F1 (C6-C10)	2025/08/26		92	%	60 - 140
C055918	KKC	LCS	True Colour	2025/08/20		91	%	80 - 120
C056154	DSX	LCS	Turbidity	2025/08/20		101	%	80 - 120
C056360	JU2	LCS	D10-ANTHRACENE (sur.)	2025/08/22		102	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		102	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		113	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		87	%	50 - 130

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acenaphthene	2025/08/22		71	%	50 - 130
			Acenaphthylene	2025/08/22		93	%	50 - 130
			Acridine	2025/08/22		90	%	50 - 130
			Anthracene	2025/08/22		85	%	50 - 130
			Benzo(a)anthracene	2025/08/22		89	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/22		88	%	50 - 130
			Benzo(k)fluoranthene	2025/08/22		103	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/22		84	%	50 - 130
			Benzo(c)phenanthrene	2025/08/22		95	%	50 - 130
			Benzo(a)pyrene	2025/08/22		89	%	50 - 130
			Benzo(e)pyrene	2025/08/22		83	%	50 - 130
			Chrysene	2025/08/22		90	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/22		86	%	50 - 130
			Fluoranthene	2025/08/22		92	%	50 - 130
			Fluorene	2025/08/22		86	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/22		85	%	50 - 130
			1-Methylnaphthalene	2025/08/22		60	%	50 - 130
			2-Methylnaphthalene	2025/08/22		64	%	50 - 130
			Naphthalene	2025/08/22		76	%	50 - 130
			Phenanthrene	2025/08/22		82	%	50 - 130
			Perylene	2025/08/22		83	%	50 - 130
			Pyrene	2025/08/22		92	%	50 - 130
			Quinoline	2025/08/22		96	%	50 - 130
C056367	AAX	LCS	O-TERPHENYL (sur.)	2025/08/22		103	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22		91	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2025/08/22		100	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2025/08/22		92	%	60 - 140
C056531	RRA	LCS	Oil and grease	2025/08/25		96	%	70 - 130
C056589	AFI	LCS	Nitrite (N)	2025/08/20		101	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/20		100	%	80 - 120
C056617	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/25		95	%	70 - 130
C056706	TOR	LCS	Chloride (Cl)	2025/08/20		105	%	80 - 120
			Sulphate (SO4)	2025/08/20		100	%	80 - 120
C057040	TNY	LCS	Total Dissolved Solids	2025/08/22		94	%	80 - 120
C057077	HE1	LCS	Total Suspended Solids	2025/08/22		95	%	80 - 120
C057450	AFI	LCS	Orthophosphate (P)	2025/08/21		98	%	80 - 120
C057503	KKC	LCS	Nitrite (N)	2025/08/22		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/22		101	%	80 - 120
C057535	TOR	LCS	Chloride (Cl)	2025/08/21		99	%	80 - 120
			Sulphate (SO4)	2025/08/21		100	%	80 - 120
C057584	KKM	LCS	Total Mercury (Hg)	2025/08/21		102	%	80 - 120
C057726	KKM	LCS	Dissolved Mercury (Hg)	2025/08/21		100	%	80 - 120
C057848	AYE	LCS	pH	2025/08/22		100	%	97 - 103
C057849	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/22		98	%	80 - 120
C057850	AYE	LCS	Conductivity	2025/08/22		102	%	90 - 110
C058049	AFI	LCS	True Colour	2025/08/21		91	%	80 - 120
C058130	IDV	LCS	Total Sulphide	2025/08/23		93	%	80 - 120
C058481	AFI	LCS	Orthophosphate (P)	2025/08/21		97	%	80 - 120
C058493	JAB	LCS	Dissolved Aluminum (Al)	2025/08/22		112	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/22		98	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/22		100	%	80 - 120
			Dissolved Copper (Cu)	2025/08/22		102	%	80 - 120

Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Lead (Pb)	2025/08/22		98	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/22		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/22		101	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/22		97	%	80 - 120
			Dissolved Selenium (Se)	2025/08/22		100	%	80 - 120
			Dissolved Silver (Ag)	2025/08/22		98	%	80 - 120
			Dissolved Arsenic (As)	2025/08/22		99	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/22		101	%	80 - 120
			Dissolved Tin (Sn)	2025/08/22		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/22		103	%	80 - 120
			Dissolved Uranium (U)	2025/08/22		95	%	80 - 120
			Dissolved Vanadium (V)	2025/08/22		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/22		95	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/22		104	%	80 - 120
C058633	YL7	LCS	Total Nitrogen (N)	2025/08/22		100	%	80 - 120
C058717	AP1	LCS	Chemical Oxygen Demand	2025/08/22		101	%	80 - 120
C058763	YL7	LCS	Total Nitrogen (N)	2025/08/25		97	%	80 - 120
C059336	JAB	LCS	Total Aluminum (Al)	2025/08/23		104	%	80 - 120
			Total Chromium (Cr)	2025/08/23		97	%	80 - 120
			Total Cobalt (Co)	2025/08/23		97	%	80 - 120
			Total Copper (Cu)	2025/08/23		97	%	80 - 120
			Total Lead (Pb)	2025/08/23		101	%	80 - 120
			Total Antimony (Sb)	2025/08/23		103	%	80 - 120
			Total Molybdenum (Mo)	2025/08/23		103	%	80 - 120
			Total Nickel (Ni)	2025/08/23		97	%	80 - 120
			Total Selenium (Se)	2025/08/23		103	%	80 - 120
			Total Silver (Ag)	2025/08/23		99	%	80 - 120
			Total Arsenic (As)	2025/08/23		103	%	80 - 120
			Total Thallium (Tl)	2025/08/23		105	%	80 - 120
			Total Tin (Sn)	2025/08/23		103	%	80 - 120
			Total Titanium (Ti)	2025/08/23		102	%	80 - 120
			Total Uranium (U)	2025/08/23		104	%	80 - 120
			Total Vanadium (V)	2025/08/23		97	%	80 - 120
			Total Zinc (Zn)	2025/08/23		100	%	80 - 120
			Total Beryllium (Be)	2025/08/23		105	%	80 - 120
C059340	KHU	LCS	Total Iron (Fe)	2025/08/22		107	%	80 - 120
			Total Lithium (Li)	2025/08/22		97	%	80 - 120
			Total Magnesium (Mg)	2025/08/22		105	%	80 - 120
			Total Manganese (Mn)	2025/08/22		110	%	80 - 120
			Total Potassium (K)	2025/08/22		98	%	80 - 120
			Total Sodium (Na)	2025/08/22		102	%	80 - 120
			Total Strontium (Sr)	2025/08/22		102	%	80 - 120
			Total Sulphur (S)	2025/08/22		97	%	80 - 120
			Total Phosphorus (P)	2025/08/22		110	%	80 - 120
			Total Barium (Ba)	2025/08/22		105	%	80 - 120
			Total Silicon (Si)	2025/08/22		109	%	80 - 120
			Total Boron (B)	2025/08/22		103	%	80 - 120
			Total Calcium (Ca)	2025/08/22		95	%	80 - 120
C059577	SNA	LCS	1,4-Difluorobenzene (sur.)	2025/08/26		91	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/26		120	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/26		111	%	50 - 140
			Benzene	2025/08/26		111	%	60 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Toluene	2025/08/26		109	%	60 - 130
			Ethylbenzene	2025/08/26		108	%	60 - 130
			m & p-Xylene	2025/08/26		103	%	60 - 130
			o-Xylene	2025/08/26		102	%	60 - 130
			F1 (C6-C10)	2025/08/26		93	%	60 - 140
C060647	BYM	LCS	Dissolved Iron (Fe)	2025/08/24		99	%	80 - 120
			Dissolved Lithium (Li)	2025/08/24		100	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/24		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/24		94	%	80 - 120
			Dissolved Potassium (K)	2025/08/24		106	%	80 - 120
			Dissolved Sodium (Na)	2025/08/24		101	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/24		98	%	80 - 120
			Dissolved Sulphur (S)	2025/08/24		101	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/24		102	%	80 - 120
			Dissolved Barium (Ba)	2025/08/24		99	%	80 - 120
			Dissolved Silicon (Si)	2025/08/24		96	%	80 - 120
			Dissolved Boron (B)	2025/08/24		100	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/24		102	%	80 - 120
C060686	ISW	LCS	Total Ammonia (N)	2025/08/24		106	%	80 - 120
C060689	ISW	LCS	Total Ammonia (N)	2025/08/24		104	%	80 - 120
C062390	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/26		101	%	80 - 120
C062424	TJ4	LCS	Total Organic Carbon (C)	2025/08/26		98	%	80 - 120
C058633	YL7	SRM	Total Nitrogen (N)	2025/08/22		108	%	80 - 120
C058763	YL7	SRM	Total Nitrogen (N)	2025/08/25		103	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas - Partial/Rush Results

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Bureau Veritas - Partial/Rush Results

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

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VALIDATION SIGNATURE PAGE(CONT'D)

The analytical data and all QC contained in this report were reviewed and validated by:

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas - Partial/Rush Results

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Maxxam
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Calgary
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EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 298635

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGWUBE / BRENDAN CHAPMAN	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	ANALYSIS REQUESTED: VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS TOT ☒ DIS ☒	MERCURY TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, TURBIDITY	OIL and GREASE	TOC, DOC, SULPHIDE	NITRATE, NITRITE, Ammonia (total) TKN	ORTHOPHOSPHATE	SULPHUR - TOTAL + DISSOLVED	COD	TPH
1 AEMP-US-01		X			16	2025/08/16	14:40	X			X	X	X						X	X					X			X	X	X	X	X	X	Y
2 AEMP-US-02		X			16	2025/08/16	16:00	X			X	X	X						X	X					X			X	X	X	X	X	X	Y
3 AEMP-US-03		X			16	2025/08/16	16:55	X			X	X	X						X	Y					X			X	X	X	X	X	X	Y
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

MCAL-2025-08-1374

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com canal-IOR.datatruck@worley.com stacy.gibbs@worley.com please include IES A260143B MU

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐

Date Required

LAB USE ONLY

MAXXAM JOB #

SAMPLES
LABELED BY:
VERIFIED BY:

	YES	NO	COOLER ID #				YES	NO	COOLER ID #				YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	1	1	0	SEAL PRESENT			TEMP °C			SEAL PRESENT			TEMP °C		
SEAL INTACT	✓			1	2	3	SEAL INTACT				1	2	3	SEAL INTACT			1	2	3
COOLING MEDIA PRESENT	✓						COOLING MEDIA PRESENT							COOLING MEDIA PRESENT					

RELINQUISHED BY:	DATE:	TIME (24 HR)	RECEIVED BY:	DATE:	TIME (24 HR)
1.	TINO NGWUBE 2025/08/17		1. JASON BIL	20250819	1500
2.			2.		
3.			3.		

C571494
2025/08/19 15:00

COC-0010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298635

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/27
Report #: R3703354
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571494
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
Send Part to Archive	3		
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	3	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons (F2-F4 in water) (2)	3	AB SOP-00037	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

Task Order#: 417085-59897
Site#:
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Project #: 417085-59897-25200
Your C.O.C. #: 298635

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/27
Report #: R3703354
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571494
Received: 2025/08/19, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	3	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 298635

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/08/27
Report #: R3703354
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C571494

Received: 2025/08/19, 15:00

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Jasbirjit Kaur
Customer Solutions Representative
27 Aug 2025 18:36:16

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE632			DRE632			DRE633		
Sampling Date		2025/08/16 14:40			2025/08/16 14:40			2025/08/16 16:00		
COC Number		298635			298635			298635		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	0.10	C056367				<0.10	0.10	C056367
F3 (C16-C34 Hydrocarbons)	mg/L	<0.10	0.10	C056367				<0.10	0.10	C056367
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	0.20	C056367				<0.20	0.20	C056367
Volatiles										
Benzene	mg/L	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577
Toluene	mg/L	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577
Ethylbenzene	mg/L	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577
m & p-Xylene	mg/L	<0.00080	0.00080	C059577	<0.00080	0.00080	C059577	<0.00080	0.00080	C059577
o-Xylene	mg/L	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577	<0.00040	0.00040	C059577
Xylenes (Total)	mg/L	<0.00089	0.00089	C055564				<0.00089	0.00089	C055564
F1 (C6-C10) - BTEX	mg/L	<0.10	0.10	C055564				<0.10	0.10	C055564
F1 (C6-C10)	mg/L	<0.10	0.10	C059577	<0.10	0.10	C059577	<0.10	0.10	C059577
Extraction Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	95		C056367				100		C056367
Instrument Surrogate Recovery (%)										
1,4-Difluorobenzene (sur.)	%	96		C059577	95		C059577	95		C059577
4-Bromofluorobenzene (sur.)	%	116		C059577	119		C059577	117		C059577
D4-1,2-Dichloroethane (sur.)	%	116		C059577	121		C059577	119		C059577

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F4 IN WATER (WATER)

Bureau Veritas ID		DRE634		
Sampling Date		2025/08/16 16:58		
COC Number		298635		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	0.10	C056367
F3 (C16-C34 Hydrocarbons)	mg/L	<0.10	0.10	C056367
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	0.20	C056367
Volatiles				
Benzene	mg/L	<0.00040	0.00040	C059577
Toluene	mg/L	<0.00040	0.00040	C059577
Ethylbenzene	mg/L	<0.00040	0.00040	C059577
m & p-Xylene	mg/L	<0.00080	0.00080	C059577
o-Xylene	mg/L	<0.00040	0.00040	C059577
Xylenes (Total)	mg/L	<0.00089	0.00089	C055564
F1 (C6-C10) - BTEX	mg/L	<0.10	0.10	C055564
F1 (C6-C10)	mg/L	<0.10	0.10	C059577
Extraction Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	98		C056367
Instrument Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	95		C059577
4-Bromofluorobenzene (sur.)	%	117		C059577
D4-1,2-Dichloroethane (sur.)	%	117		C059577
RDL = Reportable Detection Limit				

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Bureau Veritas Job #: C571494
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Advisian
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Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DRE632		DRE633		DRE634		
Sampling Date		2025/08/16 14:40		2025/08/16 16:00		2025/08/16 16:58		
COC Number		298635		298635		298635		
	UNITS	**AEMP-US-01**	**QC Batch**	**AEMP-US-02**	**QC Batch**	**AEMP-US-03**	**RDL**	**QC Batch**
Calculated Parameters								
Nitrate (N)	mg/L	0.077	C055725	0.052	C055725	0.048	0.040	C055725
Nitrate (NO3)	mg/L	0.34	C055593	0.23	C055593	0.21	0.18	C055593
Nitrite (NO2)	mg/L	<0.13	C055593	<0.13	C055593	<0.13	0.13	C055593
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	C055228	<0.20	C055228	<0.20	0.20	C055228
Nutrients								
Nitrite (N)	mg/L	<0.040	C056589	<0.040	C057503	<0.040	0.040	C057503
Nitrate plus Nitrite (N)	mg/L	0.077	C056589	0.052	C057503	0.048	0.040	C057503
Total Nitrogen (N)	mg/L	0.21 (1)	C058633	0.24	C058763	0.23 (1)	0.20	C058633

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Elements						
Total Cadmium (Cd)	mg/L	0.000098	0.00014	0.00015	0.000020	C055569
Total Mercury (Hg)	ug/L	0.0028	0.0058	0.0061	0.0019	C057584
Total Aluminum (Al)	mg/L	2.2	2.7	2.6	0.0030	C059336
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	<0.00060	0.00060	C059336
Total Arsenic (As)	mg/L	0.0010	0.0020	0.0020	0.00020	C059336
Total Barium (Ba)	mg/L	0.076	0.092	0.086	0.010	C059340
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C059336
Total Boron (B)	mg/L	<0.020	<0.020	<0.020	0.020	C059340
Total Calcium (Ca)	mg/L	33	41	39	0.30	C059340
Total Chromium (Cr)	mg/L	0.0029	0.0040	0.0038	0.0010	C059336
Total Cobalt (Co)	mg/L	0.0012	0.0025	0.0023	0.00030	C059336
Total Copper (Cu)	mg/L	0.0030	0.0058	0.0051	0.0010	C059336
Total Iron (Fe)	mg/L	2.5	5.3	4.9	0.060	C059340
Total Lead (Pb)	mg/L	0.0011	0.0024	0.0021	0.00020	C059336
Total Lithium (Li)	mg/L	<0.020	<0.020	<0.020	0.020	C059340
Total Magnesium (Mg)	mg/L	11	14	13	0.20	C059340
Total Manganese (Mn)	mg/L	0.043	0.098	0.087	0.0040	C059340
Total Molybdenum (Mo)	mg/L	0.0010	0.0013	0.0013	0.00020	C059336
Total Nickel (Ni)	mg/L	0.0042	0.0084	0.0078	0.00050	C059336
Total Phosphorus (P)	mg/L	<0.10	0.10	<0.10	0.10	C059340
Total Potassium (K)	mg/L	1.6	1.6	1.6	0.30	C059340
Total Selenium (Se)	mg/L	0.00032	0.00049	0.00047	0.00020	C059336
Total Silicon (Si)	mg/L	7.1	4.8	4.6	0.50	C059340
Total Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C059336
Total Sodium (Na)	mg/L	8.2	8.0	7.6	0.50	C059340
Total Strontium (Sr)	mg/L	0.24	0.30	0.26	0.020	C059340
Total Sulphur (S)	mg/L	13	16	15	0.20	C059340
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C059336
Total Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C059336
Total Titanium (Ti)	mg/L	0.046	0.023	0.021	0.0010	C059336
Total Uranium (U)	mg/L	0.00083	0.00099	0.00098	0.00010	C059336
RDL = Reportable Detection Limit						

Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0049	0.0065	0.0063	0.0010	C059336
Total Zinc (Zn)	mg/L	0.012	0.047	0.050	0.0030	C059336
RDL = Reportable Detection Limit						

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Advisian
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Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE632			DRE632			DRE633		
Sampling Date		2025/08/16 14:40			2025/08/16 14:40			2025/08/16 16:00		
COC Number		298635			298635			298635		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	120	0.50	C055583				140	0.50	C055583
Ion Balance (% Difference)	%	0.28	N/A	C055587				0.84	N/A	C055587
Sulphide (as H2S)	mg/L	0.012	0.0020	C055724				0.012	0.0020	C055724
Demand Parameters										
Chemical Oxygen Demand	mg/L	17	10	C058717				29	10	C058717
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C055566				<0.000020	0.000020	C055566
Misc. Inorganics										
Conductivity	uS/cm	270	2.0	C057850				290	2.0	C057850
Dissolved Organic Carbon (C)	mg/L	3.4	0.50	C064358				2.8	0.50	C062390
pH	pH	7.41	N/A	C057848				7.37	N/A	C057848
Total Organic Carbon (C)	mg/L	2.7	0.50	C064028	2.8	0.50	C064028	2.5	0.50	C062424
Total Dissolved Solids	mg/L	150	10	C057040				160	10	C057040
Total Suspended Solids	mg/L	56	1.0	C057077				160	1.0	C057077
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Alkalinity (Total as CaCO3)	mg/L	90	1.0	C057849				99	1.0	C057849
Bicarbonate (HCO3)	mg/L	110	1.0	C057849				120	1.0	C057849
Carbonate (CO3)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Hydroxide (OH)	mg/L	<1.0	1.0	C057849				<1.0	1.0	C057849
Total Sulphide	mg/L	0.012	0.0018	C058130				0.012	0.0018	C058130
Chloride (Cl)	mg/L	9.3	1.0	C056706				7.5	1.0	C057535
Sulphate (SO4)	mg/L	38	1.0	C056706				47	1.0	C057535
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C060689				<0.015	0.015	C060686
Orthophosphate (P)	mg/L	<0.0030	0.0030	C057450				<0.0030	0.0030	C058481
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C056531				<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617				<2.0	2.0	C056617

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE632			DRE632			DRE633		
Sampling Date		2025/08/16 14:40			2025/08/16 14:40			2025/08/16 16:00		
COC Number		298635			298635			298635		
	UNITS	**AEMP-US-01**	**RDL**	**QC Batch**	**AEMP-US-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Physical Properties										
True Colour	PtCo units	5.9	2.0	C055918				6.2	2.0	C058049
Physical Properties										
Turbidity	NTU	71	0.10	C056154				120	0.10	C056154

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C571494
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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE634		
Sampling Date		2025/08/16 16:58		
COC Number		298635		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**
Calculated Parameters				
Hardness (CaCO3)	mg/L	130	0.50	C055583
Ion Balance (% Difference)	%	0.87	N/A	C055587
Sulphide (as H2S)	mg/L	0.011	0.0020	C055724
Demand Parameters				
Chemical Oxygen Demand	mg/L	28	10	C058717
Elements				
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C055566
Misc. Inorganics				
Conductivity	uS/cm	280	2.0	C057850
Dissolved Organic Carbon (C)	mg/L	3.2	0.50	C062390
pH	pH	7.28	N/A	C057848
Total Organic Carbon (C)	mg/L	2.6	0.50	C062424
Total Dissolved Solids	mg/L	160	10	C057040
Total Suspended Solids	mg/L	190	1.0	C057077
Anions				
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C057849
Alkalinity (Total as CaCO3)	mg/L	97	1.0	C057849
Bicarbonate (HCO3)	mg/L	120	1.0	C057849
Carbonate (CO3)	mg/L	<1.0	1.0	C057849
Hydroxide (OH)	mg/L	<1.0	1.0	C057849
Total Sulphide	mg/L	0.010	0.0018	C058130
Chloride (Cl)	mg/L	7.4	1.0	C057535
Sulphate (SO4)	mg/L	44	1.0	C057535
Nutrients				
Total Ammonia (N)	mg/L	<0.015	0.015	C060689
Orthophosphate (P)	mg/L	<0.0030	0.0030	C058481
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C056531
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C056617

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C571494
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Advisian
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Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DRE634		
Sampling Date		2025/08/16 16:58		
COC Number		298635		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**
Physical Properties				
True Colour	PtCo units	8.3	2.0	C058049
Physical Properties				
Turbidity	NTU	170	0.10	C056154
RDL = Reportable Detection Limit				

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C055598
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C056360
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C056360
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C056360
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C056360
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C056360
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C056360
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C056360
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C056360
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	98	100	99		C056360
D8-ACENAPHTHYLENE (sur.)	%	101	103	105		C056360
D8-NAPHTHALENE (sur.)	%	77	77	80		C056360
TERPHENYL-D14 (sur.)	%	93	95	94		C056360
RDL = Reportable Detection Limit						

Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	0.0034	0.0037	0.0019	C057726
RDL = Reportable Detection Limit						

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Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DRE632	DRE633	DRE634		
Sampling Date		2025/08/16 14:40	2025/08/16 16:00	2025/08/16 16:58		
COC Number		298635	298635	298635		
	UNITS	**AEMP-US-01**	**AEMP-US-02**	**AEMP-US-03**	**RDL**	**QC Batch**
Elements						
Dissolved Aluminum (Al)	mg/L	0.035	0.039	0.044	0.0030	C058493
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	<0.00060	0.00060	C058493
Dissolved Arsenic (As)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C058493
Dissolved Barium (Ba)	mg/L	0.040	0.044	0.043	0.010	C060647
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Boron (B)	mg/L	<0.020	<0.020	<0.020	0.020	C060647
Dissolved Calcium (Ca)	mg/L	32	36	35	0.30	C060647
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	<0.00030	0.00030	C058493
Dissolved Copper (Cu)	mg/L	0.0012	0.0011	0.0011	0.0010	C058493
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	<0.060	0.060	C060647
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C058493
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	<0.020	0.020	C060647
Dissolved Magnesium (Mg)	mg/L	11	12	11	0.20	C060647
Dissolved Manganese (Mn)	mg/L	<0.0040	<0.0040	<0.0040	0.0040	C060647
Dissolved Molybdenum (Mo)	mg/L	0.00083	0.00099	0.00088	0.00020	C058493
Dissolved Nickel (Ni)	mg/L	0.00088	0.00084	0.00094	0.00050	C058493
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	<0.10	0.10	C060647
Dissolved Potassium (K)	mg/L	0.89	0.93	0.88	0.30	C060647
Dissolved Selenium (Se)	mg/L	0.00025	0.00030	0.00031	0.00020	C058493
Dissolved Silicon (Si)	mg/L	1.5	1.5	1.5	0.50	C060647
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C058493
Dissolved Sodium (Na)	mg/L	8.5	8.1	7.7	0.50	C060647
Dissolved Strontium (Sr)	mg/L	0.23	0.28	0.25	0.020	C060647
Dissolved Sulphur (S)	mg/L	13	16	15	0.20	C060647
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C058493
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Uranium (U)	mg/L	0.00065	0.00079	0.00073	0.00010	C058493
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	C058493
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	<0.0030	0.0030	C058493
RDL = Reportable Detection Limit						

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Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE632
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059577	N/A	2025/08/26	Stephane Nadon
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/23	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C056706	N/A	2025/08/20	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C055918	N/A	2025/08/20	Kristijan Kovac
Carbon (DOC)	TECH	C064358	N/A	2025/08/27	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/23	Abu Dani Alex
Sulphide (as H2S)	CALC	C055724	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059340	2025/08/22	2025/08/22	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059336	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060689	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/21	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C056589	N/A	2025/08/20	Adam Fishleigh
Nitrate (as N)	CALC	C055725	2025/08/21	2025/08/21	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C057450	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Carbon (Total Organic)	TECH	C064028	N/A	2025/08/27	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056154	N/A	2025/08/20	Dafne Strozake Maximo

Bureau Veritas ID: DRE632 Dup
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059577	N/A	2025/08/26	Stephane Nadon

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Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE632 Dup
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (Total Organic)	TECH	C064028	N/A	2025/08/27	Thomas Johnson

Bureau Veritas ID: DRE633
Sample ID: AEMP-US-02
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059577	N/A	2025/08/26	Stephane Nadon
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/23	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C058049	N/A	2025/08/21	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/23	Abu Dani Alex
Sulphide (as H2S)	CALC	C055724	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059340	2025/08/22	2025/08/22	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059336	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060686	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055725	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/25	Automated Statchk
Nitrogen (Total)	AC/COL	C058763	2025/08/22	2025/08/25	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056154	N/A	2025/08/20	Dafne Strozake Maximo

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Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DRE634
Sample ID: AEMP-US-03
Matrix: Water

Collected: 2025/08/16
Relinquished: 2025/08/17
Received: 2025/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C057849	N/A	2025/08/22	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C059577	N/A	2025/08/26	Stephane Nadon
F1-BTEX	CALC/MS	C055564	N/A	2025/08/26	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C055566	N/A	2025/08/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C055569	N/A	2025/08/23	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C057535	N/A	2025/08/21	Tyler Orr
COD by Colorimeter	M/PROB	C058717	N/A	2025/08/22	Amy Phan
True Colour	SPEC/COL	C058049	N/A	2025/08/21	Adam Fishleigh
Carbon (DOC)	TECH	C062390	N/A	2025/08/26	Thomas Johnson
Conductivity @25C	COND	C057850	N/A	2025/08/22	Ayesha Ayesha
CCME Hydrocarbons (F2-F4 in water)	GC/FID	C056367	2025/08/22	2025/08/23	Abu Dani Alex
Sulphide (as H2S)	CALC	C055724	N/A	2025/08/23	Automated Statchk
Hardness	CALC	C055583	N/A	2025/08/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C057726	2025/08/21	2025/08/21	Kiran Kumari
Mercury (Total) by CV	CV	C057584	2025/08/21	2025/08/21	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C060647	N/A	2025/08/24	Bailey Morrison
Elements by ICP - Total	ICPA	C059340	2025/08/22	2025/08/22	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C058493	N/A	2025/08/22	Jason Bao
Elements by ICPMS - Total	ICPM	C059336	2025/08/22	2025/08/23	Jason Bao
Ion Balance	CALC	C055587	N/A	2025/08/25	Automated Statchk
Ammonia-N (Total)	KONE	C060689	N/A	2025/08/24	Isabelle White
Nitrate and Nitrite	CALC	C055593	N/A	2025/08/22	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C057503	N/A	2025/08/21	Kristijan Kovac
Nitrate (as N)	CALC	C055725	2025/08/22	2025/08/22	Automated Statchk
Oil and Grease by IR	IR	C056531	2025/08/21	2025/08/25	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C055598	N/A	2025/08/24	Automated Statchk
PAH in Water by GC/MS	GC/MS	C056360	2025/08/22	2025/08/22	Jiby Uthup
pH @25°C	AT/ALK	C057848	N/A	2025/08/22	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C058481	N/A	2025/08/21	Adam Fishleigh
Total Sulphide	SPEC	C058130	2025/08/21	2025/08/23	Irene Donita Villanueva
Total Dissolved Solids (Filt. Residue)	BAL	C057040	2025/08/21	2025/08/22	Thi Boi Tran Nguyen
Total Kjeldahl Nitrogen (Total)	CALC	C055228	N/A	2025/08/22	Automated Statchk
Nitrogen (Total)	AC/COL	C058633	2025/08/22	2025/08/22	Yan Lin
Carbon (Total Organic)	TECH	C062424	N/A	2025/08/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C056617	2025/08/21	2025/08/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C057077	2025/08/21	2025/08/22	Haydee Estilong
Turbidity	TURB	C056154	N/A	2025/08/20	Dafne Strozake Maximo

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.7°C

Note: C of C not signed/dated by Consultant. Chain of custody was not relinquished with time. Proceeded.
Note: Bottles listed on C of C, but not found in shipment. For AEMP-US-01, 16 containers were listed on chain of custody but received only 15. Proceeded.
Client was notified via email.

Sample DRE632 [AEMP-US-01] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer.

Sample DRE633 [AEMP-US-02] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DRE634 [AEMP-US-03] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Results relate only to the items tested.

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Bureau Veritas Job #: C571494
Report Date: 2025/08/27

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C055918	KKC	Method Blank	True Colour	2025/08/20	<2.0		PtCo units	
C056154	DSX	Method Blank	Turbidity	2025/08/20	<0.10		NTU	
C056360	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/08/23		83	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/23		78	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/23		78	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/23		54	%	50 - 130
			Acenaphthene	2025/08/23	<0.00010		mg/L	
			Acenaphthylene	2025/08/23	<0.00010		mg/L	
			Acridine	2025/08/23	<0.000040		mg/L	
			Anthracene	2025/08/23	<0.000010		mg/L	
			Benzo(a)anthracene	2025/08/23	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/08/23	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/08/23	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/08/23	<0.000050		mg/L	
			Benzo(a)pyrene	2025/08/23	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/08/23	<0.000050		mg/L	
			Chrysene	2025/08/23	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/08/23	<0.0000075		mg/L	
			Fluoranthene	2025/08/23	<0.000010		mg/L	
			Fluorene	2025/08/23	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/08/23	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			2-Methylnaphthalene	2025/08/23	<0.00010		mg/L	
			Naphthalene	2025/08/23	<0.00010		mg/L	
			Phenanthrene	2025/08/23	<0.000050		mg/L	
			Perylene	2025/08/23	<0.000050		mg/L	
			Pyrene	2025/08/23	<0.000020		mg/L	
			Quinoline	2025/08/23	<0.00020		mg/L	
C056367	AAX	Method Blank	O-TERPHENYL (sur.)	2025/08/22		97	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F3 (C16-C34 Hydrocarbons)	2025/08/22	<0.10		mg/L	
			F4 (C34-C50 Hydrocarbons)	2025/08/22	<0.20		mg/L	
C056531	RRA	Method Blank	Oil and grease	2025/08/25	<2.0		mg/L	
C056589	AFI	Method Blank	Nitrite (N)	2025/08/20	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/20	<0.040		mg/L	
C056617	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/08/25	<2.0		mg/L	
C056706	TOR	Method Blank	Chloride (Cl)	2025/08/20	<1.0		mg/L	
			Sulphate (SO4)	2025/08/20	<1.0		mg/L	
C057040	TNY	Method Blank	Total Dissolved Solids	2025/08/22	<10		mg/L	
C057077	HE1	Method Blank	Total Suspended Solids	2025/08/22	<1.0		mg/L	
C057450	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C057503	KKC	Method Blank	Nitrite (N)	2025/08/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/08/21	<0.040		mg/L	
C057535	TOR	Method Blank	Chloride (Cl)	2025/08/21	<1.0		mg/L	
			Sulphate (SO4)	2025/08/21	<1.0		mg/L	
C057584	KKM	Method Blank	Total Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057726	KKM	Method Blank	Dissolved Mercury (Hg)	2025/08/21	<0.0019		ug/L	
C057849	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/08/22	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/08/22	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/08/22	<1.0		mg/L	
			Carbonate (CO3)	2025/08/22	<1.0		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Hydroxide (OH)	2025/08/22	<1.0		mg/L	
C057850	AYE	Method Blank	Conductivity	2025/08/22	<2.0		uS/cm	
C058049	AFI	Method Blank	True Colour	2025/08/21	<2.0		PtCo units	
C058130	IDV	Method Blank	Total Sulphide	2025/08/23	<0.0018		mg/L	
C058481	AFI	Method Blank	Orthophosphate (P)	2025/08/21	<0.0030		mg/L	
C058493	JAB	Method Blank	Dissolved Aluminum (Al)	2025/08/22	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/08/22	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/08/22	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/08/22	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/08/22	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/08/22	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/08/22	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/08/22	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/08/22	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/08/22	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/08/22	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/08/22	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/08/22	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/08/22	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/08/22	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/08/22	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/08/22	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/08/22	<0.0010		mg/L	
C058633	YL7	Method Blank	Total Nitrogen (N)	2025/08/22	<0.020		mg/L	
C058717	AP1	Method Blank	Chemical Oxygen Demand	2025/08/22	<10		mg/L	
C058763	YL7	Method Blank	Total Nitrogen (N)	2025/08/25	<0.020		mg/L	
C059336	JAB	Method Blank	Total Aluminum (Al)	2025/08/23	<0.0030		mg/L	
			Total Chromium (Cr)	2025/08/23	<0.0010		mg/L	
			Total Cobalt (Co)	2025/08/23	<0.00030		mg/L	
			Total Copper (Cu)	2025/08/23	<0.0010		mg/L	
			Total Lead (Pb)	2025/08/23	<0.00020		mg/L	
			Total Antimony (Sb)	2025/08/23	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/08/23	<0.00020		mg/L	
			Total Nickel (Ni)	2025/08/23	<0.00050		mg/L	
			Total Selenium (Se)	2025/08/23	<0.00020		mg/L	
			Total Silver (Ag)	2025/08/23	<0.00010		mg/L	
			Total Arsenic (As)	2025/08/23	<0.00020		mg/L	
			Total Thallium (Tl)	2025/08/23	<0.00020		mg/L	
			Total Tin (Sn)	2025/08/23	<0.0010		mg/L	
			Total Titanium (Ti)	2025/08/23	<0.0010		mg/L	
			Total Uranium (U)	2025/08/23	<0.00010		mg/L	
			Total Vanadium (V)	2025/08/23	<0.0010		mg/L	
			Total Zinc (Zn)	2025/08/23	<0.0030		mg/L	
			Total Beryllium (Be)	2025/08/23	<0.0010		mg/L	
C059340	KHU	Method Blank	Total Iron (Fe)	2025/08/22	<0.060		mg/L	
			Total Lithium (Li)	2025/08/22	<0.020		mg/L	
			Total Magnesium (Mg)	2025/08/22	<0.20		mg/L	
			Total Manganese (Mn)	2025/08/22	<0.0040		mg/L	
			Total Potassium (K)	2025/08/22	<0.30		mg/L	
			Total Sodium (Na)	2025/08/22	<0.50		mg/L	
			Total Strontium (Sr)	2025/08/22	<0.020		mg/L	
			Total Sulphur (S)	2025/08/22	<0.20		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Phosphorus (P)	2025/08/22	<0.10		mg/L	
			Total Barium (Ba)	2025/08/22	<0.010		mg/L	
			Total Silicon (Si)	2025/08/22	<0.50		mg/L	
			Total Boron (B)	2025/08/22	<0.020		mg/L	
			Total Calcium (Ca)	2025/08/22	<0.30		mg/L	
C059577	SNA	Method Blank	1,4-Difluorobenzene (sur.)	2025/08/26		96	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/26		119	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/26		121	%	50 - 140
			Benzene	2025/08/26	<0.00040		mg/L	
			Toluene	2025/08/26	<0.00040		mg/L	
			Ethylbenzene	2025/08/26	<0.00040		mg/L	
			m & p-Xylene	2025/08/26	<0.00080		mg/L	
			o-Xylene	2025/08/26	<0.00040		mg/L	
			F1 (C6-C10)	2025/08/26	<0.10		mg/L	
C060647	BYM	Method Blank	Dissolved Iron (Fe)	2025/08/24	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/08/24	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/08/24	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/08/24	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/08/24	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/08/24	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/08/24	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/08/24	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/08/24	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/08/24	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/08/24	<0.50		mg/L	
			Dissolved Boron (B)	2025/08/24	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/08/24	<0.30		mg/L	
C060686	ISW	Method Blank	Total Ammonia (N)	2025/08/24	<0.015		mg/L	
C060689	ISW	Method Blank	Total Ammonia (N)	2025/08/24	<0.015		mg/L	
C062390	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C062424	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/26	<0.50		mg/L	
C064028	TJ4	Method Blank	Total Organic Carbon (C)	2025/08/27	<0.50		mg/L	
C064358	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/08/27	<0.50		mg/L	
C059577	SNA	RPD [DRE632-11]	Benzene	2025/08/26	NC		%	30
			Toluene	2025/08/26	NC		%	30
			Ethylbenzene	2025/08/26	NC		%	30
			m & p-Xylene	2025/08/26	NC		%	30
			o-Xylene	2025/08/26	NC		%	30
			F1 (C6-C10)	2025/08/26	NC		%	30
C064028	TJ4	RPD [DRE632-05]	Total Organic Carbon (C)	2025/08/27	3.2		%	20
C059577	SNA	Matrix Spike [DRE633-11]	1,4-Difluorobenzene (sur.)	2025/08/26		92	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/26		123	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/26		115	%	50 - 140
			Benzene	2025/08/26		101	%	50 - 140
			Toluene	2025/08/26		99	%	50 - 140
			Ethylbenzene	2025/08/26		97	%	50 - 140
			m & p-Xylene	2025/08/26		92	%	50 - 140
			o-Xylene	2025/08/26		93	%	50 - 140
			F1 (C6-C10)	2025/08/26		92	%	60 - 140
C064028	TJ4	Matrix Spike [DRE632-05]	Total Organic Carbon (C)	2025/08/27		105	%	75 - 125
C055918	KKC	LCS	True Colour	2025/08/20		91	%	80 - 120
C056154	DSX	LCS	Turbidity	2025/08/20		101	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C056360	JU2	LCS	D10-ANTHRACENE (sur.)	2025/08/22		102	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/08/22		102	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/08/22		113	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/08/22		87	%	50 - 130
			Acenaphthene	2025/08/22		71	%	50 - 130
			Acenaphthylene	2025/08/22		93	%	50 - 130
			Acridine	2025/08/22		90	%	50 - 130
			Anthracene	2025/08/22		85	%	50 - 130
			Benzo(a)anthracene	2025/08/22		89	%	50 - 130
			Benzo(b&j)fluoranthene	2025/08/22		88	%	50 - 130
			Benzo(k)fluoranthene	2025/08/22		103	%	50 - 130
			Benzo(g,h,i)perylene	2025/08/22		84	%	50 - 130
			Benzo(c)phenanthrene	2025/08/22		95	%	50 - 130
			Benzo(a)pyrene	2025/08/22		89	%	50 - 130
			Benzo(e)pyrene	2025/08/22		83	%	50 - 130
			Chrysene	2025/08/22		90	%	50 - 130
			Dibenz(a,h)anthracene	2025/08/22		86	%	50 - 130
			Fluoranthene	2025/08/22		92	%	50 - 130
			Fluorene	2025/08/22		86	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/08/22		85	%	50 - 130
			1-Methylnaphthalene	2025/08/22		60	%	50 - 130
			2-Methylnaphthalene	2025/08/22		64	%	50 - 130
			Naphthalene	2025/08/22		76	%	50 - 130
			Phenanthrene	2025/08/22		82	%	50 - 130
			Perylene	2025/08/22		83	%	50 - 130
			Pyrene	2025/08/22		92	%	50 - 130
			Quinoline	2025/08/22		96	%	50 - 130
C056367	AAX	LCS	O-TERPHENYL (sur.)	2025/08/22		103	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/08/22		91	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2025/08/22		100	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2025/08/22		92	%	60 - 140
C056531	RRA	LCS	Oil and grease	2025/08/25		96	%	70 - 130
C056589	AFI	LCS	Nitrite (N)	2025/08/20		101	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/20		100	%	80 - 120
C056617	RRA	LCS	Total Petroleum Hydrocarbon	2025/08/25		95	%	70 - 130
C056706	TOR	LCS	Chloride (Cl)	2025/08/20		105	%	80 - 120
			Sulphate (SO4)	2025/08/20		100	%	80 - 120
C057040	TNY	LCS	Total Dissolved Solids	2025/08/22		94	%	80 - 120
C057077	HE1	LCS	Total Suspended Solids	2025/08/22		95	%	80 - 120
C057450	AFI	LCS	Orthophosphate (P)	2025/08/21		98	%	80 - 120
C057503	KKC	LCS	Nitrite (N)	2025/08/22		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/08/22		101	%	80 - 120
C057535	TOR	LCS	Chloride (Cl)	2025/08/21		99	%	80 - 120
			Sulphate (SO4)	2025/08/21		100	%	80 - 120
C057584	KKM	LCS	Total Mercury (Hg)	2025/08/21		102	%	80 - 120
C057726	KKM	LCS	Dissolved Mercury (Hg)	2025/08/21		100	%	80 - 120
C057848	AYE	LCS	pH	2025/08/22		100	%	97 - 103
C057849	AYE	LCS	Alkalinity (Total as CaCO3)	2025/08/22		98	%	80 - 120
C057850	AYE	LCS	Conductivity	2025/08/22		102	%	90 - 110
C058049	AFI	LCS	True Colour	2025/08/21		91	%	80 - 120
C058130	IDV	LCS	Total Sulphide	2025/08/23		93	%	80 - 120
C058481	AFI	LCS	Orthophosphate (P)	2025/08/21		97	%	80 - 120

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C058493	JAB	LCS	Dissolved Aluminum (Al)	2025/08/22		112	%	80 - 120
			Dissolved Chromium (Cr)	2025/08/22		98	%	80 - 120
			Dissolved Cobalt (Co)	2025/08/22		100	%	80 - 120
			Dissolved Copper (Cu)	2025/08/22		102	%	80 - 120
			Dissolved Lead (Pb)	2025/08/22		98	%	80 - 120
			Dissolved Antimony (Sb)	2025/08/22		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/08/22		101	%	80 - 120
			Dissolved Nickel (Ni)	2025/08/22		97	%	80 - 120
			Dissolved Selenium (Se)	2025/08/22		100	%	80 - 120
			Dissolved Silver (Ag)	2025/08/22		98	%	80 - 120
			Dissolved Arsenic (As)	2025/08/22		99	%	80 - 120
			Dissolved Thallium (Tl)	2025/08/22		101	%	80 - 120
			Dissolved Tin (Sn)	2025/08/22		101	%	80 - 120
			Dissolved Titanium (Ti)	2025/08/22		103	%	80 - 120
			Dissolved Uranium (U)	2025/08/22		95	%	80 - 120
			Dissolved Vanadium (V)	2025/08/22		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/08/22		95	%	80 - 120
			Dissolved Beryllium (Be)	2025/08/22		104	%	80 - 120
C058633	YL7	LCS	Total Nitrogen (N)	2025/08/22		100	%	80 - 120
C058717	AP1	LCS	Chemical Oxygen Demand	2025/08/22		101	%	80 - 120
C058763	YL7	LCS	Total Nitrogen (N)	2025/08/25		97	%	80 - 120
C059336	JAB	LCS	Total Aluminum (Al)	2025/08/23		104	%	80 - 120
			Total Chromium (Cr)	2025/08/23		97	%	80 - 120
			Total Cobalt (Co)	2025/08/23		97	%	80 - 120
			Total Copper (Cu)	2025/08/23		97	%	80 - 120
			Total Lead (Pb)	2025/08/23		101	%	80 - 120
			Total Antimony (Sb)	2025/08/23		103	%	80 - 120
			Total Molybdenum (Mo)	2025/08/23		103	%	80 - 120
			Total Nickel (Ni)	2025/08/23		97	%	80 - 120
			Total Selenium (Se)	2025/08/23		103	%	80 - 120
			Total Silver (Ag)	2025/08/23		99	%	80 - 120
			Total Arsenic (As)	2025/08/23		103	%	80 - 120
			Total Thallium (Tl)	2025/08/23		105	%	80 - 120
			Total Tin (Sn)	2025/08/23		103	%	80 - 120
			Total Titanium (Ti)	2025/08/23		102	%	80 - 120
			Total Uranium (U)	2025/08/23		104	%	80 - 120
			Total Vanadium (V)	2025/08/23		97	%	80 - 120
			Total Zinc (Zn)	2025/08/23		100	%	80 - 120
			Total Beryllium (Be)	2025/08/23		105	%	80 - 120
C059340	KHU	LCS	Total Iron (Fe)	2025/08/22		107	%	80 - 120
			Total Lithium (Li)	2025/08/22		97	%	80 - 120
			Total Magnesium (Mg)	2025/08/22		105	%	80 - 120
			Total Manganese (Mn)	2025/08/22		110	%	80 - 120
			Total Potassium (K)	2025/08/22		98	%	80 - 120
			Total Sodium (Na)	2025/08/22		102	%	80 - 120
			Total Strontium (Sr)	2025/08/22		102	%	80 - 120
			Total Sulphur (S)	2025/08/22		97	%	80 - 120
			Total Phosphorus (P)	2025/08/22		110	%	80 - 120
			Total Barium (Ba)	2025/08/22		105	%	80 - 120
			Total Silicon (Si)	2025/08/22		109	%	80 - 120
			Total Boron (B)	2025/08/22		103	%	80 - 120
			Total Calcium (Ca)	2025/08/22		95	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C059577	SNA	LCS	1,4-Difluorobenzene (sur.)	2025/08/26		91	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/08/26		120	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/08/26		111	%	50 - 140
			Benzene	2025/08/26		111	%	60 - 130
			Toluene	2025/08/26		109	%	60 - 130
			Ethylbenzene	2025/08/26		108	%	60 - 130
			m & p-Xylene	2025/08/26		103	%	60 - 130
			o-Xylene	2025/08/26		102	%	60 - 130
			F1 (C6-C10)	2025/08/26		93	%	60 - 140
C060647	BYM	LCS	Dissolved Iron (Fe)	2025/08/24		99	%	80 - 120
			Dissolved Lithium (Li)	2025/08/24		100	%	80 - 120
			Dissolved Magnesium (Mg)	2025/08/24		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/08/24		94	%	80 - 120
			Dissolved Potassium (K)	2025/08/24		106	%	80 - 120
			Dissolved Sodium (Na)	2025/08/24		101	%	80 - 120
			Dissolved Strontium (Sr)	2025/08/24		98	%	80 - 120
			Dissolved Sulphur (S)	2025/08/24		101	%	80 - 120
			Dissolved Phosphorus (P)	2025/08/24		102	%	80 - 120
			Dissolved Barium (Ba)	2025/08/24		99	%	80 - 120
			Dissolved Silicon (Si)	2025/08/24		96	%	80 - 120
			Dissolved Boron (B)	2025/08/24		100	%	80 - 120
			Dissolved Calcium (Ca)	2025/08/24		102	%	80 - 120
C060686	ISW	LCS	Total Ammonia (N)	2025/08/24		106	%	80 - 120
C060689	ISW	LCS	Total Ammonia (N)	2025/08/24		104	%	80 - 120
C062390	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/26		101	%	80 - 120
C062424	TJ4	LCS	Total Organic Carbon (C)	2025/08/26		98	%	80 - 120
C064028	TJ4	LCS	Total Organic Carbon (C)	2025/08/27		103	%	80 - 120
C064358	TJ4	LCS	Dissolved Organic Carbon (C)	2025/08/27		104	%	80 - 120
C058633	YL7	SRM	Total Nitrogen (N)	2025/08/22		108	%	80 - 120
C058763	YL7	SRM	Total Nitrogen (N)	2025/08/25		103	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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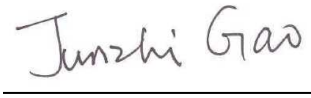
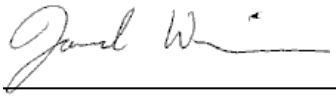
VALIDATION SIGNATURE PAGE

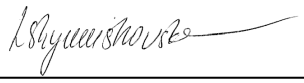
The analytical data and all QC contained in this report were reviewed and validated by:



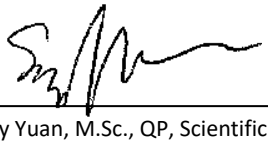
Janet Gao, B.Sc., QP, Supervisor, Organics



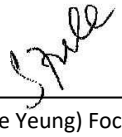
Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics



Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics

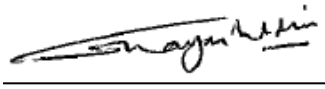


Sandy Yuan, M.Sc., QP, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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VALIDATION SIGNATURE PAGE(CONT'D)

The analytical data and all QC contained in this report were reviewed and validated by:

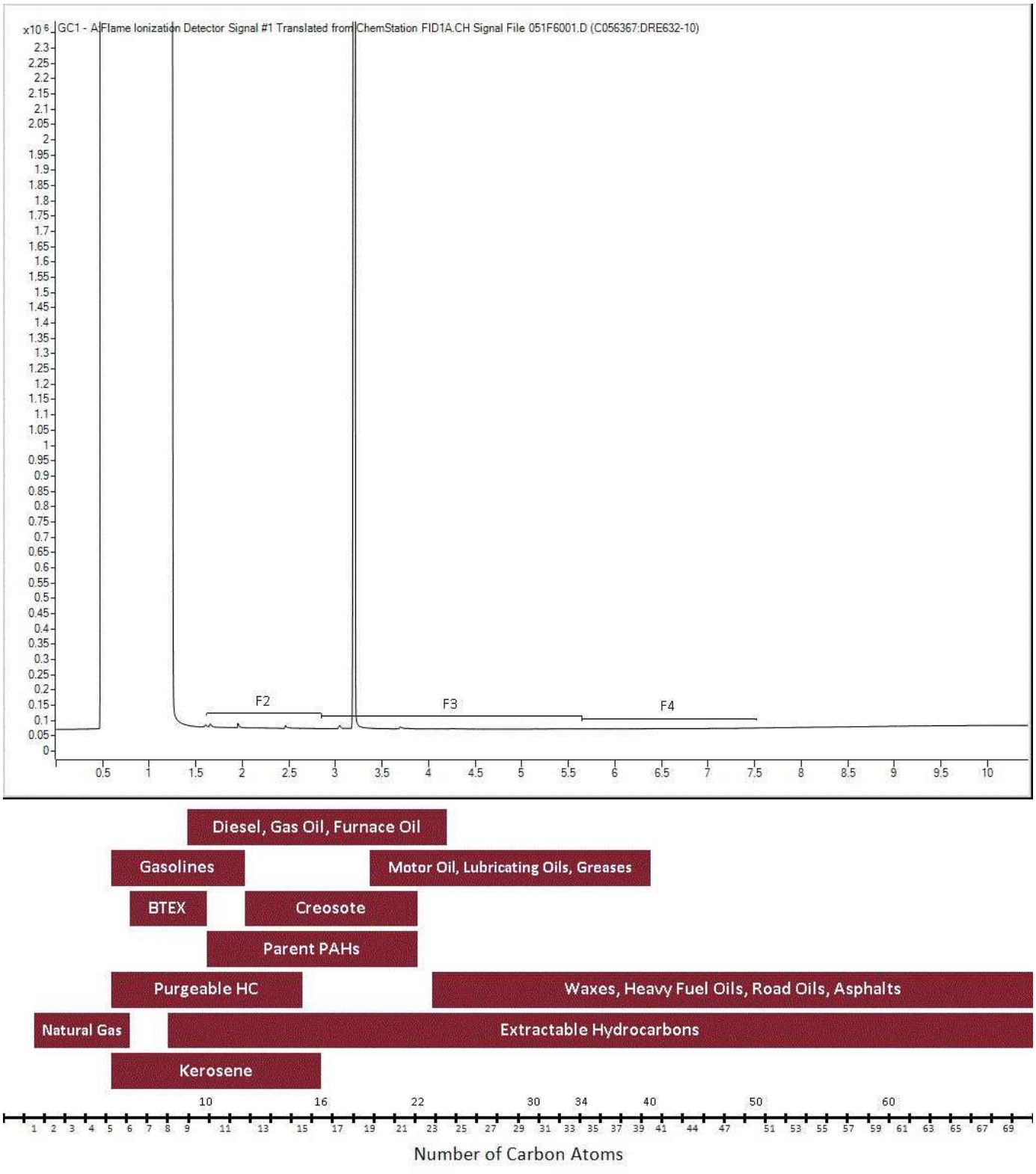
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C571494
Report Date: 2025/08/27
Bureau Veritas Sample: DRE632

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-01

CCME Hydrocarbons (F2-F4 in water) Chromatogram

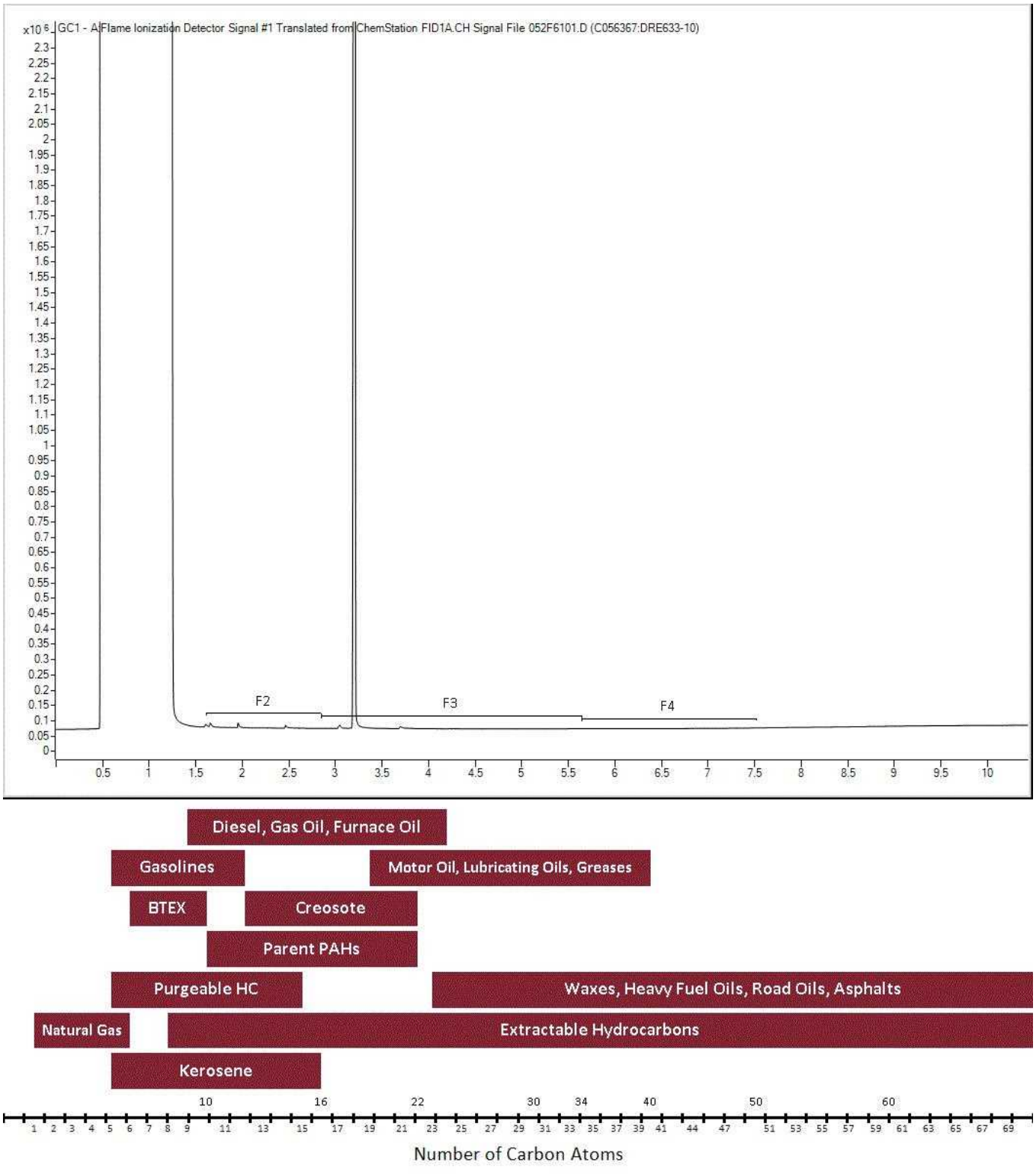


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571494
Report Date: 2025/08/27
Bureau Veritas Sample: DRE633

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-02

CCME Hydrocarbons (F2-F4 in water) Chromatogram

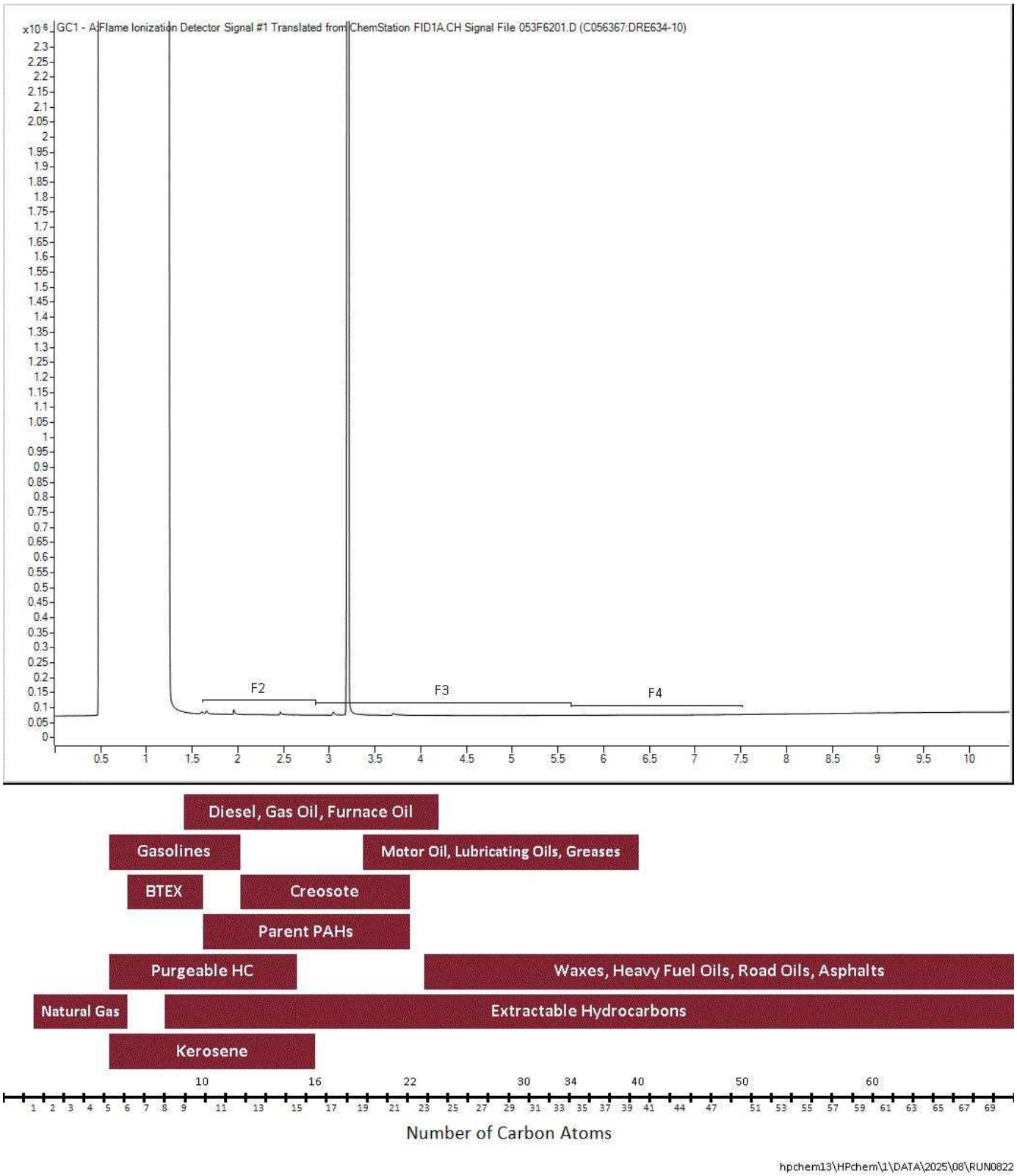


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C571494
Report Date: 2025/08/27
Bureau Veritas Sample: DRE634

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-03

CCME Hydrocarbons (F2-F4 in water) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

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9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 298635

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: WORLEY
Contact Name: ALEX HAIGH	Contact Name: ALEX HAIGH
Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7	Address: 49 QUARRY PARK BLVD SE CALGARY, AB T2C 3E7
Email: alex.haigh@worley.com	Email: alex.haigh@worley.com
Ph: 587-897-6249	Ph: 587-897-6249
Sampler Name (Print): TINO NGWUBE / BRENDAN CHAPMAN	Consultant Project #: 417085-59897-25200

FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	ANALYSIS REQUESTED: VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS TOT ☒ DIS ☒	MERCURY TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	TRUE COLOR, TSS, TDS, TURBIDITY	OIL and GREASE	TOC, DOC, SULPHIDE	NITRATE, NITRITE, Ammonia (total) TKN	ORTHOPHOSPHATE	SULPHUR - TOTAL + DISSOLVED	COD	TPH
1 AEMP-US-01		X			16	2025/08/16	14:40	X			X	X	X						X	X					X			X	X	X	X	X	X	Y
2 AEMP-US-02		X			16	2025/08/16	16:00	X			X	X	X						X	X					X			X	X	X	X	X	X	Y
3 AEMP-US-03		X			16	2025/08/16	16:55	X			X	X	X						X	Y					X			X	X	X	X	X	X	Y
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

MCAL-2025-08-1374

IOL SITE LOCATION: NORMAN WELLS, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: email canada.chemistry@worley.com canal-IOR.datatruck@worley.com stacy.gibson@worley.com please include IES A260143B MU

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐

Date Required

LAB USE ONLY

MAXXAM JOB #

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	1	1	0
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	TINO NGWUBE	2025/08/17		1.	JASON BIL	20250819	1500
2.				2.			
3.				3.			

SAMPLES
LABELED BY:
VERIFIED BY:

C571494
2025/08/19 15:00

C 5010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 292279

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3712645
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578218
Received: 2025/09/15, 15:30

Sample Matrix: Surface Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) by Combustion (1)	3	CAL SOP-00279	SM24th Ed. 5310 A, B
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (2)	3	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

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Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200
Your C.O.C. #: 292279

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3712645
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578218
Received: 2025/09/15, 15:30

Sample Matrix: Surface Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	1	AB SOP-00087	MMCW 119 1996 m
Carbon (Total Organic) by Combustion (7)	2	CAL SOP-00279	SM24th Ed. 5310 A, B
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.

Task Order#: 417085-59897
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Your C.O.C. #: 292279

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3712645
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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578218

Received: 2025/09/15, 15:30

(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
22 Sep 2025 13:38:50

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (SURFACE WATER)

Bureau Veritas ID		DSX717			DSX717			DSX718		
Sampling Date		2025/09/13 15:30			2025/09/13 15:30			2025/09/13 14:10		
COC Number		292279			292279			292279		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	0.10	C087854				<0.10	0.10	C087854
Volatiles										
Benzene	mg/L	<0.00040	0.00040	C088452	<0.00040	0.00040	C088452	<0.00040	0.00040	C088452
Toluene	mg/L	<0.00040	0.00040	C088452	<0.00040	0.00040	C088452	<0.00040	0.00040	C088452
Ethylbenzene	mg/L	<0.00040	0.00040	C088452	<0.00040	0.00040	C088452	<0.00040	0.00040	C088452
m & p-Xylene	mg/L	<0.00080	0.00080	C088452	<0.00080	0.00080	C088452	<0.00080	0.00080	C088452
o-Xylene	mg/L	<0.00040	0.00040	C088452	<0.00040	0.00040	C088452	<0.00040	0.00040	C088452
Xylenes (Total)	mg/L	<0.00089	0.00089	C086056				<0.00089	0.00089	C086056
F1 (C6-C10) - BTEX	mg/L	<0.10	0.10	C086056				<0.10	0.10	C086056
F1 (C6-C10)	mg/L	<0.10	0.10	C088452	<0.10	0.10	C088452	<0.10	0.10	C088452
Extraction Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	116		C087854				115		C087854
Instrument Surrogate Recovery (%)										
1,4-Difluorobenzene (sur.)	%	100		C088452	100		C088452	101		C088452
4-Bromofluorobenzene (sur.)	%	103		C088452	103		C088452	103		C088452
D4-1,2-Dichloroethane (sur.)	%	99		C088452	100		C088452	98		C088452

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (SURFACE WATER)

Bureau Veritas ID		DSX719		
Sampling Date		2025/09/13 17:15		
COC Number		292279		
	UNITS	**AEMP-DS-02**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	0.10	C087854
Volatiles				
Benzene	mg/L	<0.00040	0.00040	C088452
Toluene	mg/L	<0.00040	0.00040	C088452
Ethylbenzene	mg/L	<0.00040	0.00040	C088452
m & p-Xylene	mg/L	<0.00080	0.00080	C088452
o-Xylene	mg/L	<0.00040	0.00040	C088452
Xylenes (Total)	mg/L	<0.00089	0.00089	C086056
F1 (C6-C10) - BTEX	mg/L	<0.10	0.10	C086056
F1 (C6-C10)	mg/L	<0.10	0.10	C088452
Extraction Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	113		C087854
Instrument Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	100		C088452
4-Bromofluorobenzene (sur.)	%	102		C088452
D4-1,2-Dichloroethane (sur.)	%	99		C088452
RDL = Reportable Detection Limit				

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DSX717	DSX718	DSX719		
Sampling Date		2025/09/13 15:30	2025/09/13 14:10	2025/09/13 17:15		
COC Number		292279	292279	292279		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**AEMP-DS-02**	**RDL**	**QC Batch**
Calculated Parameters						
Nitrate (N)	mg/L	<0.040	<0.040	0.058	0.040	C086604
Nitrate (NO3)	mg/L	<0.18	<0.18	0.26	0.18	C086672
Nitrite (NO2)	mg/L	<0.13	<0.13	<0.13	0.13	C086672
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.17	0.17	0.15	0.040	C086426
Nutrients						
Nitrite (N)	mg/L	<0.040	<0.040	<0.040	0.040	C087683
Nitrate plus Nitrite (N)	mg/L	<0.040	<0.040	0.058	0.040	C087683
Total Nitrogen (N)	mg/L	0.17	0.17	0.20	0.020	C090213
RDL = Reportable Detection Limit						

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REGULATED METALS INCLUDING MERCURY-TOTAL (SURFACE WATER)

Bureau Veritas ID		DSX717	DSX718		DSX719		
Sampling Date		2025/09/13 15:30	2025/09/13 14:10		2025/09/13 17:15		
COC Number		292279	292279		292279		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**QC Batch**	**AEMP-DS-02**	**RDL**	**QC Batch**
Elements							
Total Cadmium (Cd)	mg/L	<0.000020	<0.000020	C086064	0.000030	0.000020	C086669
Total Mercury (Hg)	ug/L	<0.0019	<0.0019	C092107	<0.0019	0.0019	C092107
Total Aluminum (Al)	mg/L	0.063	0.016	C092017	0.43	0.0030	C091963
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	C092017	<0.00060	0.00060	C091963
Total Arsenic (As)	mg/L	0.00022	<0.00020	C092017	0.00051	0.00020	C091963
Total Barium (Ba)	mg/L	0.083	0.083	C092025	0.063	0.010	C091971
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	C092017	<0.0010	0.0010	C091963
Total Boron (B)	mg/L	0.031	0.029	C092025	<0.020	0.020	C091971
Total Calcium (Ca)	mg/L	75	77	C092025	39	0.30	C091971
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	C092017	<0.0010	0.0010	C091963
Total Cobalt (Co)	mg/L	<0.00030	<0.00030	C092017	0.00036	0.00030	C091963
Total Copper (Cu)	mg/L	<0.0010	<0.0010	C092017	0.0016	0.0010	C091963
Total Iron (Fe)	mg/L	0.17	0.11	C092025	0.70	0.060	C091971
Total Lead (Pb)	mg/L	<0.00020	<0.00020	C092017	0.00037	0.00020	C091963
Total Lithium (Li)	mg/L	<0.020	<0.020	C092025	<0.020	0.020	C091971
Total Magnesium (Mg)	mg/L	31	31	C092025	12	0.20	C091971
Total Manganese (Mn)	mg/L	0.011	0.0068	C092025	0.023	0.0040	C091971
Total Molybdenum (Mo)	mg/L	0.0018	0.0016	C092017	0.00096	0.00020	C091963
Total Nickel (Ni)	mg/L	0.00063	<0.00050	C092017	0.0022	0.00050	C091963
Total Phosphorus (P)	mg/L	<0.10	<0.10	C092025	<0.10	0.10	C091971
Total Potassium (K)	mg/L	1.1	1.2	C092025	1.0	0.30	C091971
Total Selenium (Se)	mg/L	0.00024	<0.00020	C092017	0.00021	0.00020	C091963
Total Silicon (Si)	mg/L	2.2	2.3	C092025	2.4	0.50	C091971
Total Silver (Ag)	mg/L	<0.00010	<0.00010	C092017	<0.00010	0.00010	C091963
Total Sodium (Na)	mg/L	23	23	C092025	10	0.50	C091971
Total Strontium (Sr)	mg/L	1.6	1.6	C092025	0.34	0.020	C091971
Total Sulphur (S)	mg/L	53	54	C092025	16	0.20	C091971
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	C092017	<0.00020	0.00020	C091963
Total Tin (Sn)	mg/L	<0.0010	<0.0010	C092017	<0.0010	0.0010	C091963
Total Titanium (Ti)	mg/L	0.0012	<0.0010	C092017	0.011	0.0010	C091963
Total Uranium (U)	mg/L	0.0011	0.0011	C092017	0.00085	0.00010	C091963
RDL = Reportable Detection Limit							

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REGULATED METALS INCLUDING MERCURY-TOTAL (SURFACE WATER)

Bureau Veritas ID		DSX717	DSX718		DSX719		
Sampling Date		2025/09/13 15:30	2025/09/13 14:10		2025/09/13 17:15		
COC Number		292279	292279		292279		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**QC Batch**	**AEMP-DS-02**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	<0.0010	<0.0010	C092017	0.0013	0.0010	C091963
Total Zinc (Zn)	mg/L	<0.0030	<0.0030	C092017	0.0052	0.0030	C091963
RDL = Reportable Detection Limit							

REGULATED METALS INCLUDING MERCURY-TOTAL (SURFACE WATER)

Bureau Veritas ID		DSX719		
Sampling Date		2025/09/13 17:15		
COC Number		292279		
	UNITS	**AEMP-DS-02 Lab-Dup**	**RDL**	**QC Batch**
Elements				
Total Aluminum (Al)	mg/L	0.49	0.0030	C091963
Total Antimony (Sb)	mg/L	<0.00060	0.00060	C091963
Total Arsenic (As)	mg/L	0.00049	0.00020	C091963
Total Barium (Ba)	mg/L	0.061	0.010	C091971
Total Beryllium (Be)	mg/L	<0.0010	0.0010	C091963
Total Boron (B)	mg/L	<0.020	0.020	C091971
Total Calcium (Ca)	mg/L	38	0.30	C091971
Total Chromium (Cr)	mg/L	<0.0010	0.0010	C091963
Total Cobalt (Co)	mg/L	0.00039	0.00030	C091963
Total Copper (Cu)	mg/L	0.0015	0.0010	C091963
Total Iron (Fe)	mg/L	0.65	0.060	C091971
Total Lead (Pb)	mg/L	0.00036	0.00020	C091963
Total Lithium (Li)	mg/L	<0.020	0.020	C091971
Total Magnesium (Mg)	mg/L	12	0.20	C091971
Total Manganese (Mn)	mg/L	0.021	0.0040	C091971
Total Molybdenum (Mo)	mg/L	0.0010	0.00020	C091963
Total Nickel (Ni)	mg/L	0.0022	0.00050	C091963
Total Phosphorus (P)	mg/L	<0.10	0.10	C091971
Total Potassium (K)	mg/L	1.1	0.30	C091971
Total Selenium (Se)	mg/L	0.00027	0.00020	C091963
Total Silicon (Si)	mg/L	2.5	0.50	C091971
Total Silver (Ag)	mg/L	<0.00010	0.00010	C091963
Total Sodium (Na)	mg/L	9.9	0.50	C091971
Total Strontium (Sr)	mg/L	0.33	0.020	C091971
Total Sulphur (S)	mg/L	16	0.20	C091971
Total Thallium (Tl)	mg/L	<0.00020	0.00020	C091963
Total Tin (Sn)	mg/L	<0.0010	0.0010	C091963
Total Titanium (Ti)	mg/L	0.0096	0.0010	C091963
Total Uranium (U)	mg/L	0.00081	0.00010	C091963
Total Vanadium (V)	mg/L	0.0014	0.0010	C091963

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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REGULATED METALS INCLUDING MERCURY-TOTAL (SURFACE WATER)

Bureau Veritas ID		DSX719		
Sampling Date		2025/09/13 17:15		
COC Number		292279		
	UNITS	**AEMP-DS-02 Lab-Dup**	**RDL**	**QC Batch**
Total Zinc (Zn)	mg/L	0.0047	0.0030	C091963

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF SURFACE WATER

Bureau Veritas ID		DSX717			DSX717			DSX718		
Sampling Date		2025/09/13 15:30			2025/09/13 15:30			2025/09/13 14:10		
COC Number		292279			292279			292279		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	320	0.50	C086597				320	0.50	C086597
Ion Balance (% Difference)	%	3.2	N/A	C086599				3.1	N/A	C086599
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C085874				<0.0020	0.0020	C086671
Demand Parameters										
Chemical Oxygen Demand	mg/L	<10 (1)	10	C088376				<10 (1)	10	C088376
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C086588				<0.000020	0.000020	C086588
Misc. Inorganics										
Conductivity	uS/cm	710	2.0	C087505				710	2.0	C087505
Dissolved Organic Carbon (C)	mg/L	3.0	0.20	C087935				3.0	0.20	C087935
pH	pH	8.18	N/A	C087504				8.17	N/A	C087504
Total Organic Carbon (C)	mg/L	3.0	0.20	C087888				16 (2)	2.0	C090980
Total Dissolved Solids	mg/L	420	10	C088288				440	10	C089920
Total Suspended Solids	mg/L	4.8	1.0	C088300				1.5	1.0	C088300
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C087501				<1.0	1.0	C087501
Alkalinity (Total as CaCO3)	mg/L	190	1.0	C087501				190	1.0	C087501
Bicarbonate (HCO3)	mg/L	230	1.0	C087501				230	1.0	C087501
Carbonate (CO3)	mg/L	<1.0	1.0	C087501				<1.0	1.0	C087501
Hydroxide (OH)	mg/L	<1.0	1.0	C087501				<1.0	1.0	C087501
Total Sulphide	mg/L	<0.0018	0.0018	C091234				<0.0018	0.0018	C091234
Chloride (Cl)	mg/L	26	1.0	C089074				26	1.0	C089074
Sulphate (SO4)	mg/L	160	5.0	C089074				160	5.0	C089074
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C092252				<0.015	0.015	C092246
Orthophosphate (P)	mg/L	<0.0030	0.0030	C087525				<0.0030	0.0030	C087525

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.
(2) Detection limits raised due to matrix interference.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C578218
Report Date: 2025/09/22

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Task Order#: 417085-59897
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Site Location: NWT
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RESULTS OF CHEMICAL ANALYSES OF SURFACE WATER

Bureau Veritas ID		DSX717			DSX717			DSX718		
Sampling Date		2025/09/13 15:30			2025/09/13 15:30			2025/09/13 14:10		
COC Number		292279			292279			292279		
	UNITS	**AEMP-US-04**	**RDL**	**QC Batch**	**AEMP-US-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-05**	**RDL**	**QC Batch**
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C086995				<2.0	2.0	C086995
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C087000				<2.0	2.0	C087000
Physical Properties										
True Colour	PtCo units	5.7	2.0	C087866	6.4	2.0	C087866	6.6	2.0	C087866
Physical Properties										
Turbidity	NTU	0.15	0.10	C087320				0.16	0.10	C087320

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF SURFACE WATER

Bureau Veritas ID		DSX719		
Sampling Date		2025/09/13 17:15		
COC Number		292279		
	UNITS	**AEMP-DS-02**	**RDL**	**QC Batch**
Calculated Parameters				
Hardness (CaCO3)	mg/L	140	0.50	C086597
Ion Balance (% Difference)	%	3.6	N/A	C086599
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C086671
Demand Parameters				
Chemical Oxygen Demand	mg/L	<10 (1)	10	C088376
Elements				
Dissolved Cadmium (Cd)	mg/L	0.000024	0.000020	C086588
Misc. Inorganics				
Conductivity	uS/cm	320	2.0	C087505
Dissolved Organic Carbon (C)	mg/L	2.8	0.20	C087935
pH	pH	7.24	N/A	C087504
Total Organic Carbon (C)	mg/L	3.1	0.20	C087888
Total Dissolved Solids	mg/L	180	10	C089920
Total Suspended Solids	mg/L	37	1.0	C088300
Anions				
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C087501
Alkalinity (Total as CaCO3)	mg/L	100	1.0	C087501
Bicarbonate (HCO3)	mg/L	130	1.0	C087501
Carbonate (CO3)	mg/L	<1.0	1.0	C087501
Hydroxide (OH)	mg/L	<1.0	1.0	C087501
Total Sulphide	mg/L	<0.0018	0.0018	C091234
Chloride (Cl)	mg/L	11	1.0	C089074
Sulphate (SO4)	mg/L	49	1.0	C089074
Nutrients				
Total Ammonia (N)	mg/L	<0.015	0.015	C092252
Orthophosphate (P)	mg/L	<0.0030	0.0030	C087525
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C086995

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF SURFACE WATER

Bureau Veritas ID		DSX719		
Sampling Date		2025/09/13 17:15		
COC Number		292279		
	UNITS	**AEMP-DS-02**	**RDL**	**QC Batch**
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C087000
Physical Properties				
True Colour	PtCo units	3.8	2.0	C087866
Physical Properties				
Turbidity	NTU	9.1	0.10	C087320
RDL = Reportable Detection Limit				

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SEMIVOLATILE ORGANICS BY GC-MS (SURFACE WATER)

Bureau Veritas ID		DSX717	DSX718	DSX719		
Sampling Date		2025/09/13 15:30	2025/09/13 14:10	2025/09/13 17:15		
COC Number		292279	292279	292279		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**AEMP-DS-02**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C086138
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087851
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087851
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C087851
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C087851
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087851
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087851
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087851
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087851
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087851
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C087851
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087851
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087851
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C087851
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C087851
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087851
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087851
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087851
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087851
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087851
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087851
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087851
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C087851
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C087851
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	85	87	86		C087851
D8-ACENAPHTHYLENE (sur.)	%	82	84	81		C087851
D8-NAPHTHALENE (sur.)	%	68	71	67		C087851
TERPHENYL-D14 (sur.)	%	80	83	82		C087851
RDL = Reportable Detection Limit						

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (SURFACE WATER)

Bureau Veritas ID		DSX717	DSX718	DSX719		
Sampling Date		2025/09/13 15:30	2025/09/13 14:10	2025/09/13 17:15		
COC Number		292279	292279	292279		
	UNITS	**AEMP-US-04**	**AEMP-US-05**	**AEMP-DS-02**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	0.0019	C090954
RDL = Reportable Detection Limit						

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ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Bureau Veritas ID		DSX717		DSX718	DSX719		
Sampling Date		2025/09/13 15:30		2025/09/13 14:10	2025/09/13 17:15		
COC Number		292279		292279	292279		
	UNITS	**AEMP-US-04**	**QC Batch**	**AEMP-US-05**	**AEMP-DS-02**	**RDL**	**QC Batch**
Elements							
Dissolved Aluminum (Al)	mg/L	<0.0030	C087057	<0.0030	0.024	0.0030	C087057
Dissolved Antimony (Sb)	mg/L	<0.00060	C087057	<0.00060	<0.00060	0.00060	C087057
Dissolved Arsenic (As)	mg/L	<0.00020	C087057	<0.00020	0.00029	0.00020	C087057
Dissolved Barium (Ba)	mg/L	0.076	C087077	0.077	0.047	0.010	C089303
Dissolved Beryllium (Be)	mg/L	<0.0010	C087057	<0.0010	<0.0010	0.0010	C087057
Dissolved Boron (B)	mg/L	0.022	C087077	0.029	<0.020	0.020	C089303
Dissolved Calcium (Ca)	mg/L	75	C087077	73	35	0.30	C089303
Dissolved Chromium (Cr)	mg/L	<0.0010	C087057	<0.0010	<0.0010	0.0010	C087057
Dissolved Cobalt (Co)	mg/L	<0.00030	C087057	<0.00030	<0.00030	0.00030	C087057
Dissolved Copper (Cu)	mg/L	<0.0010	C087057	<0.0010	<0.0010	0.0010	C087057
Dissolved Iron (Fe)	mg/L	<0.060	C087077	<0.060	<0.060	0.060	C089303
Dissolved Lead (Pb)	mg/L	<0.00020	C087057	<0.00020	<0.00020	0.00020	C087057
Dissolved Lithium (Li)	mg/L	<0.020	C087077	<0.020	<0.020	0.020	C089303
Dissolved Magnesium (Mg)	mg/L	31	C087077	33	12	0.20	C089303
Dissolved Manganese (Mn)	mg/L	0.0056	C087077	0.0058	0.0086	0.0040	C089303
Dissolved Molybdenum (Mo)	mg/L	0.0017	C087057	0.0016	0.0010	0.00020	C087057
Dissolved Nickel (Ni)	mg/L	0.00073	C087057	0.0011	0.0015	0.00050	C087057
Dissolved Phosphorus (P)	mg/L	<0.10	C087077	<0.10	<0.10	0.10	C089303
Dissolved Potassium (K)	mg/L	1.2	C087077	0.87	0.90	0.30	C089303
Dissolved Selenium (Se)	mg/L	<0.00020	C087057	<0.00020	0.00026	0.00020	C087057
Dissolved Silicon (Si)	mg/L	2.0	C087077	2.2	1.5	0.50	C089303
Dissolved Silver (Ag)	mg/L	<0.00010	C087057	<0.00010	<0.00010	0.00010	C087057
Dissolved Sodium (Na)	mg/L	22	C087077	22	9.5	0.50	C089303
Dissolved Strontium (Sr)	mg/L	1.5	C087077	1.5	0.32	0.020	C089303
Dissolved Sulphur (S)	mg/L	54	C087077	58	18	0.20	C089303
Dissolved Thallium (Tl)	mg/L	<0.00020	C087057	<0.00020	<0.00020	0.00020	C087057
Dissolved Tin (Sn)	mg/L	<0.0010	C087057	<0.0010	<0.0010	0.0010	C087057
Dissolved Titanium (Ti)	mg/L	<0.0010	C087057	<0.0010	<0.0010	0.0010	C087057
Dissolved Uranium (U)	mg/L	0.0011	C087057	0.0011	0.00076	0.00010	C087057
Dissolved Vanadium (V)	mg/L	<0.0010	C087057	<0.0010	<0.0010	0.0010	C087057
Dissolved Zinc (Zn)	mg/L	<0.0030	C087057	<0.0030	<0.0030	0.0030	C087057
RDL = Reportable Detection Limit							

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX717
Sample ID: AEMP-US-04
Matrix: Surface Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086064	N/A	2025/09/21	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089074	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/17	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087854	2025/09/18	2025/09/19	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C085874	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/17	Automated Statchk
Mercury (Dissolved) by CV	CV	C090954	2025/09/18	2025/09/18	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C087077	N/A	2025/09/16	Kevin Hung
Elements by ICP - Total	ICPA	C092025	2025/09/19	2025/09/19	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C087057	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C092017	2025/09/19	2025/09/20	Ye Hyun KIM
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092252	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087851	2025/09/18	2025/09/19	Jiby Uthup
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C088288	2025/09/17	2025/09/18	Daryl Viktoria Noval
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic) by Combustion	TECH	C087888	N/A	2025/09/17	Ming Dong
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

Bureau Veritas ID: DSX717 Dup
Sample ID: AEMP-US-04
Matrix: Surface Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX717 Dup
Sample ID: AEMP-US-04
Matrix: Surface Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
True Colour	SPEC/COL	C087866	N/A	2025/09/17	Adam Fishleigh

Bureau Veritas ID: DSX718
Sample ID: AEMP-US-05
Matrix: Surface Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086064	N/A	2025/09/21	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089074	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/16	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087854	2025/09/18	2025/09/19	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086671	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/18	Automated Statchk
Mercury (Dissolved) by CV	CV	C090954	2025/09/18	2025/09/18	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C089303	N/A	2025/09/17	Kevin Hung
Elements by ICP - Total	ICPA	C092025	2025/09/19	2025/09/19	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C087057	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C092017	2025/09/19	2025/09/20	Ye Hyun KIM
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092246	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087851	2025/09/18	2025/09/19	Jiby Uthup
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C089920	2025/09/18	2025/09/19	Ian Lemuel Pastoral
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic)	TECH	C090980	N/A	2025/09/18	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX719
Sample ID: AEMP-DS-02
Matrix: Surface Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086669	N/A	2025/09/19	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089074	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/16	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087854	2025/09/18	2025/09/19	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086671	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/18	Automated Statchk
Mercury (Dissolved) by CV	CV	C090954	2025/09/18	2025/09/18	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C089303	N/A	2025/09/17	Kevin Hung
Elements by ICP - Total	ICPA	C091971	2025/09/19	2025/09/19	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C087057	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C091963	2025/09/19	2025/09/19	Ilonka Kovac
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092252	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087851	2025/09/18	2025/09/19	Jiby Uthup
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C089920	2025/09/18	2025/09/19	Ian Lemuel Pastoral
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic) by Combustion	TECH	C087888	N/A	2025/09/17	Ming Dong
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

Bureau Veritas ID: DSX719 Dup
Sample ID: AEMP-DS-02
Matrix: Surface Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICP - Total	ICPA	C091971	2025/09/19	2025/09/19	Vincy Scaria

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX719 Dup
Sample ID: AEMP-DS-02
Matrix: Surface Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICPMS - Total	ICPM	C091963	2025/09/19	2025/09/19	Ilonka Kovac

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.7°C

Sample DSX717 [AEMP-US-04] : True Colour completed within five days of sampling. Data is satisfactory for compliance purposes. Sample was analyzed past method specified hold time for True Colour. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C086995	RRA	Method Blank	Oil and grease	2025/09/16	<2.0		mg/L	
C087000	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/09/16	<2.0		mg/L	
C087057	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/16	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/16	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/16	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/16	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/16	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/16	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/16	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/09/16	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/09/16	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/16	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/16	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/16	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/16	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/16	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/16	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/16	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/16	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/16	<0.0010		mg/L	
C087077	KHU	Method Blank	Dissolved Iron (Fe)	2025/09/16	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/16	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/16	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/16	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/16	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/16	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/16	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/16	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/16	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/16	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/16	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/16	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/16	<0.30		mg/L	
C087320	AP1	Method Blank	Turbidity	2025/09/16	<0.10		NTU	
C087501	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/09/18	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/09/18	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/09/18	<1.0		mg/L	
			Carbonate (CO3)	2025/09/18	<1.0		mg/L	
			Hydroxide (OH)	2025/09/18	<1.0		mg/L	
C087505	AYE	Method Blank	Conductivity	2025/09/18	<2.0		uS/cm	
C087525	KKC	Method Blank	Orthophosphate (P)	2025/09/16	<0.0030		mg/L	
C087683	KKC	Method Blank	Nitrite (N)	2025/09/16	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/09/16	<0.040		mg/L	
C087851	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/09/19		88	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		83	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		77	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		53	%	50 - 130
			Acenaphthene	2025/09/19	<0.00010		mg/L	
			Acenaphthylene	2025/09/19	<0.00010		mg/L	
			Acridine	2025/09/19	<0.000040		mg/L	
			Anthracene	2025/09/19	<0.000010		mg/L	
			Benzo(a)anthracene	2025/09/19	<0.0000085		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzo(b&j)fluoranthene	2025/09/19	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/09/19	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/09/19	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/09/19	<0.000050		mg/L	
			Benzo(a)pyrene	2025/09/19	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/09/19	<0.000050		mg/L	
			Chrysene	2025/09/19	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/09/19	<0.0000075		mg/L	
			Fluoranthene	2025/09/19	<0.000010		mg/L	
			Fluorene	2025/09/19	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/09/19	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/09/19	<0.00010		mg/L	
			2-Methylnaphthalene	2025/09/19	<0.00010		mg/L	
			Naphthalene	2025/09/19	<0.00010		mg/L	
			Phenanthrene	2025/09/19	<0.000050		mg/L	
			Perylene	2025/09/19	<0.000050		mg/L	
			Pyrene	2025/09/19	<0.000020		mg/L	
			Quinoline	2025/09/19	<0.00020		mg/L	
C087854	CHA	Method Blank	O-TERPHENYL (sur.)	2025/09/18		115	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18	<0.10		mg/L	
C087866	AFI	Method Blank	True Colour	2025/09/16	<2.0		PtCo units	
C087888	MDO	Method Blank	Total Organic Carbon (C)	2025/09/16	<0.20		mg/L	
C087935	MDO	Method Blank	Dissolved Organic Carbon (C)	2025/09/17	<0.20		mg/L	
C088288	DVN	Method Blank	Total Dissolved Solids	2025/09/18	<10		mg/L	
C088300	DVN	Method Blank	Total Suspended Solids	2025/09/17	<1.0		mg/L	
C088376	AP1	Method Blank	Chemical Oxygen Demand	2025/09/17	<10		mg/L	
C088452	RIL	Method Blank	1,4-Difluorobenzene (sur.)	2025/09/18		99	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		103	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		99	%	50 - 140
			Benzene	2025/09/18	<0.00040		mg/L	
			Toluene	2025/09/18	<0.00040		mg/L	
			Ethylbenzene	2025/09/18	<0.00040		mg/L	
			m & p-Xylene	2025/09/18	<0.00080		mg/L	
			o-Xylene	2025/09/18	<0.00040		mg/L	
			F1 (C6-C10)	2025/09/18	<0.10		mg/L	
C089074	TOR	Method Blank	Chloride (Cl)	2025/09/17	<1.0		mg/L	
			Sulphate (SO4)	2025/09/17	<1.0		mg/L	
C089303	KHU	Method Blank	Dissolved Iron (Fe)	2025/09/17	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/17	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/17	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/17	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/17	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/17	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/17	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/17	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/17	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/17	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/17	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/17	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/17	<0.30		mg/L	
C089920	ILP	Method Blank	Total Dissolved Solids	2025/09/19	<10		mg/L	
C090213	YL7	Method Blank	Total Nitrogen (N)	2025/09/18	<0.020		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C090954	KKM	Method Blank	Dissolved Mercury (Hg)	2025/09/18	<0.0019		ug/L	
C090980	TJ4	Method Blank	Total Organic Carbon (C)	2025/09/18	<0.50		mg/L	
C091234	DSX	Method Blank	Total Sulphide	2025/09/19	<0.0018		mg/L	
C091963	IK0	Method Blank	Total Aluminum (Al)	2025/09/19	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/19	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/19	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/19	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/19	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/19	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/19	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/19	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/19	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/19	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/19	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/19	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/19	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/19	<0.0010		mg/L	
			Total Uranium (U)	2025/09/19	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/19	<0.0010		mg/L	
			Total Zinc (Zn)	2025/09/19	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/19	<0.0010		mg/L	
C091971	VSC	Method Blank	Total Iron (Fe)	2025/09/19	<0.060		mg/L	
			Total Lithium (Li)	2025/09/19	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/19	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/19	<0.0040		mg/L	
			Total Potassium (K)	2025/09/19	<0.30		mg/L	
			Total Sodium (Na)	2025/09/19	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/19	<0.020		mg/L	
			Total Sulphur (S)	2025/09/19	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/19	<0.10		mg/L	
			Total Barium (Ba)	2025/09/19	<0.010		mg/L	
			Total Silicon (Si)	2025/09/19	<0.50		mg/L	
			Total Boron (B)	2025/09/19	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/19	<0.30		mg/L	
C092017	YHK	Method Blank	Total Aluminum (Al)	2025/09/20	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/20	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/20	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/20	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/20	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/20	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/20	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/20	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/20	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/20	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/20	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/20	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/20	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/20	<0.0010		mg/L	
			Total Uranium (U)	2025/09/20	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/20	<0.0010		mg/L	
			Total Zinc (Zn)	2025/09/20	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/20	<0.0010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C092025	KHU	Method Blank	Total Iron (Fe)	2025/09/19	<0.060		mg/L	
			Total Lithium (Li)	2025/09/19	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/19	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/19	<0.0040		mg/L	
			Total Potassium (K)	2025/09/19	<0.30		mg/L	
			Total Sodium (Na)	2025/09/19	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/19	<0.020		mg/L	
			Total Sulphur (S)	2025/09/19	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/19	<0.10		mg/L	
			Total Barium (Ba)	2025/09/19	<0.010		mg/L	
			Total Silicon (Si)	2025/09/19	<0.50		mg/L	
			Total Boron (B)	2025/09/19	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/19	<0.30		mg/L	
C092107	KKM	Method Blank	Total Mercury (Hg)	2025/09/19	<0.0019		ug/L	
C092246	KKC	Method Blank	Total Ammonia (N)	2025/09/19	<0.015		mg/L	
C092252	KKC	Method Blank	Total Ammonia (N)	2025/09/19	<0.015		mg/L	
C087866	AFI	RPD [DSX717-01]	True Colour	2025/09/17	11		%	20
C088452	RIL	RPD [DSX717-13]	Benzene	2025/09/18	NC		%	30
			Toluene	2025/09/18	NC		%	30
			Ethylbenzene	2025/09/18	NC		%	30
			m & p-Xylene	2025/09/18	NC		%	30
			o-Xylene	2025/09/18	NC		%	30
			F1 (C6-C10)	2025/09/18	NC		%	30
C091963	IK0	RPD [DSX719-03]	Total Aluminum (Al)	2025/09/19	13		%	20
			Total Chromium (Cr)	2025/09/19	NC		%	20
			Total Cobalt (Co)	2025/09/19	6.8		%	20
			Total Copper (Cu)	2025/09/19	4.5		%	20
			Total Lead (Pb)	2025/09/19	2.1		%	20
			Total Antimony (Sb)	2025/09/19	NC		%	20
			Total Molybdenum (Mo)	2025/09/19	4.9		%	20
			Total Nickel (Ni)	2025/09/19	2.7		%	20
			Total Selenium (Se)	2025/09/19	NC		%	20
			Total Silver (Ag)	2025/09/19	NC		%	20
			Total Arsenic (As)	2025/09/19	4.0		%	20
			Total Thallium (Tl)	2025/09/19	NC		%	20
			Total Tin (Sn)	2025/09/19	NC		%	20
			Total Titanium (Ti)	2025/09/19	16		%	20
			Total Uranium (U)	2025/09/19	4.1		%	20
			Total Vanadium (V)	2025/09/19	6.9		%	20
			Total Zinc (Zn)	2025/09/19	9.3		%	20
			Total Beryllium (Be)	2025/09/19	NC		%	20
C091971	VSC	RPD [DSX719-03]	Total Iron (Fe)	2025/09/19	8.1		%	20
			Total Lithium (Li)	2025/09/19	NC		%	20
			Total Magnesium (Mg)	2025/09/19	0.64		%	20
			Total Manganese (Mn)	2025/09/19	12		%	20
			Total Potassium (K)	2025/09/19	4.6		%	20
			Total Sodium (Na)	2025/09/19	1.1		%	20
			Total Strontium (Sr)	2025/09/19	1.2		%	20
			Total Sulphur (S)	2025/09/19	0.71		%	20
			Total Phosphorus (P)	2025/09/19	NC		%	20
			Total Barium (Ba)	2025/09/19	2.9		%	20
			Total Silicon (Si)	2025/09/19	4.9		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Boron (B)	2025/09/19	NC		%	20
			Total Calcium (Ca)	2025/09/19	1.2		%	20
C087866	AFI	Matrix Spike [DSX717-01]	True Colour	2025/09/17		82	%	80 - 120
C088452	RIL	Matrix Spike [DSX718-13]	1,4-Difluorobenzene (sur.)	2025/09/18		99	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		100	%	50 - 140
			Benzene	2025/09/18		89	%	50 - 140
			Toluene	2025/09/18		90	%	50 - 140
			Ethylbenzene	2025/09/18		94	%	50 - 140
			m & p-Xylene	2025/09/18		90	%	50 - 140
			o-Xylene	2025/09/18		92	%	50 - 140
			F1 (C6-C10)	2025/09/18		104	%	60 - 140
C092017	YHK	Matrix Spike [DSX717-03]	Total Aluminum (Al)	2025/09/20		120	%	80 - 120
			Total Chromium (Cr)	2025/09/20		107	%	80 - 120
			Total Cobalt (Co)	2025/09/20		104	%	80 - 120
			Total Copper (Cu)	2025/09/20		104	%	80 - 120
			Total Lead (Pb)	2025/09/20		107	%	80 - 120
			Total Antimony (Sb)	2025/09/20		110	%	80 - 120
			Total Molybdenum (Mo)	2025/09/20		113	%	80 - 120
			Total Nickel (Ni)	2025/09/20		104	%	80 - 120
			Total Selenium (Se)	2025/09/20		104	%	80 - 120
			Total Silver (Ag)	2025/09/20		106	%	80 - 120
			Total Arsenic (As)	2025/09/20		108	%	80 - 120
			Total Thallium (Tl)	2025/09/20		111	%	80 - 120
			Total Tin (Sn)	2025/09/20		108	%	80 - 120
			Total Titanium (Ti)	2025/09/20		109	%	80 - 120
			Total Uranium (U)	2025/09/20		113	%	80 - 120
			Total Vanadium (V)	2025/09/20		107	%	80 - 120
			Total Zinc (Zn)	2025/09/20		101	%	80 - 120
			Total Beryllium (Be)	2025/09/20		108	%	80 - 120
C086995	RRA	LCS	Oil and grease	2025/09/16		93	%	70 - 130
C087000	RRA	LCS	Total Petroleum Hydrocarbon	2025/09/16		93	%	70 - 130
C087057	JAB	LCS	Dissolved Aluminum (Al)	2025/09/16		103	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/16		101	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/16		100	%	80 - 120
			Dissolved Copper (Cu)	2025/09/16		100	%	80 - 120
			Dissolved Lead (Pb)	2025/09/16		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/16		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/16		103	%	80 - 120
			Dissolved Nickel (Ni)	2025/09/16		99	%	80 - 120
			Dissolved Selenium (Se)	2025/09/16		103	%	80 - 120
			Dissolved Silver (Ag)	2025/09/16		100	%	80 - 120
			Dissolved Arsenic (As)	2025/09/16		103	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/16		103	%	80 - 120
			Dissolved Tin (Sn)	2025/09/16		103	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/16		97	%	80 - 120
			Dissolved Uranium (U)	2025/09/16		100	%	80 - 120
			Dissolved Vanadium (V)	2025/09/16		101	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/16		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/16		100	%	80 - 120
C087077	KHU	LCS	Dissolved Iron (Fe)	2025/09/16		99	%	80 - 120
			Dissolved Lithium (Li)	2025/09/16		90	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Magnesium (Mg)	2025/09/16		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/16		97	%	80 - 120
			Dissolved Potassium (K)	2025/09/16		94	%	80 - 120
			Dissolved Sodium (Na)	2025/09/16		92	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/16		97	%	80 - 120
			Dissolved Sulphur (S)	2025/09/16		102	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/16		102	%	80 - 120
			Dissolved Barium (Ba)	2025/09/16		100	%	80 - 120
			Dissolved Silicon (Si)	2025/09/16		97	%	80 - 120
			Dissolved Boron (B)	2025/09/16		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/16		95	%	80 - 120
C087320	AP1	LCS	Turbidity	2025/09/16		101	%	80 - 120
C087501	AYE	LCS	Alkalinity (Total as CaCO3)	2025/09/18		99	%	80 - 120
C087504	AYE	LCS	pH	2025/09/18		100	%	97 - 103
C087505	AYE	LCS	Conductivity	2025/09/18		101	%	90 - 110
C087525	KKC	LCS	Orthophosphate (P)	2025/09/16		105	%	80 - 120
C087683	KKC	LCS	Nitrite (N)	2025/09/16		101	%	80 - 120
			Nitrate plus Nitrite (N)	2025/09/16		103	%	80 - 120
C087851	JU2	LCS	D10-ANTHRACENE (sur.)	2025/09/19		91	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		87	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		95	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		82	%	50 - 130
			Acenaphthene	2025/09/19		77	%	50 - 130
			Acenaphthylene	2025/09/19		85	%	50 - 130
			Acridine	2025/09/19		93	%	50 - 130
			Anthracene	2025/09/19		82	%	50 - 130
			Benzo(a)anthracene	2025/09/19		84	%	50 - 130
			Benzo(b&j)fluoranthene	2025/09/19		87	%	50 - 130
			Benzo(k)fluoranthene	2025/09/19		93	%	50 - 130
			Benzo(g,h,i)perylene	2025/09/19		87	%	50 - 130
			Benzo(c)phenanthrene	2025/09/19		88	%	50 - 130
			Benzo(a)pyrene	2025/09/19		85	%	50 - 130
			Benzo(e)pyrene	2025/09/19		80	%	50 - 130
			Chrysene	2025/09/19		83	%	50 - 130
			Dibenz(a,h)anthracene	2025/09/19		87	%	50 - 130
			Fluoranthene	2025/09/19		91	%	50 - 130
			Fluorene	2025/09/19		84	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/09/19		86	%	50 - 130
			1-Methylnaphthalene	2025/09/19		68	%	50 - 130
			2-Methylnaphthalene	2025/09/19		75	%	50 - 130
			Naphthalene	2025/09/19		77	%	50 - 130
			Phenanthrene	2025/09/19		85	%	50 - 130
			Perylene	2025/09/19		89	%	50 - 130
			Pyrene	2025/09/19		91	%	50 - 130
			Quinoline	2025/09/19		106	%	50 - 130
C087854	CHA	LCS	O-TERPHENYL (sur.)	2025/09/18		112	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18		116	%	60 - 140
C087866	AFI	LCS	True Colour	2025/09/16		89	%	80 - 120
C087888	MDO	LCS	Total Organic Carbon (C)	2025/09/16		106	%	80 - 120
C087935	MDO	LCS	Dissolved Organic Carbon (C)	2025/09/17		108	%	80 - 120
C088288	DVN	LCS	Total Dissolved Solids	2025/09/18		97	%	80 - 120
C088300	DVN	LCS	Total Suspended Solids	2025/09/17		97	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C088376	AP1	LCS	Chemical Oxygen Demand	2025/09/17		101	%	80 - 120
C088452	RIL	LCS	1,4-Difluorobenzene (sur.)	2025/09/18		98	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		101	%	50 - 140
			Benzene	2025/09/18		89	%	60 - 130
			Toluene	2025/09/18		90	%	60 - 130
			Ethylbenzene	2025/09/18		94	%	60 - 130
			m & p-Xylene	2025/09/18		90	%	60 - 130
			o-Xylene	2025/09/18		92	%	60 - 130
			F1 (C6-C10)	2025/09/18		95	%	60 - 140
C089074	TOR	LCS	Chloride (Cl)	2025/09/17		101	%	80 - 120
			Sulphate (SO4)	2025/09/17		102	%	80 - 120
C089303	KHU	LCS	Dissolved Iron (Fe)	2025/09/17		112	%	80 - 120
			Dissolved Lithium (Li)	2025/09/17		92	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/17		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/17		105	%	80 - 120
			Dissolved Potassium (K)	2025/09/17		92	%	80 - 120
			Dissolved Sodium (Na)	2025/09/17		94	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/17		98	%	80 - 120
			Dissolved Sulphur (S)	2025/09/17		105	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/17		107	%	80 - 120
			Dissolved Barium (Ba)	2025/09/17		103	%	80 - 120
			Dissolved Silicon (Si)	2025/09/17		102	%	80 - 120
			Dissolved Boron (B)	2025/09/17		96	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/17		94	%	80 - 120
C089920	ILP	LCS	Total Dissolved Solids	2025/09/19		94	%	80 - 120
C090213	YL7	LCS	Total Nitrogen (N)	2025/09/18		106	%	80 - 120
C090954	KKM	LCS	Dissolved Mercury (Hg)	2025/09/18		104	%	80 - 120
C090980	TJ4	LCS	Total Organic Carbon (C)	2025/09/18		98	%	80 - 120
C091234	DSX	LCS	Total Sulphide	2025/09/19		90	%	80 - 120
C091963	IK0	LCS	Total Aluminum (Al)	2025/09/19		105	%	80 - 120
			Total Chromium (Cr)	2025/09/19		106	%	80 - 120
			Total Cobalt (Co)	2025/09/19		105	%	80 - 120
			Total Copper (Cu)	2025/09/19		105	%	80 - 120
			Total Lead (Pb)	2025/09/19		99	%	80 - 120
			Total Antimony (Sb)	2025/09/19		102	%	80 - 120
			Total Molybdenum (Mo)	2025/09/19		104	%	80 - 120
			Total Nickel (Ni)	2025/09/19		105	%	80 - 120
			Total Selenium (Se)	2025/09/19		101	%	80 - 120
			Total Silver (Ag)	2025/09/19		100	%	80 - 120
			Total Arsenic (As)	2025/09/19		106	%	80 - 120
			Total Thallium (Tl)	2025/09/19		105	%	80 - 120
			Total Tin (Sn)	2025/09/19		105	%	80 - 120
			Total Titanium (Ti)	2025/09/19		103	%	80 - 120
			Total Uranium (U)	2025/09/19		102	%	80 - 120
			Total Vanadium (V)	2025/09/19		106	%	80 - 120
			Total Zinc (Zn)	2025/09/19		104	%	80 - 120
			Total Beryllium (Be)	2025/09/19		102	%	80 - 120
C091971	VSC	LCS	Total Iron (Fe)	2025/09/19		105	%	80 - 120
			Total Lithium (Li)	2025/09/19		100	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		104	%	80 - 120
			Total Manganese (Mn)	2025/09/19		104	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Potassium (K)	2025/09/19		102	%	80 - 120
			Total Sodium (Na)	2025/09/19		102	%	80 - 120
			Total Strontium (Sr)	2025/09/19		103	%	80 - 120
			Total Sulphur (S)	2025/09/19		92	%	80 - 120
			Total Phosphorus (P)	2025/09/19		103	%	80 - 120
			Total Barium (Ba)	2025/09/19		108	%	80 - 120
			Total Silicon (Si)	2025/09/19		104	%	80 - 120
			Total Boron (B)	2025/09/19		100	%	80 - 120
			Total Calcium (Ca)	2025/09/19		99	%	80 - 120
C092017	YHK	LCS	Total Aluminum (Al)	2025/09/20		104	%	80 - 120
			Total Chromium (Cr)	2025/09/20		105	%	80 - 120
			Total Cobalt (Co)	2025/09/20		103	%	80 - 120
			Total Copper (Cu)	2025/09/20		103	%	80 - 120
			Total Lead (Pb)	2025/09/20		105	%	80 - 120
			Total Antimony (Sb)	2025/09/20		106	%	80 - 120
			Total Molybdenum (Mo)	2025/09/20		109	%	80 - 120
			Total Nickel (Ni)	2025/09/20		103	%	80 - 120
			Total Selenium (Se)	2025/09/20		104	%	80 - 120
			Total Silver (Ag)	2025/09/20		103	%	80 - 120
			Total Arsenic (As)	2025/09/20		105	%	80 - 120
			Total Thallium (Tl)	2025/09/20		107	%	80 - 120
			Total Tin (Sn)	2025/09/20		104	%	80 - 120
			Total Titanium (Ti)	2025/09/20		107	%	80 - 120
			Total Uranium (U)	2025/09/20		109	%	80 - 120
			Total Vanadium (V)	2025/09/20		104	%	80 - 120
			Total Zinc (Zn)	2025/09/20		102	%	80 - 120
			Total Beryllium (Be)	2025/09/20		103	%	80 - 120
C092025	KHU	LCS	Total Iron (Fe)	2025/09/19		110	%	80 - 120
			Total Lithium (Li)	2025/09/19		96	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		102	%	80 - 120
			Total Manganese (Mn)	2025/09/19		109	%	80 - 120
			Total Potassium (K)	2025/09/19		98	%	80 - 120
			Total Sodium (Na)	2025/09/19		98	%	80 - 120
			Total Strontium (Sr)	2025/09/19		103	%	80 - 120
			Total Sulphur (S)	2025/09/19		94	%	80 - 120
			Total Phosphorus (P)	2025/09/19		104	%	80 - 120
			Total Barium (Ba)	2025/09/19		106	%	80 - 120
			Total Silicon (Si)	2025/09/19		105	%	80 - 120
			Total Boron (B)	2025/09/19		101	%	80 - 120
			Total Calcium (Ca)	2025/09/19		95	%	80 - 120
C092107	KKM	LCS	Total Mercury (Hg)	2025/09/19		101	%	80 - 120
C092246	KKC	LCS	Total Ammonia (N)	2025/09/19		106	%	80 - 120
C092252	KKC	LCS	Total Ammonia (N)	2025/09/19		106	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C090213	YL7	SRM	Total Nitrogen (N)	2025/09/18		103	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Bureau Veritas Job #: C578218
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NWT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Janet Gao, B.Sc., QP, Supervisor, Organics

Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics

Pushpa Gurung, Laboratory Supervisor

Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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VALIDATION SIGNATURE PAGE(CONT'D)

The analytical data and all QC contained in this report were reviewed and validated by:

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

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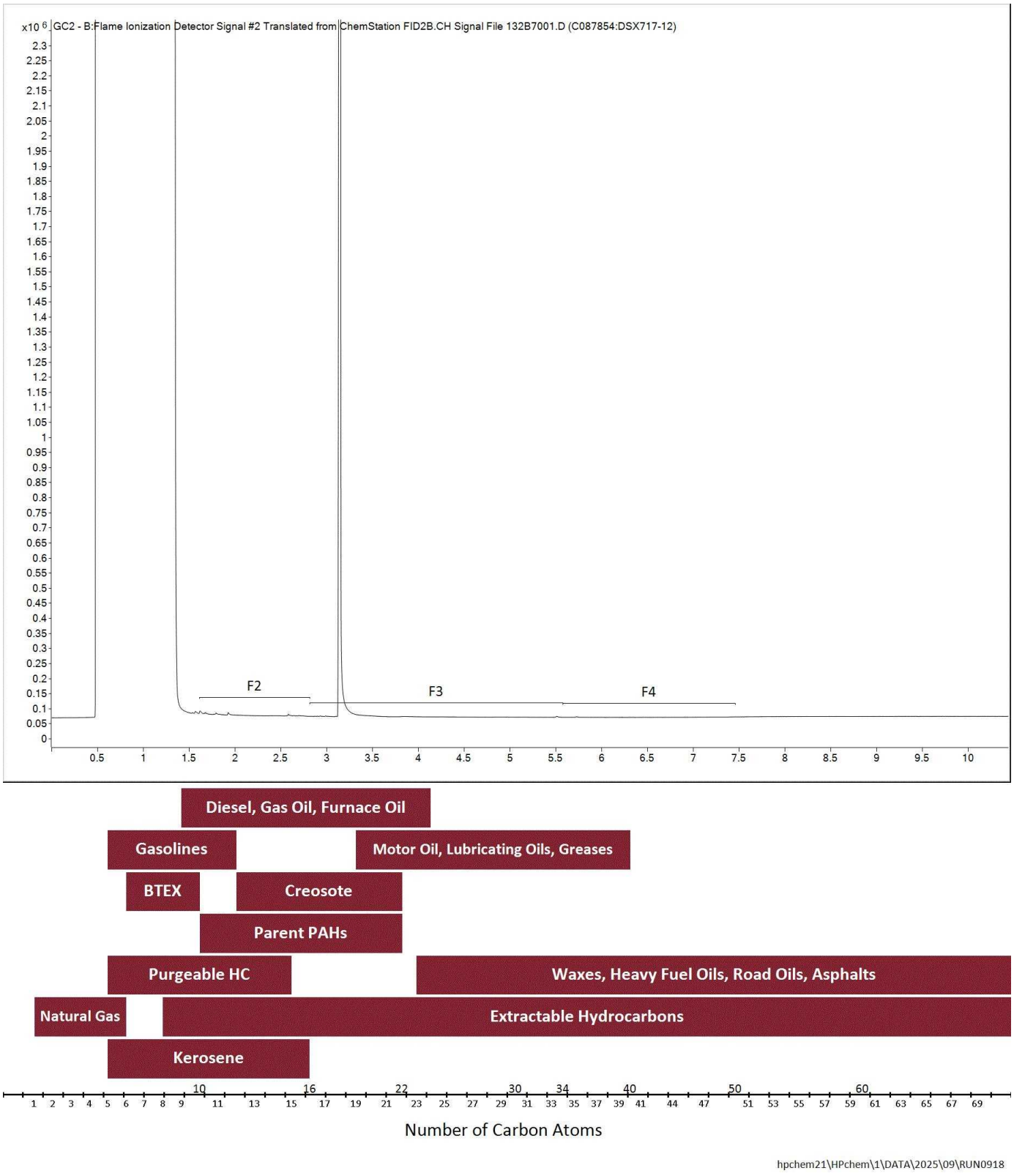
Bureau Veritas Job #: C578218
Report Date: 2025/09/22
Bureau Veritas Sample: DSX717

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-US-04

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

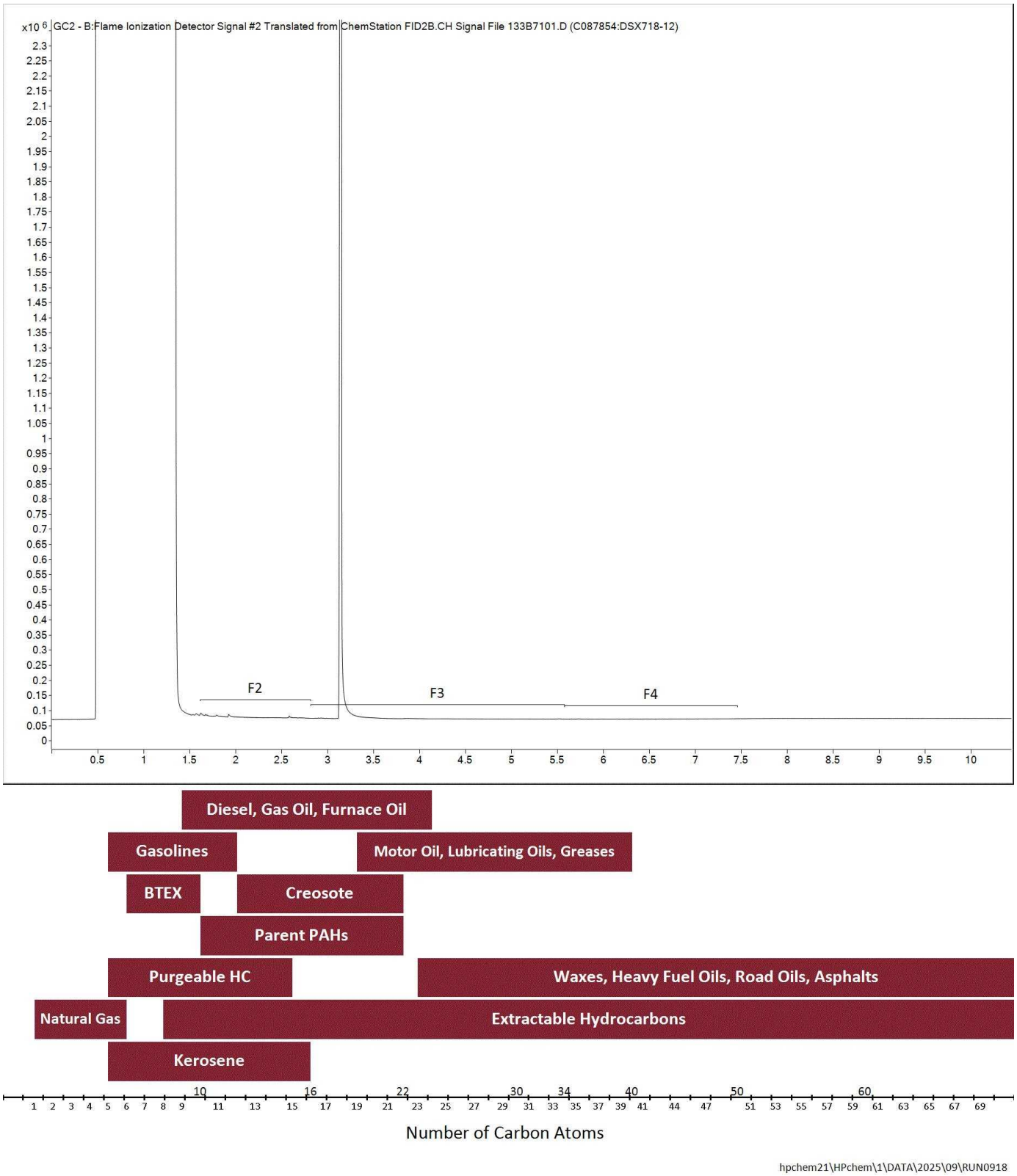


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C578218
Report Date: 2025/09/22
Bureau Veritas Sample: DSX718

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-US-05

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

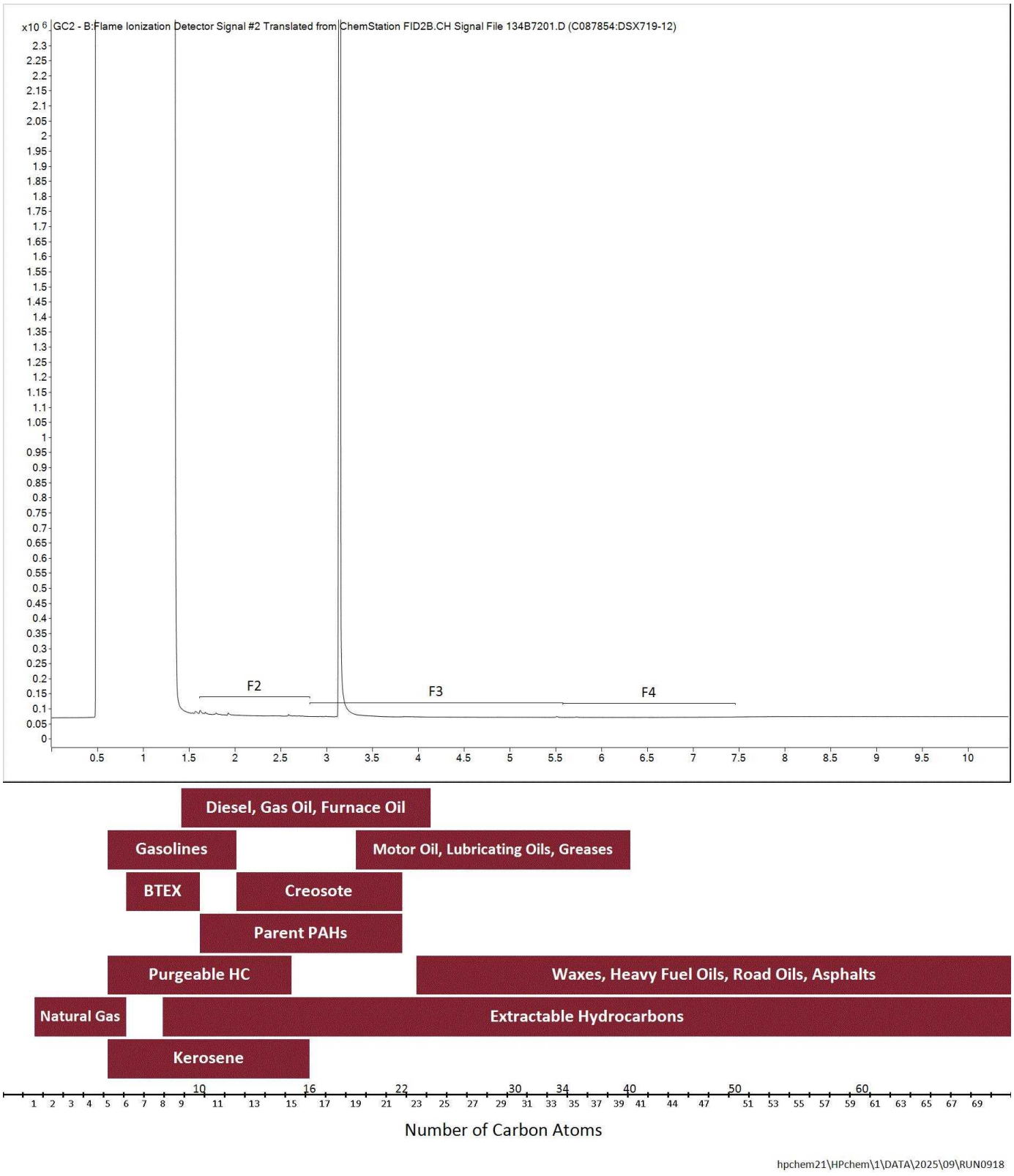


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C578218
Report Date: 2025/09/22
Bureau Veritas Sample: DSX719

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NWT
Client ID: AEMP-DS-02

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
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Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292279

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Stacy Gibb	Contact Name: Stacy Gibb
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9	Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9
Email: Stacy.gibb@worley.com	Email: Stacy.gibb@worley.com
Ph: 587 434 5393	Ph: 587 434 5393
Sampler Name (Print): Brendan Chapman	Consultant Project #: 417085-59897-25200

	FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	ANALYSIS REQUESTED: VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	Trace color, TDS, TDS, Turbidity	Oil & Grease	TOC, DOC, Sulphide, COD	Nitrate, Nitrite, Ammonia (Total) TKN	Orthophosphate	Sulphur - Total, dissolved	Iron
1	AEMP-US-04		X			14	2025/09/13	15:30	X			X	X								X	X				X			X	X	X	X	X	X	X
2	AEMP-US-05		X			14	2025/09/13	14:10	X			X	X								X	X				X			X	X	X	X	X	X	X
3	AEMP-DS-02		X			14	2025/09/13	17:15	X			X	X								X	X				X			X	X	X	X	X	X	X
4																																					
5																																					
6																																					
7																																					
8																																					
9																																					
10																																					

MCAL-2025-09-1124

IOL SITE LOCATION: Norman Wells, NT
IOL PROJECT # (if applicable): NA
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: also email Canada.chemistry@worley.com cacal_IOR database@worley.com
IES A2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐ (2 days) ☐ (1 day) ☐ (same day) ☐
Date Required

	YES	NO	COOLER ID #	1	2	3
SEAL PRESENT	—		TEMP °C	2	3	3
SEAL INTACT	—					
COOLING MEDIA PRESENT	/					

	YES	NO	COOLER ID #	1	2	3
SEAL PRESENT			TEMP °C			
SEAL INTACT						
COOLING MEDIA PRESENT						

	YES	NO	COOLER ID #	1	2	3
SEAL PRESENT			TEMP °C			
SEAL INTACT						
COOLING MEDIA PRESENT						

RELINQUISHED BY:	DATE:	TIME (24 HR)	RECEIVED BY:	DATE:	TIME (24 HR)
1.	Stacy Gibb 2025/09/14	10:15	1. Josh Kingsbury	2025/09/15	1530
2.			2.		
3.			3.		

LAB USE ONLY
MAXXAM JOB # C57828
SAMPLES
LABELED BY: JKG
VERIFIED BY: SWT

COC-1010 (06/2016) IOL-AB
White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292280

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3713005
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C578222
Received: 2025/09/15, 14:55

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) by Combustion (1)	3	CAL SOP-00279	SM24th Ed. 5310 A, B
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (2)	3	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292280

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3713005
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C578222
Received: 2025/09/15, 14:55

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) by Combustion (7)	3	CAL SOP-00279	SM24th Ed. 5310 A, B
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292280

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3713005
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C578222

Received: 2025/09/15, 14:55

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Alejandro Escobar-Lopez
Customer Service Representative
22 Sep 2025 18:30:39

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DSX723	DSX724	DSX725		
Sampling Date		2025/09/13 16:45	2025/09/13 16:11	2025/09/13 16:11		
COC Number		292280	292280	292280		
	UNITS	**AEMP-DS-04**	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C087857
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C088452
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C088452
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C088452
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C088452
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C088452
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C086056
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C086056
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C088452
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	104	104	110		C087857
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	101	101	101		C088452
4-Bromofluorobenzene (sur.)	%	102	103	102		C088452
D4-1,2-Dichloroethane (sur.)	%	98	99	99		C088452

RDL = Reportable Detection Limit

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DSX723	DSX724	DSX725		
Sampling Date		2025/09/13 16:45	2025/09/13 16:11	2025/09/13 16:11		
COC Number		292280	292280	292280		
	UNITS	**AEMP-DS-04**	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**
Calculated Parameters						
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.14	0.16	0.16	0.040	C086426
Nutrients						
Total Nitrogen (N)	mg/L	0.20	0.16	0.16	0.020	C090213
RDL = Reportable Detection Limit						

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSX723			DSX723			DSX724		
Sampling Date		2025/09/13 16:45			2025/09/13 16:45			2025/09/13 16:11		
COC Number		292280			292280			292280		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-01**	**RDL**	**QC Batch**
Elements										
Total Cadmium (Cd)	mg/L	0.000027	0.000020	C086669				<0.000020	0.000020	C086669
Total Mercury (Hg)	ug/L	<0.0019	0.0019	C092107				<0.0019	0.0019	C092107
Total Aluminum (Al)	mg/L	0.27	0.0030	C092353	0.32	0.0030	C092353	0.014	0.0030	C091963
Total Antimony (Sb)	mg/L	<0.00060	0.00060	C092353	<0.00060	0.00060	C092353	<0.00060	0.00060	C091963
Total Arsenic (As)	mg/L	0.00046	0.00020	C092353	0.00046	0.00020	C092353	<0.00020	0.00020	C091963
Total Barium (Ba)	mg/L	0.053	0.010	C092362	0.055	0.010	C092362	0.083	0.010	C091971
Total Beryllium (Be)	mg/L	<0.0010	0.0010	C092353	<0.0010	0.0010	C092353	<0.0010	0.0010	C091963
Total Boron (B)	mg/L	<0.020	0.020	C092362	<0.020	0.020	C092362	0.031	0.020	C091971
Total Calcium (Ca)	mg/L	34	0.30	C092362	34	0.30	C092362	79	0.30	C091971
Total Chromium (Cr)	mg/L	<0.0010	0.0010	C092353	<0.0010	0.0010	C092353	<0.0010	0.0010	C091963
Total Cobalt (Co)	mg/L	<0.00030	0.00030	C092353	<0.00030	0.00030	C092353	<0.00030	0.00030	C091963
Total Copper (Cu)	mg/L	0.0033 (1)	0.0010	C092353	0.0013 (2)	0.0010	C092353	<0.0010	0.0010	C091963
Total Iron (Fe)	mg/L	0.46	0.060	C092362	0.42	0.060	C092362	0.066	0.060	C091971
Total Lead (Pb)	mg/L	0.00025	0.00020	C092353	0.00024	0.00020	C092353	<0.00020	0.00020	C091963
Total Lithium (Li)	mg/L	<0.020	0.020	C092362	<0.020	0.020	C092362	<0.020	0.020	C091971
Total Magnesium (Mg)	mg/L	11	0.20	C092362	11	0.20	C092362	31	0.20	C091971
Total Manganese (Mn)	mg/L	0.013	0.0040	C092362	0.012	0.0040	C092362	0.0080	0.0040	C091971
Total Molybdenum (Mo)	mg/L	0.0010	0.00020	C092353	0.00091	0.00020	C092353	0.0018	0.00020	C091963
Total Nickel (Ni)	mg/L	0.0022	0.00050	C092353	0.0016	0.00050	C092353	0.00077	0.00050	C091963
Total Phosphorus (P)	mg/L	<0.10	0.10	C092362	<0.10	0.10	C092362	<0.10	0.10	C091971
Total Potassium (K)	mg/L	1.0	0.30	C092362	1.0	0.30	C092362	1.2	0.30	C091971
Total Selenium (Se)	mg/L	0.00038	0.00020	C092353	0.00033	0.00020	C092353	<0.00020	0.00020	C091963
Total Silicon (Si)	mg/L	2.0	0.50	C092362	2.1	0.50	C092362	2.1	0.50	C091971
Total Silver (Ag)	mg/L	<0.00010	0.00010	C092353	<0.00010	0.00010	C092353	<0.00010	0.00010	C091963
Total Sodium (Na)	mg/L	8.8	0.50	C092362	8.9	0.50	C092362	25	0.50	C091971
Total Strontium (Sr)	mg/L	0.25	0.020	C092362	0.25	0.020	C092362	1.6	0.020	C091971
Total Sulphur (S)	mg/L	14	0.20	C092362	14	0.20	C092362	53	0.20	C091971

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Duplicate exceeds acceptance criteria due to sample non homogeneity. Reanalysis yields similar results.
(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C578222
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSX723			DSX723			DSX724		
Sampling Date		2025/09/13 16:45			2025/09/13 16:45			2025/09/13 16:11		
COC Number		292280			292280			292280		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-01**	**RDL**	**QC Batch**
Total Thallium (Tl)	mg/L	<0.00020	0.00020	C092353	<0.00020	0.00020	C092353	<0.00020	0.00020	C091963
Total Tin (Sn)	mg/L	<0.0010	0.0010	C092353	<0.0010	0.0010	C092353	<0.0010	0.0010	C091963
Total Titanium (Ti)	mg/L	0.0043	0.0010	C092353	0.0053	0.0010	C092353	<0.0010	0.0010	C091963
Total Uranium (U)	mg/L	0.00077	0.00010	C092353	0.00082	0.00010	C092353	0.0011	0.00010	C091963
Total Vanadium (V)	mg/L	<0.0010	0.0010	C092353	<0.0010	0.0010	C092353	<0.0010	0.0010	C091963
Total Zinc (Zn)	mg/L	<0.0030	0.0030	C092353	0.0032	0.0030	C092353	<0.0030	0.0030	C091963

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSX724			DSX725		
Sampling Date		2025/09/13 16:11			2025/09/13 16:11		
COC Number		292280			292280		
	UNITS	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Elements							
Total Cadmium (Cd)	mg/L				<0.000020	0.000020	C086669
Total Mercury (Hg)	ug/L	<0.0019	0.0019	C092107	<0.0019	0.0019	C092107
Total Aluminum (Al)	mg/L				0.014	0.0030	C092353
Total Antimony (Sb)	mg/L				<0.00060	0.00060	C092353
Total Arsenic (As)	mg/L				<0.00020	0.00020	C092353
Total Barium (Ba)	mg/L				0.081	0.010	C092362
Total Beryllium (Be)	mg/L				<0.0010	0.0010	C092353
Total Boron (B)	mg/L				0.030	0.020	C092362
Total Calcium (Ca)	mg/L				76	0.30	C092362
Total Chromium (Cr)	mg/L				<0.0010	0.0010	C092353
Total Cobalt (Co)	mg/L				<0.00030	0.00030	C092353
Total Copper (Cu)	mg/L				<0.0010	0.0010	C092353
Total Iron (Fe)	mg/L				0.060	0.060	C092362
Total Lead (Pb)	mg/L				<0.00020	0.00020	C092353
Total Lithium (Li)	mg/L				<0.020	0.020	C092362
Total Magnesium (Mg)	mg/L				31	0.20	C092362
Total Manganese (Mn)	mg/L				0.0070	0.0040	C092362
Total Molybdenum (Mo)	mg/L				0.0019	0.00020	C092353
Total Nickel (Ni)	mg/L				<0.00050	0.00050	C092353
Total Phosphorus (P)	mg/L				<0.10	0.10	C092362
Total Potassium (K)	mg/L				1.2	0.30	C092362
Total Selenium (Se)	mg/L				<0.00020	0.00020	C092353
Total Silicon (Si)	mg/L				2.2	0.50	C092362
Total Silver (Ag)	mg/L				<0.00010	0.00010	C092353
Total Sodium (Na)	mg/L				24	0.50	C092362
Total Strontium (Sr)	mg/L				1.6	0.020	C092362
Total Sulphur (S)	mg/L				54	0.20	C092362
Total Thallium (Tl)	mg/L				<0.00020	0.00020	C092353
Total Tin (Sn)	mg/L				<0.0010	0.0010	C092353
Total Titanium (Ti)	mg/L				<0.0010	0.0010	C092353

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSX724			DSX725		
Sampling Date		2025/09/13 16:11			2025/09/13 16:11		
COC Number		292280			292280		
	UNITS	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L				0.0011	0.00010	C092353
Total Vanadium (V)	mg/L				<0.0010	0.0010	C092353
Total Zinc (Zn)	mg/L				<0.0030	0.0030	C092353

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas - Partial/Rush Results

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSX723			DSX724			DSX724		
Sampling Date		2025/09/13 16:45			2025/09/13 16:11			2025/09/13 16:11		
COC Number		292280			292280			292280		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	120	0.50	C086597	320	0.50	C086597			
Ion Balance (% Difference)	%	6.1	N/A	C086599	2.6	N/A	C086599			
Nitrate (N)	mg/L	0.062	0.040	C086604	<0.040	0.040	C086604			
Nitrate (NO3)	mg/L	0.27	0.18	C086672	<0.18	0.18	C086672			
Nitrite (NO2)	mg/L	<0.13	0.13	C086672	<0.13	0.13	C086672			
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C086671	0.0097	0.0020	C086671			
Demand Parameters										
Chemical Oxygen Demand	mg/L	<10 (1)	10	C088376	<10 (1)	10	C088376			
Elements										
Dissolved Cadmium (Cd)	mg/L	0.000024	0.000020	C086588	<0.000020	0.000020	C086588			
Misc. Inorganics										
Conductivity	uS/cm	290	2.0	C087505	700	2.0	C087505	710	2.0	C087505
Dissolved Organic Carbon (C)	mg/L	3.7	0.20	C087935	2.5	0.20	C087935			
pH	pH	7.22	N/A	C087504	8.11	N/A	C087504	8.21	N/A	C087504
Total Organic Carbon (C)	mg/L	3.2	0.20	C087888	2.8	0.20	C087888			
Total Dissolved Solids	mg/L	160	10	C089920						
Total Suspended Solids	mg/L	86	1.0	C088300	<1.0	1.0	C088300			
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C087501	<1.0	1.0	C087501	<1.0	1.0	C087501
Alkalinity (Total as CaCO3)	mg/L	100	1.0	C087501	190	1.0	C087501	190	1.0	C087501
Bicarbonate (HCO3)	mg/L	120	1.0	C087501	230	1.0	C087501	230	1.0	C087501
Carbonate (CO3)	mg/L	<1.0	1.0	C087501	<1.0	1.0	C087501	<1.0	1.0	C087501
Hydroxide (OH)	mg/L	<1.0	1.0	C087501	<1.0	1.0	C087501	<1.0	1.0	C087501
Total Sulphide	mg/L	<0.0018	0.0018	C091234	0.0091	0.0018	C091234			
Chloride (Cl)	mg/L	9.7	1.0	C089074	26	1.0	C089074			
Sulphate (SO4)	mg/L	43	1.0	C089074	160	5.0	C089074			
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C092246	<0.015	0.015	C092252			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C578222
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSX723			DSX724			DSX724		
Sampling Date		2025/09/13 16:45			2025/09/13 16:11			2025/09/13 16:11		
COC Number		292280			292280			292280		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L	<0.0030	0.0030	C087525	<0.0030 (1)	0.0030	C087525	<0.0030	0.0030	C087525
Nitrite (N)	mg/L	<0.040	0.040	C087683	<0.040	0.040	C087683			
Nitrate plus Nitrite (N)	mg/L	0.062	0.040	C087683	<0.040	0.040	C087683			
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C086995	<2.0	2.0	C086995			
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C087000	<2.0	2.0	C087000			
Physical Properties										
True Colour	PtCo units	4.2	2.0	C087866	5.5	2.0	C087866			
Physical Properties										
Turbidity	NTU	19	0.10	C087320	0.19	0.10	C087320			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Matrix spike exceeds acceptance limits due to probable matrix interference.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSX725		
Sampling Date		2025/09/13 16:11		
COC Number		292280		
	UNITS	**AEMP-DUP1**	**RDL**	**QC Batch**
Calculated Parameters				
Hardness (CaCO3)	mg/L	320	0.50	C086597
Ion Balance (% Difference)	%	3.1	N/A	C086599
Nitrate (N)	mg/L	<0.040	0.040	C086604
Nitrate (NO3)	mg/L	<0.18	0.18	C086672
Nitrite (NO2)	mg/L	<0.13	0.13	C086672
Sulphide (as H2S)	mg/L	0.012	0.0020	C086671
Demand Parameters				
Chemical Oxygen Demand	mg/L	<10 (1)	10	C088376
Elements				
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C086588
Misc. Inorganics				
Conductivity	uS/cm	710	2.0	C087505
Dissolved Organic Carbon (C)	mg/L	2.8	0.20	C087935
pH	pH	8.19	N/A	C087504
Total Organic Carbon (C)	mg/L	2.9	0.20	C087888
Total Suspended Solids	mg/L	<1.0	1.0	C088300
Anions				
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C087501
Alkalinity (Total as CaCO3)	mg/L	190	1.0	C087501
Bicarbonate (HCO3)	mg/L	230	1.0	C087501
Carbonate (CO3)	mg/L	<1.0	1.0	C087501
Hydroxide (OH)	mg/L	<1.0	1.0	C087501
Total Sulphide	mg/L	0.012	0.0018	C091234
Chloride (Cl)	mg/L	28	1.0	C089544
Sulphate (SO4)	mg/L	150	5.0	C089544
Nutrients				
Total Ammonia (N)	mg/L	<0.015	0.015	C092252
Orthophosphate (P)	mg/L	<0.0030	0.0030	C087525

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
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Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSX725		
Sampling Date		2025/09/13 16:11		
COC Number		292280		
	UNITS	**AEMP-DUP1**	**RDL**	**QC Batch**
Nitrite (N)	mg/L	<0.040	0.040	C087683
Nitrate plus Nitrite (N)	mg/L	<0.040	0.040	C087683
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C086995
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C087000
Physical Properties				
True Colour	PtCo units	6.3	2.0	C087866
Physical Properties				
Turbidity	NTU	0.19	0.10	C087320
RDL = Reportable Detection Limit				

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas - Partial/Rush Results

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DSX723	DSX724	DSX725		
Sampling Date		2025/09/13 16:45	2025/09/13 16:11	2025/09/13 16:11		
COC Number		292280	292280	292280		
	UNITS	**AEMP-DS-04**	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C086138
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C087856
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C087856
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C087856
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C087856
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C087856
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C087856
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C087856
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	81	81	81		C087856
D8-ACENAPHTHYLENE (sur.)	%	72	71	71		C087856
D8-NAPHTHALENE (sur.)	%	51	51	51		C087856
TERPHENYL-D14 (sur.)	%	81	81	81		C087856

RDL = Reportable Detection Limit

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DSX723	DSX723	DSX724	DSX725		
Sampling Date		2025/09/13 16:45	2025/09/13 16:45	2025/09/13 16:11	2025/09/13 16:11		
COC Number		292280	292280	292280	292280		
	UNITS	**AEMP-DS-04**	**AEMP-DS-04 Lab-Dup**	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**
Elements							
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	<0.0019	0.0019	C092116

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DSX723		DSX724		DSX725		
Sampling Date		2025/09/13 16:45		2025/09/13 16:11		2025/09/13 16:11		
COC Number		292280		292280		292280		
	UNITS	**AEMP-DS-04**	**QC Batch**	**AEMP-DS-01**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Elements								
Dissolved Aluminum (Al)	mg/L	0.025	C087057	<0.0030	C087345	<0.0030	0.0030	C087066
Dissolved Antimony (Sb)	mg/L	<0.00060	C087057	<0.00060	C087345	<0.00060	0.00060	C087066
Dissolved Arsenic (As)	mg/L	0.00031	C087057	0.00022	C087345	<0.00020	0.00020	C087066
Dissolved Barium (Ba)	mg/L	0.044	C089303	0.078	C089303	0.077	0.010	C087077
Dissolved Beryllium (Be)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Boron (B)	mg/L	<0.020	C089303	0.030	C089303	0.024	0.020	C087077
Dissolved Calcium (Ca)	mg/L	31	C089303	74	C089303	74	0.30	C087077
Dissolved Chromium (Cr)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Cobalt (Co)	mg/L	<0.00030	C087057	<0.00030	C087345	<0.00030	0.00030	C087066
Dissolved Copper (Cu)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Iron (Fe)	mg/L	<0.060	C089303	<0.060	C089303	<0.060	0.060	C087077
Dissolved Lead (Pb)	mg/L	<0.00020	C087057	<0.00020	C087345	<0.00020	0.00020	C087066
Dissolved Lithium (Li)	mg/L	<0.020	C089303	<0.020	C089303	<0.020	0.020	C087077
Dissolved Magnesium (Mg)	mg/L	11	C089303	33	C089303	31	0.20	C087077
Dissolved Manganese (Mn)	mg/L	<0.0040	C089303	0.0075	C089303	0.0060	0.0040	C087077
Dissolved Molybdenum (Mo)	mg/L	0.00085	C087057	0.0015	C087345	0.0018	0.00020	C087066
Dissolved Nickel (Ni)	mg/L	0.0011	C087057	0.0055	C094883	0.00061	0.00050	C094883
Dissolved Phosphorus (P)	mg/L	<0.10	C089303	<0.10	C089303	<0.10	0.10	C087077
Dissolved Potassium (K)	mg/L	0.66	C089303	1.0	C089303	1.1	0.30	C087077
Dissolved Selenium (Se)	mg/L	0.00032	C087057	0.00023	C087345	<0.00020	0.00020	C087066
Dissolved Silicon (Si)	mg/L	1.4	C089303	2.2	C089303	2.0	0.50	C087077
Dissolved Silver (Ag)	mg/L	<0.00010	C087057	<0.00010	C087345	<0.00010	0.00010	C087066
Dissolved Sodium (Na)	mg/L	8.3	C089303	24	C089303	23	0.50	C087077
Dissolved Strontium (Sr)	mg/L	0.23	C089303	1.5	C089303	1.5	0.020	C087077
Dissolved Sulphur (S)	mg/L	15	C089303	58	C089303	54	0.20	C087077
Dissolved Thallium (Tl)	mg/L	<0.00020	C087057	<0.00020	C087345	<0.00020	0.00020	C087066
Dissolved Tin (Sn)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Titanium (Ti)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Uranium (U)	mg/L	0.00075	C087057	0.00098	C087345	0.0011	0.00010	C087066
Dissolved Vanadium (V)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Zinc (Zn)	mg/L	<0.0030	C087057	<0.0030	C087345	<0.0030	0.0030	C087066
RDL = Reportable Detection Limit								

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C578222
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX723
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086669	N/A	2025/09/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089074	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/16	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087857	2025/09/18	2025/09/18	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086671	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/18	Automated Statchk
Mercury (Dissolved) by CV	CV	C092116	2025/09/19	2025/09/19	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C089303	N/A	2025/09/17	Kevin Hung
Elements by ICP - Total	ICPA	C092362	2025/09/19	2025/09/19	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C087057	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C092353	2025/09/19	2025/09/20	Ye Hyun KIM
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092246	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087856	2025/09/18	2025/09/19	Jingyuan Song
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C089920	2025/09/18	2025/09/19	Ian Lemuel Pastoral
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic) by Combustion	TECH	C087888	N/A	2025/09/17	Ming Dong
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

Bureau Veritas ID: DSX723 Dup
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (Dissolved) by CV	CV	C092116	2025/09/19	2025/09/19	Kiran Kumari

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX723 Dup
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICP - Total	ICPA	C092362	2025/09/19	2025/09/19	Kevin Hung
Elements by ICPMS - Total	ICPM	C092353	2025/09/19	2025/09/20	Ye Hyun KIM

Bureau Veritas ID: DSX724
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086669	N/A	2025/09/19	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089074	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/16	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087857	2025/09/18	2025/09/18	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086671	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/18	Automated Statchk
Mercury (Dissolved) by CV	CV	C092116	2025/09/19	2025/09/19	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C089303	N/A	2025/09/17	Kevin Hung
Elements by ICP - Total	ICPA	C091971	2025/09/19	2025/09/19	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C087345	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C091963	2025/09/19	2025/09/19	Ilonka Kovac
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092252	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087856	2025/09/18	2025/09/19	Jingyuan Song
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic) by Combustion	TECH	C087888	N/A	2025/09/17	Ming Dong
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

Bureau Veritas - Partial/Rush Results

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX724 Dup
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac

Bureau Veritas ID: DSX725
Sample ID: AEMP-DUP1
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086669	N/A	2025/09/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089544	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/16	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087857	2025/09/18	2025/09/18	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086671	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/17	Automated Statchk
Mercury (Dissolved) by CV	CV	C092116	2025/09/19	2025/09/19	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C087077	N/A	2025/09/16	Kevin Hung
Elements by ICP - Total	ICPA	C092362	2025/09/19	2025/09/19	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C087066	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C092353	2025/09/19	2025/09/20	Ye Hyun KIM
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092252	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087856	2025/09/18	2025/09/19	Jingyuan Song
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic) by Combustion	TECH	C087888	N/A	2025/09/17	Ming Dong

Bureau Veritas - Partial/Rush Results

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Bureau Veritas Job #: C578222
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX725
Sample ID: AEMP-DUP1
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

Bureau Veritas - Partial/Rush Results

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Bureau Veritas - Partial/Rush Results

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C

Sample DSX724 [AEMP-DS-01] : Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample DSX725 [AEMP-DUP1] : Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample DSX724, Elements by ICPMS - Dissolved: Test repeated.
Sample DSX725, Elements by ICPMS - Dissolved: Test repeated.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DSX723	AEMP-DS-04	Water	ICPMSABL-T	ELE	Copper (Cu)	#6 Duplicate RPD Above Control Limit	#6 Non-Homogeneous	This may increase the uncertainty associated with these results.
DSX724	AEMP-DS-01	Water	PO4AC-W	NUTS	Orthophosphate (P)	#1 Matrix Spike Recovery Below Control Limit	#1 Matrix Interference	This may represent a low bias for this parameter(s) in this sample.

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C086995	RRA	Method Blank	Oil and grease	2025/09/16	<2.0		mg/L	
C087000	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/09/16	<2.0		mg/L	
C087057	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/16	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/16	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/16	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/16	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/16	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/16	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/16	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/09/16	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/09/16	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/16	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/16	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/16	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/16	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/16	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/16	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/16	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/16	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/16	<0.0010		mg/L	
C087066	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/16	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/16	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/16	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/16	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/16	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/16	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/16	<0.00020		mg/L	
			Dissolved Selenium (Se)	2025/09/16	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/16	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/16	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/16	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/16	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/16	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/16	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/16	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/16	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/16	<0.0010		mg/L	
C087077	KHU	Method Blank	Dissolved Iron (Fe)	2025/09/16	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/16	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/16	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/16	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/16	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/16	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/16	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/16	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/16	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/16	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/16	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/16	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/16	<0.30		mg/L	
C087320	AP1	Method Blank	Turbidity	2025/09/16	<0.10		NTU	
C087345	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/16	<0.0030		mg/L	

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Chromium (Cr)	2025/09/16	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/16	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/16	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/16	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/16	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/16	<0.00020		mg/L	
			Dissolved Selenium (Se)	2025/09/16	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/16	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/16	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/16	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/16	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/16	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/16	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/16	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/16	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/16	<0.0010		mg/L	
C087501	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/09/18	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/09/18	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/09/18	<1.0		mg/L	
			Carbonate (CO3)	2025/09/18	<1.0		mg/L	
			Hydroxide (OH)	2025/09/18	<1.0		mg/L	
C087505	AYE	Method Blank	Conductivity	2025/09/18	<2.0		uS/cm	
C087525	KKC	Method Blank	Orthophosphate (P)	2025/09/16	<0.0030		mg/L	
C087683	KKC	Method Blank	Nitrite (N)	2025/09/16	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/09/16	<0.040		mg/L	
C087856	SJ1	Method Blank	D10-ANTHRACENE (sur.)	2025/09/19		77	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		77	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		58	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		39 (1)	%	50 - 130
			Acenaphthene	2025/09/19	<0.00010		mg/L	
			Acenaphthylene	2025/09/19	<0.00010		mg/L	
			Acridine	2025/09/19	<0.000040		mg/L	
			Anthracene	2025/09/19	<0.000010		mg/L	
			Benzo(a)anthracene	2025/09/19	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/09/19	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/09/19	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/09/19	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/09/19	<0.000050		mg/L	
			Benzo(a)pyrene	2025/09/19	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/09/19	<0.000050		mg/L	
			Chrysene	2025/09/19	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/09/19	<0.0000075		mg/L	
			Fluoranthene	2025/09/19	<0.000010		mg/L	
			Fluorene	2025/09/19	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/09/19	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/09/19	<0.00010		mg/L	
			2-Methylnaphthalene	2025/09/19	<0.00010		mg/L	
			Naphthalene	2025/09/19	<0.00010		mg/L	
			Phenanthrene	2025/09/19	<0.000050		mg/L	
			Perylene	2025/09/19	<0.000050		mg/L	
			Pyrene	2025/09/19	<0.000020		mg/L	
			Quinoline	2025/09/19	<0.00020		mg/L	

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C087857	CHA	Method Blank	O-TERPHENYL (sur.)	2025/09/18		106	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18	<0.10		mg/L	
C087866	AFI	Method Blank	True Colour	2025/09/16	<2.0		PtCo units	
C087888	MDO	Method Blank	Total Organic Carbon (C)	2025/09/16	<0.20		mg/L	
C087935	MDO	Method Blank	Dissolved Organic Carbon (C)	2025/09/17	<0.20		mg/L	
C088300	DVN	Method Blank	Total Suspended Solids	2025/09/17	<1.0		mg/L	
C088376	AP1	Method Blank	Chemical Oxygen Demand	2025/09/17	<10		mg/L	
C088452	RIL	Method Blank	1,4-Difluorobenzene (sur.)	2025/09/18		99	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		103	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		99	%	50 - 140
			Benzene	2025/09/18	<0.00040		mg/L	
			Toluene	2025/09/18	<0.00040		mg/L	
			Ethylbenzene	2025/09/18	<0.00040		mg/L	
			m & p-Xylene	2025/09/18	<0.00080		mg/L	
			o-Xylene	2025/09/18	<0.00040		mg/L	
			F1 (C6-C10)	2025/09/18	<0.10		mg/L	
C089074	TOR	Method Blank	Chloride (Cl)	2025/09/17	<1.0		mg/L	
			Sulphate (SO4)	2025/09/17	<1.0		mg/L	
C089303	KHU	Method Blank	Dissolved Iron (Fe)	2025/09/17	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/17	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/17	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/17	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/17	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/17	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/17	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/17	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/17	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/17	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/17	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/17	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/17	<0.30		mg/L	
C089544	TOR	Method Blank	Chloride (Cl)	2025/09/17	<1.0		mg/L	
			Sulphate (SO4)	2025/09/17	<1.0		mg/L	
C089920	ILP	Method Blank	Total Dissolved Solids	2025/09/19	<10		mg/L	
C090213	YL7	Method Blank	Total Nitrogen (N)	2025/09/18	<0.020		mg/L	
C091234	DSX	Method Blank	Total Sulphide	2025/09/19	<0.0018		mg/L	
C091963	IK0	Method Blank	Total Aluminum (Al)	2025/09/19	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/19	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/19	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/19	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/19	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/19	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/19	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/19	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/19	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/19	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/19	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/19	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/19	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/19	<0.0010		mg/L	
			Total Uranium (U)	2025/09/19	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/19	<0.0010		mg/L	

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			Total Zinc (Zn)	2025/09/19	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/19	<0.0010		mg/L	
C091971	VSC	Method Blank	Total Iron (Fe)	2025/09/19	<0.060		mg/L	
			Total Lithium (Li)	2025/09/19	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/19	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/19	<0.0040		mg/L	
			Total Potassium (K)	2025/09/19	<0.30		mg/L	
			Total Sodium (Na)	2025/09/19	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/19	<0.020		mg/L	
			Total Sulphur (S)	2025/09/19	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/19	<0.10		mg/L	
			Total Barium (Ba)	2025/09/19	<0.010		mg/L	
			Total Silicon (Si)	2025/09/19	<0.50		mg/L	
			Total Boron (B)	2025/09/19	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/19	<0.30		mg/L	
C092107	KKM	Method Blank	Total Mercury (Hg)	2025/09/19	<0.0019		ug/L	
C092116	KKM	Method Blank	Dissolved Mercury (Hg)	2025/09/19	<0.0019		ug/L	
C092246	KKC	Method Blank	Total Ammonia (N)	2025/09/19	<0.015		mg/L	
C092252	KKC	Method Blank	Total Ammonia (N)	2025/09/19	<0.015		mg/L	
C092353	YHK	Method Blank	Total Aluminum (Al)	2025/09/20	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/20	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/20	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/20	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/20	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/20	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/20	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/20	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/20	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/20	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/20	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/20	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/20	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/20	<0.0010		mg/L	
			Total Uranium (U)	2025/09/20	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/20	<0.0010		mg/L	
			Total Zinc (Zn)	2025/09/20	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/20	<0.0010		mg/L	
C092362	KHU	Method Blank	Total Iron (Fe)	2025/09/19	<0.060		mg/L	
			Total Lithium (Li)	2025/09/19	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/19	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/19	<0.0040		mg/L	
			Total Potassium (K)	2025/09/19	<0.30		mg/L	
			Total Sodium (Na)	2025/09/19	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/19	<0.020		mg/L	
			Total Sulphur (S)	2025/09/19	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/19	<0.10		mg/L	
			Total Barium (Ba)	2025/09/19	<0.010		mg/L	
			Total Silicon (Si)	2025/09/19	<0.50		mg/L	
			Total Boron (B)	2025/09/19	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/19	<0.30		mg/L	
C094883	JAB	Method Blank	Dissolved Nickel (Ni)	2025/09/22	<0.00050		mg/L	
C092116	KKM	RPD [DSX723-13]	Dissolved Mercury (Hg)	2025/09/19	NC		%	20

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C092353	YHK	RPD [DSX723-03]	Total Aluminum (Al)	2025/09/20	14		%	20
			Total Chromium (Cr)	2025/09/20	NC		%	20
			Total Cobalt (Co)	2025/09/20	NC		%	20
			Total Copper (Cu)	2025/09/20	89 (1)		%	20
			Total Lead (Pb)	2025/09/20	3.3		%	20
			Total Antimony (Sb)	2025/09/20	NC		%	20
			Total Molybdenum (Mo)	2025/09/20	11		%	20
			Total Nickel (Ni)	2025/09/20	NC		%	20
			Total Selenium (Se)	2025/09/20	13		%	20
			Total Silver (Ag)	2025/09/20	NC		%	20
			Total Arsenic (As)	2025/09/20	1.5		%	20
			Total Thallium (Tl)	2025/09/20	NC		%	20
			Total Tin (Sn)	2025/09/20	NC		%	20
			Total Titanium (Ti)	2025/09/20	NC		%	20
			Total Uranium (U)	2025/09/20	5.9		%	20
			Total Vanadium (V)	2025/09/20	NC		%	20
			Total Zinc (Zn)	2025/09/20	7.0		%	20
			Total Beryllium (Be)	2025/09/20	NC		%	20
C092362	KHU	RPD [DSX723-03]	Total Iron (Fe)	2025/09/19	9.1		%	20
			Total Lithium (Li)	2025/09/19	NC		%	20
			Total Magnesium (Mg)	2025/09/19	0.11		%	20
			Total Manganese (Mn)	2025/09/19	8.8		%	20
			Total Potassium (K)	2025/09/19	0.53		%	20
			Total Sodium (Na)	2025/09/19	0.27		%	20
			Total Strontium (Sr)	2025/09/19	0.052		%	20
			Total Sulphur (S)	2025/09/19	0.31		%	20
			Total Phosphorus (P)	2025/09/19	NC		%	20
			Total Barium (Ba)	2025/09/19	3.4		%	20
			Total Silicon (Si)	2025/09/19	1.4		%	20
			Total Boron (B)	2025/09/19	NC		%	20
			Total Calcium (Ca)	2025/09/19	0.17		%	20
C087501	AYE	RPD [DSX724-02]	Alkalinity (Total as CaCO3)	2025/09/18	0.20		%	20
			Alkalinity (PP as CaCO3)	2025/09/18	NC		%	20
			Bicarbonate (HCO3)	2025/09/18	0.20		%	20
			Carbonate (CO3)	2025/09/18	NC		%	20
			Hydroxide (OH)	2025/09/18	NC		%	20
C087504	AYE	RPD [DSX724-02]	pH	2025/09/18	1.1		%	N/A
C087505	AYE	RPD [DSX724-02]	Conductivity	2025/09/18	0.43		%	10
C087525	KKC	RPD [DSX724-02]	Orthophosphate (P)	2025/09/16	NC		%	20
C092107	KKM	RPD [DSX724-12]	Total Mercury (Hg)	2025/09/19	NC		%	20
C087525	KKC	Matrix Spike [DSX724-02]	Orthophosphate (P)	2025/09/16		75 (1)	%	80 - 120
C091971	VSC	Matrix Spike [DSX724-03]	Total Iron (Fe)	2025/09/19		106	%	80 - 120
			Total Lithium (Li)	2025/09/19		101	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		106	%	80 - 120
			Total Manganese (Mn)	2025/09/19		106	%	80 - 120
			Total Potassium (K)	2025/09/19		103	%	80 - 120
			Total Sodium (Na)	2025/09/19		101	%	80 - 120
			Total Strontium (Sr)	2025/09/19		105	%	80 - 120
			Total Sulphur (S)	2025/09/19		NC	%	80 - 120
			Total Phosphorus (P)	2025/09/19		104	%	80 - 120
			Total Barium (Ba)	2025/09/19		108	%	80 - 120
			Total Silicon (Si)	2025/09/19		106	%	80 - 120

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			Total Boron (B)	2025/09/19		102	%	80 - 120
			Total Calcium (Ca)	2025/09/19		NC	%	80 - 120
C092107	KKM	Matrix Spike [DSX725-12]	Total Mercury (Hg)	2025/09/19		102	%	80 - 120
C092116	KKM	Matrix Spike [DSX725-13]	Dissolved Mercury (Hg)	2025/09/19		98	%	80 - 120
C086995	RRA	LCS	Oil and grease	2025/09/16		93	%	70 - 130
C087000	RRA	LCS	Total Petroleum Hydrocarbon	2025/09/16		93	%	70 - 130
C087057	JAB	LCS	Dissolved Aluminum (Al)	2025/09/16		103	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/16		101	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/16		100	%	80 - 120
			Dissolved Copper (Cu)	2025/09/16		100	%	80 - 120
			Dissolved Lead (Pb)	2025/09/16		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/16		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/16		103	%	80 - 120
			Dissolved Nickel (Ni)	2025/09/16		99	%	80 - 120
			Dissolved Selenium (Se)	2025/09/16		103	%	80 - 120
			Dissolved Silver (Ag)	2025/09/16		100	%	80 - 120
			Dissolved Arsenic (As)	2025/09/16		103	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/16		103	%	80 - 120
			Dissolved Tin (Sn)	2025/09/16		103	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/16		97	%	80 - 120
			Dissolved Uranium (U)	2025/09/16		100	%	80 - 120
			Dissolved Vanadium (V)	2025/09/16		101	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/16		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/16		100	%	80 - 120
C087066	JAB	LCS	Dissolved Aluminum (Al)	2025/09/16		103	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/16		101	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/16		99	%	80 - 120
			Dissolved Copper (Cu)	2025/09/16		99	%	80 - 120
			Dissolved Lead (Pb)	2025/09/16		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/16		104	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/16		103	%	80 - 120
			Dissolved Selenium (Se)	2025/09/16		103	%	80 - 120
			Dissolved Silver (Ag)	2025/09/16		100	%	80 - 120
			Dissolved Arsenic (As)	2025/09/16		103	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/16		102	%	80 - 120
			Dissolved Tin (Sn)	2025/09/16		104	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/16		104	%	80 - 120
			Dissolved Uranium (U)	2025/09/16		100	%	80 - 120
			Dissolved Vanadium (V)	2025/09/16		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/16		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/16		102	%	80 - 120
C087077	KHU	LCS	Dissolved Iron (Fe)	2025/09/16		99	%	80 - 120
			Dissolved Lithium (Li)	2025/09/16		90	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/16		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/16		97	%	80 - 120
			Dissolved Potassium (K)	2025/09/16		94	%	80 - 120
			Dissolved Sodium (Na)	2025/09/16		92	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/16		97	%	80 - 120
			Dissolved Sulphur (S)	2025/09/16		102	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/16		102	%	80 - 120
			Dissolved Barium (Ba)	2025/09/16		100	%	80 - 120
			Dissolved Silicon (Si)	2025/09/16		97	%	80 - 120

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			Dissolved Boron (B)	2025/09/16		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/16		95	%	80 - 120
C087320	AP1	LCS	Turbidity	2025/09/16		101	%	80 - 120
C087345	JAB	LCS	Dissolved Aluminum (Al)	2025/09/16		98	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/16		105	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/16		85	%	80 - 120
			Dissolved Copper (Cu)	2025/09/16		85	%	80 - 120
			Dissolved Lead (Pb)	2025/09/16		93	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/16		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/16		98	%	80 - 120
			Dissolved Selenium (Se)	2025/09/16		108	%	80 - 120
			Dissolved Silver (Ag)	2025/09/16		92	%	80 - 120
			Dissolved Arsenic (As)	2025/09/16		97	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/16		99	%	80 - 120
			Dissolved Tin (Sn)	2025/09/16		97	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/16		108	%	80 - 120
			Dissolved Uranium (U)	2025/09/16		93	%	80 - 120
			Dissolved Vanadium (V)	2025/09/16		106	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/16		94	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/16		103	%	80 - 120
C087501	AYE	LCS	Alkalinity (Total as CaCO3)	2025/09/18		99	%	80 - 120
C087504	AYE	LCS	pH	2025/09/18		100	%	97 - 103
C087505	AYE	LCS	Conductivity	2025/09/18		101	%	90 - 110
C087525	KKC	LCS	Orthophosphate (P)	2025/09/16		105	%	80 - 120
C087683	KKC	LCS	Nitrite (N)	2025/09/16		101	%	80 - 120
			Nitrate plus Nitrite (N)	2025/09/16		103	%	80 - 120
C087856	SJ1	LCS	D10-ANTHRACENE (sur.)	2025/09/19		81	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		80	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		53	%	50 - 130
			Acenaphthene	2025/09/19		71	%	50 - 130
			Acenaphthylene	2025/09/19		85	%	50 - 130
			Acridine	2025/09/19		74	%	50 - 130
			Anthracene	2025/09/19		72	%	50 - 130
			Benzo(a)anthracene	2025/09/19		78	%	50 - 130
			Benzo(b&j)fluoranthene	2025/09/19		76	%	50 - 130
			Benzo(k)fluoranthene	2025/09/19		74	%	50 - 130
			Benzo(g,h,i)perylene	2025/09/19		79	%	50 - 130
			Benzo(c)phenanthrene	2025/09/19		81	%	50 - 130
			Benzo(a)pyrene	2025/09/19		78	%	50 - 130
			Benzo(e)pyrene	2025/09/19		74	%	50 - 130
			Chrysene	2025/09/19		76	%	50 - 130
			Dibenz(a,h)anthracene	2025/09/19		82	%	50 - 130
			Fluoranthene	2025/09/19		79	%	50 - 130
			Fluorene	2025/09/19		80	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/09/19		79	%	50 - 130
			1-Methylnaphthalene	2025/09/19		64	%	50 - 130
			2-Methylnaphthalene	2025/09/19		70	%	50 - 130
			Naphthalene	2025/09/19		73	%	50 - 130
			Phenanthrene	2025/09/19		74	%	50 - 130
			Perylene	2025/09/19		75	%	50 - 130
			Pyrene	2025/09/19		79	%	50 - 130

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			Quinoline	2025/09/19		101	%	50 - 130
C087857	CHA	LCS	O-TERPHENYL (sur.)	2025/09/18		105	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18		107	%	60 - 140
C087866	AFI	LCS	True Colour	2025/09/16		89	%	80 - 120
C087888	MDO	LCS	Total Organic Carbon (C)	2025/09/16		106	%	80 - 120
C087935	MDO	LCS	Dissolved Organic Carbon (C)	2025/09/17		108	%	80 - 120
C088300	DVN	LCS	Total Suspended Solids	2025/09/17		97	%	80 - 120
C088376	AP1	LCS	Chemical Oxygen Demand	2025/09/17		101	%	80 - 120
C088452	RIL	LCS	1,4-Difluorobenzene (sur.)	2025/09/18		98	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		101	%	50 - 140
			Benzene	2025/09/18		89	%	60 - 130
			Toluene	2025/09/18		90	%	60 - 130
			Ethylbenzene	2025/09/18		94	%	60 - 130
			m & p-Xylene	2025/09/18		90	%	60 - 130
			o-Xylene	2025/09/18		92	%	60 - 130
			F1 (C6-C10)	2025/09/18		95	%	60 - 140
C089074	TOR	LCS	Chloride (Cl)	2025/09/17		101	%	80 - 120
			Sulphate (SO4)	2025/09/17		102	%	80 - 120
C089303	KHU	LCS	Dissolved Iron (Fe)	2025/09/17		112	%	80 - 120
			Dissolved Lithium (Li)	2025/09/17		92	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/17		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/17		105	%	80 - 120
			Dissolved Potassium (K)	2025/09/17		92	%	80 - 120
			Dissolved Sodium (Na)	2025/09/17		94	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/17		98	%	80 - 120
			Dissolved Sulphur (S)	2025/09/17		105	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/17		107	%	80 - 120
			Dissolved Barium (Ba)	2025/09/17		103	%	80 - 120
			Dissolved Silicon (Si)	2025/09/17		102	%	80 - 120
			Dissolved Boron (B)	2025/09/17		96	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/17		94	%	80 - 120
C089544	TOR	LCS	Chloride (Cl)	2025/09/17		106	%	80 - 120
			Sulphate (SO4)	2025/09/17		101	%	80 - 120
C089920	ILP	LCS	Total Dissolved Solids	2025/09/19		94	%	80 - 120
C090213	YL7	LCS	Total Nitrogen (N)	2025/09/18		106	%	80 - 120
C091234	DSX	LCS	Total Sulphide	2025/09/19		90	%	80 - 120
C091963	IK0	LCS	Total Aluminum (Al)	2025/09/19		105	%	80 - 120
			Total Chromium (Cr)	2025/09/19		106	%	80 - 120
			Total Cobalt (Co)	2025/09/19		105	%	80 - 120
			Total Copper (Cu)	2025/09/19		105	%	80 - 120
			Total Lead (Pb)	2025/09/19		99	%	80 - 120
			Total Antimony (Sb)	2025/09/19		102	%	80 - 120
			Total Molybdenum (Mo)	2025/09/19		104	%	80 - 120
			Total Nickel (Ni)	2025/09/19		105	%	80 - 120
			Total Selenium (Se)	2025/09/19		101	%	80 - 120
			Total Silver (Ag)	2025/09/19		100	%	80 - 120
			Total Arsenic (As)	2025/09/19		106	%	80 - 120
			Total Thallium (Tl)	2025/09/19		105	%	80 - 120
			Total Tin (Sn)	2025/09/19		105	%	80 - 120
			Total Titanium (Ti)	2025/09/19		103	%	80 - 120
			Total Uranium (U)	2025/09/19		102	%	80 - 120

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Bureau Veritas - Partial/Rush Results

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Vanadium (V)	2025/09/19		106	%	80 - 120
			Total Zinc (Zn)	2025/09/19		104	%	80 - 120
			Total Beryllium (Be)	2025/09/19		102	%	80 - 120
C091971	VSC	LCS	Total Iron (Fe)	2025/09/19		105	%	80 - 120
			Total Lithium (Li)	2025/09/19		100	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		104	%	80 - 120
			Total Manganese (Mn)	2025/09/19		104	%	80 - 120
			Total Potassium (K)	2025/09/19		102	%	80 - 120
			Total Sodium (Na)	2025/09/19		102	%	80 - 120
			Total Strontium (Sr)	2025/09/19		103	%	80 - 120
			Total Sulphur (S)	2025/09/19		92	%	80 - 120
			Total Phosphorus (P)	2025/09/19		103	%	80 - 120
			Total Barium (Ba)	2025/09/19		108	%	80 - 120
			Total Silicon (Si)	2025/09/19		104	%	80 - 120
			Total Boron (B)	2025/09/19		100	%	80 - 120
			Total Calcium (Ca)	2025/09/19		99	%	80 - 120
C092107	KKM	LCS	Total Mercury (Hg)	2025/09/19		101	%	80 - 120
C092116	KKM	LCS	Dissolved Mercury (Hg)	2025/09/19		102	%	80 - 120
C092246	KKC	LCS	Total Ammonia (N)	2025/09/19		106	%	80 - 120
C092252	KKC	LCS	Total Ammonia (N)	2025/09/19		106	%	80 - 120
C092353	YHK	LCS	Total Aluminum (Al)	2025/09/20		104	%	80 - 120
			Total Chromium (Cr)	2025/09/20		104	%	80 - 120
			Total Cobalt (Co)	2025/09/20		102	%	80 - 120
			Total Copper (Cu)	2025/09/20		103	%	80 - 120
			Total Lead (Pb)	2025/09/20		105	%	80 - 120
			Total Antimony (Sb)	2025/09/20		108	%	80 - 120
			Total Molybdenum (Mo)	2025/09/20		109	%	80 - 120
			Total Nickel (Ni)	2025/09/20		103	%	80 - 120
			Total Selenium (Se)	2025/09/20		103	%	80 - 120
			Total Silver (Ag)	2025/09/20		103	%	80 - 120
			Total Arsenic (As)	2025/09/20		104	%	80 - 120
			Total Thallium (Tl)	2025/09/20		107	%	80 - 120
			Total Tin (Sn)	2025/09/20		107	%	80 - 120
			Total Titanium (Ti)	2025/09/20		104	%	80 - 120
			Total Uranium (U)	2025/09/20		108	%	80 - 120
			Total Vanadium (V)	2025/09/20		103	%	80 - 120
			Total Zinc (Zn)	2025/09/20		100	%	80 - 120
			Total Beryllium (Be)	2025/09/20		98	%	80 - 120
C092362	KHU	LCS	Total Iron (Fe)	2025/09/19		108	%	80 - 120
			Total Lithium (Li)	2025/09/19		99	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		105	%	80 - 120
			Total Manganese (Mn)	2025/09/19		110	%	80 - 120
			Total Potassium (K)	2025/09/19		101	%	80 - 120
			Total Sodium (Na)	2025/09/19		101	%	80 - 120
			Total Strontium (Sr)	2025/09/19		104	%	80 - 120
			Total Sulphur (S)	2025/09/19		92	%	80 - 120
			Total Phosphorus (P)	2025/09/19		103	%	80 - 120
			Total Barium (Ba)	2025/09/19		106	%	80 - 120
			Total Silicon (Si)	2025/09/19		105	%	80 - 120
			Total Boron (B)	2025/09/19		100	%	80 - 120
			Total Calcium (Ca)	2025/09/19		97	%	80 - 120
C094883	JAB	LCS	Dissolved Nickel (Ni)	2025/09/22		92	%	80 - 120

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C090213	YL7	SRM	Total Nitrogen (N)	2025/09/18		103	%	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

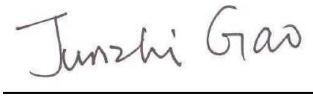
Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

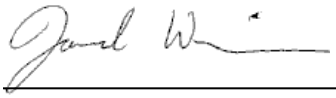
Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

VALIDATION SIGNATURE PAGE

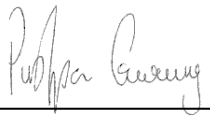
The analytical data and all QC contained in this report were reviewed and validated by:



Janet Gao, B.Sc., QP, Supervisor, Organics

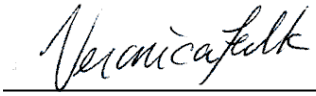


Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics

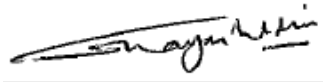


Pushpa Gurung, Laboratory Supervisor

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas - Partial/Rush Results

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

C578222
2025/09/15 14:55

Bureau Veritas - Partial/Rush Results

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

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9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292280

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Stacy Gibb	Contact Name: Stacy Gibb
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9	Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9
Email: stacy.gibb@worley.com	Email: stacy.gibb@worley.com
Ph: 587 434 5393	Ph: 587 434 5393
Sampler Name (Print): Brandon Chapman	Consultant Project #: 417085-59897-25200

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☐ DIS ☒	MERCURY: TOTAL ☐ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, TDS, Turbidity	0.1 µ Grease	TOC, DOC, Sulphide, COD	Nitrate, Nitrite, Ammonia, Total Kjeldahl	Orthophosphate	Sulphur - total, dissolved	TAT
1	~~AEMP-DS-02~~ SG		~~X~~																															
2	AEMP-DS-04		X			14	2025/09/13	16:45	X			X	X							X	X					X			X	X	X	X	X	X	Y
3	AEMP-DS-01		X			14	2025/09/13	16:11	X			X	X							X	X					X			X	X	X	X	X	X	X
4	AEMP-DUP1		X			14	2025/09/13	16:11	X			X	X							X	X					X			X	X	X	X	X	X	X
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

MCAL-2025-09-1121

IOL SITE LOCATION: Norman Wells, NT
IOL PROJECT # (if applicable): NA
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: also email Canada.Chemistry@worley.com cacal_IOR database@worley.com IES A2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐ (2 days) ☐ (1 day) ☐ (same day) ☐
Date Required

LAB USE ONLY
MAXXAM JOB #

SAMPLES
LABELED BY:
VERIFIED BY:

	YES	NO	COOLER ID #			
SEAL PRESENT	✓					
SEAL INTACT	✓					
COOLING MEDIA PRESENT	✓		TEMP °C	4	4	4
				1	2	3

	YES	NO	COOLER ID #			
SEAL PRESENT						
SEAL INTACT						
COOLING MEDIA PRESENT			TEMP °C	1	2	3

	YES	NO	COOLER ID #			
SEAL PRESENT						
SEAL INTACT						
COOLING MEDIA PRESENT			TEMP °C	1	2	3

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1. SG	Stacy Gibb	2025/09/14	10:15	1. ACKOP	Andrii Skorvitskyi	2025/09/15	14:55
2.				2.			
3.				3.			

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292280

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/23
Report #: R3713275
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578222
Received: 2025/09/15, 14:55

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) by Combustion (1)	3	CAL SOP-00279	SM24th Ed. 5310 A, B
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (2)	3	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

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Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292280

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/23
Report #: R3713275
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578222
Received: 2025/09/15, 14:55

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) by Combustion (7)	3	CAL SOP-00279	SM24th Ed. 5310 A, B
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292280

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/23
Report #: R3713275
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578222

Received: 2025/09/15, 14:55

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Namita Sahni
Customer Solutions Representative
23 Sep 2025 14:53:49

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

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Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DSX723	DSX724	DSX725		
Sampling Date		2025/09/13 16:45	2025/09/13 16:11	2025/09/13 16:11		
COC Number		292280	292280	292280		
	UNITS	**AEMP-DS-04**	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C087857
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C088452
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C088452
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C088452
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C088452
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C088452
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C086056
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C086056
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C088452
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	104	104	110		C087857
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	101	101	101		C088452
4-Bromofluorobenzene (sur.)	%	102	103	102		C088452
D4-1,2-Dichloroethane (sur.)	%	98	99	99		C088452

RDL = Reportable Detection Limit

Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DSX723	DSX724	DSX725		
Sampling Date		2025/09/13 16:45	2025/09/13 16:11	2025/09/13 16:11		
COC Number		292280	292280	292280		
	UNITS	**AEMP-DS-04**	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**
Calculated Parameters						
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.14	0.16	0.16	0.040	C086426
Nutrients						
Total Nitrogen (N)	mg/L	0.20	0.16	0.16	0.020	C090213
RDL = Reportable Detection Limit						

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSX723			DSX723			DSX724		
Sampling Date		2025/09/13 16:45			2025/09/13 16:45			2025/09/13 16:11		
COC Number		292280			292280			292280		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-01**	**RDL**	**QC Batch**
Elements										
Total Cadmium (Cd)	mg/L	0.000027	0.000020	C086669				<0.000020	0.000020	C086669
Total Mercury (Hg)	ug/L	<0.0019	0.0019	C092107				<0.0019	0.0019	C092107
Total Aluminum (Al)	mg/L	0.27	0.0030	C092353	0.32	0.0030	C092353	0.014	0.0030	C091963
Total Antimony (Sb)	mg/L	<0.00060	0.00060	C092353	<0.00060	0.00060	C092353	<0.00060	0.00060	C091963
Total Arsenic (As)	mg/L	0.00046	0.00020	C092353	0.00046	0.00020	C092353	<0.00020	0.00020	C091963
Total Barium (Ba)	mg/L	0.053	0.010	C092362	0.055	0.010	C092362	0.083	0.010	C091971
Total Beryllium (Be)	mg/L	<0.0010	0.0010	C092353	<0.0010	0.0010	C092353	<0.0010	0.0010	C091963
Total Boron (B)	mg/L	<0.020	0.020	C092362	<0.020	0.020	C092362	0.031	0.020	C091971
Total Calcium (Ca)	mg/L	34	0.30	C092362	34	0.30	C092362	79	0.30	C091971
Total Chromium (Cr)	mg/L	<0.0010	0.0010	C092353	<0.0010	0.0010	C092353	<0.0010	0.0010	C091963
Total Cobalt (Co)	mg/L	<0.00030	0.00030	C092353	<0.00030	0.00030	C092353	<0.00030	0.00030	C091963
Total Copper (Cu)	mg/L	0.0033 (1)	0.0010	C092353	0.0013 (2)	0.0010	C092353	<0.0010	0.0010	C091963
Total Iron (Fe)	mg/L	0.46	0.060	C092362	0.42	0.060	C092362	0.066	0.060	C091971
Total Lead (Pb)	mg/L	0.00025	0.00020	C092353	0.00024	0.00020	C092353	<0.00020	0.00020	C091963
Total Lithium (Li)	mg/L	<0.020	0.020	C092362	<0.020	0.020	C092362	<0.020	0.020	C091971
Total Magnesium (Mg)	mg/L	11	0.20	C092362	11	0.20	C092362	31	0.20	C091971
Total Manganese (Mn)	mg/L	0.013	0.0040	C092362	0.012	0.0040	C092362	0.0080	0.0040	C091971
Total Molybdenum (Mo)	mg/L	0.0010	0.00020	C092353	0.00091	0.00020	C092353	0.0018	0.00020	C091963
Total Nickel (Ni)	mg/L	0.0022	0.00050	C092353	0.0016	0.00050	C092353	0.00077	0.00050	C091963
Total Phosphorus (P)	mg/L	<0.10	0.10	C092362	<0.10	0.10	C092362	<0.10	0.10	C091971
Total Potassium (K)	mg/L	1.0	0.30	C092362	1.0	0.30	C092362	1.2	0.30	C091971
Total Selenium (Se)	mg/L	0.00038	0.00020	C092353	0.00033	0.00020	C092353	<0.00020	0.00020	C091963
Total Silicon (Si)	mg/L	2.0	0.50	C092362	2.1	0.50	C092362	2.1	0.50	C091971
Total Silver (Ag)	mg/L	<0.00010	0.00010	C092353	<0.00010	0.00010	C092353	<0.00010	0.00010	C091963
Total Sodium (Na)	mg/L	8.8	0.50	C092362	8.9	0.50	C092362	25	0.50	C091971
Total Strontium (Sr)	mg/L	0.25	0.020	C092362	0.25	0.020	C092362	1.6	0.020	C091971
Total Sulphur (S)	mg/L	14	0.20	C092362	14	0.20	C092362	53	0.20	C091971

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Duplicate exceeds acceptance criteria due to sample non homogeneity. Reanalysis yields similar results.
(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSX723			DSX723			DSX724		
Sampling Date		2025/09/13 16:45			2025/09/13 16:45			2025/09/13 16:11		
COC Number		292280			292280			292280		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-04 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-01**	**RDL**	**QC Batch**
Total Thallium (Tl)	mg/L	<0.00020	0.00020	C092353	<0.00020	0.00020	C092353	<0.00020	0.00020	C091963
Total Tin (Sn)	mg/L	<0.0010	0.0010	C092353	<0.0010	0.0010	C092353	<0.0010	0.0010	C091963
Total Titanium (Ti)	mg/L	0.0043	0.0010	C092353	0.0053	0.0010	C092353	<0.0010	0.0010	C091963
Total Uranium (U)	mg/L	0.00077	0.00010	C092353	0.00082	0.00010	C092353	0.0011	0.00010	C091963
Total Vanadium (V)	mg/L	<0.0010	0.0010	C092353	<0.0010	0.0010	C092353	<0.0010	0.0010	C091963
Total Zinc (Zn)	mg/L	<0.0030	0.0030	C092353	0.0032	0.0030	C092353	<0.0030	0.0030	C091963

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSX724			DSX725		
Sampling Date		2025/09/13 16:11			2025/09/13 16:11		
COC Number		292280			292280		
	UNITS	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Elements							
Total Cadmium (Cd)	mg/L				<0.000020	0.000020	C086669
Total Mercury (Hg)	ug/L	<0.0019	0.0019	C092107	<0.0019	0.0019	C092107
Total Aluminum (Al)	mg/L				0.014	0.0030	C092353
Total Antimony (Sb)	mg/L				<0.00060	0.00060	C092353
Total Arsenic (As)	mg/L				<0.00020	0.00020	C092353
Total Barium (Ba)	mg/L				0.081	0.010	C092362
Total Beryllium (Be)	mg/L				<0.0010	0.0010	C092353
Total Boron (B)	mg/L				0.030	0.020	C092362
Total Calcium (Ca)	mg/L				76	0.30	C092362
Total Chromium (Cr)	mg/L				<0.0010	0.0010	C092353
Total Cobalt (Co)	mg/L				<0.00030	0.00030	C092353
Total Copper (Cu)	mg/L				<0.0010	0.0010	C092353
Total Iron (Fe)	mg/L				0.060	0.060	C092362
Total Lead (Pb)	mg/L				<0.00020	0.00020	C092353
Total Lithium (Li)	mg/L				<0.020	0.020	C092362
Total Magnesium (Mg)	mg/L				31	0.20	C092362
Total Manganese (Mn)	mg/L				0.0070	0.0040	C092362
Total Molybdenum (Mo)	mg/L				0.0019	0.00020	C092353
Total Nickel (Ni)	mg/L				<0.00050	0.00050	C092353
Total Phosphorus (P)	mg/L				<0.10	0.10	C092362
Total Potassium (K)	mg/L				1.2	0.30	C092362
Total Selenium (Se)	mg/L				<0.00020	0.00020	C092353
Total Silicon (Si)	mg/L				2.2	0.50	C092362
Total Silver (Ag)	mg/L				<0.00010	0.00010	C092353
Total Sodium (Na)	mg/L				24	0.50	C092362
Total Strontium (Sr)	mg/L				1.6	0.020	C092362
Total Sulphur (S)	mg/L				54	0.20	C092362
Total Thallium (Tl)	mg/L				<0.00020	0.00020	C092353
Total Tin (Sn)	mg/L				<0.0010	0.0010	C092353
Total Titanium (Ti)	mg/L				<0.0010	0.0010	C092353

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSX724			DSX725		
Sampling Date		2025/09/13 16:11			2025/09/13 16:11		
COC Number		292280			292280		
	UNITS	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Total Uranium (U)	mg/L				0.0011	0.00010	C092353
Total Vanadium (V)	mg/L				<0.0010	0.0010	C092353
Total Zinc (Zn)	mg/L				<0.0030	0.0030	C092353

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSX723			DSX724			DSX724		
Sampling Date		2025/09/13 16:45			2025/09/13 16:11			2025/09/13 16:11		
COC Number		292280			292280			292280		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	120	0.50	C086597	320	0.50	C086597			
Ion Balance (% Difference)	%	6.1	N/A	C086599	2.6	N/A	C086599			
Nitrate (N)	mg/L	0.062	0.040	C086604	<0.040	0.040	C086604			
Nitrate (NO3)	mg/L	0.27	0.18	C086672	<0.18	0.18	C086672			
Nitrite (NO2)	mg/L	<0.13	0.13	C086672	<0.13	0.13	C086672			
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C086671	0.0097	0.0020	C086671			
Demand Parameters										
Chemical Oxygen Demand	mg/L	<10 (1)	10	C088376	<10 (1)	10	C088376			
Elements										
Dissolved Cadmium (Cd)	mg/L	0.000024	0.000020	C086588	<0.000020	0.000020	C086588			
Misc. Inorganics										
Conductivity	uS/cm	290	2.0	C087505	700	2.0	C087505	710	2.0	C087505
Dissolved Organic Carbon (C)	mg/L	3.7	0.20	C087935	2.5	0.20	C087935			
pH	pH	7.22	N/A	C087504	8.11	N/A	C087504	8.21	N/A	C087504
Total Organic Carbon (C)	mg/L	3.2	0.20	C087888	2.8	0.20	C087888			
Total Dissolved Solids	mg/L	160	10	C089920	430 (2)	10	C094397			
Total Suspended Solids	mg/L	86	1.0	C088300	<1.0	1.0	C088300			
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C087501	<1.0	1.0	C087501	<1.0	1.0	C087501
Alkalinity (Total as CaCO3)	mg/L	100	1.0	C087501	190	1.0	C087501	190	1.0	C087501
Bicarbonate (HCO3)	mg/L	120	1.0	C087501	230	1.0	C087501	230	1.0	C087501
Carbonate (CO3)	mg/L	<1.0	1.0	C087501	<1.0	1.0	C087501	<1.0	1.0	C087501
Hydroxide (OH)	mg/L	<1.0	1.0	C087501	<1.0	1.0	C087501	<1.0	1.0	C087501
Total Sulphide	mg/L	<0.0018	0.0018	C091234	0.0091	0.0018	C091234			
Chloride (Cl)	mg/L	9.7	1.0	C089074	26	1.0	C089074			
Sulphate (SO4)	mg/L	43	1.0	C089074	160	5.0	C089074			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.
(2) Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSX723			DSX724			DSX724		
Sampling Date		2025/09/13 16:45			2025/09/13 16:11			2025/09/13 16:11		
COC Number		292280			292280			292280		
	UNITS	**AEMP-DS-04**	**RDL**	**QC Batch**	**AEMP-DS-01**	**RDL**	**QC Batch**	**AEMP-DS-01 Lab-Dup**	**RDL**	**QC Batch**
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C092246	<0.015	0.015	C092252			
Orthophosphate (P)	mg/L	<0.0030	0.0030	C087525	<0.0030 (1)	0.0030	C087525	<0.0030	0.0030	C087525
Nitrite (N)	mg/L	<0.040	0.040	C087683	<0.040	0.040	C087683			
Nitrate plus Nitrite (N)	mg/L	0.062	0.040	C087683	<0.040	0.040	C087683			
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C086995	<2.0	2.0	C086995			
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C087000	<2.0	2.0	C087000			
Physical Properties										
True Colour	PtCo units	4.2	2.0	C087866	5.5	2.0	C087866			
Physical Properties										
Turbidity	NTU	19	0.10	C087320	0.19	0.10	C087320			

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Matrix spike exceeds acceptance limits due to probable matrix interference.

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Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSX725		
Sampling Date		2025/09/13 16:11		
COC Number		292280		
	UNITS	**AEMP-DUP1**	**RDL**	**QC Batch**
Calculated Parameters				
Hardness (CaCO3)	mg/L	320	0.50	C086597
Ion Balance (% Difference)	%	3.1	N/A	C086599
Nitrate (N)	mg/L	<0.040	0.040	C086604
Nitrate (NO3)	mg/L	<0.18	0.18	C086672
Nitrite (NO2)	mg/L	<0.13	0.13	C086672
Sulphide (as H2S)	mg/L	0.012	0.0020	C086671
Demand Parameters				
Chemical Oxygen Demand	mg/L	<10 (1)	10	C088376
Elements				
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C086588
Misc. Inorganics				
Conductivity	uS/cm	710	2.0	C087505
Dissolved Organic Carbon (C)	mg/L	2.8	0.20	C087935
pH	pH	8.19	N/A	C087504
Total Organic Carbon (C)	mg/L	2.9	0.20	C087888
Total Dissolved Solids	mg/L	430 (2)	10	C094397
Total Suspended Solids	mg/L	<1.0	1.0	C088300
Anions				
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C087501
Alkalinity (Total as CaCO3)	mg/L	190	1.0	C087501
Bicarbonate (HCO3)	mg/L	230	1.0	C087501
Carbonate (CO3)	mg/L	<1.0	1.0	C087501
Hydroxide (OH)	mg/L	<1.0	1.0	C087501
Total Sulphide	mg/L	0.012	0.0018	C091234
Chloride (Cl)	mg/L	28	1.0	C089544

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

(2) Sample was originally processed within hold time. Data quality required investigation. Re-analysis was completed past recommended hold time.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSX725		
Sampling Date		2025/09/13 16:11		
COC Number		292280		
	UNITS	**AEMP-DUP1**	**RDL**	**QC Batch**
Sulphate (SO4)	mg/L	150	5.0	C089544
Nutrients				
Total Ammonia (N)	mg/L	<0.015	0.015	C092252
Orthophosphate (P)	mg/L	<0.0030	0.0030	C087525
Nitrite (N)	mg/L	<0.040	0.040	C087683
Nitrate plus Nitrite (N)	mg/L	<0.040	0.040	C087683
Misc. Organics				
Oil and grease	mg/L	<2.0	2.0	C086995
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C087000
Physical Properties				
True Colour	PtCo units	6.3	2.0	C087866
Physical Properties				
Turbidity	NTU	0.19	0.10	C087320
RDL = Reportable Detection Limit				

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Advisian
Task Order#: 417085-59897
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Site Location: NORMAN WELLS, NT
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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DSX723	DSX724	DSX725		
Sampling Date		2025/09/13 16:45	2025/09/13 16:11	2025/09/13 16:11		
COC Number		292280	292280	292280		
	UNITS	**AEMP-DS-04**	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C086138
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C087856
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C087856
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C087856
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C087856
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C087856
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C087856
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C087856
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C087856
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C087856
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C087856
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	81	81	81		C087856
D8-ACENAPHTHYLENE (sur.)	%	72	71	71		C087856
D8-NAPHTHALENE (sur.)	%	51	51	51		C087856
TERPHENYL-D14 (sur.)	%	81	81	81		C087856

RDL = Reportable Detection Limit

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MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DSX723	DSX723	DSX724	DSX725		
Sampling Date		2025/09/13 16:45	2025/09/13 16:45	2025/09/13 16:11	2025/09/13 16:11		
COC Number		292280	292280	292280	292280		
	UNITS	**AEMP-DS-04**	**AEMP-DS-04 Lab-Dup**	**AEMP-DS-01**	**AEMP-DUP1**	**RDL**	**QC Batch**
Elements							
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	<0.0019	0.0019	C092116

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DSX723		DSX724		DSX725		
Sampling Date		2025/09/13 16:45		2025/09/13 16:11		2025/09/13 16:11		
COC Number		292280		292280		292280		
	UNITS	**AEMP-DS-04**	**QC Batch**	**AEMP-DS-01**	**QC Batch**	**AEMP-DUP1**	**RDL**	**QC Batch**
Elements								
Dissolved Aluminum (Al)	mg/L	0.025	C087057	<0.0030	C087345	<0.0030	0.0030	C087066
Dissolved Antimony (Sb)	mg/L	<0.00060	C087057	<0.00060	C087345	<0.00060	0.00060	C087066
Dissolved Arsenic (As)	mg/L	0.00031	C087057	0.00022	C087345	<0.00020	0.00020	C087066
Dissolved Barium (Ba)	mg/L	0.044	C089303	0.078	C089303	0.077	0.010	C087077
Dissolved Beryllium (Be)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Boron (B)	mg/L	<0.020	C089303	0.030	C089303	0.024	0.020	C087077
Dissolved Calcium (Ca)	mg/L	31	C089303	74	C089303	74	0.30	C087077
Dissolved Chromium (Cr)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Cobalt (Co)	mg/L	<0.00030	C087057	<0.00030	C087345	<0.00030	0.00030	C087066
Dissolved Copper (Cu)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Iron (Fe)	mg/L	<0.060	C089303	<0.060	C089303	<0.060	0.060	C087077
Dissolved Lead (Pb)	mg/L	<0.00020	C087057	<0.00020	C087345	<0.00020	0.00020	C087066
Dissolved Lithium (Li)	mg/L	<0.020	C089303	<0.020	C089303	<0.020	0.020	C087077
Dissolved Magnesium (Mg)	mg/L	11	C089303	33	C089303	31	0.20	C087077
Dissolved Manganese (Mn)	mg/L	<0.0040	C089303	0.0075	C089303	0.0060	0.0040	C087077
Dissolved Molybdenum (Mo)	mg/L	0.00085	C087057	0.0015	C087345	0.0018	0.00020	C087066
Dissolved Nickel (Ni)	mg/L	0.0011	C087057	0.0055	C094883	0.00061	0.00050	C094883
Dissolved Phosphorus (P)	mg/L	<0.10	C089303	<0.10	C089303	<0.10	0.10	C087077
Dissolved Potassium (K)	mg/L	0.66	C089303	1.0	C089303	1.1	0.30	C087077
Dissolved Selenium (Se)	mg/L	0.00032	C087057	0.00023	C087345	<0.00020	0.00020	C087066
Dissolved Silicon (Si)	mg/L	1.4	C089303	2.2	C089303	2.0	0.50	C087077
Dissolved Silver (Ag)	mg/L	<0.00010	C087057	<0.00010	C087345	<0.00010	0.00010	C087066
Dissolved Sodium (Na)	mg/L	8.3	C089303	24	C089303	23	0.50	C087077
Dissolved Strontium (Sr)	mg/L	0.23	C089303	1.5	C089303	1.5	0.020	C087077
Dissolved Sulphur (S)	mg/L	15	C089303	58	C089303	54	0.20	C087077
Dissolved Thallium (Tl)	mg/L	<0.00020	C087057	<0.00020	C087345	<0.00020	0.00020	C087066
Dissolved Tin (Sn)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Titanium (Ti)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Uranium (U)	mg/L	0.00075	C087057	0.00098	C087345	0.0011	0.00010	C087066
Dissolved Vanadium (V)	mg/L	<0.0010	C087057	<0.0010	C087345	<0.0010	0.0010	C087066
Dissolved Zinc (Zn)	mg/L	<0.0030	C087057	<0.0030	C087345	<0.0030	0.0030	C087066
RDL = Reportable Detection Limit								

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX723
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086669	N/A	2025/09/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089074	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/16	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087857	2025/09/18	2025/09/18	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086671	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/18	Automated Statchk
Mercury (Dissolved) by CV	CV	C092116	2025/09/19	2025/09/19	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C089303	N/A	2025/09/17	Kevin Hung
Elements by ICP - Total	ICPA	C092362	2025/09/19	2025/09/19	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C087057	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C092353	2025/09/19	2025/09/20	Ye Hyun KIM
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092246	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087856	2025/09/18	2025/09/19	Jingyuan Song
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C089920	2025/09/18	2025/09/19	Ian Lemuel Pastoral
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic) by Combustion	TECH	C087888	N/A	2025/09/17	Ming Dong
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

Bureau Veritas ID: DSX723 Dup
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (Dissolved) by CV	CV	C092116	2025/09/19	2025/09/19	Kiran Kumari

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX723 Dup
Sample ID: AEMP-DS-04
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Elements by ICP - Total	ICPA	C092362	2025/09/19	2025/09/19	Kevin Hung
Elements by ICPMS - Total	ICPM	C092353	2025/09/19	2025/09/20	Ye Hyun KIM

Bureau Veritas ID: DSX724
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086669	N/A	2025/09/19	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089074	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/16	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087857	2025/09/18	2025/09/18	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086671	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/18	Automated Statchk
Mercury (Dissolved) by CV	CV	C092116	2025/09/19	2025/09/19	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C089303	N/A	2025/09/17	Kevin Hung
Elements by ICP - Total	ICPA	C091971	2025/09/19	2025/09/19	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C087345	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C091963	2025/09/19	2025/09/19	Ilonka Kovac
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092252	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087856	2025/09/18	2025/09/19	Jingyuan Song
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C094397	2025/09/22	2025/09/23	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic) by Combustion	TECH	C087888	N/A	2025/09/17	Ming Dong
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX724
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

Bureau Veritas ID: DSX724 Dup
Sample ID: AEMP-DS-01
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac

Bureau Veritas ID: DSX725
Sample ID: AEMP-DUP1
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C087501	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C086056	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C086588	N/A	2025/09/17	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C086669	N/A	2025/09/22	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089544	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C088376	N/A	2025/09/17	Amy Phan
True Colour	SPEC/COL	C087866	N/A	2025/09/16	Adam Fishleigh
Carbon (DOC) by Combustion	TECH	C087935	N/A	2025/09/17	Ming Dong
Conductivity @25C	COND	C087505	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087857	2025/09/18	2025/09/18	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086671	N/A	2025/09/19	Automated Statchk
Hardness	CALC	C086597	N/A	2025/09/17	Automated Statchk
Mercury (Dissolved) by CV	CV	C092116	2025/09/19	2025/09/19	Kiran Kumari
Mercury (Total) by CV	CV	C092107	2025/09/19	2025/09/19	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C087077	N/A	2025/09/16	Kevin Hung
Elements by ICP - Total	ICPA	C092362	2025/09/19	2025/09/19	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C087066	N/A	2025/09/16	Jason Bao
Elements by ICPMS - Total	ICPM	C092353	2025/09/19	2025/09/20	Ye Hyun KIM
Ion Balance	CALC	C086599	N/A	2025/09/18	Automated Statchk
Ammonia-N (Total)	KONE	C092252	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C086672	N/A	2025/09/16	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C087683	N/A	2025/09/16	Kristijan Kovac
Nitrate (as N)	CALC	C086604	2025/09/16	2025/09/16	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/16	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C086138	N/A	2025/09/19	Automated Statchk

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSX725
Sample ID: AEMP-DUP1
Matrix: Water

Collected: 2025/09/13
Relinquished: 2025/09/14
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH in Water by GC/MS	GC/MS	C087856	2025/09/18	2025/09/19	Jingyuan Song
pH @25°C	AT/ALK	C087504	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C087525	N/A	2025/09/16	Kristijan Kovac
Total Sulphide	SPEC	C091234	2025/09/19	2025/09/19	Dafne Strozake Maximo
Total Dissolved Solids (Filt. Residue)	BAL	C094397	2025/09/22	2025/09/23	Haydee Estilong
Total Kjeldahl Nitrogen (Total)	CALC	C086426	N/A	2025/09/19	Automated Statchk
Nitrogen (Total)	AC/COL	C090213	2025/09/18	2025/09/19	Yan Lin
Carbon (Total Organic) by Combustion	TECH	C087888	N/A	2025/09/17	Ming Dong
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/16	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088300	2025/09/17	2025/09/17	Daryl Viktoria Noval
Turbidity	TURB	C087320	N/A	2025/09/16	Amy Phan

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C

Sample DSX724 [AEMP-DS-01] : Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample DSX725 [AEMP-DUP1] : Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample DSX724, Elements by ICPMS - Dissolved: Test repeated.
Sample DSX725, Elements by ICPMS - Dissolved: Test repeated.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DSX723	AEMP-DS-04	Water	ICPMSABL-T	ELE	Copper (Cu)	#6 Duplicate RPD Above Control Limit	#6 Non-Homogeneous	This may increase the uncertainty associated with these results.
DSX724	AEMP-DS-01	Water	PO4AC-W	NUTS	Orthophosphate (P)	#1 Matrix Spike Recovery Below Control Limit	#1 Matrix Interference	This may represent a low bias for this parameter(s) in this sample.
DSX724	AEMP-DS-01	Water	TDS	INORG	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.
DSX725	AEMP-DUP1	Water	TDS	INORG	Sample	#10 Past Hold Time	#4 Re-Analysis Required	This may increase the uncertainty associated with these results.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C086995	RRA	Method Blank	Oil and grease	2025/09/16	<2.0		mg/L	
C087000	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/09/16	<2.0		mg/L	
C087057	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/16	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/16	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/16	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/16	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/16	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/16	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/16	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/09/16	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/09/16	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/16	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/16	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/16	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/16	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/16	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/16	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/16	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/16	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/16	<0.0010		mg/L	
C087066	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/16	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/16	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/16	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/16	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/16	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/16	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/16	<0.00020		mg/L	
			Dissolved Selenium (Se)	2025/09/16	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/16	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/16	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/16	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/16	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/16	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/16	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/16	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/16	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/16	<0.0010		mg/L	
C087077	KHU	Method Blank	Dissolved Iron (Fe)	2025/09/16	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/16	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/16	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/16	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/16	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/16	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/16	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/16	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/16	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/16	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/16	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/16	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/16	<0.30		mg/L	
C087320	AP1	Method Blank	Turbidity	2025/09/16	<0.10		NTU	
C087345	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/16	<0.0030		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Chromium (Cr)	2025/09/16	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/16	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/16	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/16	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/16	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/16	<0.00020		mg/L	
			Dissolved Selenium (Se)	2025/09/16	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/16	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/16	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/16	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/16	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/16	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/16	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/16	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/16	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/16	<0.0010		mg/L	
C087501	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/09/18	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/09/18	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/09/18	<1.0		mg/L	
			Carbonate (CO3)	2025/09/18	<1.0		mg/L	
			Hydroxide (OH)	2025/09/18	<1.0		mg/L	
C087505	AYE	Method Blank	Conductivity	2025/09/18	<2.0		uS/cm	
C087525	KKC	Method Blank	Orthophosphate (P)	2025/09/16	<0.0030		mg/L	
C087683	KKC	Method Blank	Nitrite (N)	2025/09/16	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/09/16	<0.040		mg/L	
C087856	SJ1	Method Blank	D10-ANTHRACENE (sur.)	2025/09/19		77	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		77	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		58	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		39 (1)	%	50 - 130
			Acenaphthene	2025/09/19	<0.00010		mg/L	
			Acenaphthylene	2025/09/19	<0.00010		mg/L	
			Acridine	2025/09/19	<0.000040		mg/L	
			Anthracene	2025/09/19	<0.000010		mg/L	
			Benzo(a)anthracene	2025/09/19	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/09/19	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/09/19	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/09/19	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/09/19	<0.000050		mg/L	
			Benzo(a)pyrene	2025/09/19	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/09/19	<0.000050		mg/L	
			Chrysene	2025/09/19	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/09/19	<0.0000075		mg/L	
			Fluoranthene	2025/09/19	<0.000010		mg/L	
			Fluorene	2025/09/19	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/09/19	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/09/19	<0.00010		mg/L	
			2-Methylnaphthalene	2025/09/19	<0.00010		mg/L	
			Naphthalene	2025/09/19	<0.00010		mg/L	
			Phenanthrene	2025/09/19	<0.000050		mg/L	
			Perylene	2025/09/19	<0.000050		mg/L	
			Pyrene	2025/09/19	<0.000020		mg/L	
			Quinoline	2025/09/19	<0.00020		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C087857	CHA	Method Blank	O-TERPHENYL (sur.)	2025/09/18		106	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18	<0.10		mg/L	
C087866	AFI	Method Blank	True Colour	2025/09/16	<2.0		PtCo units	
C087888	MDO	Method Blank	Total Organic Carbon (C)	2025/09/16	<0.20		mg/L	
C087935	MDO	Method Blank	Dissolved Organic Carbon (C)	2025/09/17	<0.20		mg/L	
C088300	DVN	Method Blank	Total Suspended Solids	2025/09/17	<1.0		mg/L	
C088376	AP1	Method Blank	Chemical Oxygen Demand	2025/09/17	<10		mg/L	
C088452	RIL	Method Blank	1,4-Difluorobenzene (sur.)	2025/09/18		99	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		103	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		99	%	50 - 140
			Benzene	2025/09/18	<0.00040		mg/L	
			Toluene	2025/09/18	<0.00040		mg/L	
			Ethylbenzene	2025/09/18	<0.00040		mg/L	
			m & p-Xylene	2025/09/18	<0.00080		mg/L	
			o-Xylene	2025/09/18	<0.00040		mg/L	
			F1 (C6-C10)	2025/09/18	<0.10		mg/L	
C089074	TOR	Method Blank	Chloride (Cl)	2025/09/17	<1.0		mg/L	
			Sulphate (SO4)	2025/09/17	<1.0		mg/L	
C089303	KHU	Method Blank	Dissolved Iron (Fe)	2025/09/17	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/17	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/17	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/17	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/17	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/17	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/17	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/17	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/17	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/17	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/17	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/17	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/17	<0.30		mg/L	
C089544	TOR	Method Blank	Chloride (Cl)	2025/09/17	<1.0		mg/L	
			Sulphate (SO4)	2025/09/17	<1.0		mg/L	
C089920	ILP	Method Blank	Total Dissolved Solids	2025/09/19	<10		mg/L	
C090213	YL7	Method Blank	Total Nitrogen (N)	2025/09/18	<0.020		mg/L	
C091234	DSX	Method Blank	Total Sulphide	2025/09/19	<0.0018		mg/L	
C091963	IK0	Method Blank	Total Aluminum (Al)	2025/09/19	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/19	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/19	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/19	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/19	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/19	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/19	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/19	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/19	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/19	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/19	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/19	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/19	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/19	<0.0010		mg/L	
			Total Uranium (U)	2025/09/19	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/19	<0.0010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Zinc (Zn)	2025/09/19	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/19	<0.0010		mg/L	
C091971	VSC	Method Blank	Total Iron (Fe)	2025/09/19	<0.060		mg/L	
			Total Lithium (Li)	2025/09/19	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/19	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/19	<0.0040		mg/L	
			Total Potassium (K)	2025/09/19	<0.30		mg/L	
			Total Sodium (Na)	2025/09/19	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/19	<0.020		mg/L	
			Total Sulphur (S)	2025/09/19	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/19	<0.10		mg/L	
			Total Barium (Ba)	2025/09/19	<0.010		mg/L	
			Total Silicon (Si)	2025/09/19	<0.50		mg/L	
			Total Boron (B)	2025/09/19	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/19	<0.30		mg/L	
C092107	KKM	Method Blank	Total Mercury (Hg)	2025/09/19	<0.0019		ug/L	
C092116	KKM	Method Blank	Dissolved Mercury (Hg)	2025/09/19	<0.0019		ug/L	
C092246	KKC	Method Blank	Total Ammonia (N)	2025/09/19	<0.015		mg/L	
C092252	KKC	Method Blank	Total Ammonia (N)	2025/09/19	<0.015		mg/L	
C092353	YHK	Method Blank	Total Aluminum (Al)	2025/09/20	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/20	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/20	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/20	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/20	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/20	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/20	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/20	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/20	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/20	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/20	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/20	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/20	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/20	<0.0010		mg/L	
			Total Uranium (U)	2025/09/20	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/20	<0.0010		mg/L	
			Total Zinc (Zn)	2025/09/20	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/20	<0.0010		mg/L	
C092362	KHU	Method Blank	Total Iron (Fe)	2025/09/19	<0.060		mg/L	
			Total Lithium (Li)	2025/09/19	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/19	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/19	<0.0040		mg/L	
			Total Potassium (K)	2025/09/19	<0.30		mg/L	
			Total Sodium (Na)	2025/09/19	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/19	<0.020		mg/L	
			Total Sulphur (S)	2025/09/19	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/19	<0.10		mg/L	
			Total Barium (Ba)	2025/09/19	<0.010		mg/L	
			Total Silicon (Si)	2025/09/19	<0.50		mg/L	
			Total Boron (B)	2025/09/19	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/19	<0.30		mg/L	
C094397	HE1	Method Blank	Total Dissolved Solids	2025/09/22	<10		mg/L	
C094883	JAB	Method Blank	Dissolved Nickel (Ni)	2025/09/22	<0.00050		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C092116	KKM	RPD [DSX723-13]	Dissolved Mercury (Hg)	2025/09/19	NC		%	20
C092353	YHK	RPD [DSX723-03]	Total Aluminum (Al)	2025/09/20	14		%	20
			Total Chromium (Cr)	2025/09/20	NC		%	20
			Total Cobalt (Co)	2025/09/20	NC		%	20
			Total Copper (Cu)	2025/09/20	89 (1)		%	20
			Total Lead (Pb)	2025/09/20	3.3		%	20
			Total Antimony (Sb)	2025/09/20	NC		%	20
			Total Molybdenum (Mo)	2025/09/20	11		%	20
			Total Nickel (Ni)	2025/09/20	NC		%	20
			Total Selenium (Se)	2025/09/20	13		%	20
			Total Silver (Ag)	2025/09/20	NC		%	20
			Total Arsenic (As)	2025/09/20	1.5		%	20
			Total Thallium (Tl)	2025/09/20	NC		%	20
			Total Tin (Sn)	2025/09/20	NC		%	20
			Total Titanium (Ti)	2025/09/20	NC		%	20
			Total Uranium (U)	2025/09/20	5.9		%	20
			Total Vanadium (V)	2025/09/20	NC		%	20
			Total Zinc (Zn)	2025/09/20	7.0		%	20
			Total Beryllium (Be)	2025/09/20	NC		%	20
C092362	KHU	RPD [DSX723-03]	Total Iron (Fe)	2025/09/19	9.1		%	20
			Total Lithium (Li)	2025/09/19	NC		%	20
			Total Magnesium (Mg)	2025/09/19	0.11		%	20
			Total Manganese (Mn)	2025/09/19	8.8		%	20
			Total Potassium (K)	2025/09/19	0.53		%	20
			Total Sodium (Na)	2025/09/19	0.27		%	20
			Total Strontium (Sr)	2025/09/19	0.052		%	20
			Total Sulphur (S)	2025/09/19	0.31		%	20
			Total Phosphorus (P)	2025/09/19	NC		%	20
			Total Barium (Ba)	2025/09/19	3.4		%	20
			Total Silicon (Si)	2025/09/19	1.4		%	20
			Total Boron (B)	2025/09/19	NC		%	20
			Total Calcium (Ca)	2025/09/19	0.17		%	20
C087501	AYE	RPD [DSX724-02]	Alkalinity (Total as CaCO3)	2025/09/18	0.20		%	20
			Alkalinity (PP as CaCO3)	2025/09/18	NC		%	20
			Bicarbonate (HCO3)	2025/09/18	0.20		%	20
			Carbonate (CO3)	2025/09/18	NC		%	20
			Hydroxide (OH)	2025/09/18	NC		%	20
C087504	AYE	RPD [DSX724-02]	pH	2025/09/18	1.1		%	N/A
C087505	AYE	RPD [DSX724-02]	Conductivity	2025/09/18	0.43		%	10
C087525	KKC	RPD [DSX724-02]	Orthophosphate (P)	2025/09/16	NC		%	20
C092107	KKM	RPD [DSX724-12]	Total Mercury (Hg)	2025/09/19	NC		%	20
C087525	KKC	Matrix Spike [DSX724-02]	Orthophosphate (P)	2025/09/16		75 (1)	%	80 - 120
C091971	VSC	Matrix Spike [DSX724-03]	Total Iron (Fe)	2025/09/19		106	%	80 - 120
			Total Lithium (Li)	2025/09/19		101	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		106	%	80 - 120
			Total Manganese (Mn)	2025/09/19		106	%	80 - 120
			Total Potassium (K)	2025/09/19		103	%	80 - 120
			Total Sodium (Na)	2025/09/19		101	%	80 - 120
			Total Strontium (Sr)	2025/09/19		105	%	80 - 120
			Total Sulphur (S)	2025/09/19		NC	%	80 - 120
			Total Phosphorus (P)	2025/09/19		104	%	80 - 120
			Total Barium (Ba)	2025/09/19		108	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silicon (Si)	2025/09/19		106	%	80 - 120
			Total Boron (B)	2025/09/19		102	%	80 - 120
			Total Calcium (Ca)	2025/09/19		NC	%	80 - 120
C092107	KKM	Matrix Spike [DSX725-12]	Total Mercury (Hg)	2025/09/19		102	%	80 - 120
C092116	KKM	Matrix Spike [DSX725-13]	Dissolved Mercury (Hg)	2025/09/19		98	%	80 - 120
C086995	RRA	LCS	Oil and grease	2025/09/16		93	%	70 - 130
C087000	RRA	LCS	Total Petroleum Hydrocarbon	2025/09/16		93	%	70 - 130
C087057	JAB	LCS	Dissolved Aluminum (Al)	2025/09/16		103	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/16		101	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/16		100	%	80 - 120
			Dissolved Copper (Cu)	2025/09/16		100	%	80 - 120
			Dissolved Lead (Pb)	2025/09/16		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/16		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/16		103	%	80 - 120
			Dissolved Nickel (Ni)	2025/09/16		99	%	80 - 120
			Dissolved Selenium (Se)	2025/09/16		103	%	80 - 120
			Dissolved Silver (Ag)	2025/09/16		100	%	80 - 120
			Dissolved Arsenic (As)	2025/09/16		103	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/16		103	%	80 - 120
			Dissolved Tin (Sn)	2025/09/16		103	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/16		97	%	80 - 120
			Dissolved Uranium (U)	2025/09/16		100	%	80 - 120
			Dissolved Vanadium (V)	2025/09/16		101	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/16		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/16		100	%	80 - 120
C087066	JAB	LCS	Dissolved Aluminum (Al)	2025/09/16		103	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/16		101	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/16		99	%	80 - 120
			Dissolved Copper (Cu)	2025/09/16		99	%	80 - 120
			Dissolved Lead (Pb)	2025/09/16		99	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/16		104	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/16		103	%	80 - 120
			Dissolved Selenium (Se)	2025/09/16		103	%	80 - 120
			Dissolved Silver (Ag)	2025/09/16		100	%	80 - 120
			Dissolved Arsenic (As)	2025/09/16		103	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/16		102	%	80 - 120
			Dissolved Tin (Sn)	2025/09/16		104	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/16		104	%	80 - 120
			Dissolved Uranium (U)	2025/09/16		100	%	80 - 120
			Dissolved Vanadium (V)	2025/09/16		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/16		97	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/16		102	%	80 - 120
C087077	KHU	LCS	Dissolved Iron (Fe)	2025/09/16		99	%	80 - 120
			Dissolved Lithium (Li)	2025/09/16		90	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/16		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/16		97	%	80 - 120
			Dissolved Potassium (K)	2025/09/16		94	%	80 - 120
			Dissolved Sodium (Na)	2025/09/16		92	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/16		97	%	80 - 120
			Dissolved Sulphur (S)	2025/09/16		102	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/16		102	%	80 - 120
			Dissolved Barium (Ba)	2025/09/16		100	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Silicon (Si)	2025/09/16		97	%	80 - 120
			Dissolved Boron (B)	2025/09/16		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/16		95	%	80 - 120
C087320	AP1	LCS	Turbidity	2025/09/16		101	%	80 - 120
C087345	JAB	LCS	Dissolved Aluminum (Al)	2025/09/16		98	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/16		105	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/16		85	%	80 - 120
			Dissolved Copper (Cu)	2025/09/16		85	%	80 - 120
			Dissolved Lead (Pb)	2025/09/16		93	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/16		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/16		98	%	80 - 120
			Dissolved Selenium (Se)	2025/09/16		108	%	80 - 120
			Dissolved Silver (Ag)	2025/09/16		92	%	80 - 120
			Dissolved Arsenic (As)	2025/09/16		97	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/16		99	%	80 - 120
			Dissolved Tin (Sn)	2025/09/16		97	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/16		108	%	80 - 120
			Dissolved Uranium (U)	2025/09/16		93	%	80 - 120
			Dissolved Vanadium (V)	2025/09/16		106	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/16		94	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/16		103	%	80 - 120
C087501	AYE	LCS	Alkalinity (Total as CaCO3)	2025/09/18		99	%	80 - 120
C087504	AYE	LCS	pH	2025/09/18		100	%	97 - 103
C087505	AYE	LCS	Conductivity	2025/09/18		101	%	90 - 110
C087525	KKC	LCS	Orthophosphate (P)	2025/09/16		105	%	80 - 120
C087683	KKC	LCS	Nitrite (N)	2025/09/16		101	%	80 - 120
			Nitrate plus Nitrite (N)	2025/09/16		103	%	80 - 120
C087856	SJ1	LCS	D10-ANTHRACENE (sur.)	2025/09/19		81	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		80	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		53	%	50 - 130
			Acenaphthene	2025/09/19		71	%	50 - 130
			Acenaphthylene	2025/09/19		85	%	50 - 130
			Acridine	2025/09/19		74	%	50 - 130
			Anthracene	2025/09/19		72	%	50 - 130
			Benzo(a)anthracene	2025/09/19		78	%	50 - 130
			Benzo(b&j)fluoranthene	2025/09/19		76	%	50 - 130
			Benzo(k)fluoranthene	2025/09/19		74	%	50 - 130
			Benzo(g,h,i)perylene	2025/09/19		79	%	50 - 130
			Benzo(c)phenanthrene	2025/09/19		81	%	50 - 130
			Benzo(a)pyrene	2025/09/19		78	%	50 - 130
			Benzo(e)pyrene	2025/09/19		74	%	50 - 130
			Chrysene	2025/09/19		76	%	50 - 130
			Dibenz(a,h)anthracene	2025/09/19		82	%	50 - 130
			Fluoranthene	2025/09/19		79	%	50 - 130
			Fluorene	2025/09/19		80	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/09/19		79	%	50 - 130
			1-Methylnaphthalene	2025/09/19		64	%	50 - 130
			2-Methylnaphthalene	2025/09/19		70	%	50 - 130
			Naphthalene	2025/09/19		73	%	50 - 130
			Phenanthrene	2025/09/19		74	%	50 - 130
			Perylene	2025/09/19		75	%	50 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Pyrene	2025/09/19		79	%	50 - 130
			Quinoline	2025/09/19		101	%	50 - 130
C087857	CHA	LCS	O-TERPHENYL (sur.)	2025/09/18		105	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18		107	%	60 - 140
C087866	AFI	LCS	True Colour	2025/09/16		89	%	80 - 120
C087888	MDO	LCS	Total Organic Carbon (C)	2025/09/16		106	%	80 - 120
C087935	MDO	LCS	Dissolved Organic Carbon (C)	2025/09/17		108	%	80 - 120
C088300	DVN	LCS	Total Suspended Solids	2025/09/17		97	%	80 - 120
C088376	AP1	LCS	Chemical Oxygen Demand	2025/09/17		101	%	80 - 120
C088452	RIL	LCS	1,4-Difluorobenzene (sur.)	2025/09/18		98	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		101	%	50 - 140
			Benzene	2025/09/18		89	%	60 - 130
			Toluene	2025/09/18		90	%	60 - 130
			Ethylbenzene	2025/09/18		94	%	60 - 130
			m & p-Xylene	2025/09/18		90	%	60 - 130
			o-Xylene	2025/09/18		92	%	60 - 130
			F1 (C6-C10)	2025/09/18		95	%	60 - 140
C089074	TOR	LCS	Chloride (Cl)	2025/09/17		101	%	80 - 120
			Sulphate (SO4)	2025/09/17		102	%	80 - 120
C089303	KHU	LCS	Dissolved Iron (Fe)	2025/09/17		112	%	80 - 120
			Dissolved Lithium (Li)	2025/09/17		92	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/17		103	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/17		105	%	80 - 120
			Dissolved Potassium (K)	2025/09/17		92	%	80 - 120
			Dissolved Sodium (Na)	2025/09/17		94	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/17		98	%	80 - 120
			Dissolved Sulphur (S)	2025/09/17		105	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/17		107	%	80 - 120
			Dissolved Barium (Ba)	2025/09/17		103	%	80 - 120
			Dissolved Silicon (Si)	2025/09/17		102	%	80 - 120
			Dissolved Boron (B)	2025/09/17		96	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/17		94	%	80 - 120
C089544	TOR	LCS	Chloride (Cl)	2025/09/17		106	%	80 - 120
			Sulphate (SO4)	2025/09/17		101	%	80 - 120
C089920	ILP	LCS	Total Dissolved Solids	2025/09/19		94	%	80 - 120
C090213	YL7	LCS	Total Nitrogen (N)	2025/09/18		106	%	80 - 120
C091234	DSX	LCS	Total Sulphide	2025/09/19		90	%	80 - 120
C091963	IK0	LCS	Total Aluminum (Al)	2025/09/19		105	%	80 - 120
			Total Chromium (Cr)	2025/09/19		106	%	80 - 120
			Total Cobalt (Co)	2025/09/19		105	%	80 - 120
			Total Copper (Cu)	2025/09/19		105	%	80 - 120
			Total Lead (Pb)	2025/09/19		99	%	80 - 120
			Total Antimony (Sb)	2025/09/19		102	%	80 - 120
			Total Molybdenum (Mo)	2025/09/19		104	%	80 - 120
			Total Nickel (Ni)	2025/09/19		105	%	80 - 120
			Total Selenium (Se)	2025/09/19		101	%	80 - 120
			Total Silver (Ag)	2025/09/19		100	%	80 - 120
			Total Arsenic (As)	2025/09/19		106	%	80 - 120
			Total Thallium (Tl)	2025/09/19		105	%	80 - 120
			Total Tin (Sn)	2025/09/19		105	%	80 - 120
			Total Titanium (Ti)	2025/09/19		103	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Uranium (U)	2025/09/19		102	%	80 - 120
			Total Vanadium (V)	2025/09/19		106	%	80 - 120
			Total Zinc (Zn)	2025/09/19		104	%	80 - 120
			Total Beryllium (Be)	2025/09/19		102	%	80 - 120
C091971	VSC	LCS	Total Iron (Fe)	2025/09/19		105	%	80 - 120
			Total Lithium (Li)	2025/09/19		100	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		104	%	80 - 120
			Total Manganese (Mn)	2025/09/19		104	%	80 - 120
			Total Potassium (K)	2025/09/19		102	%	80 - 120
			Total Sodium (Na)	2025/09/19		102	%	80 - 120
			Total Strontium (Sr)	2025/09/19		103	%	80 - 120
			Total Sulphur (S)	2025/09/19		92	%	80 - 120
			Total Phosphorus (P)	2025/09/19		103	%	80 - 120
			Total Barium (Ba)	2025/09/19		108	%	80 - 120
			Total Silicon (Si)	2025/09/19		104	%	80 - 120
			Total Boron (B)	2025/09/19		100	%	80 - 120
			Total Calcium (Ca)	2025/09/19		99	%	80 - 120
C092107	KKM	LCS	Total Mercury (Hg)	2025/09/19		101	%	80 - 120
C092116	KKM	LCS	Dissolved Mercury (Hg)	2025/09/19		102	%	80 - 120
C092246	KKC	LCS	Total Ammonia (N)	2025/09/19		106	%	80 - 120
C092252	KKC	LCS	Total Ammonia (N)	2025/09/19		106	%	80 - 120
C092353	YHK	LCS	Total Aluminum (Al)	2025/09/20		104	%	80 - 120
			Total Chromium (Cr)	2025/09/20		104	%	80 - 120
			Total Cobalt (Co)	2025/09/20		102	%	80 - 120
			Total Copper (Cu)	2025/09/20		103	%	80 - 120
			Total Lead (Pb)	2025/09/20		105	%	80 - 120
			Total Antimony (Sb)	2025/09/20		108	%	80 - 120
			Total Molybdenum (Mo)	2025/09/20		109	%	80 - 120
			Total Nickel (Ni)	2025/09/20		103	%	80 - 120
			Total Selenium (Se)	2025/09/20		103	%	80 - 120
			Total Silver (Ag)	2025/09/20		103	%	80 - 120
			Total Arsenic (As)	2025/09/20		104	%	80 - 120
			Total Thallium (Tl)	2025/09/20		107	%	80 - 120
			Total Tin (Sn)	2025/09/20		107	%	80 - 120
			Total Titanium (Ti)	2025/09/20		104	%	80 - 120
			Total Uranium (U)	2025/09/20		108	%	80 - 120
			Total Vanadium (V)	2025/09/20		103	%	80 - 120
			Total Zinc (Zn)	2025/09/20		100	%	80 - 120
			Total Beryllium (Be)	2025/09/20		98	%	80 - 120
C092362	KHU	LCS	Total Iron (Fe)	2025/09/19		108	%	80 - 120
			Total Lithium (Li)	2025/09/19		99	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		105	%	80 - 120
			Total Manganese (Mn)	2025/09/19		110	%	80 - 120
			Total Potassium (K)	2025/09/19		101	%	80 - 120
			Total Sodium (Na)	2025/09/19		101	%	80 - 120
			Total Strontium (Sr)	2025/09/19		104	%	80 - 120
			Total Sulphur (S)	2025/09/19		92	%	80 - 120
			Total Phosphorus (P)	2025/09/19		103	%	80 - 120
			Total Barium (Ba)	2025/09/19		106	%	80 - 120
			Total Silicon (Si)	2025/09/19		105	%	80 - 120
			Total Boron (B)	2025/09/19		100	%	80 - 120
			Total Calcium (Ca)	2025/09/19		97	%	80 - 120

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Bureau Veritas Job #: C578222
Report Date: 2025/09/23

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C094397	HE1	LCS	Total Dissolved Solids	2025/09/22		104	%	80 - 120
C094883	JAB	LCS	Dissolved Nickel (Ni)	2025/09/22		92	%	80 - 120
C090213	YL7	SRM	Total Nitrogen (N)	2025/09/18		103	%	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

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Pushpa Gurung, Laboratory Supervisor

Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

VALIDATION SIGNATURE PAGE(CONT'D)

The analytical data and all QC contained in this report were reviewed and validated by:

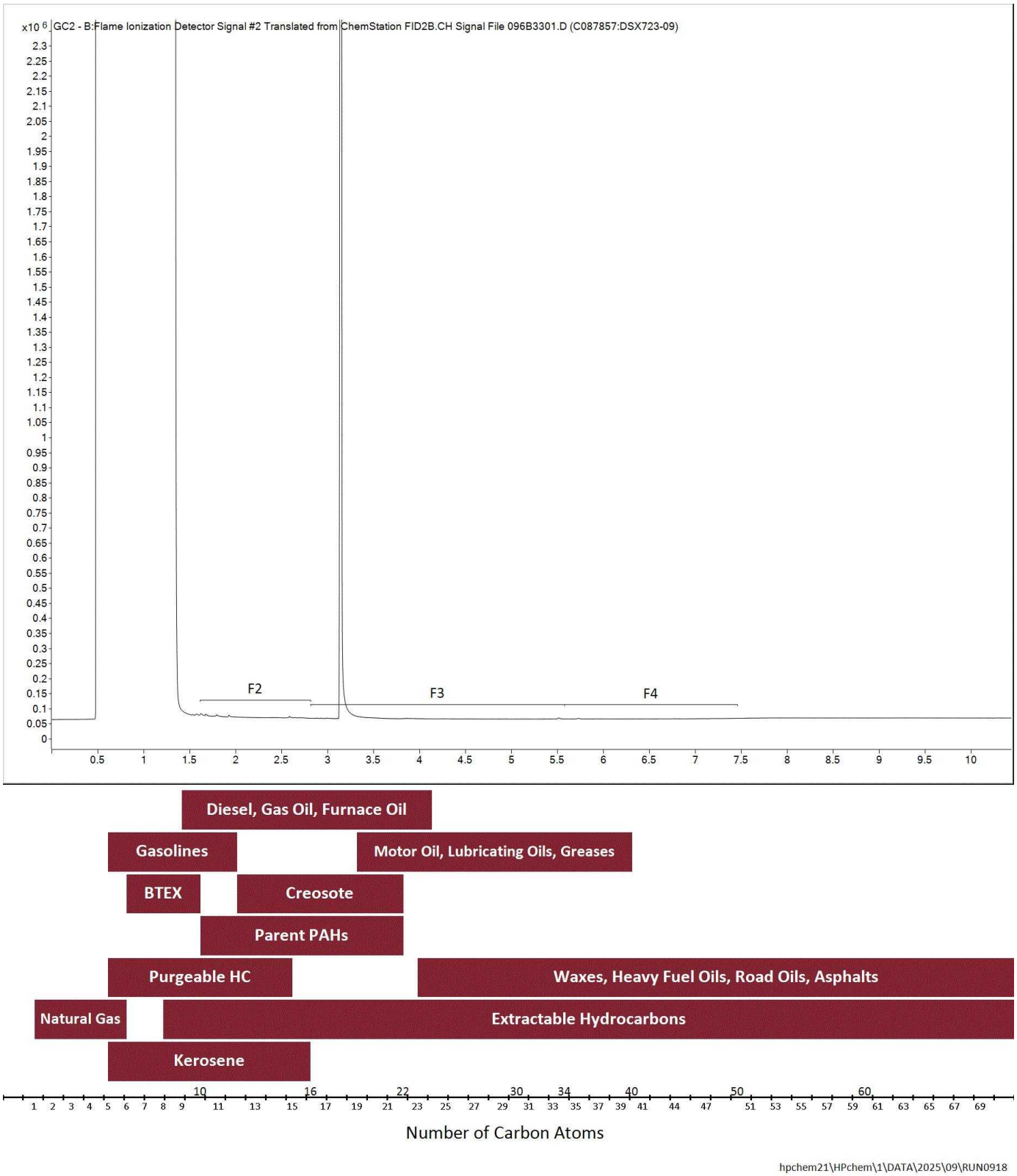
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C578222
Report Date: 2025/09/23
Bureau Veritas Sample: DSX723

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-04

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

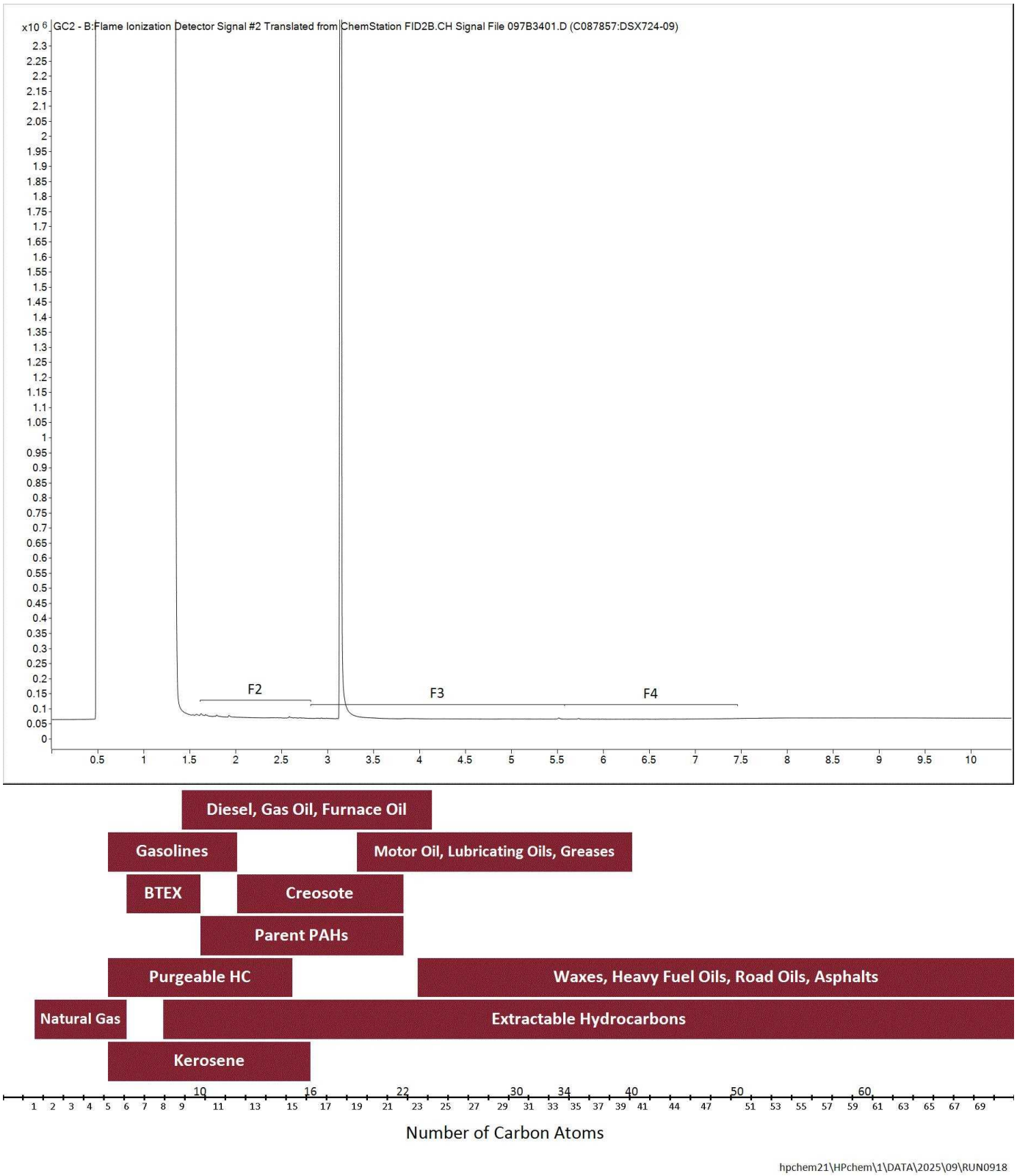


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C578222
Report Date: 2025/09/23
Bureau Veritas Sample: DSX724

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-01

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



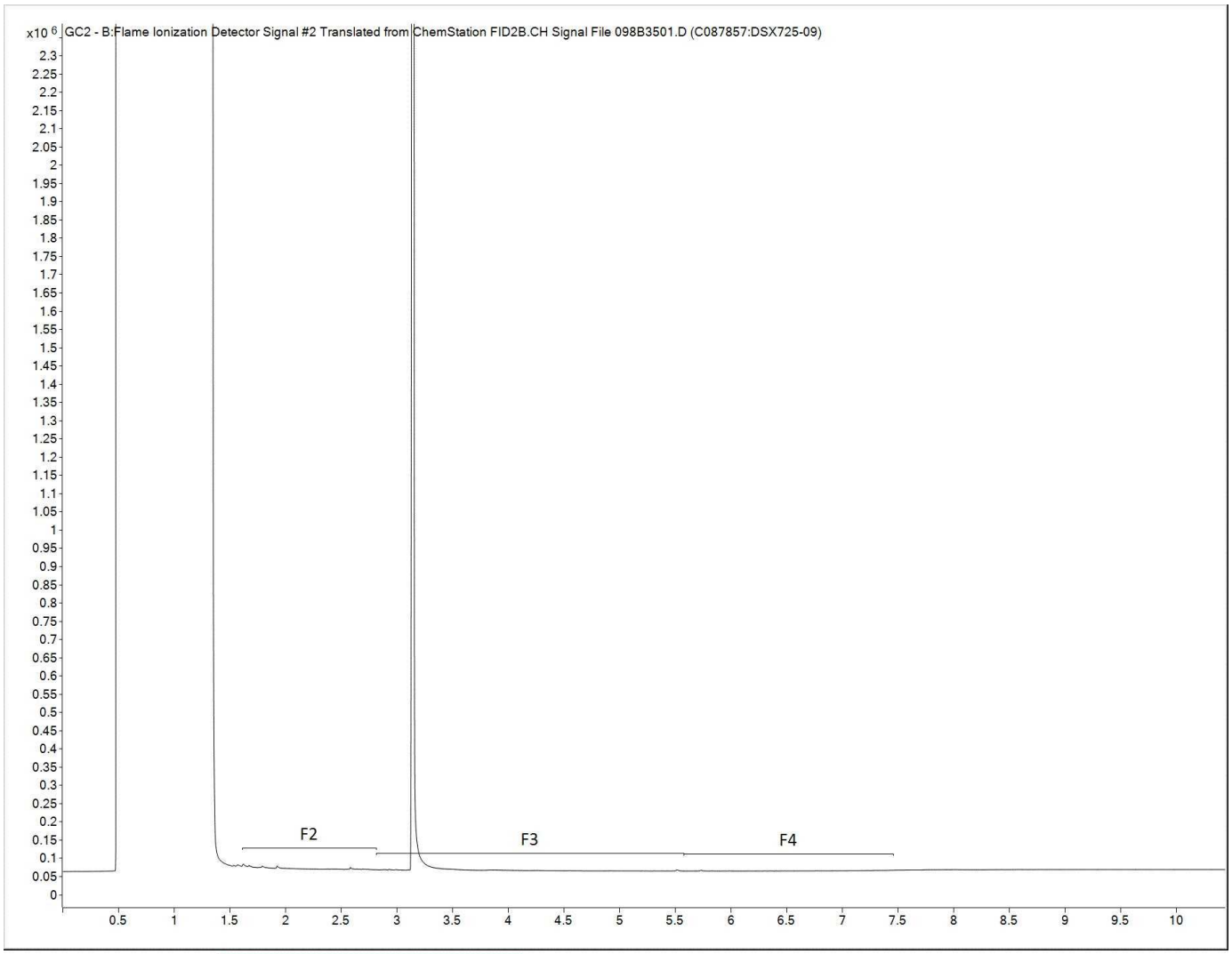
hpchem21\HPchem\1\DATA\2025\09\RUN0918

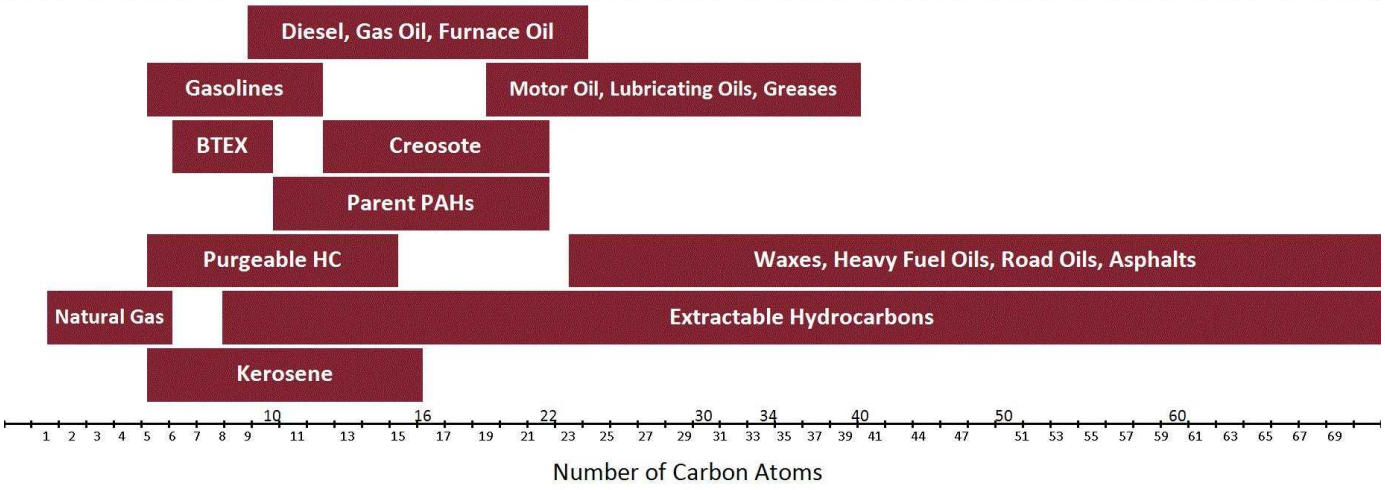
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C578222
Report Date: 2025/09/23
Bureau Veritas Sample: DSX725

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DUP1

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram





hpchem21\HPchem\1\DATA\2025\09\RUN0918

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

C578222
2025/09/15 14:55

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM
CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292280

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Stacy Gibb	Contact Name: Stacy Gibb
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9	Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9
Email: stacy.gibb@worley.com	Email: stacy.gibb@worley.com
Ph: 587 434 5393	Ph: 587 434 5393
Sampler Name (Print): Brandon Chapman	Consultant Project #: 417085-59897-25200

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, TDS, Turbidity	0.1 µ Grease	TOC, DOC, Sulphide, COD	Nitrate, Nitrite, Ammonia, Total Kjeldahl	Orthophosphate	Sulphur - total, dissolved	TAT
1	~~AEMP-DS-02~~ SG		~~X~~																															
2	AEMP-DS-04		X			14	2025/09/13	16:45	X			X	X							X	X					X			X	X	X	X	X	X	Y
3	AEMP-DS-01		X			14	2025/09/13	16:11	X			X	X							X	X					X			X	X	X	X	X	X	X
4	AEMP-DUP1		X			14	2025/09/13	16:11	X			X	X							X	X					X			X	X	X	X	X	X	X
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

MCAL-2025-09-1121

IOL SITE LOCATION: Norman Wells, NT
IOL PROJECT # (if applicable): NA
MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: also email Canada.Chemistry@worley.com cacal_IOR database@worley.com IES A2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐ (2 days) ☐ (1 day) ☐ (same day) ☐
Date Required

	YES	NO	COOLER ID #			
SEAL PRESENT	✓		TEMP °C	4	4	4
SEAL INTACT	✓			1	2	3
COOLING MEDIA PRESENT	✓					

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

	YES	NO	COOLER ID #			
SEAL PRESENT			TEMP °C			
SEAL INTACT				1	2	3
COOLING MEDIA PRESENT						

LAB USE ONLY
MAXXAM JOB #

SAMPLES
LABELED BY:
VERIFIED BY:

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1. SG	Stacy Gibb	2025/09/14	10:15	1. ACKOP	Andrii Skorvitskyi	2025/09/15	14:55
2.				2.			
3.				3.			

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292273

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3712905
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578430
Received: 2025/09/15, 08:00

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	2	AB SOP-00005	SM 24 2320 B m
BTEX/F1 in Water by HS GC/MS/FID (1)	2	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX (1)	2		Auto Calc
Cadmium - low level CCME - Dissolved (1)	2		Auto Calc
Cadmium - low level CCME (Total) (1)	2		Auto Calc
Chloride/Sulphate by Auto Colourimetry (1)	2	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter (1)	2	AB SOP-00016	SM 24 5220D m
True Colour (1)	2	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1, 2)	2	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C (1)	2	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (1, 3)	2	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S) (1)	2		Auto Calc
Hardness (1)	2		Auto Calc
Mercury (Dissolved) by CV (1, 4)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV (1)	2	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (1, 4)	2	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total (1)	2	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (1, 4)	2	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total (1)	2	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance (1)	2		Auto Calc
Ammonia-N (Total) (1)	2	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite (1)	2		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water (1)	2	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N) (1)	2		Auto Calc
Oil and Grease by IR (1)	2	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (1, 5)	2		Auto Calc
PAH in Water by GC/MS (1)	2	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (1, 6)	2	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (1, 7)	2	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide (1)	2	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue) (1)	2	AB SOP-00065	SM 24 2540 C m

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292273

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3712905
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578430
Received: 2025/09/15, 08:00

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Laboratory Method	Analytical Method
Carbon (Total Organic) (1, 8)	2	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease) (1)	2	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR) (1)	2	AB SOP-00061	SM 24 2540 D m
Turbidity (1)	2	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8
(2) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Silica gel clean up employed.
(4) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(5) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(6) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(7) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292273

Attention: Alex Haigh

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/22
Report #: R3712905
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C578430
Received: 2025/09/15, 08:00

acceptable levels unless otherwise noted.
(8) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Alejandro Escobar-Lopez
Customer Service Representative
22 Sep 2025 17:24:20

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C578430
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DSY919	DSY920		
Sampling Date		2025/09/10 12:00	2025/09/10 12:30		
COC Number		292273	292273		
	UNITS	**AEMP-DS-06**	**AEMP-DS-07**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	0.10	C087857
Volatiles					
Benzene	mg/L	<0.00040	<0.00040	0.00040	C088452
Toluene	mg/L	<0.00040	<0.00040	0.00040	C088452
Ethylbenzene	mg/L	<0.00040	<0.00040	0.00040	C088452
m & p-Xylene	mg/L	<0.00080	<0.00080	0.00080	C088452
o-Xylene	mg/L	<0.00040	<0.00040	0.00040	C088452
Xylenes (Total)	mg/L	<0.00089	<0.00089	0.00089	C087687
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	0.10	C087687
F1 (C6-C10)	mg/L	<0.10	<0.10	0.10	C088452
Extraction Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	100	108		C087857
Instrument Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	105	105		C088452
4-Bromofluorobenzene (sur.)	%	100	99		C088452
D4-1,2-Dichloroethane (sur.)	%	93	93		C088452
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSY919	DSY920		
Sampling Date		2025/09/10 12:00	2025/09/10 12:30		
COC Number		292273	292273		
	UNITS	**AEMP-DS-06**	**AEMP-DS-07**	**RDL**	**QC Batch**
Elements					
Total Cadmium (Cd)	mg/L	0.000071	0.00014	0.000020	C087516
Total Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C094764
Total Aluminum (Al)	mg/L	0.60	1.7	0.0030	C091963
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C091963
Total Arsenic (As)	mg/L	0.00055	0.0013	0.00020	C091963
Total Barium (Ba)	mg/L	0.072	0.11	0.010	C091971
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C091963
Total Boron (B)	mg/L	<0.020	<0.020	0.020	C091971
Total Calcium (Ca)	mg/L	51	46	0.30	C091971
Total Chromium (Cr)	mg/L	0.0011	0.0026	0.0010	C091963
Total Cobalt (Co)	mg/L	0.00050	0.0014	0.00030	C091963
Total Copper (Cu)	mg/L	0.0018	0.0034	0.0010	C091963
Total Iron (Fe)	mg/L	0.66	2.6	0.060	C091971
Total Lead (Pb)	mg/L	0.00032	0.0013	0.00020	C091963
Total Lithium (Li)	mg/L	<0.020	<0.020	0.020	C091971
Total Magnesium (Mg)	mg/L	18	14	0.20	C091971
Total Manganese (Mn)	mg/L	0.019	0.058	0.0040	C091971
Total Molybdenum (Mo)	mg/L	0.0013	0.0012	0.00020	C091963
Total Nickel (Ni)	mg/L	0.0030	0.0056	0.00050	C091963
Total Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C091971
Total Potassium (K)	mg/L	1.2	1.5	0.30	C091971
Total Selenium (Se)	mg/L	0.00049	0.00039	0.00020	C091963
Total Silicon (Si)	mg/L	3.9	4.8	0.50	C091971
Total Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C091963
Total Sodium (Na)	mg/L	11	8.6	0.50	C091971
Total Strontium (Sr)	mg/L	0.32	0.28	0.020	C091971
Total Sulphur (S)	mg/L	32	17	0.20	C091971
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C091963
Total Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C091963
Total Titanium (Ti)	mg/L	0.017	0.036	0.0010	C091963
Total Uranium (U)	mg/L	0.0011	0.0010	0.00010	C091963
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C578430
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DSY919	DSY920		
Sampling Date		2025/09/10 12:00	2025/09/10 12:30		
COC Number		292273	292273		
	UNITS	**AEMP-DS-06**	**AEMP-DS-07**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0017	0.0045	0.0010	C091963
Total Zinc (Zn)	mg/L	0.0079	0.016	0.0030	C091963
RDL = Reportable Detection Limit					

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C578430
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSY919			DSY919			DSY920		
Sampling Date		2025/09/10 12:00			2025/09/10 12:00			2025/09/10 12:30		
COC Number		292273			292273			292273		
	UNITS	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-06 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-07**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	200	0.50	C087533				140	0.50	C087533
Ion Balance (% Difference)	%	0.80	N/A	C087546				1.2	N/A	C087546
Nitrate (N)	mg/L	0.073	0.040	C087558				0.053	0.040	C087558
Nitrate (NO3)	mg/L	0.32	0.18	C087556				0.23	0.18	C087556
Nitrite (NO2)	mg/L	<0.13	0.13	C087556				<0.13	0.13	C087556
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C086873				0.0034	0.0020	C086873
Demand Parameters										
Chemical Oxygen Demand	mg/L	10	10	C090462	12	10	C090462	12	10	C090462
Elements										
Dissolved Cadmium (Cd)	mg/L	0.000029	0.000020	C087225				<0.000020	0.000020	C087225
Misc. Inorganics										
Conductivity	uS/cm	420	2.0	C090036				310	2.0	C090036
Dissolved Organic Carbon (C)	mg/L	2.5	0.50	C092888	2.6	0.50	C092888	2.8	0.50	C092888
pH	pH	7.36	N/A	C090031				7.31	N/A	C090031
Total Organic Carbon (C)	mg/L	2.8	0.50	C092820				3.1	0.50	C092820
Total Dissolved Solids	mg/L	240	10	C088284				170	10	C088284
Total Suspended Solids	mg/L	17	1.0	C088289				160	1.0	C088289
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C090034				<1.0	1.0	C090034
Alkalinity (Total as CaCO3)	mg/L	110	1.0	C090034				100	1.0	C090034
Bicarbonate (HCO3)	mg/L	130	1.0	C090034				120	1.0	C090034
Carbonate (CO3)	mg/L	<1.0	1.0	C090034				<1.0	1.0	C090034
Hydroxide (OH)	mg/L	<1.0	1.0	C090034				<1.0	1.0	C090034
Total Sulphide	mg/L	<0.0018	0.0018	C089528				0.0032	0.0018	C089528
Chloride (Cl)	mg/L	11	1.0	C089026				9.1	1.0	C089026
Sulphate (SO4)	mg/L	89	1.0	C089026				50	1.0	C089026
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C092246				<0.015	0.015	C092246
Orthophosphate (P)	mg/L	<0.0030	0.0030	C090247				<0.0030	0.0030	C090283

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Bureau Veritas Job #: C578430
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DSY919			DSY919			DSY920		
Sampling Date		2025/09/10 12:00			2025/09/10 12:00			2025/09/10 12:30		
COC Number		292273			292273			292273		
	UNITS	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-06 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-07**	**RDL**	**QC Batch**
Nitrite (N)	mg/L	<0.040	0.040	C090950				<0.040	0.040	C090950
Nitrate plus Nitrite (N)	mg/L	0.073	0.040	C090950				0.053	0.040	C090950
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C086995				<2.0	2.0	C086995
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C087000				<2.0	2.0	C087000
Physical Properties										
True Colour	PtCo units	5.5	2.0	C090521				6.3	2.0	C090521
Physical Properties										
Turbidity	NTU	8.7	0.10	C087873				40	0.10	C087873

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		DSY920		
Sampling Date		2025/09/10 12:30		
COC Number		292273		
	UNITS	**AEMP-DS-07 Lab-Dup**	**RDL**	**QC Batch**
Physical Properties				
True Colour	PtCo units	5.8	2.0	C090521

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DSY919	DSY920		
Sampling Date		2025/09/10 12:00	2025/09/10 12:30		
COC Number		292273	292273		
	UNITS	**AEMP-DS-06**	**AEMP-DS-07**	**RDL**	**QC Batch**
Polycyclic Aromatics					
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	0.000010	C087402
Acenaphthene	mg/L	<0.00010	<0.00010	0.00010	C087856
Acenaphthylene	mg/L	<0.00010	<0.00010	0.00010	C087856
Acridine	mg/L	<0.000040	<0.000040	0.000040	C087856
Anthracene	mg/L	<0.000010	<0.000010	0.000010	C087856
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	0.0000085	C087856
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C087856
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	0.0000075	C087856
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	0.000050	C087856
Chrysene	mg/L	<0.0000085	<0.0000085	0.0000085	C087856
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	0.0000075	C087856
Fluoranthene	mg/L	<0.000010	<0.000010	0.000010	C087856
Fluorene	mg/L	<0.000050	<0.000050	0.000050	C087856
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	0.0000085	C087856
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C087856
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	0.00010	C087856
Naphthalene	mg/L	<0.00010	<0.00010	0.00010	C087856
Phenanthrene	mg/L	<0.000050	<0.000050	0.000050	C087856
Perylene	mg/L	<0.000050	<0.000050	0.000050	C087856
Pyrene	mg/L	<0.000020	<0.000020	0.000020	C087856
Quinoline	mg/L	<0.00020	<0.00020	0.00020	C087856
Extraction Surrogate Recovery (%)					
D10-ANTHRACENE (sur.)	%	85	77		C087856
D8-ACENAPHTHYLENE (sur.)	%	83	74		C087856
D8-NAPHTHALENE (sur.)	%	66	56		C087856
TERPHENYL-D14 (sur.)	%	85	76		C087856
RDL = Reportable Detection Limit					

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MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DSY919	DSY920		
Sampling Date		2025/09/10 12:00	2025/09/10 12:30		
COC Number		292273	292273		
	UNITS	**AEMP-DS-06**	**AEMP-DS-07**	**RDL**	**QC Batch**
Elements					
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	0.0019	C093211
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C578430
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DSY919			DSY919			DSY920		
Sampling Date		2025/09/10 12:00			2025/09/10 12:00			2025/09/10 12:30		
COC Number		292273			292273			292273		
	UNITS	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-06 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-07**	**RDL**	**QC Batch**
Elements										
Dissolved Aluminum (Al)	mg/L	0.053	0.0030	C090514				0.030	0.0030	C090514
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	C090514				<0.00060	0.00060	C090514
Dissolved Arsenic (As)	mg/L	0.00032	0.00020	C090514				0.00033	0.00020	C090514
Dissolved Barium (Ba)	mg/L	0.054	0.010	C091989	0.054	0.010	C091989	0.046	0.010	C091989
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	C090514				<0.0010	0.0010	C090514
Dissolved Boron (B)	mg/L	<0.020	0.020	C091989	<0.020	0.020	C091989	<0.020	0.020	C091989
Dissolved Calcium (Ca)	mg/L	49	0.30	C091989	50	0.30	C091989	39	0.30	C091989
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	C090514				<0.0010	0.0010	C090514
Dissolved Cobalt (Co)	mg/L	<0.00030	0.00030	C090514				<0.00030	0.00030	C090514
Dissolved Copper (Cu)	mg/L	<0.0010	0.0010	C090514				<0.0010	0.0010	C090514
Dissolved Iron (Fe)	mg/L	<0.060	0.060	C091989	<0.060	0.060	C091989	<0.060	0.060	C091989
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	C090514				<0.00020	0.00020	C090514
Dissolved Lithium (Li)	mg/L	<0.020	0.020	C091989	<0.020	0.020	C091989	<0.020	0.020	C091989
Dissolved Magnesium (Mg)	mg/L	17	0.20	C091989	17	0.20	C091989	11	0.20	C091989
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0040	C091989	<0.0040	0.0040	C091989	<0.0040	0.0040	C091989
Dissolved Molybdenum (Mo)	mg/L	0.0011	0.00020	C090514				0.0012	0.00020	C090514
Dissolved Nickel (Ni)	mg/L	0.0017	0.00050	C090514				0.0020	0.00050	C090514
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	C091989	<0.10	0.10	C091989	<0.10	0.10	C091989
Dissolved Potassium (K)	mg/L	1.1	0.30	C091989	1.0	0.30	C091989	1.0	0.30	C091989
Dissolved Selenium (Se)	mg/L	0.00050	0.00020	C090514				0.00033	0.00020	C090514
Dissolved Silicon (Si)	mg/L	1.5	0.50	C091989	1.5	0.50	C091989	1.6	0.50	C091989
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	C090514				<0.00010	0.00010	C090514
Dissolved Sodium (Na)	mg/L	10	0.50	C091989	11	0.50	C091989	8.3	0.50	C091989
Dissolved Strontium (Sr)	mg/L	0.28	0.020	C091989	0.28	0.020	C091989	0.23	0.020	C091989
Dissolved Sulphur (S)	mg/L	31	0.20	C091989	32	0.20	C091989	16	0.20	C091989
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	C090514				<0.00020	0.00020	C090514
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	C090514				<0.0010	0.0010	C090514
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	C090514				<0.0010	0.0010	C090514
Dissolved Uranium (U)	mg/L	0.00096	0.00010	C090514				0.00087	0.00010	C090514
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	C090514				<0.0010	0.0010	C090514

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C578430
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DSY919			DSY919			DSY920		
Sampling Date		2025/09/10 12:00			2025/09/10 12:00			2025/09/10 12:30		
COC Number		292273			292273			292273		
	UNITS	**AEMP-DS-06**	**RDL**	**QC Batch**	**AEMP-DS-06 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-07**	**RDL**	**QC Batch**
Dissolved Zinc (Zn)	mg/L	<0.0030	0.0030	C090514				<0.0030	0.0030	C090514

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C578430
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSY919
Sample ID: AEMP-DS-06
Matrix: Water

Collected: 2025/09/10
Relinquished: 2025/09/12
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C090034	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C087687	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C087225	N/A	2025/09/20	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C087516	N/A	2025/09/19	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089026	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C090462	N/A	2025/09/18	Amy Phan
True Colour	SPEC/COL	C090521	N/A	2025/09/18	Adam Fishleigh
Carbon (DOC)	TECH	C092888	N/A	2025/09/19	Thomas Johnson
Conductivity @25C	COND	C090036	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087857	2025/09/18	2025/09/18	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086873	N/A	2025/09/18	Automated Statchk
Hardness	CALC	C087533	N/A	2025/09/19	Automated Statchk
Mercury (Dissolved) by CV	CV	C093211	2025/09/19	2025/09/19	Kiran Kumari
Mercury (Total) by CV	CV	C094764	2025/09/22	2025/09/22	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C091989	N/A	2025/09/19	Kevin Hung
Elements by ICP - Total	ICPA	C091971	2025/09/19	2025/09/19	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C090514	N/A	2025/09/18	Jason Bao
Elements by ICPMS - Total	ICPM	C091963	2025/09/19	2025/09/19	Ilonka Kovac
Ion Balance	CALC	C087546	N/A	2025/09/19	Automated Statchk
Ammonia-N (Total)	KONE	C092246	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C087556	N/A	2025/09/19	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C090950	N/A	2025/09/18	Isabelle White
Nitrate (as N)	CALC	C087558	2025/09/19	2025/09/19	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/17	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C087402	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087856	2025/09/18	2025/09/19	Jingyuan Song
pH @25°C	AT/ALK	C090031	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C090247	N/A	2025/09/18	Adam Fishleigh
Total Sulphide	SPEC	C089528	2025/09/17	2025/09/18	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C088284	2025/09/17	2025/09/18	Ian Lemuel Pastoral
Carbon (Total Organic)	TECH	C092820	N/A	2025/09/19	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/17	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088289	2025/09/17	2025/09/17	Haydee Estilong
Turbidity	TURB	C087873	N/A	2025/09/16	Amy Phan

Bureau Veritas ID: DSY919 Dup
Sample ID: AEMP-DS-06
Matrix: Water

Collected: 2025/09/10
Relinquished: 2025/09/12
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
COD by Colorimeter	M/PROB	C090462	N/A	2025/09/18	Amy Phan
Carbon (DOC)	TECH	C092888	N/A	2025/09/19	Thomas Johnson
Elements by ICP - Dissolved	ICPA	C091989	N/A	2025/09/19	Kevin Hung

Bureau Veritas Job #: C578430
Report Date: 2025/09/22

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DSY920
Sample ID: AEMP-DS-07
Matrix: Water

Collected: 2025/09/10
Relinquished: 2025/09/12
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C090034	N/A	2025/09/18	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C088452	N/A	2025/09/18	Richard Ly
F1-BTEX	CALC/MS	C087687	N/A	2025/09/19	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C087225	N/A	2025/09/20	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C087516	N/A	2025/09/19	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C089026	N/A	2025/09/17	Tyler Orr
COD by Colorimeter	M/PROB	C090462	N/A	2025/09/18	Amy Phan
True Colour	SPEC/COL	C090521	N/A	2025/09/18	Adam Fishleigh
Carbon (DOC)	TECH	C092888	N/A	2025/09/19	Thomas Johnson
Conductivity @25C	COND	C090036	N/A	2025/09/18	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C087857	2025/09/18	2025/09/18	Skye (Chuhan) Huang
Sulphide (as H2S)	CALC	C086873	N/A	2025/09/18	Automated Statchk
Hardness	CALC	C087533	N/A	2025/09/19	Automated Statchk
Mercury (Dissolved) by CV	CV	C093211	2025/09/19	2025/09/19	Kiran Kumari
Mercury (Total) by CV	CV	C094764	2025/09/22	2025/09/22	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C091989	N/A	2025/09/19	Kevin Hung
Elements by ICP - Total	ICPA	C091971	2025/09/19	2025/09/19	Vincy Scaria
Elements by ICPMS - Dissolved	ICPM	C090514	N/A	2025/09/18	Jason Bao
Elements by ICPMS - Total	ICPM	C091963	2025/09/19	2025/09/19	Ilonka Kovac
Ion Balance	CALC	C087546	N/A	2025/09/19	Automated Statchk
Ammonia-N (Total)	KONE	C092246	N/A	2025/09/19	Kristijan Kovac
Nitrate and Nitrite	CALC	C087556	N/A	2025/09/19	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C090950	N/A	2025/09/18	Isabelle White
Nitrate (as N)	CALC	C087558	2025/09/19	2025/09/19	Automated Statchk
Oil and Grease by IR	IR	C086995	2025/09/16	2025/09/17	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C087402	N/A	2025/09/19	Automated Statchk
PAH in Water by GC/MS	GC/MS	C087856	2025/09/18	2025/09/19	Jingyuan Song
pH @25°C	AT/ALK	C090031	N/A	2025/09/18	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C090283	N/A	2025/09/18	Adam Fishleigh
Total Sulphide	SPEC	C089528	2025/09/17	2025/09/18	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C088284	2025/09/17	2025/09/18	Ian Lemuel Pastoral
Carbon (Total Organic)	TECH	C092820	N/A	2025/09/19	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C087000	2025/09/16	2025/09/17	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C088289	2025/09/17	2025/09/17	Haydee Estilong
Turbidity	TURB	C087873	N/A	2025/09/16	Amy Phan

Bureau Veritas ID: DSY920 Dup
Sample ID: AEMP-DS-07
Matrix: Water

Collected: 2025/09/10
Relinquished: 2025/09/12
Received: 2025/09/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
True Colour	SPEC/COL	C090521	N/A	2025/09/18	Adam Fishleigh

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C

Sample DSY919 [AEMP-DS-06] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DSY920 [AEMP-DS-07] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C086995	RRA	Method Blank	Oil and grease	2025/09/16	<2.0		mg/L	
C087000	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/09/16	<2.0		mg/L	
C087856	SJ1	Method Blank	D10-ANTHRACENE (sur.)	2025/09/19		77	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		77	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		58	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		39 (1)	%	50 - 130
			Acenaphthene	2025/09/19	<0.00010		mg/L	
			Acenaphthylene	2025/09/19	<0.00010		mg/L	
			Acridine	2025/09/19	<0.000040		mg/L	
			Anthracene	2025/09/19	<0.000010		mg/L	
			Benzo(a)anthracene	2025/09/19	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/09/19	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/09/19	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/09/19	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/09/19	<0.000050		mg/L	
			Benzo(a)pyrene	2025/09/19	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/09/19	<0.000050		mg/L	
			Chrysene	2025/09/19	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/09/19	<0.0000075		mg/L	
			Fluoranthene	2025/09/19	<0.000010		mg/L	
			Fluorene	2025/09/19	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/09/19	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/09/19	<0.00010		mg/L	
			2-Methylnaphthalene	2025/09/19	<0.00010		mg/L	
			Naphthalene	2025/09/19	<0.00010		mg/L	
			Phenanthrene	2025/09/19	<0.000050		mg/L	
			Perylene	2025/09/19	<0.000050		mg/L	
			Pyrene	2025/09/19	<0.000020		mg/L	
			Quinoline	2025/09/19	<0.00020		mg/L	
C087857	CHA	Method Blank	O-TERPHENYL (sur.)	2025/09/18		106	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18	<0.10		mg/L	
C087873	AP1	Method Blank	Turbidity	2025/09/16	<0.10		NTU	
C088284	ILP	Method Blank	Total Dissolved Solids	2025/09/18	<10		mg/L	
C088289	HE1	Method Blank	Total Suspended Solids	2025/09/17	<1.0		mg/L	
C088452	RIL	Method Blank	1,4-Difluorobenzene (sur.)	2025/09/18		99	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		103	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		99	%	50 - 140
			Benzene	2025/09/18	<0.00040		mg/L	
			Toluene	2025/09/18	<0.00040		mg/L	
			Ethylbenzene	2025/09/18	<0.00040		mg/L	
			m & p-Xylene	2025/09/18	<0.00080		mg/L	
			o-Xylene	2025/09/18	<0.00040		mg/L	
			F1 (C6-C10)	2025/09/18	<0.10		mg/L	
C089026	TOR	Method Blank	Chloride (Cl)	2025/09/17	<1.0		mg/L	
			Sulphate (SO4)	2025/09/17	<1.0		mg/L	
C089528	NJD	Method Blank	Total Sulphide	2025/09/18	<0.0018		mg/L	
C090034	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/09/18	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/09/18	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/09/18	<1.0		mg/L	
			Carbonate (CO3)	2025/09/18	<1.0		mg/L	
			Hydroxide (OH)	2025/09/18	<1.0		mg/L	
C090036	AYE	Method Blank	Conductivity	2025/09/18	<2.0		uS/cm	

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C090247	AFI	Method Blank	Orthophosphate (P)	2025/09/18	<0.0030		mg/L	
C090283	AFI	Method Blank	Orthophosphate (P)	2025/09/18	<0.0030		mg/L	
C090462	AP1	Method Blank	Chemical Oxygen Demand	2025/09/18	<10		mg/L	
C090514	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/18	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/18	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/18	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/18	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/18	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/18	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/18	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/09/18	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/09/18	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/18	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/18	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/18	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/18	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/18	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/18	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/18	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/18	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/18	<0.0010		mg/L	
C090521	AFI	Method Blank	True Colour	2025/09/18	<2.0		PtCo units	
C090950	ISW	Method Blank	Nitrite (N)	2025/09/18	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/09/18	<0.040		mg/L	
C091963	IK0	Method Blank	Total Aluminum (Al)	2025/09/19	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/19	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/19	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/19	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/19	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/19	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/19	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/19	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/19	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/19	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/19	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/19	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/19	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/19	<0.0010		mg/L	
			Total Uranium (U)	2025/09/19	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/19	<0.0010		mg/L	
			Total Zinc (Zn)	2025/09/19	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/19	<0.0010		mg/L	
C091971	VSC	Method Blank	Total Iron (Fe)	2025/09/19	<0.060		mg/L	
			Total Lithium (Li)	2025/09/19	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/19	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/19	<0.0040		mg/L	
			Total Potassium (K)	2025/09/19	<0.30		mg/L	
			Total Sodium (Na)	2025/09/19	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/19	<0.020		mg/L	
			Total Sulphur (S)	2025/09/19	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/19	<0.10		mg/L	
			Total Barium (Ba)	2025/09/19	<0.010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silicon (Si)	2025/09/19	<0.50		mg/L	
			Total Boron (B)	2025/09/19	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/19	<0.30		mg/L	
C091989	KHU	Method Blank	Dissolved Iron (Fe)	2025/09/19	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/19	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/19	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/19	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/19	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/19	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/19	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/19	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/19	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/19	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/19	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/19	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/19	<0.30		mg/L	
C092246	KKC	Method Blank	Total Ammonia (N)	2025/09/19	<0.015		mg/L	
C092820	TJ4	Method Blank	Total Organic Carbon (C)	2025/09/19	<0.50		mg/L	
C092888	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/09/19	<0.50		mg/L	
C093211	KKM	Method Blank	Dissolved Mercury (Hg)	2025/09/19	<0.0019		ug/L	
C094764	KKM	Method Blank	Total Mercury (Hg)	2025/09/22	<0.0019		ug/L	
C090462	AP1	RPD [DSY919-05]	Chemical Oxygen Demand	2025/09/18	18		%	20
C091989	KHU	RPD [DSY919-04]	Dissolved Iron (Fe)	2025/09/19	NC		%	20
			Dissolved Lithium (Li)	2025/09/19	NC		%	20
			Dissolved Magnesium (Mg)	2025/09/19	0.62		%	20
			Dissolved Manganese (Mn)	2025/09/19	NC		%	20
			Dissolved Potassium (K)	2025/09/19	5.1		%	20
			Dissolved Sodium (Na)	2025/09/19	0.47		%	20
			Dissolved Strontium (Sr)	2025/09/19	0.19		%	20
			Dissolved Sulphur (S)	2025/09/19	0.89		%	20
			Dissolved Phosphorus (P)	2025/09/19	NC		%	20
			Dissolved Barium (Ba)	2025/09/19	0.69		%	20
			Dissolved Silicon (Si)	2025/09/19	1.2		%	20
			Dissolved Boron (B)	2025/09/19	NC		%	20
			Dissolved Calcium (Ca)	2025/09/19	0.66		%	20
C092888	TJ4	RPD [DSY919-06]	Dissolved Organic Carbon (C)	2025/09/19	4.1		%	20
C090521	AFI	RPD [DSY920-02]	True Colour	2025/09/18	8.4		%	20
C087856	SJ1	Matrix Spike [DSY920-09]	D10-ANTHRACENE (sur.)	2025/09/19		96	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		98	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		91	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		67	%	50 - 130
			Acenaphthene	2025/09/19		74	%	50 - 130
			Acenaphthylene	2025/09/19		87	%	50 - 130
			Acridine	2025/09/19		84	%	50 - 130
			Anthracene	2025/09/19		83	%	50 - 130
			Benzo(a)anthracene	2025/09/19		92	%	50 - 130
			Benzo(b&j)fluoranthene	2025/09/19		91	%	50 - 130
			Benzo(k)fluoranthene	2025/09/19		88	%	50 - 130
			Benzo(g,h,i)perylene	2025/09/19		92	%	50 - 130
			Benzo(c)phenanthrene	2025/09/19		97	%	50 - 130
			Benzo(a)pyrene	2025/09/19		92	%	50 - 130
			Benzo(e)pyrene	2025/09/19		88	%	50 - 130

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Chrysene	2025/09/19		92	%	50 - 130
			Dibenz(a,h)anthracene	2025/09/19		96	%	50 - 130
			Fluoranthene	2025/09/19		90	%	50 - 130
			Fluorene	2025/09/19		84	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/09/19		92	%	50 - 130
			1-Methylnaphthalene	2025/09/19		66	%	50 - 130
			2-Methylnaphthalene	2025/09/19		74	%	50 - 130
			Naphthalene	2025/09/19		75	%	50 - 130
			Phenanthrene	2025/09/19		85	%	50 - 130
			Perylene	2025/09/19		87	%	50 - 130
			Pyrene	2025/09/19		90	%	50 - 130
			Quinoline	2025/09/19		100	%	50 - 130
C087857	CHA	Matrix Spike [DSY919-09]	O-TERPHENYL (sur.)	2025/09/18		105	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18		102	%	60 - 140
C088289	HE1	Matrix Spike [DSY919-01]	Total Suspended Solids	2025/09/17		97	%	80 - 120
C090462	AP1	Matrix Spike [DSY919-05]	Chemical Oxygen Demand	2025/09/18		99	%	80 - 120
C090521	AFI	Matrix Spike [DSY920-02]	True Colour	2025/09/18		89	%	80 - 120
C091989	KHU	Matrix Spike [DSY919-04]	Dissolved Iron (Fe)	2025/09/19		105	%	80 - 120
			Dissolved Lithium (Li)	2025/09/19		96	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/19		99	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/19		104	%	80 - 120
			Dissolved Potassium (K)	2025/09/19		102	%	80 - 120
			Dissolved Sodium (Na)	2025/09/19		97	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/19		93	%	80 - 120
			Dissolved Sulphur (S)	2025/09/19		101	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/19		103	%	80 - 120
			Dissolved Barium (Ba)	2025/09/19		98	%	80 - 120
			Dissolved Silicon (Si)	2025/09/19		96	%	80 - 120
			Dissolved Boron (B)	2025/09/19		98	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/19		100	%	80 - 120
C092888	TJ4	Matrix Spike [DSY919-06]	Dissolved Organic Carbon (C)	2025/09/19		93	%	75 - 125
C086995	RRA	LCS	Oil and grease	2025/09/16		93	%	70 - 130
C087000	RRA	LCS	Total Petroleum Hydrocarbon	2025/09/16		93	%	70 - 130
C087856	SJ1	LCS	D10-ANTHRACENE (sur.)	2025/09/19		81	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/19		80	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/19		80	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/19		53	%	50 - 130
			Acenaphthene	2025/09/19		71	%	50 - 130
			Acenaphthylene	2025/09/19		85	%	50 - 130
			Acridine	2025/09/19		74	%	50 - 130
			Anthracene	2025/09/19		72	%	50 - 130
			Benzo(a)anthracene	2025/09/19		78	%	50 - 130
			Benzo(b&j)fluoranthene	2025/09/19		76	%	50 - 130
			Benzo(k)fluoranthene	2025/09/19		74	%	50 - 130
			Benzo(g,h,i)perylene	2025/09/19		79	%	50 - 130
			Benzo(c)phenanthrene	2025/09/19		81	%	50 - 130
			Benzo(a)pyrene	2025/09/19		78	%	50 - 130
			Benzo(e)pyrene	2025/09/19		74	%	50 - 130
			Chrysene	2025/09/19		76	%	50 - 130
			Dibenz(a,h)anthracene	2025/09/19		82	%	50 - 130
			Fluoranthene	2025/09/19		79	%	50 - 130
			Fluorene	2025/09/19		80	%	50 - 130

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Indeno(1,2,3-cd)pyrene	2025/09/19		79	%	50 - 130
			1-Methylnaphthalene	2025/09/19		64	%	50 - 130
			2-Methylnaphthalene	2025/09/19		70	%	50 - 130
			Naphthalene	2025/09/19		73	%	50 - 130
			Phenanthrene	2025/09/19		74	%	50 - 130
			Perylene	2025/09/19		75	%	50 - 130
			Pyrene	2025/09/19		79	%	50 - 130
			Quinoline	2025/09/19		101	%	50 - 130
C087857	CHA	LCS	O-TERPHENYL (sur.)	2025/09/18		105	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/18		107	%	60 - 140
C087873	AP1	LCS	Turbidity	2025/09/16		100	%	80 - 120
C088284	ILP	LCS	Total Dissolved Solids	2025/09/18		98	%	80 - 120
C088289	HE1	LCS	Total Suspended Solids	2025/09/17		96	%	80 - 120
C088452	RIL	LCS	1,4-Difluorobenzene (sur.)	2025/09/18		98	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/18		102	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/18		101	%	50 - 140
			Benzene	2025/09/18		89	%	60 - 130
			Toluene	2025/09/18		90	%	60 - 130
			Ethylbenzene	2025/09/18		94	%	60 - 130
			m & p-Xylene	2025/09/18		90	%	60 - 130
			o-Xylene	2025/09/18		92	%	60 - 130
			F1 (C6-C10)	2025/09/18		95	%	60 - 140
C089026	TOR	LCS	Chloride (Cl)	2025/09/17		101	%	80 - 120
			Sulphate (SO4)	2025/09/17		97	%	80 - 120
C089528	NJD	LCS	Total Sulphide	2025/09/18		97	%	80 - 120
C090031	AYE	LCS	pH	2025/09/18		100	%	97 - 103
C090034	AYE	LCS	Alkalinity (Total as CaCO3)	2025/09/18		96	%	80 - 120
C090036	AYE	LCS	Conductivity	2025/09/18		101	%	90 - 110
C090247	AFI	LCS	Orthophosphate (P)	2025/09/18		104	%	80 - 120
C090283	AFI	LCS	Orthophosphate (P)	2025/09/18		104	%	80 - 120
C090462	AP1	LCS	Chemical Oxygen Demand	2025/09/18		100	%	80 - 120
C090514	JAB	LCS	Dissolved Aluminum (Al)	2025/09/20		94	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/20		95	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/20		94	%	80 - 120
			Dissolved Copper (Cu)	2025/09/20		93	%	80 - 120
			Dissolved Lead (Pb)	2025/09/20		94	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/20		99	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/20		99	%	80 - 120
			Dissolved Nickel (Ni)	2025/09/20		93	%	80 - 120
			Dissolved Selenium (Se)	2025/09/20		96	%	80 - 120
			Dissolved Silver (Ag)	2025/09/20		93	%	80 - 120
			Dissolved Arsenic (As)	2025/09/20		95	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/20		96	%	80 - 120
			Dissolved Tin (Sn)	2025/09/20		97	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/20		98	%	80 - 120
			Dissolved Uranium (U)	2025/09/20		92	%	80 - 120
			Dissolved Vanadium (V)	2025/09/20		94	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/20		91	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/20		93	%	80 - 120
C090521	AFI	LCS	True Colour	2025/09/18		91	%	80 - 120
C090950	ISW	LCS	Nitrite (N)	2025/09/18		100	%	80 - 120
			Nitrate plus Nitrite (N)	2025/09/18		107	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C091963	IK0	LCS	Total Aluminum (Al)	2025/09/19		105	%	80 - 120
			Total Chromium (Cr)	2025/09/19		106	%	80 - 120
			Total Cobalt (Co)	2025/09/19		105	%	80 - 120
			Total Copper (Cu)	2025/09/19		105	%	80 - 120
			Total Lead (Pb)	2025/09/19		99	%	80 - 120
			Total Antimony (Sb)	2025/09/19		102	%	80 - 120
			Total Molybdenum (Mo)	2025/09/19		104	%	80 - 120
			Total Nickel (Ni)	2025/09/19		105	%	80 - 120
			Total Selenium (Se)	2025/09/19		101	%	80 - 120
			Total Silver (Ag)	2025/09/19		100	%	80 - 120
			Total Arsenic (As)	2025/09/19		106	%	80 - 120
			Total Thallium (Tl)	2025/09/19		105	%	80 - 120
			Total Tin (Sn)	2025/09/19		105	%	80 - 120
			Total Titanium (Ti)	2025/09/19		103	%	80 - 120
			Total Uranium (U)	2025/09/19		102	%	80 - 120
			Total Vanadium (V)	2025/09/19		106	%	80 - 120
			Total Zinc (Zn)	2025/09/19		104	%	80 - 120
			Total Beryllium (Be)	2025/09/19		102	%	80 - 120
C091971	VSC	LCS	Total Iron (Fe)	2025/09/19		105	%	80 - 120
			Total Lithium (Li)	2025/09/19		100	%	80 - 120
			Total Magnesium (Mg)	2025/09/19		104	%	80 - 120
			Total Manganese (Mn)	2025/09/19		104	%	80 - 120
			Total Potassium (K)	2025/09/19		102	%	80 - 120
			Total Sodium (Na)	2025/09/19		102	%	80 - 120
			Total Strontium (Sr)	2025/09/19		103	%	80 - 120
			Total Sulphur (S)	2025/09/19		92	%	80 - 120
			Total Phosphorus (P)	2025/09/19		103	%	80 - 120
			Total Barium (Ba)	2025/09/19		108	%	80 - 120
			Total Silicon (Si)	2025/09/19		104	%	80 - 120
			Total Boron (B)	2025/09/19		100	%	80 - 120
			Total Calcium (Ca)	2025/09/19		99	%	80 - 120
C091989	KHU	LCS	Dissolved Iron (Fe)	2025/09/19		100	%	80 - 120
			Dissolved Lithium (Li)	2025/09/19		97	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/19		98	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/19		99	%	80 - 120
			Dissolved Potassium (K)	2025/09/19		102	%	80 - 120
			Dissolved Sodium (Na)	2025/09/19		100	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/19		94	%	80 - 120
			Dissolved Sulphur (S)	2025/09/19		99	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/19		101	%	80 - 120
			Dissolved Barium (Ba)	2025/09/19		97	%	80 - 120
			Dissolved Silicon (Si)	2025/09/19		97	%	80 - 120
			Dissolved Boron (B)	2025/09/19		97	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/19		101	%	80 - 120
C092246	KKC	LCS	Total Ammonia (N)	2025/09/19		106	%	80 - 120
C092820	TJ4	LCS	Total Organic Carbon (C)	2025/09/19		103	%	80 - 120
C092888	TJ4	LCS	Dissolved Organic Carbon (C)	2025/09/19		91	%	80 - 120
C093211	KKM	LCS	Dissolved Mercury (Hg)	2025/09/19		99	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C094764	KKM	LCS	Total Mercury (Hg)	2025/09/22		103	%	80 - 120

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Janet Gao, B.Sc., QP, Supervisor, Organics

Jared Wiseman, B.Sc., P.Chem., QP, Senior Analyst, Organics

Pushpa Gurung, Laboratory Supervisor

Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

VALIDATION SIGNATURE PAGE(CONT'D)

The analytical data and all QC contained in this report were reviewed and validated by:

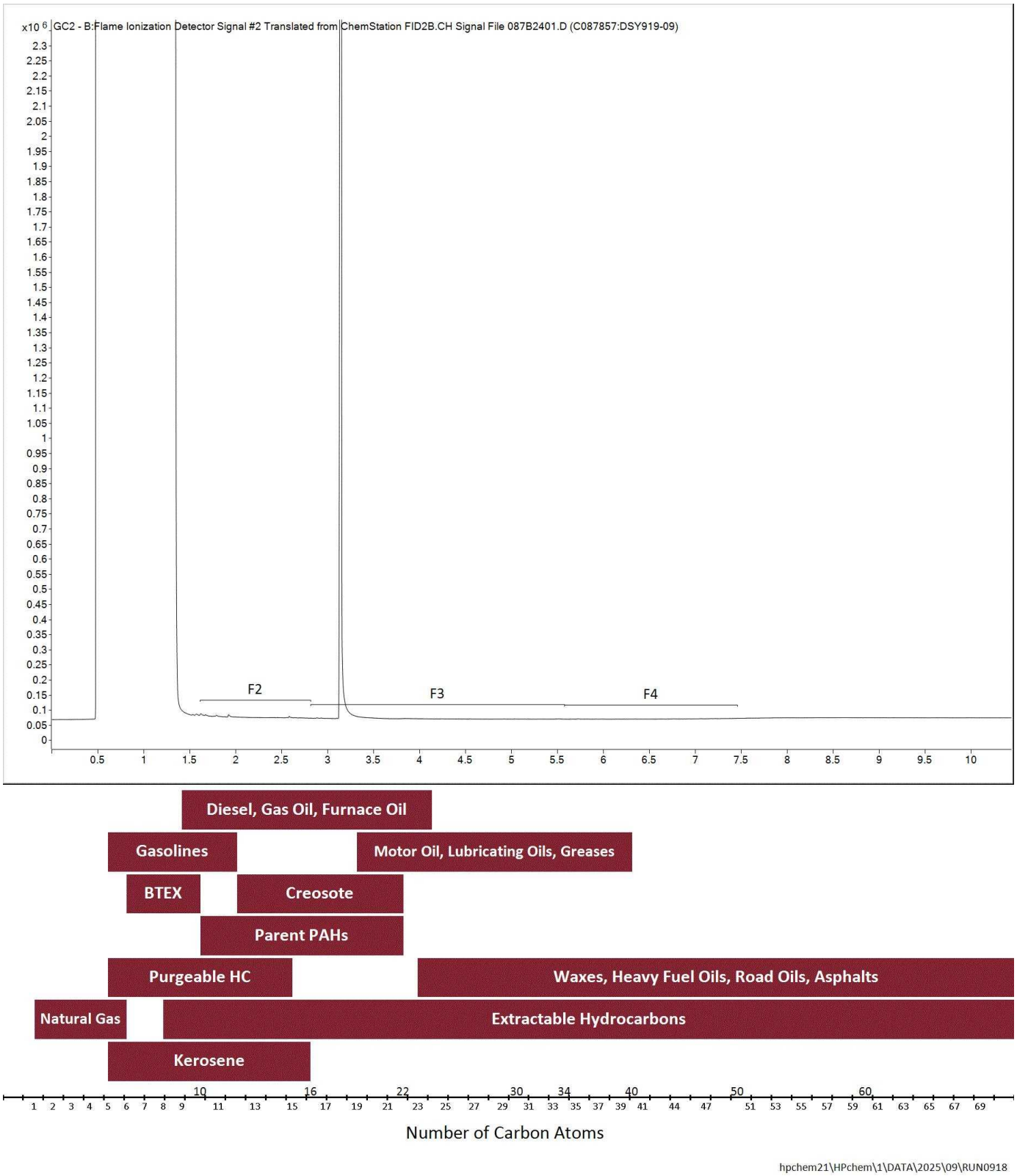
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

Bureau Veritas Edmonton: 4326 76 Avenue NW T6B 2H8 Telephone (780)577-7100 Fax (780)450-4187

Bureau Veritas Job #: C578430
Report Date: 2025/09/22
Bureau Veritas Sample: DSY919

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-06

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

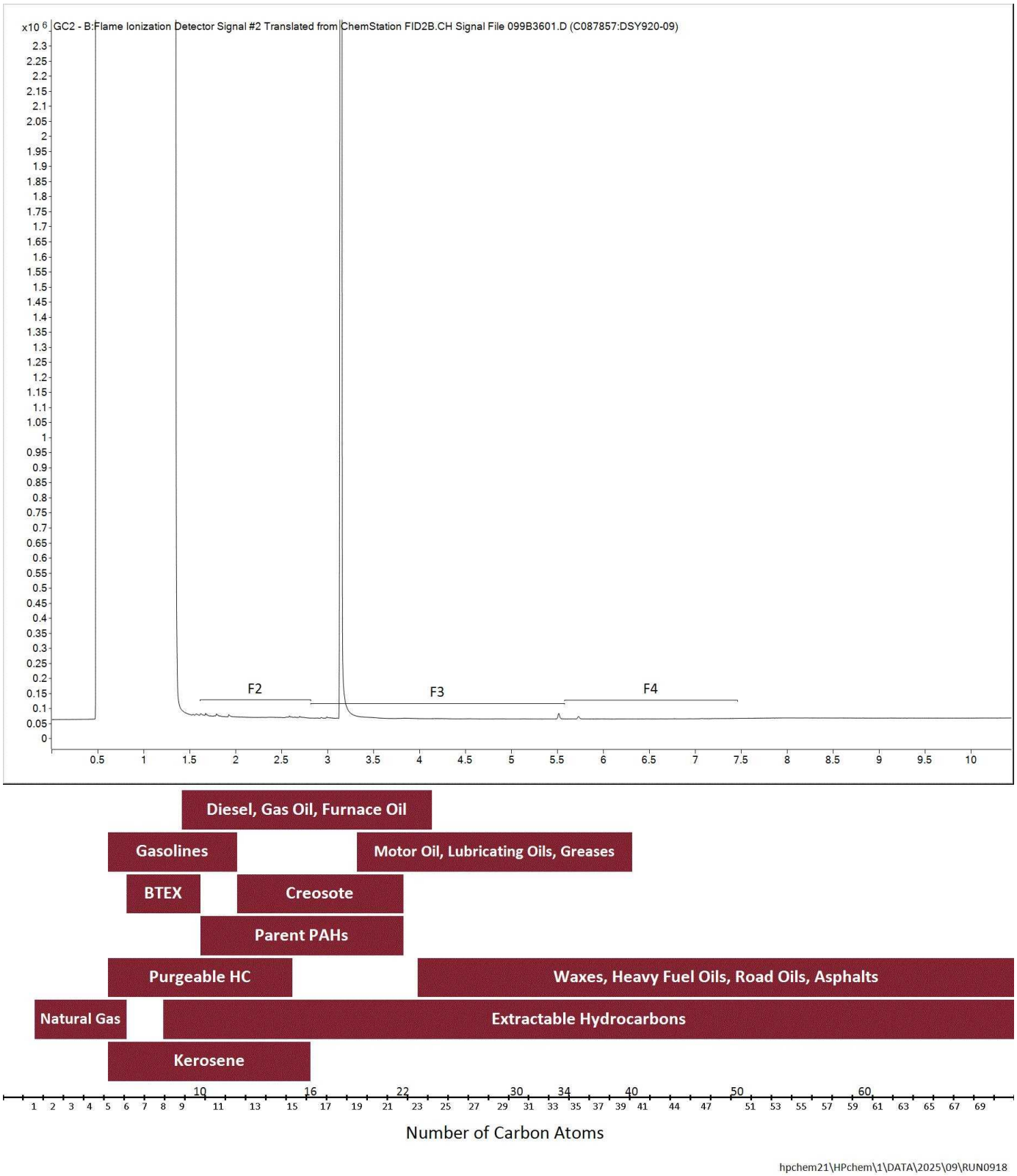


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C578430
Report Date: 2025/09/22
Bureau Veritas Sample: DSY920

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-07

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
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Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 292273

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Stacy Gibb	Contact Name: Alex Haigh
Address: 49 Quarry Park Blvd SE Calgary AB T2C 3E7	Address: 49 Quarry Park Blvd SE Calgary, AB T2C 3E7
Email: ~~alex.haigh@worley.com~~ Stacy.gibb@worley.com	Email: alex.haigh@worley.com
Ph: 587 434 5393	Ph: 587 897 6249
Sampler Name (Print): Alex Haigh	Consultant Project #: 417085-59897-25200

ANALYSIS REQUESTED

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True Colour, TSS, TDS, Turbidity	Oil + Grease	TOC, DOC, Sulphide, COD	Dissolved Chloride, Fluoride, Bromide (total)	Ortho phosphate	Sulphur - total + dissolved	TPH
1	AEMP-DS-06		X			15	2025/09/10	12:00	X			X	X							X	X					X			X	X	X	X	X	X
2	AEMP-DS-07		X			15	↓	12:30	X			X	X							X	X					X			X	X	X	X	X	X
3																																				
4																																				
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				

MED2-2025-09-429

IOL SITE LOCATION: Norman Wells, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897. 25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: also email: canada.chemistry@worley.com cacal_IBLdatatrack@... IESA 2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

LAB USE ONLY
MAXXAM JOB #

	YES	NO	COOLER ID #	TEMP °C	1	2	3
SEAL PRESENT	✓						
SEAL INTACT	✓						
COOLING MEDIA PRESENT	✓						

	YES	NO	COOLER ID #	TEMP °C	1	2	3
SEAL PRESENT	✓						
SEAL INTACT	✓						
COOLING MEDIA PRESENT	✓						

	YES	NO	COOLER ID #	TEMP °C	1	2	3
SEAL PRESENT							
SEAL INTACT							
COOLING MEDIA PRESENT							

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY		DATE:	TIME (24 HR)
1.	Alex Haigh	2025/09/12	09:15	1.	MAUREET CHEEMA	2025/09/15	0800
2.	MAUREET CHEEMA	2025/09/15	16:11	2. ACKOP	Andrii Skorobohatyi	2025/09/16	06:45
3.				3.			

SAMPLES
LABELED BY:
VERIFIED BY:

COC-1010 (06/2016) IOL-AB White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292285

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/26
Report #: R3715183
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C579777
Received: 2025/09/19, 14:50

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	4	AB SOP-00005	SM 24 2320 B m
BTEX/F1 in Water by HS GC/MS/FID	4	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	4		Auto Calc
Cadmium - low level CCME - Dissolved	4		Auto Calc
Cadmium - low level CCME (Total)	4		Auto Calc
Chloride/Sulphate by Auto Colourimetry	4	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	4	AB SOP-00016	SM 24 5220D m
True Colour	4	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	4	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	4	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (2)	4	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S)	4		Auto Calc
Hardness	4		Auto Calc
Mercury (Dissolved) by CV (3)	4	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	4	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	4	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	4	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	4	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	4	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	4		Auto Calc
Ammonia-N (Total)	4	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	4		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	4	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	4		Auto Calc
Oil and Grease by IR	4	CAL SOP-00096	SM 24 5520C m
pH @25°C (4)	4	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (5)	4	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	4	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	4	AB SOP-00065	SM 24 2540 C m
Total Kjeldahl Nitrogen (Total)	4		Auto Calc
Nitrogen (Total)	4	AB SOP-00093	SM 24 4500-N C m

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292285

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/26
Report #: R3715183
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C579777
Received: 2025/09/19, 14:50

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Laboratory Method	Analytical Method
Carbon (Total Organic) (6)	4	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	4	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	4	AB SOP-00061	SM 24 2540 D m
Turbidity	4	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(5) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200
Your C.O.C. #: 292285

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/26
Report #: R3715183
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C579777

Received: 2025/09/19, 14:50

(6) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Jasbirjit Kaur
Customer Solutions Representative
26 Sep 2025 20:39:16

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DTH598	DTH599	DTH600	DTH601		
Sampling Date		2025/09/16 12:50	2025/09/16 12:25	2025/09/16 13:26	2025/09/16 14:05		
COC Number		292285	292285	292285	292285		
	UNITS	**AEMP-DS-08**	**AEMP-DS-05**	**AEMP-DS-09**	**AEMP-DS-03**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	C096420
Volatiles							
Benzene	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	C094043
Toluene	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	C094043
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	C094043
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	<0.00080	0.00080	C094043
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	C094043
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	<0.00089	0.00089	C092855
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	C092855
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	C094043
Extraction Surrogate Recovery (%)							
O-TERPHENYL (sur.)	%	91	92	90	92		C096420
Instrument Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	106	106	108	106		C094043
4-Bromofluorobenzene (sur.)	%	101	106	106	110		C094043
D4-1,2-Dichloroethane (sur.)	%	110	111	109	106		C094043

RDL = Reportable Detection Limit

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DTH598		DTH599			DTH600		
Sampling Date		2025/09/16 12:50		2025/09/16 12:25			2025/09/16 13:26		
COC Number		292285		292285			292285		
	UNITS	**AEMP-DS-08**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**	**AEMP-DS-09**	**RDL**	**QC Batch**
Calculated Parameters									
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<2.0	C091952	<2.0	2.0	C093350	0.38	0.20	C093353
Nutrients									
Total Nitrogen (N)	mg/L	<2.0	C099896	<2.0 (1)	2.0	C099896	0.38 (2)	0.20	C099895

RDL = Reportable Detection Limit
(1) Nitrogen < Nitrate: Both values fall within the method uncertainty for duplicates and are likely equivalent.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas ID		DTH601		
Sampling Date		2025/09/16 14:05		
COC Number		292285		
	UNITS	**AEMP-DS-03**	**RDL**	**QC Batch**
Calculated Parameters				
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<2.0	2.0	C093355
Nutrients				
Total Nitrogen (N)	mg/L	<2.0	2.0	C099896

RDL = Reportable Detection Limit

Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DTH598	DTH599	DTH600		DTH601		
Sampling Date		2025/09/16 12:50	2025/09/16 12:25	2025/09/16 13:26		2025/09/16 14:05		
COC Number		292285	292285	292285		292285		
	UNITS	**AEMP-DS-08**	**AEMP-DS-05**	**AEMP-DS-09**	**QC Batch**	**AEMP-DS-03**	**RDL**	**QC Batch**
Elements								
Total Cadmium (Cd)	mg/L	<0.000020	0.000073	0.000033	C092031	0.000054	0.000020	C093294
Total Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	C100558	<0.0019	0.0019	C100558
Total Aluminum (Al)	mg/L	0.25	0.49	0.29	C100423	0.49	0.0030	C100423
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	<0.00060	C100423	<0.00060	0.00060	C100423
Total Arsenic (As)	mg/L	0.00040	0.00051	0.00043	C100423	0.00050	0.00020	C100423
Total Barium (Ba)	mg/L	0.052	0.058	0.061	C100425	0.060	0.010	C100425
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	C100423	<0.0010	0.0010	C100423
Total Boron (B)	mg/L	<0.020	<0.020	<0.020	C100425	<0.020	0.020	C100425
Total Calcium (Ca)	mg/L	36	37	44	C100425	42	0.30	C100425
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	C100423	<0.0010	0.0010	C100423
Total Cobalt (Co)	mg/L	<0.00030	0.00042	0.00033	C100423	0.00036	0.00030	C100423
Total Copper (Cu)	mg/L	0.0010	0.0013	0.0012	C100423	0.0014	0.0010	C100423
Total Iron (Fe)	mg/L	0.32	0.66	0.32	C100425	0.57	0.060	C100425
Total Lead (Pb)	mg/L	<0.00020	0.00037	<0.00020	C100423	0.00030	0.00020	C100423
Total Lithium (Li)	mg/L	<0.020	<0.020	<0.020	C100425	<0.020	0.020	C100425
Total Magnesium (Mg)	mg/L	11	11	13	C100425	13	0.20	C100425
Total Manganese (Mn)	mg/L	0.013	0.022	0.033	C100425	0.017	0.0040	C100425
Total Molybdenum (Mo)	mg/L	0.00087	0.00089	0.0011	C100423	0.0011	0.00020	C100423
Total Nickel (Ni)	mg/L	0.0016	0.0021	0.0021	C100423	0.0023	0.00050	C100423
Total Phosphorus (P)	mg/L	<0.10	<0.10	<0.10	C100425	<0.10	0.10	C100425
Total Potassium (K)	mg/L	0.94	1.1	0.99	C100425	1.0	0.30	C100425
Total Selenium (Se)	mg/L	0.00028	0.00027	0.00044	C100423	0.00047	0.00020	C100423
Total Silicon (Si)	mg/L	1.7	2.4	2.1	C100425	2.2	0.50	C100425
Total Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	C100423	<0.00010	0.00010	C100423
Total Sodium (Na)	mg/L	8.4	8.4	8.9	C100425	8.9	0.50	C100425
Total Strontium (Sr)	mg/L	0.23	0.24	0.29	C100425	0.27	0.020	C100425
Total Sulphur (S)	mg/L	15	15	19	C100425	19	0.20	C100425
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	C100423	<0.00020	0.00020	C100423
Total Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	C100423	<0.0010	0.0010	C100423
Total Titanium (Ti)	mg/L	0.0046	0.014	0.0035	C100423	0.0072	0.0010	C100423
Total Uranium (U)	mg/L	0.00072	0.00072	0.00084	C100423	0.00088	0.00010	C100423
RDL = Reportable Detection Limit								

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DTH598	DTH599	DTH600		DTH601		
Sampling Date		2025/09/16 12:50	2025/09/16 12:25	2025/09/16 13:26		2025/09/16 14:05		
COC Number		292285	292285	292285		292285		
	UNITS	**AEMP-DS-08**	**AEMP-DS-05**	**AEMP-DS-09**	**QC Batch**	**AEMP-DS-03**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	<0.0010	0.0012	<0.0010	C100423	0.0013	0.0010	C100423
Total Zinc (Zn)	mg/L	<0.0030	0.0042	<0.0030	C100423	0.0035	0.0030	C100423
RDL = Reportable Detection Limit								

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DTH598			DTH598			DTH599		
Sampling Date		2025/09/16 12:50			2025/09/16 12:50			2025/09/16 12:25		
COC Number		292285			292285			292285		
	UNITS	**AEMP-DS-08**	**RDL**	**QC Batch**	**AEMP-DS-08 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	130	0.50	C093058				140	0.50	C093058
Ion Balance (% Difference)	%	3.7	N/A	C093064				2.8	N/A	C093064
Nitrate (N)	mg/L	<0.040	0.040	C093082				0.052	0.040	C093082
Nitrate (NO3)	mg/L	<0.18	0.18	C093081				0.23	0.18	C093081
Nitrite (NO2)	mg/L	<0.13	0.13	C093081				<0.13	0.13	C093081
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C092866				0.0025	0.0020	C092866
Demand Parameters										
Chemical Oxygen Demand	mg/L	<10 (1)	10	C096775				<10 (1)	10	C096775
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C092667				<0.000020	0.000020	C092667
Misc. Inorganics										
Conductivity	uS/cm	300	2.0	C098210	300	2.0	C098210	310	2.0	C096019
Dissolved Organic Carbon (C)	mg/L	2.8	0.50	C102271				3.1	0.50	C102271
pH	pH	7.20	N/A	C098209	7.27	N/A	C098209	7.58	N/A	C096017
Total Organic Carbon (C)	mg/L	2.8	0.50	C102205				2.7	0.50	C102205
Total Dissolved Solids	mg/L	180	10	C096617				180	10	C096617
Total Suspended Solids	mg/L	9.4	1.0	C096618	9.1	1.0	C096618	20	1.0	C096618
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C098204	<1.0	1.0	C098204	<1.0	1.0	C096012
Alkalinity (Total as CaCO3)	mg/L	100	1.0	C098204	100	1.0	C098204	100	1.0	C096012
Bicarbonate (HCO3)	mg/L	120	1.0	C098204	120	1.0	C098204	120	1.0	C096012
Carbonate (CO3)	mg/L	<1.0	1.0	C098204	<1.0	1.0	C098204	<1.0	1.0	C096012
Hydroxide (OH)	mg/L	<1.0	1.0	C098204	<1.0	1.0	C098204	<1.0	1.0	C096012
Total Sulphide	mg/L	<0.0018	0.0018	C097807				0.0024	0.0018	C097807
Chloride (Cl)	mg/L	10	1.0	C094748				9.8	1.0	C094748
Sulphate (SO4)	mg/L	47	1.0	C094748				49	1.0	C094748
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C099467				<0.015	0.015	C099467

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DTH598			DTH598			DTH599		
Sampling Date		2025/09/16 12:50			2025/09/16 12:50			2025/09/16 12:25		
COC Number		292285			292285			292285		
	UNITS	**AEMP-DS-08**	**RDL**	**QC Batch**	**AEMP-DS-08 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L	<0.0030	0.0030	C094333				<0.0030	0.0030	C094333
Nitrite (N)	mg/L	<0.040	0.040	C094252				<0.040	0.040	C094250
Nitrate plus Nitrite (N)	mg/L	<0.040	0.040	C094252				0.052	0.040	C094250
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C089776				<2.0	2.0	C089776
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C091646				<2.0	2.0	C091646
Physical Properties										
True Colour	PtCo units	3.9	2.0	C094170				4.7	2.0	C094170
Physical Properties										
Turbidity	NTU	7.1	0.10	C093363	8.2	0.10	C093363	12	0.10	C093363

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C579777
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Advisian
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Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DTH599			DTH600	DTH601		
Sampling Date		2025/09/16 12:25			2025/09/16 13:26	2025/09/16 14:05		
COC Number		292285			292285	292285		
	UNITS	**AEMP-DS-05 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-09**	**AEMP-DS-03**	**RDL**	**QC Batch**
Calculated Parameters								
Hardness (CaCO3)	mg/L				160	160	0.50	C093058
Ion Balance (% Difference)	%				5.3	1.4	N/A	C093064
Nitrate (N)	mg/L				<0.040	<0.040	0.040	C093082
Nitrate (NO3)	mg/L				<0.18	<0.18	0.18	C093081
Nitrite (NO2)	mg/L				<0.13	<0.13	0.13	C093081
Sulphide (as H2S)	mg/L				<0.0020	<0.0020	0.0020	C092866
Demand Parameters								
Chemical Oxygen Demand	mg/L				<10 (1)	<10 (1)	10	C096775
Elements								
Dissolved Cadmium (Cd)	mg/L				<0.000020	<0.000020	0.000020	C092667
Misc. Inorganics								
Conductivity	uS/cm				360	350	2.0	C098210
Dissolved Organic Carbon (C)	mg/L	3.1	0.50	C102271	3.2	3.2	0.50	C102271
pH	pH				7.48	7.40	N/A	C098209
Total Organic Carbon (C)	mg/L				2.9	3.0	0.50	C102205
Total Dissolved Solids	mg/L				200	210	10	C096617
Total Suspended Solids	mg/L				6.3	18	1.0	C096618
Anions								
Alkalinity (PP as CaCO3)	mg/L				<1.0	<1.0	1.0	C098204
Alkalinity (Total as CaCO3)	mg/L				120	110	1.0	C098204
Bicarbonate (HCO3)	mg/L				150	130	1.0	C098204
Carbonate (CO3)	mg/L				<1.0	<1.0	1.0	C098204
Hydroxide (OH)	mg/L				<1.0	<1.0	1.0	C098204
Total Sulphide	mg/L				<0.0018	<0.0018	0.0018	C097807
Chloride (Cl)	mg/L				10	9.9	1.0	C094748
Sulphate (SO4)	mg/L				60	60	1.0	C094748
Nutrients								
Total Ammonia (N)	mg/L				0.015	<0.015	0.015	C099467

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DTH599			DTH600	DTH601		
Sampling Date		2025/09/16 12:25			2025/09/16 13:26	2025/09/16 14:05		
COC Number		292285			292285	292285		
	UNITS	**AEMP-DS-05 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-09**	**AEMP-DS-03**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L				<0.0030	<0.0030	0.0030	C094333
Nitrite (N)	mg/L				<0.040	<0.040	0.040	C094252
Nitrate plus Nitrite (N)	mg/L				<0.040	<0.040	0.040	C094252
Misc. Organics								
Oil and grease	mg/L				<2.0	<2.0	2.0	C089776
Total Petroleum Hydrocarbon	mg/L				<2.0	<2.0	2.0	C091646
Physical Properties								
True Colour	PtCo units				4.7	5.2	2.0	C094170
Physical Properties								
Turbidity	NTU				9.4	10	0.10	C093363

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DTH598	DTH599	DTH600	DTH601		
Sampling Date		2025/09/16 12:50	2025/09/16 12:25	2025/09/16 13:26	2025/09/16 14:05		
COC Number		292285	292285	292285	292285		
	UNITS	**AEMP-DS-08**	**AEMP-DS-05**	**AEMP-DS-09**	**AEMP-DS-03**	**RDL**	**QC Batch**
Elements							
Dissolved Mercury (Hg)	ug/L	<0.0019	<0.0019	<0.0019	<0.0019	0.0019	C100565
RDL = Reportable Detection Limit							

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DTH598			DTH598			DTH599		
Sampling Date		2025/09/16 12:50			2025/09/16 12:50			2025/09/16 12:25		
COC Number		292285			292285			292285		
	UNITS	**AEMP-DS-08**	**RDL**	**QC Batch**	**AEMP-DS-08 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Elements										
Dissolved Aluminum (Al)	mg/L	0.028	0.0030	C094094				0.028	0.0030	C094094
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	C094094				<0.00060	0.00060	C094094
Dissolved Arsenic (As)	mg/L	0.00025	0.00020	C094094				0.00025	0.00020	C094094
Dissolved Barium (Ba)	mg/L	0.046	0.010	C094351	0.046	0.010	C094351	0.045	0.010	C094351
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	C094094				<0.0010	0.0010	C094094
Dissolved Boron (B)	mg/L	<0.020	0.020	C094351	<0.020	0.020	C094351	<0.020	0.020	C094351
Dissolved Calcium (Ca)	mg/L	36	0.30	C094351	36	0.30	C094351	37	0.30	C094351
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	C094094				<0.0010	0.0010	C094094
Dissolved Cobalt (Co)	mg/L	<0.00030	0.00030	C094094				<0.00030	0.00030	C094094
Dissolved Copper (Cu)	mg/L	<0.0010	0.0010	C094094				<0.0010	0.0010	C094094
Dissolved Iron (Fe)	mg/L	<0.060 (1)	0.060	C094351	<0.060	0.060	C094351	<0.060	0.060	C094351
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	C094094				<0.00020	0.00020	C094094
Dissolved Lithium (Li)	mg/L	<0.020	0.020	C094351	<0.020	0.020	C094351	<0.020	0.020	C094351
Dissolved Magnesium (Mg)	mg/L	10	0.20	C094351	10	0.20	C094351	11	0.20	C094351
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0040	C094351	<0.0040	0.0040	C094351	0.0052	0.0040	C094351
Dissolved Molybdenum (Mo)	mg/L	0.00095	0.00020	C094094				0.0011	0.00020	C094094
Dissolved Nickel (Ni)	mg/L	0.0011	0.00050	C094094				0.0016	0.00050	C094094
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	C094351	<0.10	0.10	C094351	<0.10	0.10	C094351
Dissolved Potassium (K)	mg/L	1.1	0.30	C094351	0.98	0.30	C094351	1.1	0.30	C094351
Dissolved Selenium (Se)	mg/L	0.00027	0.00020	C094094				0.00027	0.00020	C094094
Dissolved Silicon (Si)	mg/L	1.3	0.50	C094351	1.3	0.50	C094351	1.4	0.50	C094351
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	C094094				<0.00010	0.00010	C094094
Dissolved Sodium (Na)	mg/L	8.7	0.50	C094351	8.7	0.50	C094351	8.7	0.50	C094351
Dissolved Strontium (Sr)	mg/L	0.22	0.020	C094351	0.22	0.020	C094351	0.23	0.020	C094351
Dissolved Sulphur (S)	mg/L	15	0.20	C094351	15	0.20	C094351	15	0.20	C094351
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	C094094				<0.00020	0.00020	C094094
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	C094094				<0.0010	0.0010	C094094
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	C094094				<0.0010	0.0010	C094094
Dissolved Uranium (U)	mg/L	0.00080	0.00010	C094094				0.00079	0.00010	C094094

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Matrix spike exceeds acceptance limits due to probable matrix interference.

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DTH598			DTH598			DTH599		
Sampling Date		2025/09/16 12:50			2025/09/16 12:50			2025/09/16 12:25		
COC Number		292285			292285			292285		
	UNITS	**AEMP-DS-08**	**RDL**	**QC Batch**	**AEMP-DS-08 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-DS-05**	**RDL**	**QC Batch**
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	C094094				<0.0010	0.0010	C094094
Dissolved Zinc (Zn)	mg/L	<0.0030	0.0030	C094094				<0.0030	0.0030	C094094

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DTH600	DTH601		
Sampling Date		2025/09/16 13:26	2025/09/16 14:05		
COC Number		292285	292285		
	UNITS	**AEMP-DS-09**	**AEMP-DS-03**	**RDL**	**QC Batch**
Elements					
Dissolved Aluminum (Al)	mg/L	0.042	0.045	0.0030	C094094
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	0.00060	C094094
Dissolved Arsenic (As)	mg/L	0.00028	0.00027	0.00020	C094094
Dissolved Barium (Ba)	mg/L	0.052	0.051	0.010	C094351
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	C094094
Dissolved Boron (B)	mg/L	<0.020	<0.020	0.020	C094351
Dissolved Calcium (Ca)	mg/L	42	43	0.30	C094351
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	C094094
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	0.00030	C094094
Dissolved Copper (Cu)	mg/L	<0.0010	<0.0010	0.0010	C094094
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	0.060	C094351
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	C094094
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	0.020	C094351
Dissolved Magnesium (Mg)	mg/L	12	12	0.20	C094351
Dissolved Manganese (Mn)	mg/L	0.0055	<0.0040	0.0040	C094351
Dissolved Molybdenum (Mo)	mg/L	0.0012	0.0012	0.00020	C094094
Dissolved Nickel (Ni)	mg/L	0.0015	0.0014	0.00050	C094094
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	0.10	C094351
Dissolved Potassium (K)	mg/L	1.1	1.1	0.30	C094351
Dissolved Selenium (Se)	mg/L	0.00034	0.00039	0.00020	C094094
Dissolved Silicon (Si)	mg/L	1.5	1.5	0.50	C094351
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	C094094
Dissolved Sodium (Na)	mg/L	9.2	9.4	0.50	C094351
Dissolved Strontium (Sr)	mg/L	0.26	0.26	0.020	C094351
Dissolved Sulphur (S)	mg/L	19	19	0.20	C094351
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	C094094
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	0.0010	C094094
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	0.0010	C094094
Dissolved Uranium (U)	mg/L	0.00093	0.00095	0.00010	C094094
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	0.0010	C094094
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	0.0030	C094094
RDL = Reportable Detection Limit					

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DTH598
Sample ID: AEMP-DS-08
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C098204	N/A	2025/09/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C094043	N/A	2025/09/22	Valerie Vergara
F1-BTEX	CALC/MS	C092855	N/A	2025/09/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C092667	N/A	2025/09/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C092031	N/A	2025/09/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C094748	N/A	2025/09/22	Tyler Orr
COD by Colorimeter	M/PROB	C096775	N/A	2025/09/23	Amy Phan
True Colour	SPEC/COL	C094170	N/A	2025/09/21	Isabelle White
Carbon (DOC)	TECH	C102271	N/A	2025/09/26	Thomas Johnson
Conductivity @25C	COND	C098210	N/A	2025/09/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C096420	2025/09/24	2025/09/25	Ramandeep Ramandeep
Sulphide (as H2S)	CALC	C092866	N/A	2025/09/24	Automated Statchk
Hardness	CALC	C093058	N/A	2025/09/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C100565	2025/09/25	2025/09/25	Kiran Kumari
Mercury (Total) by CV	CV	C100558	2025/09/25	2025/09/25	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C094351	N/A	2025/09/24	Bailey Morrison
Elements by ICP - Total	ICPA	C100425	2025/09/25	2025/09/26	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C094094	N/A	2025/09/21	Jason Bao
Elements by ICPMS - Total	ICPM	C100423	2025/09/25	2025/09/25	Jason Bao
Ion Balance	CALC	C093064	N/A	2025/09/25	Automated Statchk
Ammonia-N (Total)	KONE	C099467	N/A	2025/09/24	Adam Fishleigh
Nitrate and Nitrite	CALC	C093081	N/A	2025/09/23	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C094252	N/A	2025/09/21	Isabelle White
Nitrate (as N)	CALC	C093082	2025/09/23	2025/09/23	Automated Statchk
Oil and Grease by IR	IR	C089776	2025/09/23	2025/09/24	Ramandeep Ramandeep
pH @25°C	AT/ALK	C098209	N/A	2025/09/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C094333	N/A	2025/09/21	Isabelle White
Total Sulphide	SPEC	C097807	2025/09/23	2025/09/24	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C096617	2025/09/23	2025/09/24	Coralynn Topping
Total Kjeldahl Nitrogen (Total)	CALC	C091952	N/A	2025/09/26	Automated Statchk
Nitrogen (Total)	AC/COL	C099896	2025/09/25	2025/09/26	Yan Lin
Carbon (Total Organic)	TECH	C102205	N/A	2025/09/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C091646	2025/09/23	2025/09/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C096618	2025/09/23	2025/09/23	Haydee Estilong
Turbidity	TURB	C093363	N/A	2025/09/19	Daryl Viktoria Noval

Bureau Veritas ID: DTH598 Dup
Sample ID: AEMP-DS-08
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C098204	N/A	2025/09/24	Ayesha Ayesha
Conductivity @25C	COND	C098210	N/A	2025/09/24	Ayesha Ayesha
Elements by ICP - Dissolved	ICPA	C094351	N/A	2025/09/24	Bailey Morrison

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DTH598 Dup
Sample ID: AEMP-DS-08
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH @25°C	AT/ALK	C098209	N/A	2025/09/24	Ayesha Ayesha
Total Suspended Solids (NFR)	BAL	C096618	2025/09/23	2025/09/23	Haydee Estilong
Turbidity	TURB	C093363	N/A	2025/09/19	Daryl Viktoria Noval

Bureau Veritas ID: DTH599
Sample ID: AEMP-DS-05
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C096012	N/A	2025/09/23	Jeanette Chavol Melo
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C094043	N/A	2025/09/22	Valerie Vergara
F1-BTEX	CALC/MS	C092855	N/A	2025/09/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C092667	N/A	2025/09/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C092031	N/A	2025/09/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C094748	N/A	2025/09/22	Tyler Orr
COD by Colorimeter	M/PROB	C096775	N/A	2025/09/23	Amy Phan
True Colour	SPEC/COL	C094170	N/A	2025/09/21	Isabelle White
Carbon (DOC)	TECH	C102271	N/A	2025/09/26	Thomas Johnson
Conductivity @25C	COND	C096019	N/A	2025/09/23	Jeanette Chavol Melo
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C096420	2025/09/24	2025/09/25	Ramandeep Ramandeep
Sulphide (as H2S)	CALC	C092866	N/A	2025/09/24	Automated Statchk
Hardness	CALC	C093058	N/A	2025/09/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C100565	2025/09/25	2025/09/25	Kiran Kumari
Mercury (Total) by CV	CV	C100558	2025/09/25	2025/09/25	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C094351	N/A	2025/09/24	Bailey Morrison
Elements by ICP - Total	ICPA	C100425	2025/09/25	2025/09/26	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C094094	N/A	2025/09/21	Jason Bao
Elements by ICPMS - Total	ICPM	C100423	2025/09/25	2025/09/25	Jason Bao
Ion Balance	CALC	C093064	N/A	2025/09/25	Automated Statchk
Ammonia-N (Total)	KONE	C099467	N/A	2025/09/24	Adam Fishleigh
Nitrate and Nitrite	CALC	C093081	N/A	2025/09/23	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C094250	N/A	2025/09/21	Isabelle White
Nitrate (as N)	CALC	C093082	2025/09/23	2025/09/23	Automated Statchk
Oil and Grease by IR	IR	C089776	2025/09/23	2025/09/24	Ramandeep Ramandeep
pH @25°C	AT/ALK	C096017	N/A	2025/09/23	Jeanette Chavol Melo
Orthophosphate by Automated Analyzer	KONE	C094333	N/A	2025/09/21	Isabelle White
Total Sulphide	SPEC	C097807	2025/09/23	2025/09/24	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C096617	2025/09/23	2025/09/24	Coralynn Topping
Total Kjeldahl Nitrogen (Total)	CALC	C093350	N/A	2025/09/26	Automated Statchk
Nitrogen (Total)	AC/COL	C099896	2025/09/25	2025/09/26	Yan Lin
Carbon (Total Organic)	TECH	C102205	N/A	2025/09/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C091646	2025/09/23	2025/09/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C096618	2025/09/23	2025/09/23	Haydee Estilong
Turbidity	TURB	C093363	N/A	2025/09/19	Daryl Viktoria Noval

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DTH599 Dup
Sample ID: AEMP-DS-05
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbon (DOC)	TECH	C102271	N/A	2025/09/26	Thomas Johnson

Bureau Veritas ID: DTH600
Sample ID: AEMP-DS-09
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C098204	N/A	2025/09/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C094043	N/A	2025/09/22	Valerie Vergara
F1-BTEX	CALC/MS	C092855	N/A	2025/09/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C092667	N/A	2025/09/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C092031	N/A	2025/09/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C094748	N/A	2025/09/22	Tyler Orr
COD by Colorimeter	M/PROB	C096775	N/A	2025/09/23	Amy Phan
True Colour	SPEC/COL	C094170	N/A	2025/09/21	Isabelle White
Carbon (DOC)	TECH	C102271	N/A	2025/09/26	Thomas Johnson
Conductivity @25C	COND	C098210	N/A	2025/09/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C096420	2025/09/24	2025/09/25	Ramandeep Ramandeep
Sulphide (as H2S)	CALC	C092866	N/A	2025/09/24	Automated Statchk
Hardness	CALC	C093058	N/A	2025/09/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C100565	2025/09/25	2025/09/25	Kiran Kumari
Mercury (Total) by CV	CV	C100558	2025/09/25	2025/09/25	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C094351	N/A	2025/09/24	Bailey Morrison
Elements by ICP - Total	ICPA	C100425	2025/09/25	2025/09/26	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C094094	N/A	2025/09/21	Jason Bao
Elements by ICPMS - Total	ICPM	C100423	2025/09/25	2025/09/25	Jason Bao
Ion Balance	CALC	C093064	N/A	2025/09/25	Automated Statchk
Ammonia-N (Total)	KONE	C099467	N/A	2025/09/24	Adam Fishleigh
Nitrate and Nitrite	CALC	C093081	N/A	2025/09/23	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C094252	N/A	2025/09/21	Isabelle White
Nitrate (as N)	CALC	C093082	2025/09/23	2025/09/23	Automated Statchk
Oil and Grease by IR	IR	C089776	2025/09/23	2025/09/24	Ramandeep Ramandeep
pH @25°C	AT/ALK	C098209	N/A	2025/09/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C094333	N/A	2025/09/21	Isabelle White
Total Sulphide	SPEC	C097807	2025/09/23	2025/09/24	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C096617	2025/09/23	2025/09/24	Coralynn Topping
Total Kjeldahl Nitrogen (Total)	CALC	C093353	N/A	2025/09/26	Automated Statchk
Nitrogen (Total)	AC/COL	C099895	2025/09/25	2025/09/26	Yan Lin
Carbon (Total Organic)	TECH	C102205	N/A	2025/09/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C091646	2025/09/23	2025/09/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C096618	2025/09/23	2025/09/23	Haydee Estilong
Turbidity	TURB	C093363	N/A	2025/09/19	Daryl Viktoria Noval

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

TEST SUMMARY

Bureau Veritas ID: DTH601
Sample ID: AEMP-DS-03
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C098204	N/A	2025/09/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C094043	N/A	2025/09/22	Valerie Vergara
F1-BTEX	CALC/MS	C092855	N/A	2025/09/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C092667	N/A	2025/09/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C093294	N/A	2025/09/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C094748	N/A	2025/09/22	Tyler Orr
COD by Colorimeter	M/PROB	C096775	N/A	2025/09/23	Amy Phan
True Colour	SPEC/COL	C094170	N/A	2025/09/21	Isabelle White
Carbon (DOC)	TECH	C102271	N/A	2025/09/26	Thomas Johnson
Conductivity @25C	COND	C098210	N/A	2025/09/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C096420	2025/09/24	2025/09/25	Ramandeep Ramandeep
Sulphide (as H2S)	CALC	C092866	N/A	2025/09/24	Automated Statchk
Hardness	CALC	C093058	N/A	2025/09/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C100565	2025/09/25	2025/09/25	Kiran Kumari
Mercury (Total) by CV	CV	C100558	2025/09/25	2025/09/25	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C094351	N/A	2025/09/22	Bailey Morrison
Elements by ICP - Total	ICPA	C100425	2025/09/25	2025/09/26	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C094094	N/A	2025/09/21	Jason Bao
Elements by ICPMS - Total	ICPM	C100423	2025/09/25	2025/09/25	Jason Bao
Ion Balance	CALC	C093064	N/A	2025/09/25	Automated Statchk
Ammonia-N (Total)	KONE	C099467	N/A	2025/09/24	Adam Fishleigh
Nitrate and Nitrite	CALC	C093081	N/A	2025/09/23	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C094252	N/A	2025/09/21	Isabelle White
Nitrate (as N)	CALC	C093082	2025/09/23	2025/09/23	Automated Statchk
Oil and Grease by IR	IR	C089776	2025/09/23	2025/09/24	Ramandeep Ramandeep
pH @25°C	AT/ALK	C098209	N/A	2025/09/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C094333	N/A	2025/09/21	Isabelle White
Total Sulphide	SPEC	C097807	2025/09/23	2025/09/24	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C096617	2025/09/23	2025/09/24	Coralynn Topping
Total Kjeldahl Nitrogen (Total)	CALC	C093355	N/A	2025/09/26	Automated Statchk
Nitrogen (Total)	AC/COL	C099896	2025/09/25	2025/09/26	Yan Lin
Carbon (Total Organic)	TECH	C102205	N/A	2025/09/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C091646	2025/09/23	2025/09/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C096618	2025/09/23	2025/09/23	Haydee Estilong
Turbidity	TURB	C093363	N/A	2025/09/19	Daryl Viktoria Noval

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Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.7°C

Sample DTH598 [AEMP-DS-08] : Sample was analyzed past method specified hold time for True Colour. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DTH599 [AEMP-DS-05] : Sample was analyzed past method specified hold time for True Colour. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DTH600 [AEMP-DS-09] : Sample was analyzed past method specified hold time for True Colour. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DTH601 [AEMP-DS-03] : Sample was analyzed past method specified hold time for True Colour. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DTH598	AEMP-DS-08	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH598	AEMP-DS-08	Water	ICPAB-D	ELE	Iron (Fe)	#2 Matrix Spike Recovery Above Control Limit	#1 Matrix Interference	This may represent a high bias for this parameter. However, since the results were non detect, there is no impact on data quality.
DTH598	AEMP-DS-08	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH598	AEMP-DS-08	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH599	AEMP-DS-05	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH599	AEMP-DS-05	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DTH599	AEMP-DS-05	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH600	AEMP-DS-09	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH600	AEMP-DS-09	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH600	AEMP-DS-09	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH601	AEMP-DS-03	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH601	AEMP-DS-03	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH601	AEMP-DS-03	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C089776	RRA	Method Blank	Oil and grease	2025/09/24	<2.0		mg/L	
C091646	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/09/25	<2.0		mg/L	
C093363	DVN	Method Blank	Turbidity	2025/09/19	<0.10		NTU	
C094043	VVE	Method Blank	1,4-Difluorobenzene (sur.)	2025/09/22		108	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/22		108	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/22		113	%	50 - 140
			Benzene	2025/09/22	<0.00040		mg/L	
			Toluene	2025/09/22	<0.00040		mg/L	
			Ethylbenzene	2025/09/22	<0.00040		mg/L	
			m & p-Xylene	2025/09/22	<0.00080		mg/L	
			o-Xylene	2025/09/22	<0.00040		mg/L	
			F1 (C6-C10)	2025/09/22	<0.10		mg/L	
C094094	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/21	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/21	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/21	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/21	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/21	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/21	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/21	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/09/21	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/09/21	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/21	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/21	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/21	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/21	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/21	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/21	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/21	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/21	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/21	<0.0010		mg/L	
C094170	ISW	Method Blank	True Colour	2025/09/21	<2.0		PtCo units	
C094250	ISW	Method Blank	Nitrite (N)	2025/09/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/09/21	<0.040		mg/L	
C094252	ISW	Method Blank	Nitrite (N)	2025/09/21	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/09/21	<0.040		mg/L	
C094333	ISW	Method Blank	Orthophosphate (P)	2025/09/21	<0.0030		mg/L	
C094351	BYM	Method Blank	Dissolved Iron (Fe)	2025/09/24	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/24	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/24	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/24	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/24	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/24	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/24	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/24	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/24	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/24	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/24	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/24	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/24	<0.30		mg/L	
C094748	TOR	Method Blank	Chloride (Cl)	2025/09/22	<1.0		mg/L	
			Sulphate (SO4)	2025/09/22	<1.0		mg/L	
C096012	JVM	Method Blank	Alkalinity (Total as CaCO3)	2025/09/23	<1.0		mg/L	

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			Alkalinity (PP as CaCO3)	2025/09/23	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/09/23	<1.0		mg/L	
			Carbonate (CO3)	2025/09/23	<1.0		mg/L	
			Hydroxide (OH)	2025/09/23	<1.0		mg/L	
C096019	JVM	Method Blank	Conductivity	2025/09/23	<2.0		uS/cm	
C096420	RRA	Method Blank	O-TERPHENYL (sur.)	2025/09/24		94	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/24	<0.10		mg/L	
C096617	CT6	Method Blank	Total Dissolved Solids	2025/09/24	<10		mg/L	
C096618	HE1	Method Blank	Total Suspended Solids	2025/09/23	<1.0		mg/L	
C096775	AP1	Method Blank	Chemical Oxygen Demand	2025/09/23	<10		mg/L	
C097807	NJD	Method Blank	Total Sulphide	2025/09/24	<0.0018		mg/L	
C098204	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/09/24	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/09/24	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/09/24	<1.0		mg/L	
			Carbonate (CO3)	2025/09/24	<1.0		mg/L	
			Hydroxide (OH)	2025/09/24	<1.0		mg/L	
C098210	AYE	Method Blank	Conductivity	2025/09/24	<2.0		uS/cm	
C099467	AFI	Method Blank	Total Ammonia (N)	2025/09/24	<0.015		mg/L	
C099895	YL7	Method Blank	Total Nitrogen (N)	2025/09/26	<0.020		mg/L	
C099896	YL7	Method Blank	Total Nitrogen (N)	2025/09/26	<0.020		mg/L	
C100423	JAB	Method Blank	Total Aluminum (Al)	2025/09/25	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/25	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/25	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/25	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/25	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/25	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/25	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/25	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/25	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/25	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/25	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/25	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/25	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/25	<0.0010		mg/L	
			Total Uranium (U)	2025/09/25	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/25	<0.0010		mg/L	
			Total Zinc (Zn)	2025/09/25	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/25	<0.0010		mg/L	
C100425	KHU	Method Blank	Total Iron (Fe)	2025/09/26	<0.060		mg/L	
			Total Lithium (Li)	2025/09/26	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/26	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/26	<0.0040		mg/L	
			Total Potassium (K)	2025/09/26	<0.30		mg/L	
			Total Sodium (Na)	2025/09/26	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/26	<0.020		mg/L	
			Total Sulphur (S)	2025/09/26	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/26	<0.10		mg/L	
			Total Barium (Ba)	2025/09/26	<0.010		mg/L	
			Total Silicon (Si)	2025/09/26	<0.50		mg/L	
			Total Boron (B)	2025/09/26	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/26	<0.30		mg/L	
C100558	KKM	Method Blank	Total Mercury (Hg)	2025/09/25	<0.0019		ug/L	

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C100565	KKM	Method Blank	Dissolved Mercury (Hg)	2025/09/25	<0.0019		ug/L	
C102205	TJ4	Method Blank	Total Organic Carbon (C)	2025/09/26	<0.50		mg/L	
C102271	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/09/26	<0.50		mg/L	
C093363	DVN	RPD [DTH598-13]	Turbidity	2025/09/19	14		%	20
C094351	BYM	RPD [DTH598-05]	Dissolved Iron (Fe)	2025/09/24	NC		%	20
			Dissolved Lithium (Li)	2025/09/24	NC		%	20
			Dissolved Magnesium (Mg)	2025/09/24	1.2		%	20
			Dissolved Manganese (Mn)	2025/09/24	NC		%	20
			Dissolved Potassium (K)	2025/09/24	9.4		%	20
			Dissolved Sodium (Na)	2025/09/24	0.062		%	20
			Dissolved Strontium (Sr)	2025/09/24	0.78		%	20
			Dissolved Sulphur (S)	2025/09/24	0.23		%	20
			Dissolved Phosphorus (P)	2025/09/24	NC		%	20
			Dissolved Barium (Ba)	2025/09/24	0.35		%	20
			Dissolved Silicon (Si)	2025/09/24	1.6		%	20
			Dissolved Boron (B)	2025/09/24	NC		%	20
			Dissolved Calcium (Ca)	2025/09/24	0.49		%	20
C096618	HE1	RPD [DTH598-13]	Total Suspended Solids	2025/09/23	3.6		%	20
C098204	AYE	RPD [DTH598-01]	Alkalinity (Total as CaCO3)	2025/09/24	0.30		%	20
			Alkalinity (PP as CaCO3)	2025/09/24	NC		%	20
			Bicarbonate (HCO3)	2025/09/24	0.30		%	20
			Carbonate (CO3)	2025/09/24	NC		%	20
			Hydroxide (OH)	2025/09/24	NC		%	20
C098209	AYE	RPD [DTH598-01]	pH	2025/09/24	0.94		%	N/A
C098210	AYE	RPD [DTH598-01]	Conductivity	2025/09/24	0		%	10
C102271	TJ4	RPD [DTH599-07]	Dissolved Organic Carbon (C)	2025/09/26	1.1		%	20
C094351	BYM	Matrix Spike [DTH598-05]	Dissolved Iron (Fe)	2025/09/25		121 (1)	%	80 - 120
			Dissolved Lithium (Li)	2025/09/25		95	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/25		112	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/25		117	%	80 - 120
			Dissolved Potassium (K)	2025/09/25		98	%	80 - 120
			Dissolved Sodium (Na)	2025/09/25		95	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/25		100	%	80 - 120
			Dissolved Sulphur (S)	2025/09/25		114	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/25		118	%	80 - 120
			Dissolved Barium (Ba)	2025/09/25		104	%	80 - 120
			Dissolved Silicon (Si)	2025/09/25		113	%	80 - 120
			Dissolved Boron (B)	2025/09/25		108	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/25		92	%	80 - 120
C096618	HE1	Matrix Spike [DTH598-13]	Total Suspended Solids	2025/09/23		96	%	80 - 120
C100425	KHU	Matrix Spike [DTH601-04]	Total Iron (Fe)	2025/09/26		128 (1)	%	80 - 120
			Total Lithium (Li)	2025/09/26		98	%	80 - 120
			Total Magnesium (Mg)	2025/09/26		107	%	80 - 120
			Total Manganese (Mn)	2025/09/26		111	%	80 - 120
			Total Potassium (K)	2025/09/26		105	%	80 - 120
			Total Sodium (Na)	2025/09/26		101	%	80 - 120
			Total Strontium (Sr)	2025/09/26		100	%	80 - 120
			Total Sulphur (S)	2025/09/26		96	%	80 - 120
			Total Phosphorus (P)	2025/09/26		105	%	80 - 120
			Total Barium (Ba)	2025/09/26		103	%	80 - 120
			Total Silicon (Si)	2025/09/26		111	%	80 - 120
			Total Boron (B)	2025/09/26		105	%	80 - 120

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			Total Calcium (Ca)	2025/09/26		NC	%	80 - 120
C102271	TJ4	Matrix Spike [DTH599-07]	Dissolved Organic Carbon (C)	2025/09/26		97	%	75 - 125
C089776	RRA	LCS	Oil and grease	2025/09/24		96	%	70 - 130
C091646	RRA	LCS	Total Petroleum Hydrocarbon	2025/09/25		98	%	70 - 130
C093363	DVN	LCS	Turbidity	2025/09/19		100	%	80 - 120
C094043	VVE	LCS	1,4-Difluorobenzene (sur.)	2025/09/22		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/22		108	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/22		107	%	50 - 140
			Benzene	2025/09/22		90	%	60 - 130
			Toluene	2025/09/22		88	%	60 - 130
			Ethylbenzene	2025/09/22		95	%	60 - 130
			m & p-Xylene	2025/09/22		95	%	60 - 130
			o-Xylene	2025/09/22		92	%	60 - 130
			F1 (C6-C10)	2025/09/22		108	%	60 - 140
C094094	JAB	LCS	Dissolved Aluminum (Al)	2025/09/21		103	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/21		99	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/21		98	%	80 - 120
			Dissolved Copper (Cu)	2025/09/21		96	%	80 - 120
			Dissolved Lead (Pb)	2025/09/21		100	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/21		105	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/21		106	%	80 - 120
			Dissolved Nickel (Ni)	2025/09/21		95	%	80 - 120
			Dissolved Selenium (Se)	2025/09/21		94	%	80 - 120
			Dissolved Silver (Ag)	2025/09/21		97	%	80 - 120
			Dissolved Arsenic (As)	2025/09/21		97	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/21		101	%	80 - 120
			Dissolved Tin (Sn)	2025/09/21		104	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/21		99	%	80 - 120
			Dissolved Uranium (U)	2025/09/21		101	%	80 - 120
			Dissolved Vanadium (V)	2025/09/21		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/21		94	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/21		112	%	80 - 120
C094170	ISW	LCS	True Colour	2025/09/21		93	%	80 - 120
C094250	ISW	LCS	Nitrite (N)	2025/09/21		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/09/21		105	%	80 - 120
C094252	ISW	LCS	Nitrite (N)	2025/09/21		102	%	80 - 120
			Nitrate plus Nitrite (N)	2025/09/21		106	%	80 - 120
C094333	ISW	LCS	Orthophosphate (P)	2025/09/21		104	%	80 - 120
C094351	BYM	LCS	Dissolved Iron (Fe)	2025/09/22		108	%	80 - 120
			Dissolved Lithium (Li)	2025/09/22		100	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/22		98	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/22		99	%	80 - 120
			Dissolved Potassium (K)	2025/09/22		102	%	80 - 120
			Dissolved Sodium (Na)	2025/09/22		99	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/22		94	%	80 - 120
			Dissolved Sulphur (S)	2025/09/22		99	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/22		101	%	80 - 120
			Dissolved Barium (Ba)	2025/09/22		99	%	80 - 120
			Dissolved Silicon (Si)	2025/09/22		98	%	80 - 120
			Dissolved Boron (B)	2025/09/22		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/22		100	%	80 - 120
C094748	TOR	LCS	Chloride (Cl)	2025/09/22		101	%	80 - 120

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			Sulphate (SO4)	2025/09/22		101	%	80 - 120
C096012	JVM	LCS	Alkalinity (Total as CaCO3)	2025/09/23		97	%	80 - 120
C096017	JVM	LCS	pH	2025/09/23		100	%	97 - 103
C096019	JVM	LCS	Conductivity	2025/09/23		103	%	90 - 110
C096420	RRA	LCS	O-TERPHENYL (sur.)	2025/09/24		90	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/24		86	%	60 - 140
C096617	CT6	LCS	Total Dissolved Solids	2025/09/24		102	%	80 - 120
C096618	HE1	LCS	Total Suspended Solids	2025/09/23		99	%	80 - 120
C096775	AP1	LCS	Chemical Oxygen Demand	2025/09/23		101	%	80 - 120
C097807	NJD	LCS	Total Sulphide	2025/09/24		92	%	80 - 120
C098204	AYE	LCS	Alkalinity (Total as CaCO3)	2025/09/24		97	%	80 - 120
C098209	AYE	LCS	pH	2025/09/24		101	%	97 - 103
C098210	AYE	LCS	Conductivity	2025/09/24		101	%	90 - 110
C099467	AFI	LCS	Total Ammonia (N)	2025/09/24		105	%	80 - 120
C099895	YL7	LCS	Total Nitrogen (N)	2025/09/26		104	%	80 - 120
C099896	YL7	LCS	Total Nitrogen (N)	2025/09/26		101	%	80 - 120
C100423	JAB	LCS	Total Aluminum (Al)	2025/09/25		101	%	80 - 120
			Total Chromium (Cr)	2025/09/25		97	%	80 - 120
			Total Cobalt (Co)	2025/09/25		98	%	80 - 120
			Total Copper (Cu)	2025/09/25		99	%	80 - 120
			Total Lead (Pb)	2025/09/25		94	%	80 - 120
			Total Antimony (Sb)	2025/09/25		102	%	80 - 120
			Total Molybdenum (Mo)	2025/09/25		99	%	80 - 120
			Total Nickel (Ni)	2025/09/25		98	%	80 - 120
			Total Selenium (Se)	2025/09/25		105	%	80 - 120
			Total Silver (Ag)	2025/09/25		100	%	80 - 120
			Total Arsenic (As)	2025/09/25		103	%	80 - 120
			Total Thallium (Tl)	2025/09/25		100	%	80 - 120
			Total Tin (Sn)	2025/09/25		100	%	80 - 120
			Total Titanium (Ti)	2025/09/25		102	%	80 - 120
			Total Uranium (U)	2025/09/25		101	%	80 - 120
			Total Vanadium (V)	2025/09/25		97	%	80 - 120
			Total Zinc (Zn)	2025/09/25		99	%	80 - 120
			Total Beryllium (Be)	2025/09/25		100	%	80 - 120
C100425	KHU	LCS	Total Iron (Fe)	2025/09/26		115	%	80 - 120
			Total Lithium (Li)	2025/09/26		97	%	80 - 120
			Total Magnesium (Mg)	2025/09/26		105	%	80 - 120
			Total Manganese (Mn)	2025/09/26		109	%	80 - 120
			Total Potassium (K)	2025/09/26		103	%	80 - 120
			Total Sodium (Na)	2025/09/26		99	%	80 - 120
			Total Strontium (Sr)	2025/09/26		99	%	80 - 120
			Total Sulphur (S)	2025/09/26		94	%	80 - 120
			Total Phosphorus (P)	2025/09/26		103	%	80 - 120
			Total Barium (Ba)	2025/09/26		102	%	80 - 120
			Total Silicon (Si)	2025/09/26		105	%	80 - 120
			Total Boron (B)	2025/09/26		103	%	80 - 120
			Total Calcium (Ca)	2025/09/26		97	%	80 - 120
C100558	KKM	LCS	Total Mercury (Hg)	2025/09/25		107	%	80 - 120
C100565	KKM	LCS	Dissolved Mercury (Hg)	2025/09/25		106	%	80 - 120
C102205	TJ4	LCS	Total Organic Carbon (C)	2025/09/26		107	%	80 - 120
C102271	TJ4	LCS	Dissolved Organic Carbon (C)	2025/09/26		106	%	80 - 120
C099895	YL7	SRM	Total Nitrogen (N)	2025/09/26		105	%	N/A

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C099896	YL7	SRM	Total Nitrogen (N)	2025/09/26		98	%	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

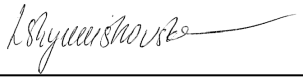
Bureau Veritas Job #: C579777
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897-25200

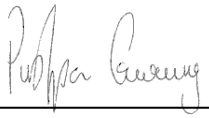
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



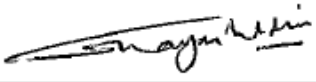
Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics



Pushpa Gurung, Laboratory Supervisor

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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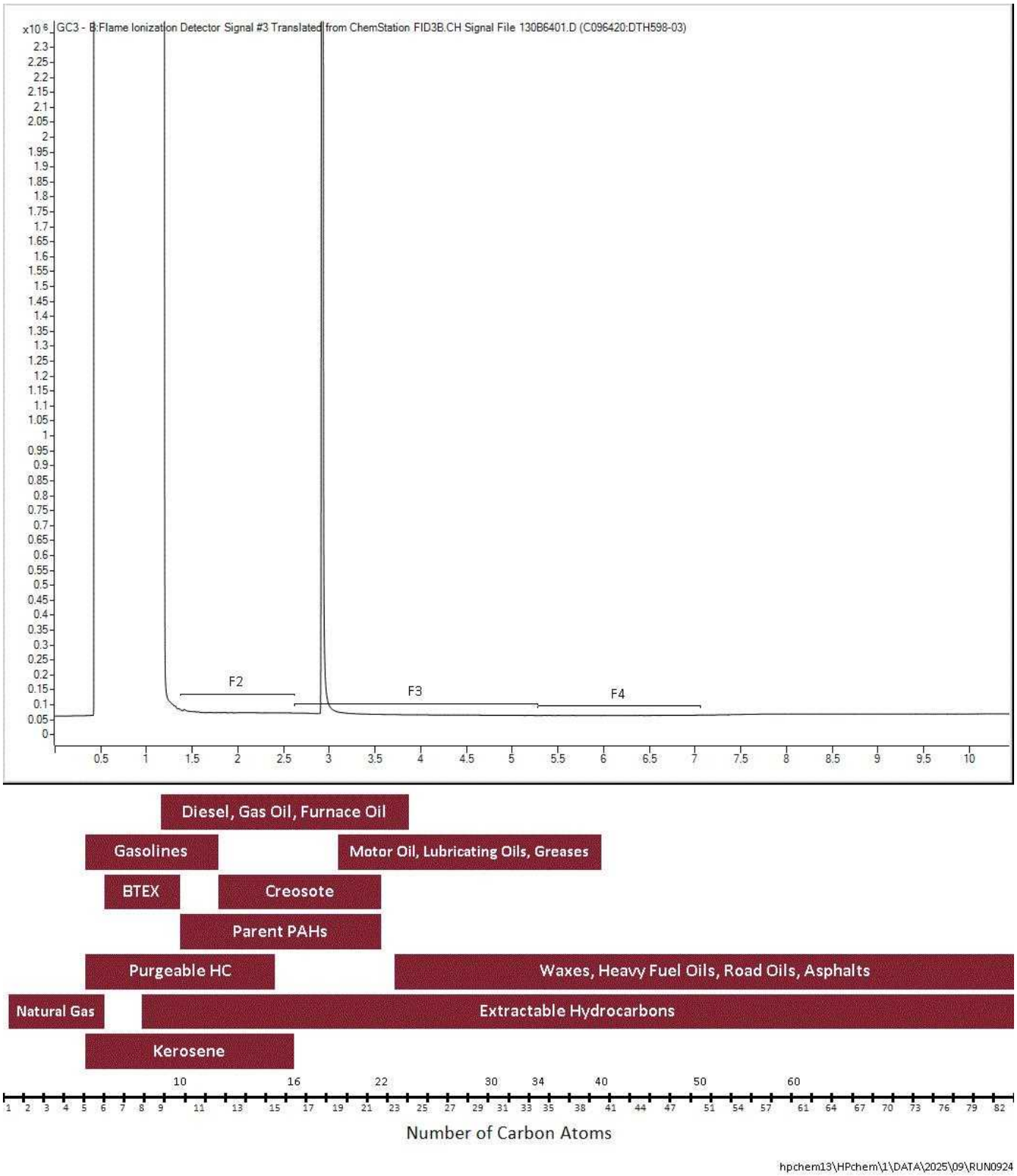
Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C579777
Report Date: 2025/09/26
Bureau Veritas Sample: DTH598

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-08

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram

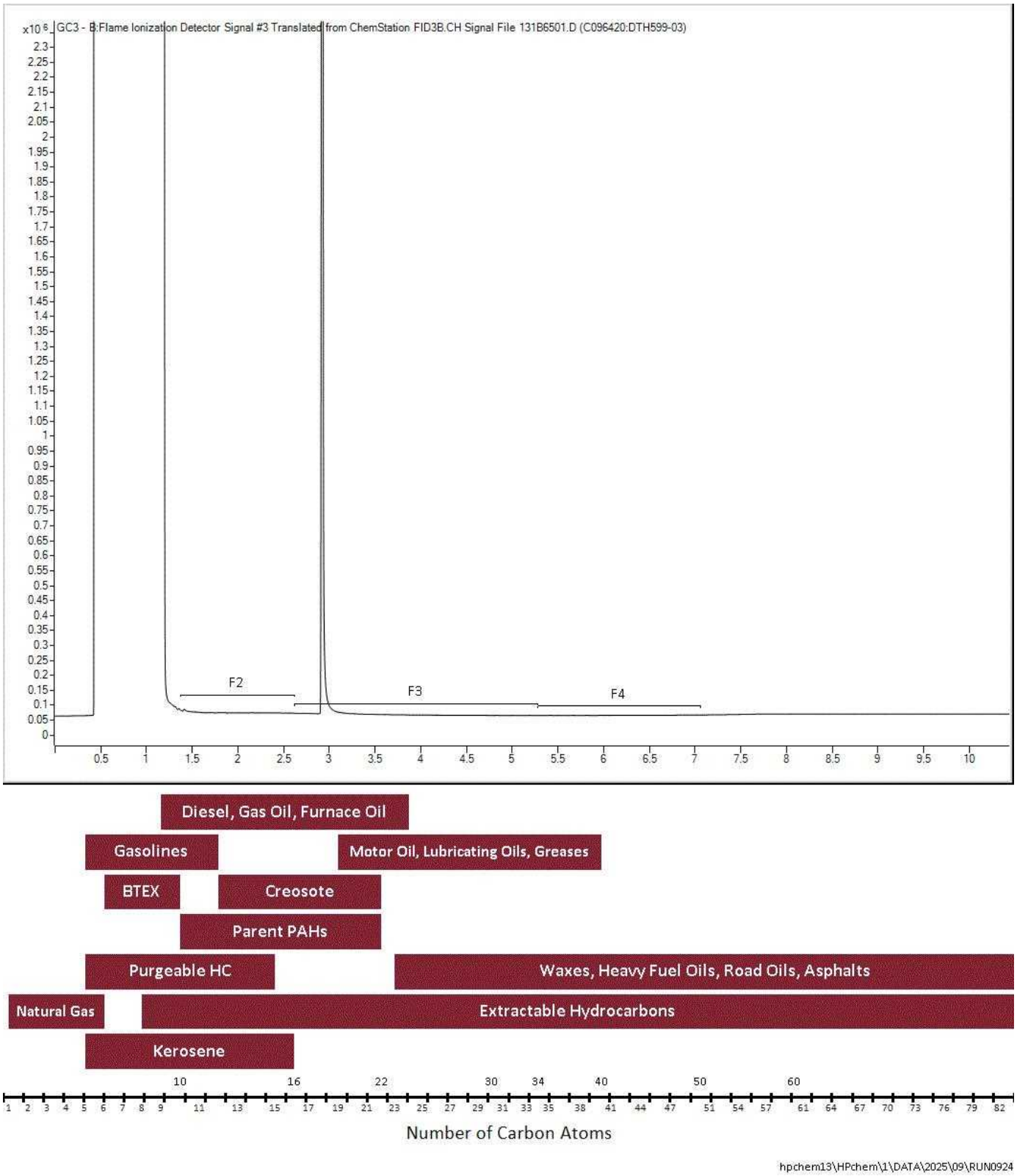


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C579777
Report Date: 2025/09/26
Bureau Veritas Sample: DTH599

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-05

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



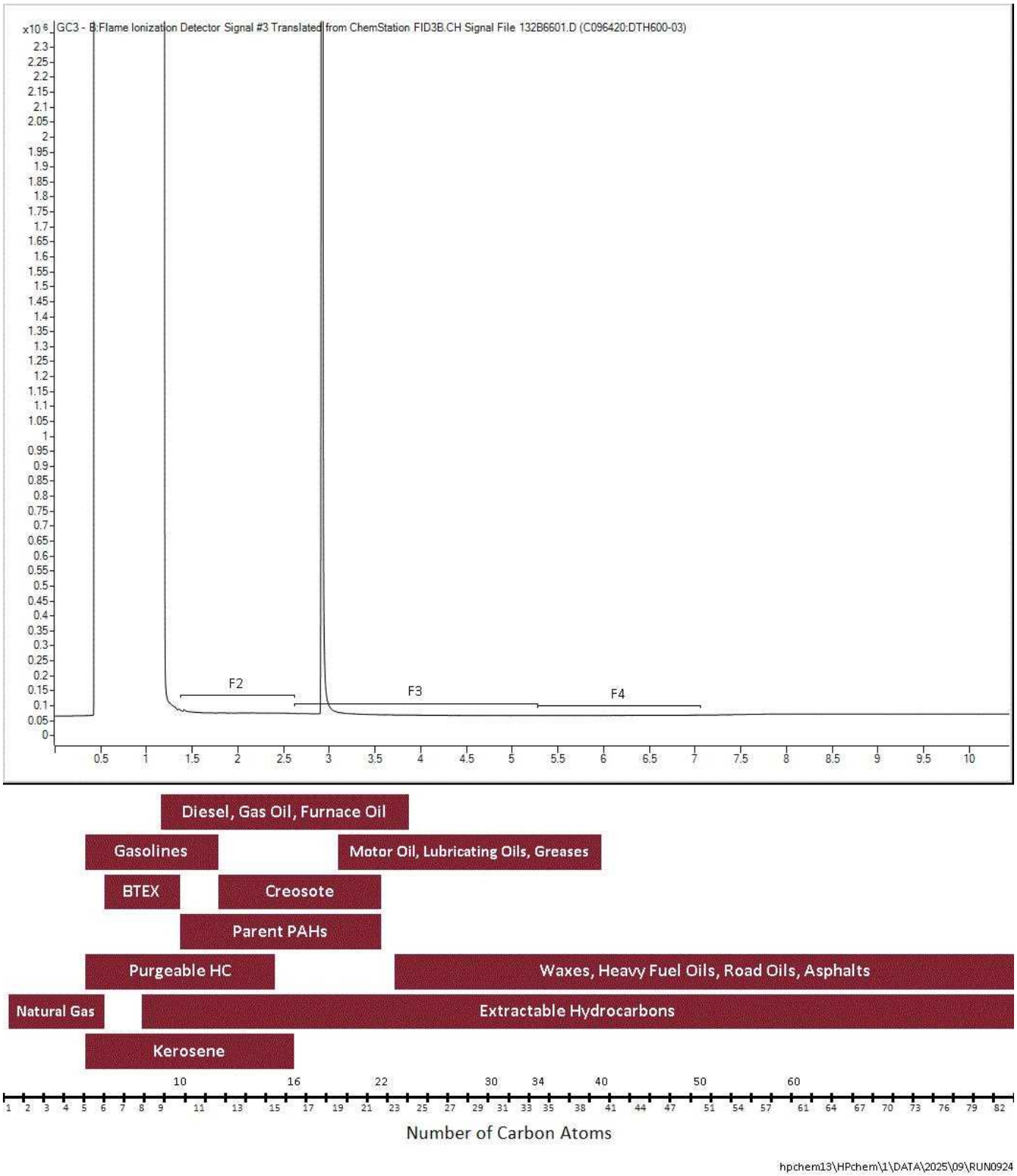
hpchem13\HPchem\1\DATA\2025\09\RUN0924

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C579777
Report Date: 2025/09/26
Bureau Veritas Sample: DTH600

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-09

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



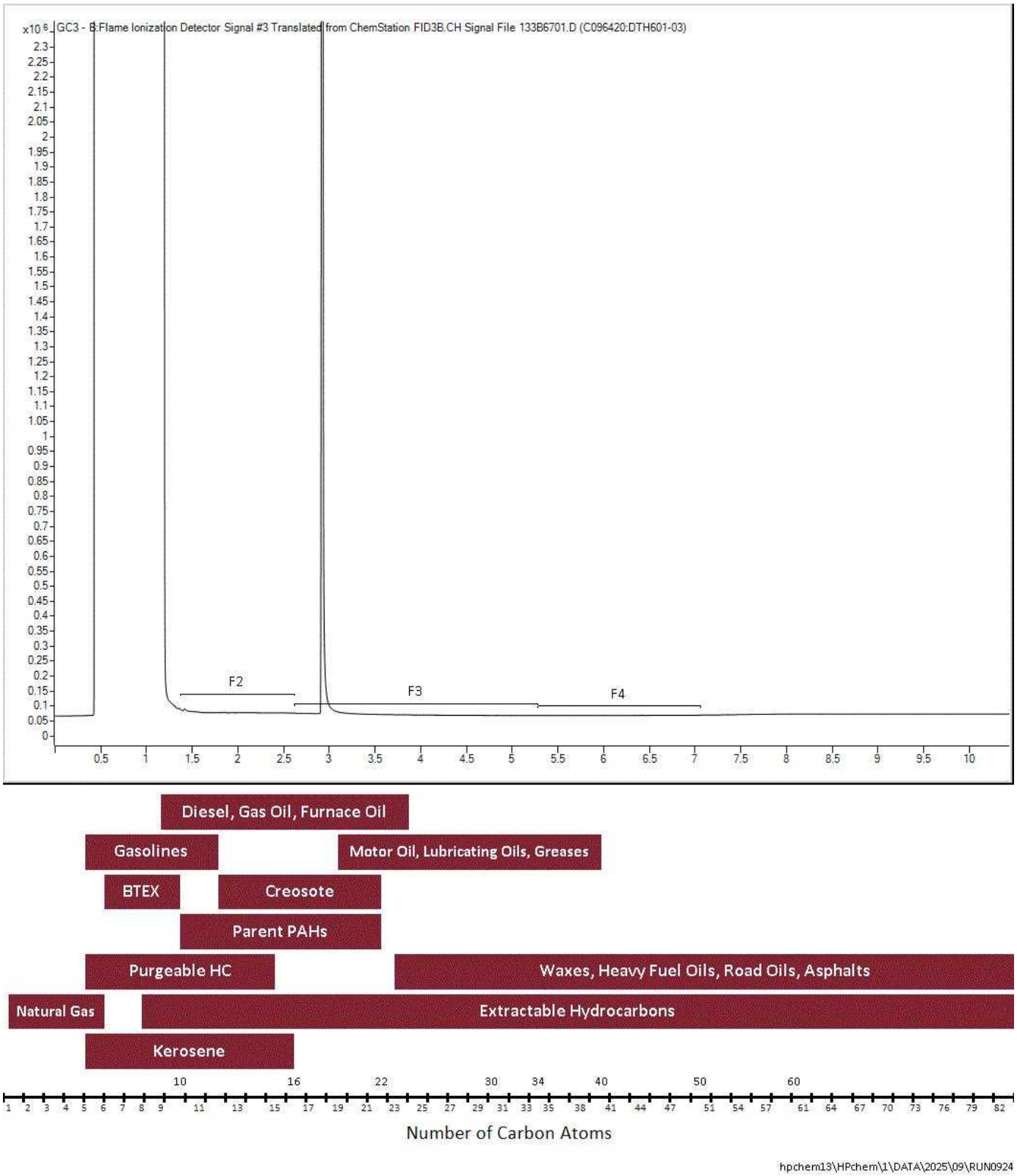
hpchem13\HPchem\1\DATA\2025\09\RUN0924

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C579777
Report Date: 2025/09/26
Bureau Veritas Sample: DTH601

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-DS-03

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



hpchem13\HPchem\1\DATA\2025\09\RUN0924

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Calgary
4000 19th St. NE, T2E 6P8
Phone: (403) 291-3077
Fax: (403) 735-2240
Toll Free: (800) 386-7247

Edmonton
9331 - 48 Street, T6B 2R4
Phone: (780) 577-7100
Fax: (780) 450-4187
Toll Free: (800) 386-7247

EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

C of C # 292285

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Stacy Gibb	Contact Name: Stacy Gibb
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9	Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9
Email: Stacy.gibb@worley.com	Email: Stacy.gibb@worley.com
Ph: 587-434-5393	Ph: 587-434-5393
Sampler Name (Print): Brendan Chapman / Stacy Gibb	Consultant Project #: 417085-59897-25200

	FIELD SAMPLE ID	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	ANALYSIS REQUESTED: VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TS, TDS, Turbidity	Oil & Grease	TOC, DOC, Sulphide, COD	Nitrate, Nitrite, Ammonia (total), TKN	Orthophosphate	Sulphur, - total, dissolved	TPH
1	AEMP-DS-08		X			14	2025/09/16	12:50	X			X	X								X	X					X			X	X	X	X	X	X
2	AEMP-DS-05		X			14	2025/09/16	12:25	X			X	X								X	X					X			X	X	X	X	X	X
3	AEMP-DS-09		X			14	2025/09/16	13:26	X			X	X								X	X					X			X	X	X	X	X	X
4	AEMP-DS-03		X			14	2025/09/16	14:05	X			X	X								X	X					X			X	X	X	X	X	X
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				

MCAL-2025-09-1525
C579777

IOL SITE LOCATION: Norman Wells, NT

IOL PROJECT # (if applicable): N/A

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-2500

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: also email Canada.chemistry@worley.com ~~Cotes~~, Cacal_IORdatabase@worley.com IES A260 1436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

LAB USE ONLY
MAXXAM JOB #

SAMPLES
LABELED BY:
VERIFIED BY:

	YES	NO	COOLER ID #	TEMP °C	1	2	3
SEAL PRESENT	/						
SEAL INTACT	/						
COOLING MEDIA PRESENT	/						

	YES	NO	COOLER ID #	TEMP °C	1	2	3
SEAL PRESENT							
SEAL INTACT							
COOLING MEDIA PRESENT							

	YES	NO	COOLER ID #	TEMP °C	1	2	3
SEAL PRESENT							
SEAL INTACT							
COOLING MEDIA PRESENT							

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	STACY GIBB	2025/09/18	10:30	1.	Purolator Courier	2025/09/19	14:50
2.				2.			
3.				3.			

COC-1010 (06/2016) IOL-AB

White: Maxxam Yellow: Client

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897
Your C.O.C. #: 292283

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/26
Report #: R3715184
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C579805
Received: 2025/09/19, 14:50

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	AB SOP-00005	SM 24 2320 B m
BTEX/F1 in Water by HS GC/MS/FID	3	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	3		Auto Calc
Cadmium - low level CCME - Dissolved	3		Auto Calc
Cadmium - low level CCME (Total)	3		Auto Calc
Chloride/Sulphate by Auto Colourimetry	3	AB SOP-00020	SM24-4500-Cl/SO4-E m
COD by Colorimeter	3	AB SOP-00016	SM 24 5220D m
True Colour	3	CAL SOP-00049	SM 24 2120 C m
Carbon (DOC) (1)	3	AB SOP-00087	MMCW 119 1996 m
Conductivity @25C	3	AB SOP-00005	SM 24 2510 B m
CCME Hydrocarbons in Water (F2; C10-C16) (2)	3	AB SOP-00037 AB SOP-00040	CCME PHC-CWS m
Sulphide (as H2S)	3		Auto Calc
Hardness	3		Auto Calc
Mercury (Dissolved) by CV (3)	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	3	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	3	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ion Balance	3		Auto Calc
Ammonia-N (Total)	3	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate and Nitrite	3		Auto Calc
NO2 (N); NO2 (N) + NO3 (N) in Water	3	AB SOP-00091	SM 24 4500 NO3m
Nitrate (as N)	3		Auto Calc
Oil and Grease by IR	3	CAL SOP-00096	SM 24 5520C m
Benzo[a]pyrene Equivalency (4)	3		Auto Calc
PAH in Water by GC/MS	3	AB SOP-00037 / AB SOP-00003	EPA 3510C/8270E m
pH @25°C (5)	3	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate by Automated Analyzer (6)	3	AB SOP-00025	SM 24 4500-P A,F m
Total Sulphide	3	AB SOP-00080	SM 24 4500 S2-A D Fm
Total Dissolved Solids (Filt. Residue)	3	AB SOP-00065	SM 24 2540 C m

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897
Your C.O.C. #: 292283

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/26
Report #: R3715184
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C579805
Received: 2025/09/19, 14:50

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen (Total)	3		Auto Calc
Nitrogen (Total)	3	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (7)	3	AB SOP-00087	MMCW 119 1996 m
Hydrocarbon by IR (Mineral oil & grease)	3	CAL SOP-00096	SM 24 5520C,F m
Total Suspended Solids (NFR)	3	AB SOP-00061	SM 24 2540 D m
Turbidity	3	CAL SOP-00081	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard. All samples were analyzed within hold time unless otherwise flagged.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(2) Silica gel clean up employed.
(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.
(5) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897
Your C.O.C. #: 292283

Attention: Stacy Gibb

Advisian
49 Quarry Park Boulevard SE
Calgary, AB
Canada T2C 5H9

Report Date: 2025/09/26
Report #: R3715184
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C579805

Received: 2025/09/19, 14:50

reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
(6) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(7) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key

Jasbirjit Kaur
Customer Solutions Representative
26 Sep 2025 20:31:41

Please direct all questions regarding this Certificate of Analysis to:
Namita Sahni, Customer Solutions Representative
Email: Namita.Sahni@bureauveritas.com
Phone# (604)639-2614

==========

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

AT1 BTEX AND F1-F2 IN WATER (WATER)

Bureau Veritas ID		DTH895	DTH896	DTH897		
Sampling Date		2025/09/16 11:31	2025/09/16 10:50	2025/09/16 09:55		
COC Number		292283	292283	292283		
	UNITS	**AEMP-US-03**	**AEMP-US-02**	**AEMP-US-01**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	<0.10	<0.10	0.10	C096271
Volatiles						
Benzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C093826
Toluene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C093826
Ethylbenzene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C093826
m & p-Xylene	mg/L	<0.00080	<0.00080	<0.00080	0.00080	C093826
o-Xylene	mg/L	<0.00040	<0.00040	<0.00040	0.00040	C093826
Xylenes (Total)	mg/L	<0.00089	<0.00089	<0.00089	0.00089	C093291
F1 (C6-C10) - BTEX	mg/L	<0.10	<0.10	<0.10	0.10	C093291
F1 (C6-C10)	mg/L	<0.10	<0.10	<0.10	0.10	C093826
Extraction Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	98	99	97		C096271
Instrument Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	105	102	102		C093826
4-Bromofluorobenzene (sur.)	%	107	109	103		C093826
D4-1,2-Dichloroethane (sur.)	%	113	109	109		C093826

RDL = Reportable Detection Limit

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

TOTAL KJELDAHL NITROGEN (TOTAL)

Bureau Veritas ID		DTH895	DTH896	DTH897		
Sampling Date		2025/09/16 11:31	2025/09/16 10:50	2025/09/16 09:55		
COC Number		292283	292283	292283		
	UNITS	**AEMP-US-03**	**AEMP-US-02**	**AEMP-US-01**	**RDL**	**QC Batch**
Calculated Parameters						
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	<0.20	0.21	0.20	C093355
Nutrients						
Total Nitrogen (N)	mg/L	0.24 (1)	<0.20 (1)	0.28 (1)	0.20	C099895

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DTH895		DTH896	DTH897		
Sampling Date		2025/09/16 11:31		2025/09/16 10:50	2025/09/16 09:55		
COC Number		292283		292283	292283		
	UNITS	**AEMP-US-03**	**QC Batch**	**AEMP-US-02**	**AEMP-US-01**	**RDL**	**QC Batch**
Elements							
Total Cadmium (Cd)	mg/L	0.000026	C093294	0.000041	0.000033	0.000020	C093294
Total Mercury (Hg)	ug/L	<0.0019	C100558	<0.0019	<0.0019	0.0019	C100558
Total Aluminum (Al)	mg/L	0.61	C100423	0.13	0.14	0.0030	C100392
Total Antimony (Sb)	mg/L	<0.00060	C100423	<0.00060	<0.00060	0.00060	C100392
Total Arsenic (As)	mg/L	0.00064	C100423	0.00036	0.00038	0.00020	C100392
Total Barium (Ba)	mg/L	0.059	C100425	0.054	0.049	0.010	C100410
Total Beryllium (Be)	mg/L	<0.0010	C100423	<0.0010	<0.0010	0.0010	C100392
Total Boron (B)	mg/L	0.020	C100425	0.020	<0.020	0.020	C100410
Total Calcium (Ca)	mg/L	35	C100425	47	33	0.30	C100410
Total Chromium (Cr)	mg/L	0.0010	C100423	<0.0010	<0.0010	0.0010	C100392
Total Cobalt (Co)	mg/L	0.00053	C100423	<0.00030	<0.00030	0.00030	C100392
Total Copper (Cu)	mg/L	0.0014	C100423	<0.0010	<0.0010	0.0010	C100392
Total Iron (Fe)	mg/L	0.95	C100425	0.19	0.22	0.060	C100410
Total Lead (Pb)	mg/L	0.00047	C100423	<0.00020	<0.00020	0.00020	C100392
Total Lithium (Li)	mg/L	<0.020	C100425	<0.020	<0.020	0.020	C100410
Total Magnesium (Mg)	mg/L	11	C100425	16	11	0.20	C100410
Total Manganese (Mn)	mg/L	0.024	C100425	0.026	0.010	0.0040	C100410
Total Molybdenum (Mo)	mg/L	0.00097	C100423	0.0013	0.00072	0.00020	C100392
Total Nickel (Ni)	mg/L	0.0023	C100423	0.0012	0.00095	0.00050	C100392
Total Phosphorus (P)	mg/L	<0.10	C100425	<0.10	<0.10	0.10	C100410
Total Potassium (K)	mg/L	1.1	C100425	1.0	0.90	0.30	C100410
Total Selenium (Se)	mg/L	0.00031	C100423	0.00037	0.00022	0.00020	C100392
Total Silicon (Si)	mg/L	2.6	C100425	1.7	1.5	0.50	C100410
Total Silver (Ag)	mg/L	<0.00010	C100423	<0.00010	<0.00010	0.00010	C100392
Total Sodium (Na)	mg/L	8.7	C100425	9.7	20	0.50	C100410
Total Strontium (Sr)	mg/L	0.24	C100425	0.64	0.24	0.020	C100410
Total Sulphur (S)	mg/L	14	C100425	26	13	0.20	C100410
Total Thallium (Tl)	mg/L	<0.00020	C100423	<0.00020	<0.00020	0.00020	C100392
Total Tin (Sn)	mg/L	<0.0010	C100423	<0.0010	<0.0010	0.0010	C100392
Total Titanium (Ti)	mg/L	0.010	C100423	0.0012	0.0069	0.0010	C100392
Total Uranium (U)	mg/L	0.00071	C100423	0.00098	0.00054	0.00010	C100392
RDL = Reportable Detection Limit							

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

REGULATED METALS INCLUDING MERCURY-TOTAL (WATER)

Bureau Veritas ID		DTH895		DTH896	DTH897		
Sampling Date		2025/09/16 11:31		2025/09/16 10:50	2025/09/16 09:55		
COC Number		292283		292283	292283		
	UNITS	**AEMP-US-03**	**QC Batch**	**AEMP-US-02**	**AEMP-US-01**	**RDL**	**QC Batch**
Total Vanadium (V)	mg/L	0.0016	C100423	<0.0010	<0.0010	0.0010	C100392
Total Zinc (Zn)	mg/L	0.0044	C100423	<0.0030	<0.0030	0.0030	C100392
RDL = Reportable Detection Limit							

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Advisian
Task Order#: 417085-59897
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Project #: 417085-59897

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DTH895			DTH895			DTH896		
Sampling Date		2025/09/16 11:31			2025/09/16 11:31			2025/09/16 10:50		
COC Number		292283			292283			292283		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**	**AEMP-US-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L	130	0.50	C093058				180	0.50	C093058
Ion Balance (% Difference)	%	5.9	N/A	C093064				3.6	N/A	C093064
Nitrate (N)	mg/L	0.052	0.040	C093082				<0.040	0.040	C093082
Nitrate (NO3)	mg/L	0.23	0.18	C093321				<0.18	0.18	C093321
Nitrite (NO2)	mg/L	<0.13	0.13	C093321				<0.13	0.13	C093321
Sulphide (as H2S)	mg/L	<0.0020	0.0020	C092866				<0.0020	0.0020	C092866
Demand Parameters										
Chemical Oxygen Demand	mg/L	11	10	C095907	12	10	C095907	<10 (1)	10	C095907
Elements										
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	C093375				0.000023	0.000020	C093375
Misc. Inorganics										
Conductivity	uS/cm	290	2.0	C098210				400	2.0	C098210
Dissolved Organic Carbon (C)	mg/L	2.8	0.50	C102271				2.9	0.50	C102271
pH	pH	7.12	N/A	C098209				7.40	N/A	C098209
Total Organic Carbon (C)	mg/L	4.1	0.50	C102205				2.6	0.50	C102205
Total Dissolved Solids	mg/L	190	10	C096617				250	10	C096617
Total Suspended Solids	mg/L	20	1.0	C096618				5.7	1.0	C096618
Anions										
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	C098204				<1.0	1.0	C098204
Alkalinity (Total as CaCO3)	mg/L	100	1.0	C098204				120	1.0	C098204
Bicarbonate (HCO3)	mg/L	130	1.0	C098204				150	1.0	C098204
Carbonate (CO3)	mg/L	<1.0	1.0	C098204				<1.0	1.0	C098204
Hydroxide (OH)	mg/L	<1.0	1.0	C098204				<1.0	1.0	C098204
Total Sulphide	mg/L	<0.0018	0.0018	C097807				<0.0018	0.0018	C097807
Chloride (Cl)	mg/L	10	1.0	C095947				9.5	1.0	C095947
Sulphate (SO4)	mg/L	45	1.0	C095947				81	1.0	C095947
Nutrients										
Total Ammonia (N)	mg/L	<0.015	0.015	C100086				<0.015	0.015	C099467

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DTH895			DTH895			DTH896		
Sampling Date		2025/09/16 11:31			2025/09/16 11:31			2025/09/16 10:50		
COC Number		292283			292283			292283		
	UNITS	**AEMP-US-03**	**RDL**	**QC Batch**	**AEMP-US-03 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-02**	**RDL**	**QC Batch**
Orthophosphate (P)	mg/L	<0.0030	0.0030	C094333				<0.0030	0.0030	C094333
Nitrite (N)	mg/L	<0.040	0.040	C095903				<0.040	0.040	C095903
Nitrate plus Nitrite (N)	mg/L	0.052	0.040	C095903				<0.040	0.040	C095903
Misc. Organics										
Oil and grease	mg/L	<2.0	2.0	C089776				<2.0	2.0	C089776
Total Petroleum Hydrocarbon	mg/L	<2.0	2.0	C091646				<2.0	2.0	C091646
Physical Properties										
True Colour	PtCo units	3.9	2.0	C094170				5.9	2.0	C094170
Physical Properties										
Turbidity	NTU	16	0.10	C093592				6.6	0.10	C093592

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DTH896			DTH897		
Sampling Date		2025/09/16 10:50			2025/09/16 09:55		
COC Number		292283			292283		
	UNITS	**AEMP-US-02 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-01**	**RDL**	**QC Batch**
Calculated Parameters							
Hardness (CaCO3)	mg/L				130	0.50	C093058
Ion Balance (% Difference)	%				1.5	N/A	C093064
Nitrate (N)	mg/L				0.074	0.040	C093082
Nitrate (NO3)	mg/L				0.33	0.18	C093321
Nitrite (NO2)	mg/L				<0.13	0.13	C093321
Sulphide (as H2S)	mg/L				<0.0020	0.0020	C092866
Demand Parameters							
Chemical Oxygen Demand	mg/L				19	10	C095907
Elements							
Dissolved Cadmium (Cd)	mg/L				<0.000020	0.000020	C093375
Misc. Inorganics							
Conductivity	uS/cm				350	2.0	C098210
Dissolved Organic Carbon (C)	mg/L				3.4	0.50	C102271
pH	pH				7.28	N/A	C098209
Total Organic Carbon (C)	mg/L				4.2	0.50	C102205
Total Dissolved Solids	mg/L				210	10	C096617
Total Suspended Solids	mg/L				4.0	1.0	C096618
Anions							
Alkalinity (PP as CaCO3)	mg/L				<1.0	1.0	C098204
Alkalinity (Total as CaCO3)	mg/L				99	1.0	C098204
Bicarbonate (HCO3)	mg/L				120	1.0	C098204
Carbonate (CO3)	mg/L				<1.0	1.0	C098204
Hydroxide (OH)	mg/L				<1.0	1.0	C098204
Total Sulphide	mg/L	<0.0018	0.0018	C097807	<0.0018	0.0018	C097807
Chloride (Cl)	mg/L				32	1.0	C095947
Sulphate (SO4)	mg/L				40	1.0	C095947
Nutrients							
Total Ammonia (N)	mg/L				<0.015	0.015	C100086
Orthophosphate (P)	mg/L				<0.0030	0.0030	C094333

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		DTH896			DTH897		
Sampling Date		2025/09/16 10:50			2025/09/16 09:55		
COC Number		292283			292283		
	UNITS	**AEMP-US-02 Lab-Dup**	**RDL**	**QC Batch**	**AEMP-US-01**	**RDL**	**QC Batch**
Nitrite (N)	mg/L				<0.040	0.040	C095903
Nitrate plus Nitrite (N)	mg/L				0.074	0.040	C095903
Misc. Organics							
Oil and grease	mg/L				<2.0	2.0	C089776
Total Petroleum Hydrocarbon	mg/L				<2.0	2.0	C091646
Physical Properties							
True Colour	PtCo units				5.3	2.0	C094170
Physical Properties							
Turbidity	NTU				4.5	0.10	C093592

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		DTH895	DTH896	DTH897		
Sampling Date		2025/09/16 11:31	2025/09/16 10:50	2025/09/16 09:55		
COC Number		292283	292283	292283		
	UNITS	**AEMP-US-03**	**AEMP-US-02**	**AEMP-US-01**	**RDL**	**QC Batch**
Polycyclic Aromatics						
B[a]P TPE Total Potency Equivalents	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C092774
Acenaphthene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C096261
Acenaphthylene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C096261
Acridine	mg/L	<0.000040	<0.000040	<0.000040	0.000040	C096261
Anthracene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C096261
Benzo(a)anthracene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C096261
Benzo(b&j)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C096261
Benzo(k)fluoranthene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C096261
Benzo(g,h,i)perylene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C096261
Benzo(c)phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C096261
Benzo(a)pyrene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C096261
Benzo(e)pyrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C096261
Chrysene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C096261
Dibenz(a,h)anthracene	mg/L	<0.0000075	<0.0000075	<0.0000075	0.0000075	C096261
Fluoranthene	mg/L	<0.000010	<0.000010	<0.000010	0.000010	C096261
Fluorene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C096261
Indeno(1,2,3-cd)pyrene	mg/L	<0.0000085	<0.0000085	<0.0000085	0.0000085	C096261
1-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C096261
2-Methylnaphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C096261
Naphthalene	mg/L	<0.00010	<0.00010	<0.00010	0.00010	C096261
Phenanthrene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C096261
Perylene	mg/L	<0.000050	<0.000050	<0.000050	0.000050	C096261
Pyrene	mg/L	<0.000020	<0.000020	<0.000020	0.000020	C096261
Quinoline	mg/L	<0.00020	<0.00020	<0.00020	0.00020	C096261
Extraction Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	118	115	120		C096261
D8-ACENAPHTHYLENE (sur.)	%	110	107	110		C096261
D8-NAPHTHALENE (sur.)	%	88	86	83		C096261
TERPHENYL-D14 (sur.)	%	114	112	113		C096261
RDL = Reportable Detection Limit						

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MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		DTH895	DTH896	DTH897		
Sampling Date		2025/09/16 11:31	2025/09/16 10:50	2025/09/16 09:55		
COC Number		292283	292283	292283		
	UNITS	**AEMP-US-03**	**AEMP-US-02**	**AEMP-US-01**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0019	0.0027	<0.0019	0.0019	C100565
RDL = Reportable Detection Limit						

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Project #: 417085-59897

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		DTH895	DTH896		DTH897		
Sampling Date		2025/09/16 11:31	2025/09/16 10:50		2025/09/16 09:55		
COC Number		292283	292283		292283		
	UNITS	**AEMP-US-03**	**AEMP-US-02**	**QC Batch**	**AEMP-US-01**	**RDL**	**QC Batch**
Elements							
Dissolved Aluminum (Al)	mg/L	0.023	0.017	C094094	0.020	0.0030	C102240
Dissolved Antimony (Sb)	mg/L	<0.00060	<0.00060	C094094	<0.00060	0.00060	C102240
Dissolved Arsenic (As)	mg/L	0.00032	0.00023	C094094	0.00030	0.00020	C102240
Dissolved Barium (Ba)	mg/L	0.044	0.049	C094351	0.046	0.010	C101767
Dissolved Beryllium (Be)	mg/L	<0.0010	<0.0010	C094094	<0.0010	0.0010	C102240
Dissolved Boron (B)	mg/L	<0.020	<0.020	C094351	<0.020	0.020	C101767
Dissolved Calcium (Ca)	mg/L	34	47	C094351	34	0.30	C101767
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	C094094	<0.0010	0.0010	C102240
Dissolved Cobalt (Co)	mg/L	<0.00030	<0.00030	C094094	<0.00030	0.00030	C102240
Dissolved Copper (Cu)	mg/L	<0.0010	<0.0010	C094094	<0.0010	0.0010	C102240
Dissolved Iron (Fe)	mg/L	<0.060	<0.060	C094351	<0.060	0.060	C101767
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	C094094	<0.00020	0.00020	C102240
Dissolved Lithium (Li)	mg/L	<0.020	<0.020	C094351	<0.020	0.020	C101767
Dissolved Magnesium (Mg)	mg/L	10	15	C094351	12	0.20	C101767
Dissolved Manganese (Mn)	mg/L	<0.0040	0.018	C094351	<0.0040	0.0040	C101767
Dissolved Molybdenum (Mo)	mg/L	0.00091	0.0013	C094094	0.00072	0.00020	C102240
Dissolved Nickel (Ni)	mg/L	0.0011	0.0012	C094094	0.00089	0.00050	C102240
Dissolved Phosphorus (P)	mg/L	<0.10	<0.10	C094351	<0.10	0.10	C101767
Dissolved Potassium (K)	mg/L	1.1	1.1	C094351	0.91	0.30	C101767
Dissolved Selenium (Se)	mg/L	0.00023	0.00033	C094094	<0.00020	0.00020	C102240
Dissolved Silicon (Si)	mg/L	1.3	1.4	C094351	1.3	0.50	C101767
Dissolved Silver (Ag)	mg/L	<0.00010	<0.00010	C094094	<0.00010	0.00010	C102240
Dissolved Sodium (Na)	mg/L	9.1	10	C094351	21	0.50	C101767
Dissolved Strontium (Sr)	mg/L	0.23	0.61	C094351	0.25	0.020	C101767
Dissolved Sulphur (S)	mg/L	14	25	C094351	13	0.20	C101767
Dissolved Thallium (Tl)	mg/L	<0.00020	<0.00020	C094094	<0.00020	0.00020	C102240
Dissolved Tin (Sn)	mg/L	<0.0010	<0.0010	C094094	<0.0010	0.0010	C102240
Dissolved Titanium (Ti)	mg/L	<0.0010	<0.0010	C094094	<0.0010	0.0010	C102240
Dissolved Uranium (U)	mg/L	0.00076	0.0011	C094094	0.00048	0.00010	C102240
Dissolved Vanadium (V)	mg/L	<0.0010	<0.0010	C094094	<0.0010	0.0010	C102240
Dissolved Zinc (Zn)	mg/L	<0.0030	<0.0030	C094094	<0.0030	0.0030	C102240
RDL = Reportable Detection Limit							

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Project #: 417085-59897

TEST SUMMARY

Bureau Veritas ID: DTH895
Sample ID: AEMP-US-03
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C098204	N/A	2025/09/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C093826	N/A	2025/09/22	Valerie Vergara
F1-BTEX	CALC/MS	C093291	N/A	2025/09/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C093375	N/A	2025/09/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C093294	N/A	2025/09/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C095947	N/A	2025/09/22	Tyler Orr
COD by Colorimeter	M/PROB	C095907	N/A	2025/09/22	Amy Phan
True Colour	SPEC/COL	C094170	N/A	2025/09/21	Isabelle White
Carbon (DOC)	TECH	C102271	N/A	2025/09/26	Thomas Johnson
Conductivity @25C	COND	C098210	N/A	2025/09/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C096271	2025/09/25	2025/09/25	Ramandeep Ramandeep
Sulphide (as H2S)	CALC	C092866	N/A	2025/09/24	Automated Statchk
Hardness	CALC	C093058	N/A	2025/09/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C100565	2025/09/25	2025/09/25	Kiran Kumari
Mercury (Total) by CV	CV	C100558	2025/09/25	2025/09/25	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C094351	N/A	2025/09/24	Bailey Morrison
Elements by ICP - Total	ICPA	C100425	2025/09/25	2025/09/26	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C094094	N/A	2025/09/21	Jason Bao
Elements by ICPMS - Total	ICPM	C100423	2025/09/25	2025/09/25	Jason Bao
Ion Balance	CALC	C093064	N/A	2025/09/25	Automated Statchk
Ammonia-N (Total)	KONE	C100086	N/A	2025/09/25	Isabelle White
Nitrate and Nitrite	CALC	C093321	N/A	2025/09/23	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C095903	N/A	2025/09/22	Adam Fishleigh
Nitrate (as N)	CALC	C093082	2025/09/23	2025/09/23	Automated Statchk
Oil and Grease by IR	IR	C089776	2025/09/23	2025/09/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C092774	N/A	2025/09/26	Automated Statchk
PAH in Water by GC/MS	GC/MS	C096261	2025/09/25	2025/09/25	Jiby Uthup
pH @25°C	AT/ALK	C098209	N/A	2025/09/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C094333	N/A	2025/09/21	Isabelle White
Total Sulphide	SPEC	C097807	2025/09/23	2025/09/24	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C096617	2025/09/23	2025/09/24	Coralynn Topping
Total Kjeldahl Nitrogen (Total)	CALC	C093355	N/A	2025/09/26	Automated Statchk
Nitrogen (Total)	AC/COL	C099895	2025/09/25	2025/09/26	Yan Lin
Carbon (Total Organic)	TECH	C102205	N/A	2025/09/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C091646	2025/09/23	2025/09/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C096618	2025/09/23	2025/09/23	Haydee Estilong
Turbidity	TURB	C093592	N/A	2025/09/20	Daryl Viktoria Noval

Bureau Veritas ID: DTH895 Dup
Sample ID: AEMP-US-03
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
COD by Colorimeter	M/PROB	C095907	N/A	2025/09/22	Amy Phan

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

TEST SUMMARY

Bureau Veritas ID: DTH896
Sample ID: AEMP-US-02
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C098204	N/A	2025/09/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C093826	N/A	2025/09/22	Valerie Vergara
F1-BTEX	CALC/MS	C093291	N/A	2025/09/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C093375	N/A	2025/09/22	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C093294	N/A	2025/09/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C095947	N/A	2025/09/22	Tyler Orr
COD by Colorimeter	M/PROB	C095907	N/A	2025/09/22	Amy Phan
True Colour	SPEC/COL	C094170	N/A	2025/09/21	Isabelle White
Carbon (DOC)	TECH	C102271	N/A	2025/09/26	Thomas Johnson
Conductivity @25C	COND	C098210	N/A	2025/09/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C096271	2025/09/25	2025/09/25	Ramandeep Ramandeep
Sulphide (as H2S)	CALC	C092866	N/A	2025/09/24	Automated Statchk
Hardness	CALC	C093058	N/A	2025/09/25	Automated Statchk
Mercury (Dissolved) by CV	CV	C100565	2025/09/25	2025/09/25	Kiran Kumari
Mercury (Total) by CV	CV	C100558	2025/09/25	2025/09/25	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C094351	N/A	2025/09/24	Bailey Morrison
Elements by ICP - Total	ICPA	C100410	2025/09/25	2025/09/26	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C094094	N/A	2025/09/21	Jason Bao
Elements by ICPMS - Total	ICPM	C100392	2025/09/25	2025/09/25	Ye Hyun KIM
Ion Balance	CALC	C093064	N/A	2025/09/25	Automated Statchk
Ammonia-N (Total)	KONE	C099467	N/A	2025/09/24	Adam Fishleigh
Nitrate and Nitrite	CALC	C093321	N/A	2025/09/23	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C095903	N/A	2025/09/22	Adam Fishleigh
Nitrate (as N)	CALC	C093082	2025/09/23	2025/09/23	Automated Statchk
Oil and Grease by IR	IR	C089776	2025/09/23	2025/09/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C092774	N/A	2025/09/26	Automated Statchk
PAH in Water by GC/MS	GC/MS	C096261	2025/09/25	2025/09/25	Jiby Uthup
pH @25°C	AT/ALK	C098209	N/A	2025/09/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C094333	N/A	2025/09/21	Isabelle White
Total Sulphide	SPEC	C097807	2025/09/23	2025/09/24	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C096617	2025/09/23	2025/09/24	Coralynn Topping
Total Kjeldahl Nitrogen (Total)	CALC	C093355	N/A	2025/09/26	Automated Statchk
Nitrogen (Total)	AC/COL	C099895	2025/09/25	2025/09/26	Yan Lin
Carbon (Total Organic)	TECH	C102205	N/A	2025/09/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C091646	2025/09/23	2025/09/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C096618	2025/09/23	2025/09/23	Haydee Estilong
Turbidity	TURB	C093592	N/A	2025/09/20	Daryl Viktoria Noval

Bureau Veritas ID: DTH896 Dup
Sample ID: AEMP-US-02
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Sulphide	SPEC	C097807	2025/09/23	2025/09/24	Naitik Jigneshbhai Desai

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

TEST SUMMARY

Bureau Veritas ID: DTH897
Sample ID: AEMP-US-01
Matrix: Water

Collected: 2025/09/16
Relinquished: 2025/09/18
Received: 2025/09/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity @25C (pp, total), CO3,HCO3,OH	AT/ALK	C098204	N/A	2025/09/24	Ayesha Ayesha
BTEX/F1 in Water by HS GC/MS/FID	HSGC/MS	C093826	N/A	2025/09/22	Valerie Vergara
F1-BTEX	CALC/MS	C093291	N/A	2025/09/23	Automated Statchk
Cadmium - low level CCME - Dissolved	CALC	C093375	N/A	2025/09/26	Automated Statchk
Cadmium - low level CCME (Total)	CALC	C093294	N/A	2025/09/26	Automated Statchk
Chloride/Sulphate by Auto Colourimetry	KONE	C095947	N/A	2025/09/22	Tyler Orr
COD by Colorimeter	M/PROB	C095907	N/A	2025/09/22	Amy Phan
True Colour	SPEC/COL	C094170	N/A	2025/09/21	Isabelle White
Carbon (DOC)	TECH	C102271	N/A	2025/09/26	Thomas Johnson
Conductivity @25C	COND	C098210	N/A	2025/09/24	Ayesha Ayesha
CCME Hydrocarbons in Water (F2; C10-C16)	GC/FID	C096271	2025/09/25	2025/09/25	Ramandeep Ramandeep
Sulphide (as H2S)	CALC	C092866	N/A	2025/09/24	Automated Statchk
Hardness	CALC	C093058	N/A	2025/09/26	Automated Statchk
Mercury (Dissolved) by CV	CV	C100565	2025/09/25	2025/09/25	Kiran Kumari
Mercury (Total) by CV	CV	C100558	2025/09/25	2025/09/25	Kiran Kumari
Elements by ICP - Dissolved	ICPA	C101767	N/A	2025/09/26	Kevin Hung
Elements by ICP - Total	ICPA	C100410	2025/09/25	2025/09/26	Kevin Hung
Elements by ICPMS - Dissolved	ICPM	C102240	N/A	2025/09/26	Ye Hyun KIM
Elements by ICPMS - Total	ICPM	C100392	2025/09/25	2025/09/25	Ye Hyun KIM
Ion Balance	CALC	C093064	N/A	2025/09/26	Automated Statchk
Ammonia-N (Total)	KONE	C100086	N/A	2025/09/25	Isabelle White
Nitrate and Nitrite	CALC	C093321	N/A	2025/09/23	Automated Statchk
NO2 (N); NO2 (N) + NO3 (N) in Water	AC/COL	C095903	N/A	2025/09/22	Adam Fishleigh
Nitrate (as N)	CALC	C093082	2025/09/23	2025/09/23	Automated Statchk
Oil and Grease by IR	IR	C089776	2025/09/23	2025/09/24	Ramandeep Ramandeep
Benzo[a]pyrene Equivalency	GC/MSD	C092774	N/A	2025/09/26	Automated Statchk
PAH in Water by GC/MS	GC/MS	C096261	2025/09/25	2025/09/25	Jiby Uthup
pH @25°C	AT/ALK	C098209	N/A	2025/09/24	Ayesha Ayesha
Orthophosphate by Automated Analyzer	KONE	C094333	N/A	2025/09/21	Isabelle White
Total Sulphide	SPEC	C097807	2025/09/23	2025/09/24	Naitik Jigneshbhai Desai
Total Dissolved Solids (Filt. Residue)	BAL	C096617	2025/09/23	2025/09/24	Coralynn Topping
Total Kjeldahl Nitrogen (Total)	CALC	C093355	N/A	2025/09/26	Automated Statchk
Nitrogen (Total)	AC/COL	C099895	2025/09/25	2025/09/26	Yan Lin
Carbon (Total Organic)	TECH	C102205	N/A	2025/09/26	Thomas Johnson
Hydrocarbon by IR (Mineral oil & grease)	IR	C091646	2025/09/23	2025/09/25	Ramandeep Ramandeep
Total Suspended Solids (NFR)	BAL	C096618	2025/09/23	2025/09/23	Haydee Estilong
Turbidity	TURB	C093592	N/A	2025/09/20	Daryl Viktoria Noval

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26

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Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.0°C

Sample DTH895 [AEMP-US-03] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DTH896 [AEMP-US-02] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Sample DTH897 [AEMP-US-01] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for True Colour. Sample was analyzed past method specified hold time for Orthophosphate by Automated Analyzer. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water.

Results relate only to the items tested.

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DTH895	AEMP-US-03	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH895	AEMP-US-03	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH895	AEMP-US-03	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH895	AEMP-US-03	Water	TURB	SPP	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH896	AEMP-US-02	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH896	AEMP-US-02	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH896	AEMP-US-02	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

DATA QUALITY OVERVIEW

Lab ID	Client Sample ID	Matrix	Test Code	Analysis Type	Parameters	Deviation	Root Cause	Potential Impact
DTH896	AEMP-US-02	Water	TURB	SPP	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH897	AEMP-US-01	Water	COLOURT-W	PHYS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH897	AEMP-US-01	Water	NO23AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH897	AEMP-US-01	Water	PO4AC-W	NUTS	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.
DTH897	AEMP-US-01	Water	TURB	SPP	Sample	#10 Past Hold Time	#10 Lab Error	This may increase the uncertainty associated with these results.

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C089776	RRA	Method Blank	Oil and grease	2025/09/24	<2.0		mg/L	
C091646	RRA	Method Blank	Total Petroleum Hydrocarbon	2025/09/25	<2.0		mg/L	
C093592	DVN	Method Blank	Turbidity	2025/09/20	<0.10		NTU	
C093826	VVE	Method Blank	1,4-Difluorobenzene (sur.)	2025/09/22		105	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/22		105	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/22		111	%	50 - 140
			Benzene	2025/09/22	<0.00040		mg/L	
			Toluene	2025/09/22	<0.00040		mg/L	
			Ethylbenzene	2025/09/22	<0.00040		mg/L	
			m & p-Xylene	2025/09/22	<0.00080		mg/L	
			o-Xylene	2025/09/22	<0.00040		mg/L	
			F1 (C6-C10)	2025/09/22	<0.10		mg/L	
C094094	JAB	Method Blank	Dissolved Aluminum (Al)	2025/09/21	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/21	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/21	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/21	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/21	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/21	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/21	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/09/21	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/09/21	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/21	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/21	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/21	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/21	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/21	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/21	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/21	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/21	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/21	<0.0010		mg/L	
C094170	ISW	Method Blank	True Colour	2025/09/21	<2.0		PtCo units	
C094333	ISW	Method Blank	Orthophosphate (P)	2025/09/21	<0.0030		mg/L	
C094351	BYM	Method Blank	Dissolved Iron (Fe)	2025/09/24	<0.060		mg/L	
			Dissolved Lithium (Li)	2025/09/24	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/24	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/24	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/24	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/24	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/24	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/24	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/24	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/24	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/24	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/24	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/24	<0.30		mg/L	
C095903	AFI	Method Blank	Nitrite (N)	2025/09/22	<0.040		mg/L	
			Nitrate plus Nitrite (N)	2025/09/22	<0.040		mg/L	
C095907	AP1	Method Blank	Chemical Oxygen Demand	2025/09/22	<10		mg/L	
C095947	TOR	Method Blank	Chloride (Cl)	2025/09/22	<1.0		mg/L	
			Sulphate (SO4)	2025/09/22	<1.0		mg/L	
C096261	JU2	Method Blank	D10-ANTHRACENE (sur.)	2025/09/25		118	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/25		114	%	50 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			D8-ACENAPHTHYLENE (sur.)	2025/09/25		105	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/25		77	%	50 - 130
			Acenaphthene	2025/09/25	<0.00010		mg/L	
			Acenaphthylene	2025/09/25	<0.00010		mg/L	
			Acridine	2025/09/25	<0.000040		mg/L	
			Anthracene	2025/09/25	<0.000010		mg/L	
			Benzo(a)anthracene	2025/09/25	<0.0000085		mg/L	
			Benzo(b&j)fluoranthene	2025/09/25	<0.0000085		mg/L	
			Benzo(k)fluoranthene	2025/09/25	<0.0000085		mg/L	
			Benzo(g,h,i)perylene	2025/09/25	<0.0000085		mg/L	
			Benzo(c)phenanthrene	2025/09/25	<0.000050		mg/L	
			Benzo(a)pyrene	2025/09/25	<0.0000075		mg/L	
			Benzo(e)pyrene	2025/09/25	<0.000050		mg/L	
			Chrysene	2025/09/25	<0.0000085		mg/L	
			Dibenz(a,h)anthracene	2025/09/25	<0.0000075		mg/L	
			Fluoranthene	2025/09/25	<0.000010		mg/L	
			Fluorene	2025/09/25	<0.000050		mg/L	
			Indeno(1,2,3-cd)pyrene	2025/09/25	<0.0000085		mg/L	
			1-Methylnaphthalene	2025/09/25	<0.00010		mg/L	
			2-Methylnaphthalene	2025/09/25	<0.00010		mg/L	
			Naphthalene	2025/09/25	<0.00010		mg/L	
			Phenanthrene	2025/09/25	<0.000050		mg/L	
			Perylene	2025/09/25	<0.000050		mg/L	
			Pyrene	2025/09/25	<0.000020		mg/L	
			Quinoline	2025/09/25	<0.00020		mg/L	
C096271	RRA	Method Blank	O-TERPHENYL (sur.)	2025/09/25		97	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/25	<0.10		mg/L	
C096617	CT6	Method Blank	Total Dissolved Solids	2025/09/24	<10		mg/L	
C096618	HE1	Method Blank	Total Suspended Solids	2025/09/23	<1.0		mg/L	
C097807	NJD	Method Blank	Total Sulphide	2025/09/24	<0.0018		mg/L	
C098204	AYE	Method Blank	Alkalinity (Total as CaCO3)	2025/09/24	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2025/09/24	<1.0		mg/L	
			Bicarbonate (HCO3)	2025/09/24	<1.0		mg/L	
			Carbonate (CO3)	2025/09/24	<1.0		mg/L	
			Hydroxide (OH)	2025/09/24	<1.0		mg/L	
C098210	AYE	Method Blank	Conductivity	2025/09/24	<2.0		uS/cm	
C099467	AFI	Method Blank	Total Ammonia (N)	2025/09/24	<0.015		mg/L	
C099895	YL7	Method Blank	Total Nitrogen (N)	2025/09/26	<0.020		mg/L	
C100086	ISW	Method Blank	Total Ammonia (N)	2025/09/25	<0.015		mg/L	
C100392	YHK	Method Blank	Total Aluminum (Al)	2025/09/25	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/25	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/25	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/25	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/25	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/25	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/25	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/25	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/25	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/25	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/25	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/25	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/25	<0.0010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Titanium (Ti)	2025/09/25	<0.0010		mg/L	
			Total Uranium (U)	2025/09/25	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/25	<0.0010		mg/L	
			Total Zinc (Zn)	2025/09/25	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/25	<0.0010		mg/L	
C100410	KHU	Method Blank	Total Iron (Fe)	2025/09/26	<0.060		mg/L	
			Total Lithium (Li)	2025/09/26	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/26	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/26	<0.0040		mg/L	
			Total Potassium (K)	2025/09/26	<0.30		mg/L	
			Total Sodium (Na)	2025/09/26	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/26	<0.020		mg/L	
			Total Sulphur (S)	2025/09/26	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/26	<0.10		mg/L	
			Total Barium (Ba)	2025/09/26	<0.010		mg/L	
			Total Silicon (Si)	2025/09/26	<0.50		mg/L	
			Total Boron (B)	2025/09/26	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/26	<0.30		mg/L	
C100423	JAB	Method Blank	Total Aluminum (Al)	2025/09/25	<0.0030		mg/L	
			Total Chromium (Cr)	2025/09/25	<0.0010		mg/L	
			Total Cobalt (Co)	2025/09/25	<0.00030		mg/L	
			Total Copper (Cu)	2025/09/25	<0.0010		mg/L	
			Total Lead (Pb)	2025/09/25	<0.00020		mg/L	
			Total Antimony (Sb)	2025/09/25	<0.00060		mg/L	
			Total Molybdenum (Mo)	2025/09/25	<0.00020		mg/L	
			Total Nickel (Ni)	2025/09/25	<0.00050		mg/L	
			Total Selenium (Se)	2025/09/25	<0.00020		mg/L	
			Total Silver (Ag)	2025/09/25	<0.00010		mg/L	
			Total Arsenic (As)	2025/09/25	<0.00020		mg/L	
			Total Thallium (Tl)	2025/09/25	<0.00020		mg/L	
			Total Tin (Sn)	2025/09/25	<0.0010		mg/L	
			Total Titanium (Ti)	2025/09/25	<0.0010		mg/L	
			Total Uranium (U)	2025/09/25	<0.00010		mg/L	
			Total Vanadium (V)	2025/09/25	<0.0010		mg/L	
			Total Zinc (Zn)	2025/09/25	<0.0030		mg/L	
			Total Beryllium (Be)	2025/09/25	<0.0010		mg/L	
C100425	KHU	Method Blank	Total Iron (Fe)	2025/09/26	<0.060		mg/L	
			Total Lithium (Li)	2025/09/26	<0.020		mg/L	
			Total Magnesium (Mg)	2025/09/26	<0.20		mg/L	
			Total Manganese (Mn)	2025/09/26	<0.0040		mg/L	
			Total Potassium (K)	2025/09/26	<0.30		mg/L	
			Total Sodium (Na)	2025/09/26	<0.50		mg/L	
			Total Strontium (Sr)	2025/09/26	<0.020		mg/L	
			Total Sulphur (S)	2025/09/26	<0.20		mg/L	
			Total Phosphorus (P)	2025/09/26	<0.10		mg/L	
			Total Barium (Ba)	2025/09/26	<0.010		mg/L	
			Total Silicon (Si)	2025/09/26	<0.50		mg/L	
			Total Boron (B)	2025/09/26	<0.020		mg/L	
			Total Calcium (Ca)	2025/09/26	<0.30		mg/L	
C100558	KKM	Method Blank	Total Mercury (Hg)	2025/09/25	<0.0019		ug/L	
C100565	KKM	Method Blank	Dissolved Mercury (Hg)	2025/09/25	<0.0019		ug/L	
C101767	KHU	Method Blank	Dissolved Iron (Fe)	2025/09/26	<0.060		mg/L	

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			Dissolved Lithium (Li)	2025/09/26	<0.020		mg/L	
			Dissolved Magnesium (Mg)	2025/09/26	<0.20		mg/L	
			Dissolved Manganese (Mn)	2025/09/26	<0.0040		mg/L	
			Dissolved Potassium (K)	2025/09/26	<0.30		mg/L	
			Dissolved Sodium (Na)	2025/09/26	<0.50		mg/L	
			Dissolved Strontium (Sr)	2025/09/26	<0.020		mg/L	
			Dissolved Sulphur (S)	2025/09/26	<0.20		mg/L	
			Dissolved Phosphorus (P)	2025/09/26	<0.10		mg/L	
			Dissolved Barium (Ba)	2025/09/26	<0.010		mg/L	
			Dissolved Silicon (Si)	2025/09/26	<0.50		mg/L	
			Dissolved Boron (B)	2025/09/26	<0.020		mg/L	
			Dissolved Calcium (Ca)	2025/09/26	<0.30		mg/L	
C102205	TJ4	Method Blank	Total Organic Carbon (C)	2025/09/26	<0.50		mg/L	
C102240	YHK	Method Blank	Dissolved Aluminum (Al)	2025/09/26	<0.0030		mg/L	
			Dissolved Chromium (Cr)	2025/09/26	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2025/09/26	<0.00030		mg/L	
			Dissolved Copper (Cu)	2025/09/26	<0.0010		mg/L	
			Dissolved Lead (Pb)	2025/09/26	<0.00020		mg/L	
			Dissolved Antimony (Sb)	2025/09/26	<0.00060		mg/L	
			Dissolved Molybdenum (Mo)	2025/09/26	<0.00020		mg/L	
			Dissolved Nickel (Ni)	2025/09/26	<0.00050		mg/L	
			Dissolved Selenium (Se)	2025/09/26	<0.00020		mg/L	
			Dissolved Silver (Ag)	2025/09/26	<0.00010		mg/L	
			Dissolved Arsenic (As)	2025/09/26	<0.00020		mg/L	
			Dissolved Thallium (Tl)	2025/09/26	<0.00020		mg/L	
			Dissolved Tin (Sn)	2025/09/26	<0.0010		mg/L	
			Dissolved Titanium (Ti)	2025/09/26	<0.0010		mg/L	
			Dissolved Uranium (U)	2025/09/26	<0.00010		mg/L	
			Dissolved Vanadium (V)	2025/09/26	<0.0010		mg/L	
			Dissolved Zinc (Zn)	2025/09/26	<0.0030		mg/L	
			Dissolved Beryllium (Be)	2025/09/26	<0.0010		mg/L	
C102271	TJ4	Method Blank	Dissolved Organic Carbon (C)	2025/09/26	<0.50		mg/L	
C095907	AP1	RPD [DTH895-05]	Chemical Oxygen Demand	2025/09/22	8.7		%	20
C097807	NJD	RPD [DTH896-06]	Total Sulphide	2025/09/24	NC		%	20
C095907	AP1	Matrix Spike [DTH895-05]	Chemical Oxygen Demand	2025/09/22		99	%	80 - 120
C097807	NJD	Matrix Spike [DTH897-06]	Total Sulphide	2025/09/24		80	%	80 - 120
C100423	JAB	Matrix Spike [DTH895-03]	Total Aluminum (Al)	2025/09/25		NC	%	80 - 120
			Total Chromium (Cr)	2025/09/25		97	%	80 - 120
			Total Cobalt (Co)	2025/09/25		97	%	80 - 120
			Total Copper (Cu)	2025/09/25		97	%	80 - 120
			Total Lead (Pb)	2025/09/25		94	%	80 - 120
			Total Antimony (Sb)	2025/09/25		103	%	80 - 120
			Total Molybdenum (Mo)	2025/09/25		102	%	80 - 120
			Total Nickel (Ni)	2025/09/25		97	%	80 - 120
			Total Selenium (Se)	2025/09/25		105	%	80 - 120
			Total Silver (Ag)	2025/09/25		100	%	80 - 120
			Total Arsenic (As)	2025/09/25		103	%	80 - 120
			Total Thallium (Tl)	2025/09/25		101	%	80 - 120
			Total Tin (Sn)	2025/09/25		101	%	80 - 120
			Total Titanium (Ti)	2025/09/25		106	%	80 - 120
			Total Uranium (U)	2025/09/25		102	%	80 - 120
			Total Vanadium (V)	2025/09/25		97	%	80 - 120

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Zinc (Zn)	2025/09/25		98	%	80 - 120
			Total Beryllium (Be)	2025/09/25		101	%	80 - 120
C089776	RRA	LCS	Oil and grease	2025/09/24		96	%	70 - 130
C091646	RRA	LCS	Total Petroleum Hydrocarbon	2025/09/25		98	%	70 - 130
C093592	DVN	LCS	Turbidity	2025/09/20		99	%	80 - 120
C093826	VVE	LCS	1,4-Difluorobenzene (sur.)	2025/09/22		99	%	50 - 140
			4-Bromofluorobenzene (sur.)	2025/09/22		107	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2025/09/22		106	%	50 - 140
			Benzene	2025/09/22		85	%	60 - 130
			Toluene	2025/09/22		85	%	60 - 130
			Ethylbenzene	2025/09/22		91	%	60 - 130
			m & p-Xylene	2025/09/22		90	%	60 - 130
			o-Xylene	2025/09/22		90	%	60 - 130
			F1 (C6-C10)	2025/09/22		95	%	60 - 140
C094094	JAB	LCS	Dissolved Aluminum (Al)	2025/09/21		103	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/21		99	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/21		98	%	80 - 120
			Dissolved Copper (Cu)	2025/09/21		96	%	80 - 120
			Dissolved Lead (Pb)	2025/09/21		100	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/21		105	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/21		106	%	80 - 120
			Dissolved Nickel (Ni)	2025/09/21		95	%	80 - 120
			Dissolved Selenium (Se)	2025/09/21		94	%	80 - 120
			Dissolved Silver (Ag)	2025/09/21		97	%	80 - 120
			Dissolved Arsenic (As)	2025/09/21		97	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/21		101	%	80 - 120
			Dissolved Tin (Sn)	2025/09/21		104	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/21		99	%	80 - 120
			Dissolved Uranium (U)	2025/09/21		101	%	80 - 120
			Dissolved Vanadium (V)	2025/09/21		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/21		94	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/21		112	%	80 - 120
C094170	ISW	LCS	True Colour	2025/09/21		93	%	80 - 120
C094333	ISW	LCS	Orthophosphate (P)	2025/09/21		104	%	80 - 120
C094351	BYM	LCS	Dissolved Iron (Fe)	2025/09/22		108	%	80 - 120
			Dissolved Lithium (Li)	2025/09/22		100	%	80 - 120
			Dissolved Magnesium (Mg)	2025/09/22		98	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/22		99	%	80 - 120
			Dissolved Potassium (K)	2025/09/22		102	%	80 - 120
			Dissolved Sodium (Na)	2025/09/22		99	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/22		94	%	80 - 120
			Dissolved Sulphur (S)	2025/09/22		99	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/22		101	%	80 - 120
			Dissolved Barium (Ba)	2025/09/22		99	%	80 - 120
			Dissolved Silicon (Si)	2025/09/22		98	%	80 - 120
			Dissolved Boron (B)	2025/09/22		99	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/22		100	%	80 - 120
C095903	AFI	LCS	Nitrite (N)	2025/09/22		99	%	80 - 120
			Nitrate plus Nitrite (N)	2025/09/22		103	%	80 - 120
C095907	AP1	LCS	Chemical Oxygen Demand	2025/09/22		100	%	80 - 120
C095947	TOR	LCS	Chloride (Cl)	2025/09/22		101	%	80 - 120
			Sulphate (SO4)	2025/09/22		101	%	80 - 120

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
C096261	JU2	LCS	D10-ANTHRACENE (sur.)	2025/09/25		121	%	50 - 130
			TERPHENYL-D14 (sur.)	2025/09/25		114	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2025/09/25		121	%	50 - 130
			D8-NAPHTHALENE (sur.)	2025/09/25		83	%	50 - 130
			Acenaphthene	2025/09/25		70	%	50 - 130
			Acenaphthylene	2025/09/25		85	%	50 - 130
			Acridine	2025/09/25		86	%	50 - 130
			Anthracene	2025/09/25		83	%	50 - 130
			Benzo(a)anthracene	2025/09/25		88	%	50 - 130
			Benzo(b&j)fluoranthene	2025/09/25		89	%	50 - 130
			Benzo(k)fluoranthene	2025/09/25		87	%	50 - 130
			Benzo(g,h,i)perylene	2025/09/25		87	%	50 - 130
			Benzo(c)phenanthrene	2025/09/25		91	%	50 - 130
			Benzo(a)pyrene	2025/09/25		87	%	50 - 130
			Benzo(e)pyrene	2025/09/25		82	%	50 - 130
			Chrysene	2025/09/25		86	%	50 - 130
			Dibenz(a,h)anthracene	2025/09/25		91	%	50 - 130
			Fluoranthene	2025/09/25		93	%	50 - 130
			Fluorene	2025/09/25		87	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2025/09/25		87	%	50 - 130
			1-Methylnaphthalene	2025/09/25		54	%	50 - 130
			2-Methylnaphthalene	2025/09/25		56	%	50 - 130
			Naphthalene	2025/09/25		60	%	50 - 130
			Phenanthrene	2025/09/25		86	%	50 - 130
			Perylene	2025/09/25		85	%	50 - 130
			Pyrene	2025/09/25		93	%	50 - 130
			Quinoline	2025/09/25		86	%	50 - 130
C096271	RRA	LCS	O-TERPHENYL (sur.)	2025/09/26		106	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2025/09/26		98	%	60 - 140
C096617	CT6	LCS	Total Dissolved Solids	2025/09/24		102	%	80 - 120
C096618	HE1	LCS	Total Suspended Solids	2025/09/23		99	%	80 - 120
C097807	NJD	LCS	Total Sulphide	2025/09/24		92	%	80 - 120
C098204	AYE	LCS	Alkalinity (Total as CaCO3)	2025/09/24		97	%	80 - 120
C098209	AYE	LCS	pH	2025/09/24		101	%	97 - 103
C098210	AYE	LCS	Conductivity	2025/09/24		101	%	90 - 110
C099467	AFI	LCS	Total Ammonia (N)	2025/09/24		105	%	80 - 120
C099895	YL7	LCS	Total Nitrogen (N)	2025/09/26		104	%	80 - 120
C100086	ISW	LCS	Total Ammonia (N)	2025/09/25		106	%	80 - 120
C100392	YHK	LCS	Total Aluminum (Al)	2025/09/25		104	%	80 - 120
			Total Chromium (Cr)	2025/09/25		97	%	80 - 120
			Total Cobalt (Co)	2025/09/25		98	%	80 - 120
			Total Copper (Cu)	2025/09/25		98	%	80 - 120
			Total Lead (Pb)	2025/09/25		92	%	80 - 120
			Total Antimony (Sb)	2025/09/25		100	%	80 - 120
			Total Molybdenum (Mo)	2025/09/25		98	%	80 - 120
			Total Nickel (Ni)	2025/09/25		98	%	80 - 120
			Total Selenium (Se)	2025/09/25		104	%	80 - 120
			Total Silver (Ag)	2025/09/25		99	%	80 - 120
			Total Arsenic (As)	2025/09/25		103	%	80 - 120
			Total Thallium (Tl)	2025/09/25		99	%	80 - 120
			Total Tin (Sn)	2025/09/25		99	%	80 - 120
			Total Titanium (Ti)	2025/09/25		99	%	80 - 120

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			Total Uranium (U)	2025/09/25		101	%	80 - 120
			Total Vanadium (V)	2025/09/25		96	%	80 - 120
			Total Zinc (Zn)	2025/09/25		100	%	80 - 120
			Total Beryllium (Be)	2025/09/25		104	%	80 - 120
C100410	KHU	LCS	Total Iron (Fe)	2025/09/26		105	%	80 - 120
			Total Lithium (Li)	2025/09/26		94	%	80 - 120
			Total Magnesium (Mg)	2025/09/26		102	%	80 - 120
			Total Manganese (Mn)	2025/09/26		102	%	80 - 120
			Total Potassium (K)	2025/09/26		100	%	80 - 120
			Total Sodium (Na)	2025/09/26		97	%	80 - 120
			Total Strontium (Sr)	2025/09/26		96	%	80 - 120
			Total Sulphur (S)	2025/09/26		89	%	80 - 120
			Total Phosphorus (P)	2025/09/26		97	%	80 - 120
			Total Barium (Ba)	2025/09/26		100	%	80 - 120
			Total Silicon (Si)	2025/09/26		99	%	80 - 120
			Total Boron (B)	2025/09/26		100	%	80 - 120
			Total Calcium (Ca)	2025/09/26		95	%	80 - 120
C100423	JAB	LCS	Total Aluminum (Al)	2025/09/25		101	%	80 - 120
			Total Chromium (Cr)	2025/09/25		97	%	80 - 120
			Total Cobalt (Co)	2025/09/25		98	%	80 - 120
			Total Copper (Cu)	2025/09/25		99	%	80 - 120
			Total Lead (Pb)	2025/09/25		94	%	80 - 120
			Total Antimony (Sb)	2025/09/25		102	%	80 - 120
			Total Molybdenum (Mo)	2025/09/25		99	%	80 - 120
			Total Nickel (Ni)	2025/09/25		98	%	80 - 120
			Total Selenium (Se)	2025/09/25		105	%	80 - 120
			Total Silver (Ag)	2025/09/25		100	%	80 - 120
			Total Arsenic (As)	2025/09/25		103	%	80 - 120
			Total Thallium (Tl)	2025/09/25		100	%	80 - 120
			Total Tin (Sn)	2025/09/25		100	%	80 - 120
			Total Titanium (Ti)	2025/09/25		102	%	80 - 120
			Total Uranium (U)	2025/09/25		101	%	80 - 120
			Total Vanadium (V)	2025/09/25		97	%	80 - 120
			Total Zinc (Zn)	2025/09/25		99	%	80 - 120
			Total Beryllium (Be)	2025/09/25		100	%	80 - 120
C100425	KHU	LCS	Total Iron (Fe)	2025/09/26		115	%	80 - 120
			Total Lithium (Li)	2025/09/26		97	%	80 - 120
			Total Magnesium (Mg)	2025/09/26		105	%	80 - 120
			Total Manganese (Mn)	2025/09/26		109	%	80 - 120
			Total Potassium (K)	2025/09/26		103	%	80 - 120
			Total Sodium (Na)	2025/09/26		99	%	80 - 120
			Total Strontium (Sr)	2025/09/26		99	%	80 - 120
			Total Sulphur (S)	2025/09/26		94	%	80 - 120
			Total Phosphorus (P)	2025/09/26		103	%	80 - 120
			Total Barium (Ba)	2025/09/26		102	%	80 - 120
			Total Silicon (Si)	2025/09/26		105	%	80 - 120
			Total Boron (B)	2025/09/26		103	%	80 - 120
			Total Calcium (Ca)	2025/09/26		97	%	80 - 120
C100558	KKM	LCS	Total Mercury (Hg)	2025/09/25		107	%	80 - 120
C100565	KKM	LCS	Dissolved Mercury (Hg)	2025/09/25		106	%	80 - 120
C101767	KHU	LCS	Dissolved Iron (Fe)	2025/09/26		110	%	80 - 120
			Dissolved Lithium (Li)	2025/09/26		93	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Magnesium (Mg)	2025/09/26		100	%	80 - 120
			Dissolved Manganese (Mn)	2025/09/26		105	%	80 - 120
			Dissolved Potassium (K)	2025/09/26		99	%	80 - 120
			Dissolved Sodium (Na)	2025/09/26		96	%	80 - 120
			Dissolved Strontium (Sr)	2025/09/26		96	%	80 - 120
			Dissolved Sulphur (S)	2025/09/26		103	%	80 - 120
			Dissolved Phosphorus (P)	2025/09/26		101	%	80 - 120
			Dissolved Barium (Ba)	2025/09/26		99	%	80 - 120
			Dissolved Silicon (Si)	2025/09/26		98	%	80 - 120
			Dissolved Boron (B)	2025/09/26		100	%	80 - 120
			Dissolved Calcium (Ca)	2025/09/26		97	%	80 - 120
C102205	TJ4	LCS	Total Organic Carbon (C)	2025/09/26		107	%	80 - 120
C102240	YHK	LCS	Dissolved Aluminum (Al)	2025/09/26		107	%	80 - 120
			Dissolved Chromium (Cr)	2025/09/26		99	%	80 - 120
			Dissolved Cobalt (Co)	2025/09/26		98	%	80 - 120
			Dissolved Copper (Cu)	2025/09/26		99	%	80 - 120
			Dissolved Lead (Pb)	2025/09/26		95	%	80 - 120
			Dissolved Antimony (Sb)	2025/09/26		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2025/09/26		105	%	80 - 120
			Dissolved Nickel (Ni)	2025/09/26		99	%	80 - 120
			Dissolved Selenium (Se)	2025/09/26		110	%	80 - 120
			Dissolved Silver (Ag)	2025/09/26		100	%	80 - 120
			Dissolved Arsenic (As)	2025/09/26		106	%	80 - 120
			Dissolved Thallium (Tl)	2025/09/26		100	%	80 - 120
			Dissolved Tin (Sn)	2025/09/26		98	%	80 - 120
			Dissolved Titanium (Ti)	2025/09/26		108	%	80 - 120
			Dissolved Uranium (U)	2025/09/26		90	%	80 - 120
			Dissolved Vanadium (V)	2025/09/26		99	%	80 - 120
			Dissolved Zinc (Zn)	2025/09/26		103	%	80 - 120
			Dissolved Beryllium (Be)	2025/09/26		103	%	80 - 120
C102271	TJ4	LCS	Dissolved Organic Carbon (C)	2025/09/26		106	%	80 - 120
C099895	YL7	SRM	Total Nitrogen (N)	2025/09/26		105	%	N/A

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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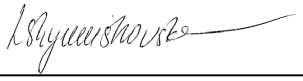
Bureau Veritas Job #: C579805
Report Date: 2025/09/26

Advisian
Task Order#: 417085-59897
Site#:
Site Location: NORMAN WELLS, NT
Project #: 417085-59897

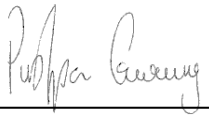
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



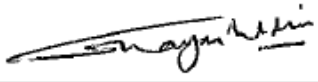
Luba Shymushovska, B.Sc., QP, Senior Analyst, Organics



Pushpa Gurung, Laboratory Supervisor

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics



Bureau Veritas Certified by Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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Bureau Veritas Job #: C579805
Report Date: 2025/09/26
Bureau Veritas Sample: DTH895

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-03

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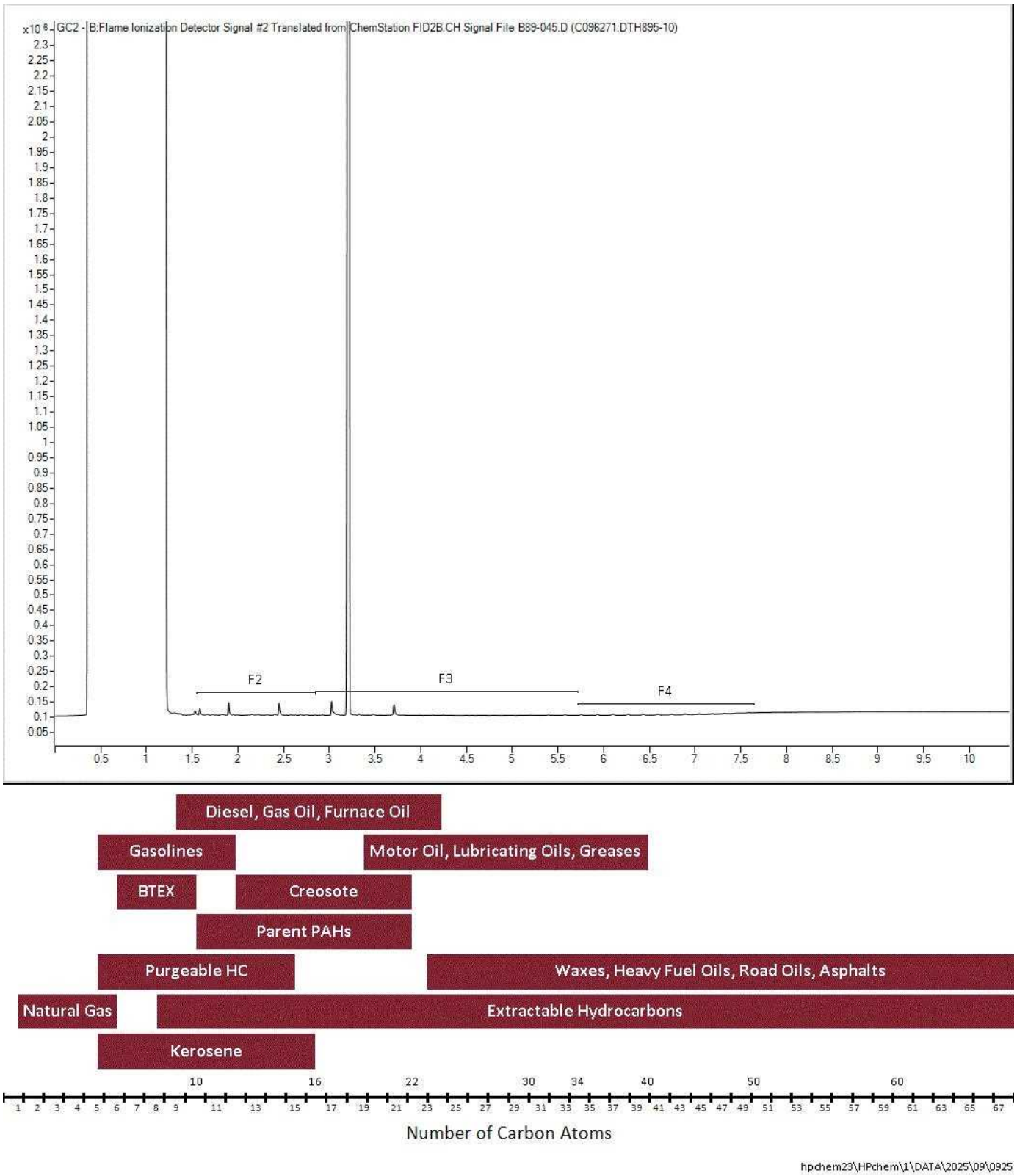

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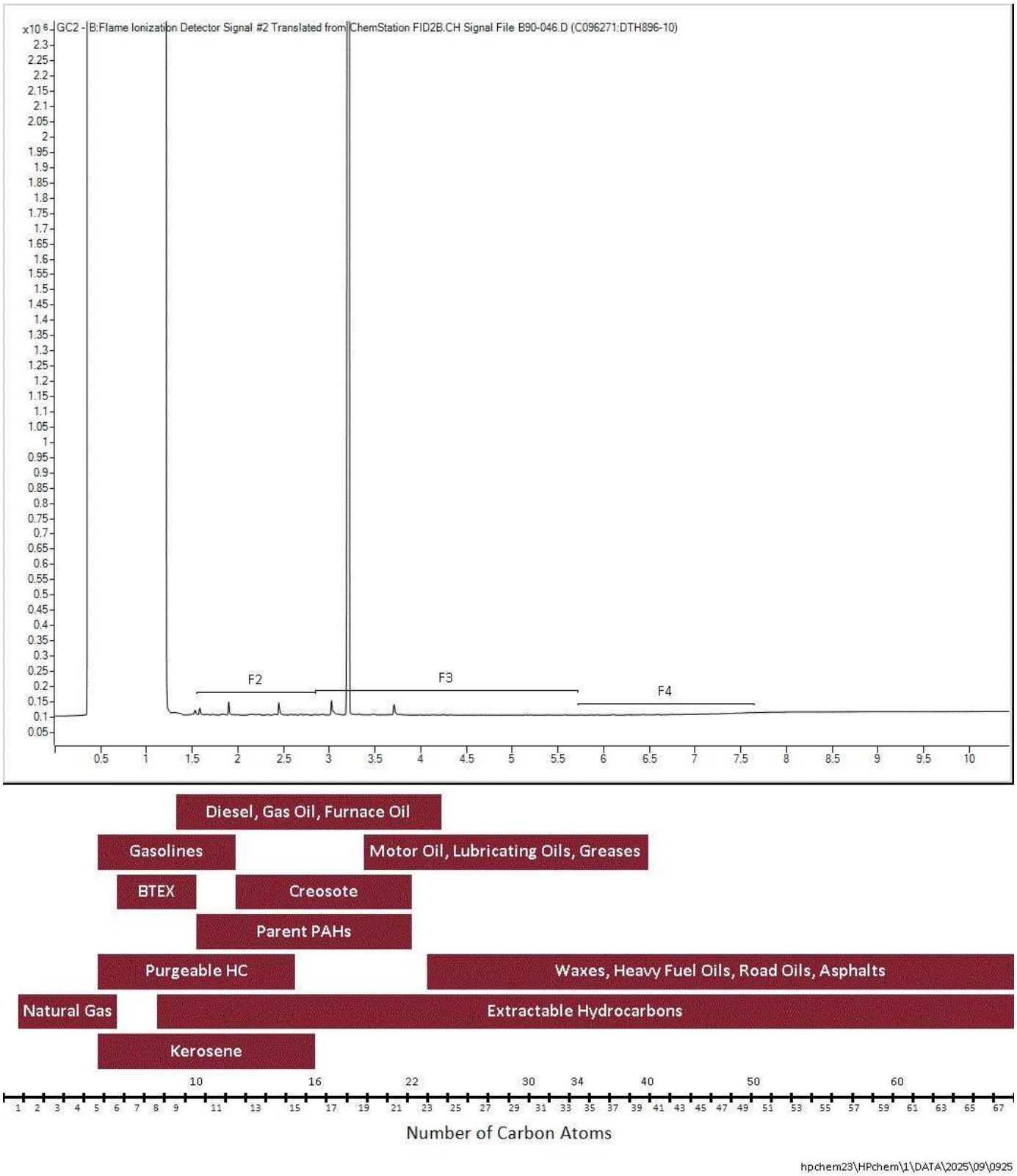
Bureau Veritas Job #: C579805
Report Date: 2025/09/26
Bureau Veritas Sample: DTH896

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-02

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



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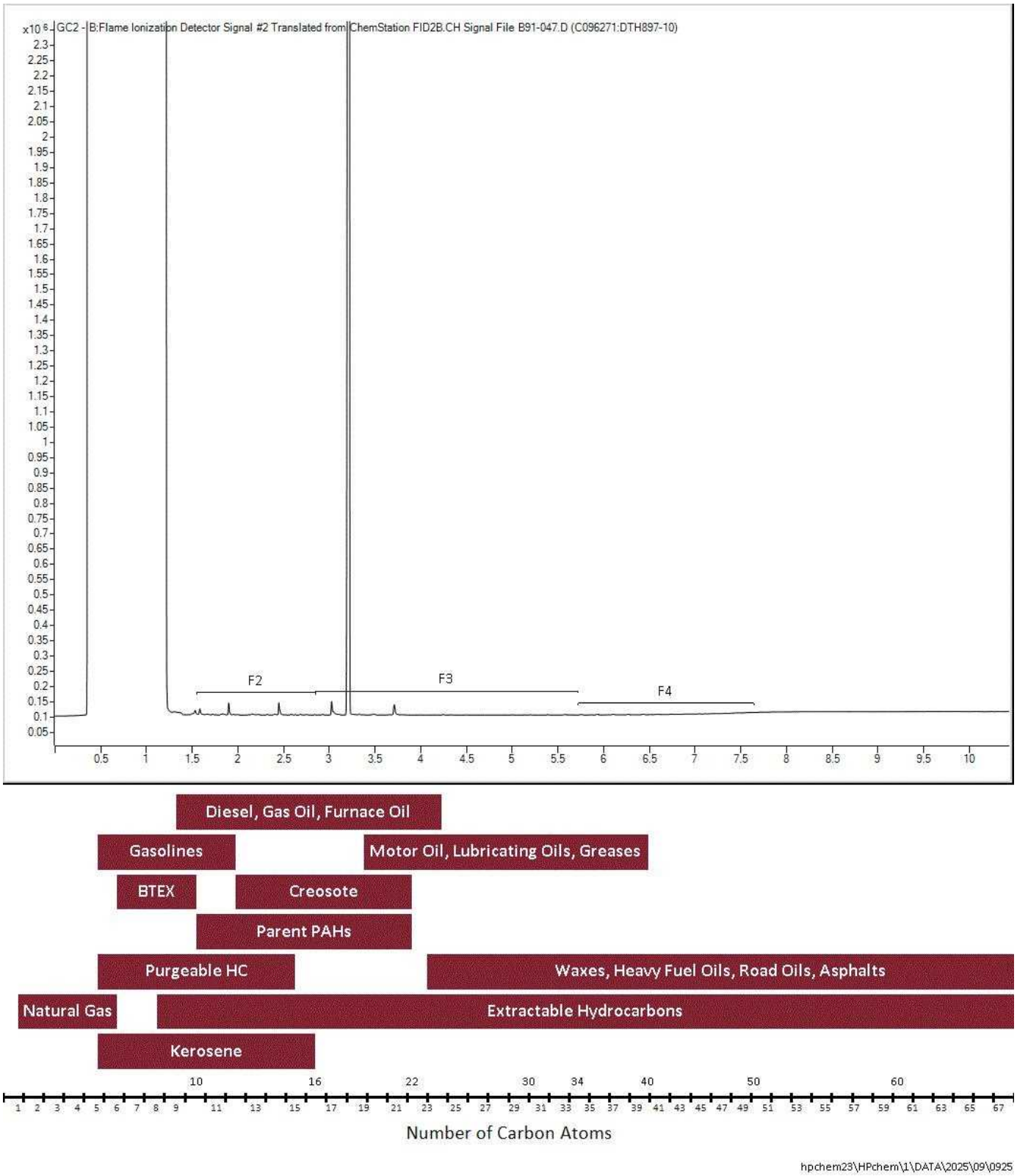
Bureau Veritas Job #: C579805
Report Date: 2025/09/26
Bureau Veritas Sample: DTH897

Advisian
Task Order#:417085-59897Line Item:
Site#:
Site Location: NORMAN WELLS, NT
Client ID: AEMP-US-01

CCME Hydrocarbons in Water (F2; C10-C16) Chromatogram



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Maxxam
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EXXON MOBIL/IMPERIAL OIL - MAXXAM CHAIN-OF-CUSTODY RECORD

Page 1 of 1

C of C # 292283

INVOICE INFORMATION	REPORT INFORMATION
Company Name: ☒ Imperial Oil ☐ ExxonMobil	Company Name: Worley
Contact Name: Stacy Gibb	Contact Name: Stacy Gibb
Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9	Address: 49 Quarry Park Blvd SE Calgary, AB T2C 5H9
Email: stacy.gibb@worley.com	Email: stacy.gibb@worley.com
Ph: 587 434 5393	Ph: 587 434 5393
Sampler Name (Print): Brendan Chapman / Stacy Gibb	Consultant Project #: 417085-59897-25200

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE (YYYY/MM/DD)	SAMPLING: TIME (24 HR)	FIELD FILTERED & PRESERVED	LAB FILTRATION REQUIRED	VOC	PAH	PHCs (FRACTIONS 1-2 PLUS BTEX)	PHCs (FRACTIONS 1-4 PLUS BTEX)	PHCs (FRACTIONS 2-4)	PHCs (FRACTION 1 PLUS BTEX)	GRAIN SIZE (75 MICRON)	TEXTURE (% SAND, SILT, CLAY)	PARTICLE SIZE DISTRIBUTION WITH GRAPH	REGULATED METALS: TOT ☒ DIS ☒	MERCURY: TOTAL ☒ DISSOLVED ☒	SALINITY SOIL	FERTILIZER SOIL	FERTILIZER WATER	NUTRIENTS SOIL	ROUTINE POTABILITY	pH ☐ EC ☐ ALKALINITY ☐	BASIC CLASS II LANDFILL PKG	True color, TSS, TDS, Turbidity	Oil & Grease	Tot. Diss. Sulphide, COD	Nitrate, Nitrite, Ammonia, Total TKN	Orthophosphate	Sulphur - Total & dissolved	TPH
1	AEMP-US-03		X			14	2025/09/16	11:31	X			X	X							X	X					X			X	X	X	X	X	X	X
2	AEMP-US-02		X			14	2025/09/16	10:50	X			X	X							X	X					X			X	X	X	X	X	X	X
3	AEMP-US-01		X			M	2025/09/16	09:55	X			X	X							X	X					X			X	X	X	X	X	X	X
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			

MCAL-2025-09-1527

C579805

IOL SITE LOCATION: Norman Wells, NT

IOL PROJECT # (if applicable): NA

MAXXAM TASK ORDER # OR SERVICE ORDER # + LINE ITEM: 417085-59897-25200

REGULATORY CRITERIA / DETECTION LIMITS:
☐ Alberta Tier 1 ☐ CDWG
☐ SEQG (SK) ☐ NoSC (SK)
☒ CCME (incl. level) FAL ☐ Other

SPECIAL INSTRUCTIONS: also email Canada.Chemistry@worley.com Cacal_IOR database@worley.com IES A2601436

JARS USED & NOT SUBMITTED (Enter N/A for Water): N/A

TURNAROUND TIME
Standard (5 days) ☒
Rush (3 days) ☐
(2 days) ☐
(1 day) ☐
(same day) ☐
Date Required

LAB USE ONLY
MAXXAM JOB #

	YES	NO	COOLER ID #			
SEAL PRESENT	/					
SEAL INTACT	/					
COOLING MEDIA PRESENT	/		TEMP °C	6	6	6
				1	2	3

	YES	NO	COOLER ID #			
SEAL PRESENT						
SEAL INTACT						
COOLING MEDIA PRESENT			TEMP °C	1	2	3

	YES	NO	COOLER ID #			
SEAL PRESENT						
SEAL INTACT						
COOLING MEDIA PRESENT			TEMP °C	1	2	3

RELINQUISHED BY:		DATE:	TIME (24 HR)	RECEIVED BY:		DATE:	TIME (24 HR)
1.	STACY GIBB	2025/09/18	10:30	1.	Brittney Cahill	2025/09/19	14:50
2.				2.			
3.				3.			

SAMPLES
LABELED BY:
VERIFIED BY:

COC-1010 (06/2016) IOL-AB

White: Maxxam Yellow: Client

Enzyme and Protein Assay - Fish Cytochrome P450 1A1 (CYP1A1)

2025

Zhongzhi Chen

Report Prepared for
WORLEY CANADA SERVICES LTD.

BY INNOTECH ALBERTA INC.
Environmental Services
Hwy 16A & 75 Street
Vegreville, Alberta T9C 1T4

CONFIDENTIAL

Contract No. SA-417085-59897_PO7001057131

March 16, 2026

Classification: Protected A

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Classification: Protected A

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Reviewed by
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Title: Principal Researcher
InnoTech Alberta Inc.

Classification: Protected A

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ACKNOWLEDGEMENTS

The author would like to thank Jim Davies, Brian Eaton, Corinne Coffey, Susan Koziel, and Marshall McKenzie for technical and administrative support on this study.

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ACRONYMS

Acronym	Definition
AhR	Aryl hydrocarbon receptor
BCA	Bicinchoninic acid
CV	Coefficient of Variation
ELISA	Enzyme-linked immunosorbent assay
EROD	Ethoxyresorufin O-deethylase
SD	Standard deviation
βNF	β-naphthoflavone
µg/mL	Microgram per milliliter
pg/mL	Picogram per milliliter

1.0 INTRODUCTION

1.1 BACKGROUND

This is the third year of a five-year project, following the previous agreements (no. SA-417085-47621-23030_PO7001054860 and SA-417085-54419-24200_PO7001056503). The objective of this project was to quantify fish cytochrome P450 1A1 (CYP1A1) and total protein in a collection of slimy sculpins (*Cottus cognatus*) and large-bodied fish species liver samples.

Worley (Advisian) submitted 60 raw slimy sculpin fish liver samples for analysis at the end of September 2025. Large-bodied fish species liver samples (11 samples) were also provided to InnoTech for preliminary testing. Refer to Table 1 for a list of samples. Samples were stored at -80 ˚C until analyses could be completed.

While previous analysis indicated that samples under 25 mg are often too small to produce results, 2 samples weighed less than 25 mg (AEMP-FS-03-33 and AEMP-FS-03-59) were found. Both samples were analyzed with fewer technical replicates, and a total of 71 liver samples were analyzed. Triploid brook trout (*Salvelinus fontinalis*) liver samples (13 samples) were also provided to InnoTech for preliminary testing, method establishment, and verification in 2023/24 and continue to be used as internal controls.

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2.0 MATERIALS AND METHODS

2.1 FISH CYTOCHROME P450 1A1 (CYP1A1)

It was anticipated that fish liver subcellular fractions (mitochondrial homogenate supernatant (S-9 fraction) and microsomes) would produce higher enzyme activities compared to the current tissue homogenate preparation method (Shen et al., 2016). However, preliminary testing with triploid brook trout liver samples indicated the S-9 fraction and microsome (47,808 x g for 2.5 hours) protocol (Hodson et al., 1991) does not appear to generate considerably higher CYP1A1 activity than CUSABIO's tissue homogenate protocol. The enzyme activity of brook trout in the liver S9 fraction (130 – 151 n = 4) and microsomes (142 – 147 pg/mL, n = 4) was only slightly higher than that using CUSABIO's protocol (102 - 141 pg/mL, n = 5). Therefore, the CYP1A1 assay was conducted as per CUSABIO's instructions for tissue homogenates to maintain procedural consistency with previous years' analyses (CUSABIO, 2023). The fish cytochrome P450 1A1 (CYP1A1) enzyme-linked immunosorbent assay (ELISA) kits were procured and shipped to InnoTech Alberta, Vegreville, by Worley at the end of September 2025 (Appendix 1).

2.2 TOTAL PROTEIN

Samples were assayed for total protein using the Pierce™ BCA Protein Assay Kits from ThermoFisher (Catalog Number A55865, 500 mL), as per the manufacturer's instruction (ThermoFisher Scientific, 2023). The microplate version of the procedure (25 µL sample per microplate well) was used to accommodate the small sample biomass. A previous Pierce™ BCA (Bicinchoninic acid) Protein Assay kit purchased by InnoTech in late January 2025 was used. Additional details of this Protein Assay kit can be found in the previous year's report.

2.3 POSITIVE CONTROL

Nautilus Environmental (Nautilus) was contracted to conduct a 96-hour static-renewal exposure to β-naphthoflavone (βNF) and a methanol solvent control (0.1 mL/L; 0.01%) on rainbow trout (*Onchorhynchus mykiss*). A negative laboratory control was also conducted for best practice. Literature indicated that βNF has been used as an Aryl hydrocarbon receptor (AhR) agonist to elucidate its effect on Cyp1A1 expression in embryos of transgenic cytochrome P450 1A1 (cyp1a) reporter zebrafish (Kim et al., 2013). In addition, βNF, a model inducer, has been used as a positive control for ethoxyresorufin O-deethylase (EROD) assays of rainbow trout (Hodson et al., 1996). βNF is also selected due to the ease of sourcing and non-hazardous nature (b-Naphthoflavone = 98 6051-87-2 (sigmaaldrich.com)). A final concentration of 10 µg/L βNF in 100 µL/L methanol, from a stock solution of 100 µg βNF/mL methanol, was applied as per the literature (Hodson et al., 1996)(Burridge et al., 2011). More details were provided by Nautilus in Appendix 2. No reference toxicant data was provided.

2.4 DATA ANALYSIS

All results are presented as means of three technical replicates unless otherwise specified. Standard curves were generated using Curve Expert Professional 2.7.3. Standard deviation (SD) and coefficient of variation (CV) were calculated for QA/QC purposes. The reported values were normalized with the total protein level of each fish liver sample. No additional statistical analysis was performed. All raw data are provided as separate files (Appendix 3).

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3.0 RESULTS

Table 1 lists CYP1A1 level, total protein, and normalized values of fish liver samples.

Table 1. CYP1A1 level, total protein, and normalized values of fish liver samples (mean of three technical replications).

No.	Client Sample ID	CYP1A1 (pg/mL)	Total protein (BCA, µg/mL)	Normalized (pg/mg protein)
1	AEMP-FS-01-32	119	5231	23
2	AEMP-FS-01-33	136	5885	23
3	AEMP-FS-01-34	122	5642	22
4	AEMP-FS-01-35	97	5837	17
5	AEMP-FS-01-38	99	6740	15
6	AEMP-FS-01-39	97	5790	17
7	AEMP-FS-01-40	97	6891	14
8	AEMP-FS-01-42	125	4900	25
9	AEMP-FS-01-44	144	5981	24
10	AEMP-FS-01-45	113	5785	19
11	AEMP-FS-01-46	98	7101	14
12	AEMP-FS-01-47	112	5356	21
13	AEMP-FS-01-48	135	5253	26
14	AEMP-FS-01-51	100	6274	16
15	AEMP-FS-01-52	106	4651	23
16	AEMP-FS-01-53	140	5642	25
17	AEMP-FS-01-54	117	5905	20
18	AEMP-FS-01-55	90	5155	18
19	AEMP-FS-01-57	137	5894	23
20	AEMP-FS-01-59	102	5562	18
21	AEMP-FS-02-25	134	6716	20
22	AEMP-FS-02-27	126	4596	27
23	AEMP-FS-02-28	92	6813	14
24	AEMP-FS-02-31	92	6471	14
25	AEMP-FS-02-32	114	5574	20
26	AEMP-FS-02-35	130	6604	20
27	AEMP-FS-02-37	130	4718	28
28	AEMP-FS-02-40	101	7154	14
29	AEMP-FS-02-41	134	5229	26
30	AEMP-FS-02-43	143	5574	26
31	AEMP-FS-02-44	92	5306	17
32	AEMP-FS-02-46	98	9510	10
33	AEMP-FS-02-47	94	5100	18

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No.	Client Sample ID	CYP1A1 (pg/mL)	Total protein (BCA, µg/mL)	Normalized (pg/mg protein)
34	AEMP-FS-02-48	108	5867	18
35	AEMP-FS-02-49	97	5978	16
36	AEMP-FS-02-50	87	5436	16
37	AEMP-FS-02-52	118	5829	20
38	AEMP-FS-02-53	128	8098	16
39	AEMP-FS-02-54	128	6471	20
40	AEMP-FS-02-56	91	5344	17
41	AEMP-FS-03-32	91	6117	15
42	AEMP-FS-03-33	83[a]	7059	12
43	AEMP-FS-03-34	98	5798	17
44	AEMP-FS-03-35	92	8858	10
45	AEMP-FS-03-36	96	7555	13
46	AEMP-FS-03-40	110	4958	22
47	AEMP-FS-03-43	93	6937	13
48	AEMP-FS-03-45	97	5541	17
49	AEMP-FS-03-47	101	7133	14
50	AEMP-FS-03-48	96	6247	15
51	AEMP-FS-03-50	107	6509	16
52	AEMP-FS-03-51	94	6302	15
53	AEMP-FS-03-52	90	7025	13
54	AEMP-FS-03-53	86	5589	15
55	AEMP-FS-03-54	97	8958	11
56	AEMP-FS-03-55	89	7263	12
57	AEMP-FS-03-56	105	8327	13
58	AEMP-FS-03-57	93	8499	11
59	AEMP-FS-03-58	96	5736	17
60	AEMP-FS-03-59	88[b]	8692	10
61	CHBK1	177	5639	31
62	CHBK2	118	5931	20
63	CHBK3	185	6979	26
64	CHBK4	167	6253	27
65	CHBK5	145	5759	25
66	FGH1	80	3958	20
67	FGH2	93	4215	22
68	FGH3	65[c]	7037	9
69	FGH4	149	5759	26
70	FGH5	140	6074	23
71	FGH6	125	5537	23

[a] Two technical replicates, [b] One technical replicate, [c] Below detection limit (75 pg/mL)

Classification: Protected A

4.0 DISCUSSION AND CONCLUSIONS

A positive control (livers from rainbow trout exposed to the AhR agonist βNF) was prepared by Nautilus (96-hr exposure at 10 µg βNF/L). These βNF-exposed livers were intended to serve as a "high-CYP1A1" control, since βNF is known to induce CYP1A1 (e.g., via EROD activity in trout). Contrary to expectations, the βNF-treated trout did not show higher CYP1A1 levels than unexposed controls (Table 2). Total protein levels were comparable across all treatment groups, confirming that the tissue samples were of equivalent quality and that any induction of CYP1A1 was not masked by general protein loss (Table 3). This outcome was unexpected and suggests that the intended induction did not result in a detectable increase in CYP1A1 protein. Nautilus's exposure report confirms 100% survival and healthy fish (mean liver weight ~50 mg across all groups) (Appendix 2), indicating that the lack of response is unlikely to be due to toxicity. Sample degradation was also unlikely, given that the cold chain was maintained.

Table 2. CYP1A levels of laboratory control (dechlorinated municipal tap water), solvent control (100 µL/L methanol), and positive control (10 µg/L βNF in 100 µL/L methanol).

Treatment	CYP1A1 (pg/mL)	Standard deviation (SD, pg/mL)	Coefficient of variation (CV)	Biological replication (n)
laboratory control	93	1	1.2%	3
Solvent control	86	6	7.2%	3
Positive control	91	6	6.6%	6
Positive control (10x)	88	9	10.0%	3
Positive control (100x)	88	2	2.4%	3

Table 3. Total protein levels of laboratory control (dechlorinated municipal tap water), solvent control (100 µL/L methanol), and positive control (10 µg/L βNF in 100 µL/L methanol).

Treatment	Total protein (BCA, ug/mL)	Standard deviation (SD, ug/mL)	Coefficient of variation (CV)	Biological replication (n)
laboratory control	6,431	321	5.0%	2
Solvent control	6,253	241	3.9%	2
Positive control	6,796	317	4.7%	3

Several factors may explain the absent CYP1A1 elevation in the positive control:

- Species-Specific Induction: Fish CYP1A1 can vary among species, it is possible the liver CYP1A1 protein increase was not as high as anticipated if induction kinetics vary. Rainbow trout may require different exposure conditions or longer exposure times to significantly upregulate CYP1A1. The induction kinetics could be slower or lower in this species/life stage, meaning the 96-hour βNF exposure might not have led to a large increase in CYP1A1 protein.
- High-Dose Effects: While literature notes that some compounds paradoxically inhibit EROD at high concentrations (Brüschweiler et al., 1996), the βNF dose used (10 µg/L) is within a typical range, so significant AhR pathway inhibition is unlikely in this case.

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- Antibody Cross-Reactivity: While the kit claims "excellent specificity for fish CYP1A1", the ELISA's monoclonal antibody may have suboptimal affinity for rainbow trout CYP1A1 if the trout protein's epitope differs from the kit's standard. The kit's plate is pre-coated with an antibody specific to CYP1A1, and the assay uses biotinylated CYP1A1 competing with the sample antigen for binding. It should be noted that the ELISA kit uses a mouse monoclonal antibody to detect the CYP1A1 target (described at https://www.uniprot.org/uniprotkb/Q6JZS3/) and the analytical standard for the assay is a recombinant protein produced by Chinese hamster ovary (CHO) cells (Personal communication, Shaun Duan, Wuhan Huamei Biotech Co., Ltd., February 23, 2024). Thus, even if CYP1A1 was induced, the assay might under-detect it due to limited cross-reactivity.
- Assay Detection Limits: All measured CYP1A1 concentrations (~86–93 pg/mL in controls and βNF group) clustered near the kit's lower quantification limit (75 pg/mL). It's possible that any modest increase in the positive control could fall within normal variability and remain indistinguishable from control values.

In summary, the planned "high-CYP1A1" positive control did not produce a discernible rise in CYP1A1 protein levels. It is possible that CYP1A1 was, in fact, induced biologically, but only to a degree detectable by functional activity assays (e.g., EROD) and not by the immunoassay. This discrepancy highlights the need to verify CYP1A1 induction through alternative approaches in future studies.

Overall, CYP1A1 protein was successfully quantified in all fish liver samples; however, no significant elevation in CYP1A1 was observed in any sample presumed to be induced. Possible reasons include biological variability in CYP1A1 inducibility in the test species and/or technical limitations of the assay (e.g. antibody specificity or sensitivity constraints). An enzyme activity assay (EROD) may be necessary to determine whether CYP1A1 was functionally induced despite the low immunoassay readings.

5.0 RECOMMENDATIONS

Recommendations for future testing include:

- Validate CYP1A1 induction with an EROD assay: Implement a complementary ethoxyresorufin O-deethylase (EROD) enzyme activity assay on a subset of samples in the next project phase. The EROD assay directly measures CYP1A1-related enzyme activity and is widely used in fish toxicology. Running the traditional fluorometric EROD test (Hodson et al., 1991) on the positive control and select project samples will confirm whether CYP1A1 was functionally induced even if the ELISA did not detect a protein increase. This parallel testing will help establish correlations between ELISA and EROD results and improve confidence in the interpretation and comparison of historical data.
- Evaluate alternative ELISA kits: Consider testing one or more commercial ELISA kits with higher sensitivity or better cross-reactivity with rainbow trout CYP1A and/or EROD. For example, kits from several suppliers, such as BioVenic, Byabscience, SunLong, and YL Biotech (Ylbiont), offer different detection ranges (some extending to lower and higher quantification limits) and are designed for various fish species (see Appendices 4 and 5). An alternate kit could potentially detect CYP1A or EROD increases that the current CUSABIO kit missed. Any new kit should be validated on known samples (including a positive control) to ensure it provides the desired improvement before fully switching methods.
- Pursue a verified positive control sample: Given the difficulties in achieving an in-house positive control, continue efforts to obtain pre-induced (high CYP1A1) fish liver tissues from external sources. Outreach to academic or government labs (e.g., Environment and Climate Change Canada) is ongoing. If successful, testing such a tissue with our assay will verify whether the ELISA can detect a true high-CYP1A1 level, or if the assay's current lack of response was specific to our experimental conditions.
- Consider assay development options (longer-term): If commercial kits and activity assays do not resolve the issue, a longer-term approach is to explore developing a custom or in-house ELISA. This would involve sourcing high-affinity antibodies against trout CYP1A (See Appendix 6) and thorough validation with known standards. However, this approach is relatively resource-intensive and carries performance risks. It is not recommended unless simpler solutions (steps 1–3 above) prove inadequate.

Classification: Protected A

6.0 REFERENCES

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Classification: Protected A

APPENDIX 1: FISH CYTOCHROME P450 1A1(CYP1A1) ELISA KIT

Shipping Invoice provided by Cedarlane

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APPENDIX 2: B-NAPHTHOFLAVONE (BNF) 96-HOUR RAINBOW TROUT EXPOSURE

Memo: β-naphthoflavone 96-hour Rainbow Trout Static Renewal Exposure provided by Nautilus

Classification: Protected A

APPENDIX 3: RAW DATA

Classification: Protected A

APPENDIX 4: ALTERNATIVE CYP1A ELISA KITS

Fish Cytochrome P450 1A1 (CYP1A1) ELISA Kit-Competitive User Manual provided by BioVenic

Fish CYP1A (CYP1A) ELISA kit Manual provided by BYabscience

Fish Cytochrome P450 1A1 (CYP1A1) ELISA Kit User's Manual provided by SunLong Biotech Co. Ltd.

Fish Cytochrome P450 1A1(CYP1A1) ELISA Kit User Information provided by YLbiont

APPENDIX 5: ALTERNATIVE EROD ELISA KITS

Fish Ethoxyresorufin-O-deethylase ELISA Kit User Instruction provided by BT LAB (Bioassay Technology Laboratory)

Fish 7-ethoxy-3-isophenoxazolone-deethylase (EROD) Quantitative Detection Kit User Information provided by BYabscience

Fish Ethoxyresorufin-O-deethylase ELISA Kit User Information provided by MyBiosource.com

Fish Ethoxyresorufin-O-deethylase (EROD)ELISA Kit User's Manual provided by SunLong Biotech Co. Ltd.

APPENDIX 6: MONOCLONAL ANTIBODY

Product Description of Mouse Anti-fish CYP1A Peptide, Monoclonal Antibody, C10-7 provided by Biosense Laboratories

Classification: Protected A

TrichAnalytics
LABORATORY

Tissue Microchemistry Analysis Report

Client: Graham Young
Senior Fish Biologist
Worley Consulting
Phone: 403-968-1545
Email: graham.young@worley.com; canada.chemistry@worley.com; stacy.gibb@worley.com; sscapinv-americas@worley.com

Date Received:	09 Oct 2025
Date of Analysis:	29 Oct 2025
Final Report Date:	04 Nov 2025
Project No.:	2025-930
Method No.:	MET-002.09

Client Project: 417085-59897-25200

Analytical Request: Fish Muscle Tissue Microchemistry (total metals & moisture) - 65 samples.
See chain of custody form provided for sample identification numbers.

Notes:

Analytical results are expressed in parts per million (ppm) dry weight (equivalent to mg/kg).
Samples quantified using DORM-5, NIST-1566b, and NIST-2976 certified reference standards.
RPD values calculated according to the British Columbia Environmental Laboratory Manual (2020) criteria.
Sample IDs # 001 to 060 were received as whole fish and muscle only was extracted to best of ability for analysis.

This report provides the analytical results only for tissue samples noted above as received from the Client.

Reviewed and Approved by Jennie Christensen, PhD, RPBio — Date: 04 Nov 2025

[The analytical report shall not be reproduced except in full under the expressed written consent of TrichAnalytics Inc.]

TrichAnalytics Inc.
207-1753 Sean Heights
Saanichton, BC V8M 0B3
www.trichanalytics.com

CALA Testing Accreditation No. A4196

Worley Consulting

Tissue Analysis Results

		Client ID	AEMP-FS-01-32	AEMP-FS-01-33	AEMP-FS-01-34	AEMP-FS-01-35	AEMP-FS-01-38
		Lab ID	001	002	003	004	005
		Wet Weight (g)	0.0889	0.1440	0.1374	0.1540	0.1770
		Dry Weight (g)	0.0171	0.0379	0.0305	0.0359	0.0457
		Moisture (%)	80.8	73.7	77.8	76.7	74.2
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023	0.033	0.044	0.033	0.033	0.096
11B	0.115	0.383	0.143	0.148	0.143	0.143	0.126
23Na	3.0	10	4,905	3,087	3,313	4,088	3,250
24Mg	0.277	0.923	1,228	1,538	1,414	1,437	1,418
27Al	0.066	0.220	114	57	36	18	82
31P	81	270	13,573	11,323	11,619	13,129	11,409
39K	11	37	20,431	16,323	16,626	20,147	16,221
44Ca	19	63	2,155	2,225	1,870	1,979	1,954
49Ti	0.171	0.570	5.7	3.0	2.6	2.0	5.0
51V	0.017	0.057	0.521	0.356	0.248	0.154	0.277
52Cr	0.068	0.227	5.0	3.8	2.8	1.6	2.3
55Mn	0.008	0.027	6.3	4.4	4.0	2.9	5.0
57Fe	4.0	13	292	229	167	99	168
59Co	0.004	0.013	0.750	0.615	0.414	0.258	0.292
60Ni	0.001	0.003	25	18	12	6.0	10
63Cu	0.009	0.030	2.8	2.5	2.8	1.9	2.0
66Zn	0.396	1.3	77	44	58	39	42
75As	0.355	1.2	<0.355	0.461	<0.355	<0.355	<0.355
77Se	0.367	1.2	6.5	8.1	9.7	4.9	5.6
88Sr	0.001	0.003	3.0	3.7	2.7	2.8	2.9
95Mo	0.029	0.097	0.096	0.077	<0.029	0.067	0.043
107Ag	0.001	0.003	0.004	0.002	0.004	<0.001	0.004
111Cd	0.042	0.140	0.067	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150	0.682	0.363	0.317	0.444	0.177
121Sb	0.003	0.010	0.010	0.010	0.004	0.006	0.006
137Ba	0.001	0.003	1.7	1.1	0.614	0.709	1.3
202Hg	0.058	0.193	0.600	0.798	0.586	0.528	0.864
205Tl	0.001	0.003	0.036	0.049	0.038	0.044	0.036
208Pb	0.002	0.007	0.046	0.022	0.015	0.022	0.031
238U	0.001	0.003	<0.001	<0.001	<0.001	<0.001	0.002

Notes:

ppm = parts per million

DL = detection limit

LOQ = limit of quantitation

< = less than detection limit

g = grams

% = percent

Worley Consulting

Tissue Analysis Results

		Client ID	AEMP-FS-01-39	AEMP-FS-01-40	AEMP-FS-01-42	AEMP-FS-01-44	AEMP-FS-01-45
		Lab ID	006	007	008	009	010
		Wet Weight (g)	0.1639	0.1348	0.1762	0.1309	0.1670
		Dry Weight (g)	0.0375	0.0336	0.0385	0.0299	0.0370
		Moisture (%)	77.1	75.1	78.1	77.2	77.8
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023	0.030	0.033	0.030	0.035	0.039
11B	0.115	0.383	<0.115	0.154	<0.115	<0.115	<0.115
23Na	3.0	10	3,121	2,961	3,745	3,419	4,256
24Mg	0.277	0.923	1,792	1,498	1,546	1,445	1,435
27Al	0.066	0.220	19	31	23	46	58
31P	81	270	12,660	11,896	11,385	12,542	11,794
39K	11	37	19,943	17,140	16,972	18,940	19,242
44Ca	19	63	2,099	2,001	2,110	2,030	1,747
49Ti	0.171	0.570	2.0	2.1	2.0	3.8	3.5
51V	0.017	0.057	0.125	0.318	0.179	0.211	0.312
52Cr	0.068	0.227	1.4	3.4	2.0	4.2	3.9
55Mn	0.008	0.027	3.2	4.7	3.8	5.9	5.1
57Fe	4.0	13	79	185	115	278	214
59Co	0.004	0.013	0.136	0.475	0.286	0.200	0.524
60Ni	0.001	0.003	4.6	17	7.9	18	17
63Cu	0.009	0.030	1.8	2.1	1.9	2.6	2.3
66Zn	0.396	1.3	49	48	57	48	58
75As	0.355	1.2	<0.355	<0.355	<0.355	0.387	0.410
77Se	0.367	1.2	4.3	5.3	6.6	6.0	5.6
88Sr	0.001	0.003	3.3	2.8	3.4	3.7	2.7
95Mo	0.029	0.097	0.038	0.038	0.033	0.216	0.078
107Ag	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140	<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150	0.327	0.277	0.237	0.420	0.261
121Sb	0.003	0.010	<0.003	0.004	0.004	0.008	0.008
137Ba	0.001	0.003	0.709	0.600	0.628	0.835	0.875
202Hg	0.058	0.193	0.723	0.534	0.775	0.855	0.710
205Tl	0.001	0.003	0.051	0.038	0.045	0.052	0.038
208Pb	0.002	0.007	0.012	0.017	0.015	0.028	0.028
238U	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

ppm = parts per million

DL = detection limit

LOQ = limit of quantitation

< = less than detection limit

g = grams

% = percent

Worley Consulting

Tissue Analysis Results

			Client ID	AEMP-FS-01-46	AEMP-FS-01-47	AEMP-FS-01-48	AEMP-FS-01-51	AEMP-FS-01-52
			Lab ID	011	012	013	014	015
			Wet Weight (g)	0.0715	0.0575	0.1142	0.1465	0.1840
			Dry Weight (g)	0.0178	0.0134	0.0284	0.0362	0.0411
			Moisture (%)	75.1	76.7	75.1	75.3	77.7
Parameter	DL (ppm)	LOQ (ppm)		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023		0.102	0.084	0.033	0.027	0.039
11B	0.115	0.383		0.258	0.209	0.161	0.124	0.129
23Na	3.0	10		5,147	7,100	3,316	4,090	3,873
24Mg	0.277	0.923		1,354	1,894	1,250	1,413	1,492
27Al	0.066	0.220		96	123	21	19	53
31P	81	270		13,487	13,292	10,939	12,130	12,551
39K	11	37		24,772	19,343	17,313	18,225	21,807
44Ca	19	63		1,890	2,441	1,897	2,029	1,829
49Ti	0.171	0.570		4.8	4.8	2.1	2.1	3.5
51V	0.017	0.057		0.417	0.586	0.119	0.143	0.274
52Cr	0.068	0.227		4.1	5.5	2.2	2.0	2.8
55Mn	0.008	0.027		5.4	6.7	3.7	3.0	3.9
57Fe	4.0	13		254	351	124	110	177
59Co	0.004	0.013		0.646	0.932	0.170	0.327	0.400
60Ni	0.001	0.003		17	26	8.3	7.6	13
63Cu	0.009	0.030		3.0	3.5	2.9	2.0	2.3
66Zn	0.396	1.3		59	113	49	54	60
75As	0.355	1.2		<0.355	0.398	0.364	<0.355	<0.355
77Se	0.367	1.2		6.1	5.1	3.7	6.5	4.4
88Sr	0.001	0.003		3.0	5.9	3.4	3.1	2.7
95Mo	0.029	0.097		0.204	0.144	0.120	0.036	0.084
107Ag	0.001	0.003		0.004	0.004	<0.001	<0.001	<0.001
111Cd	0.042	0.140		<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150		0.713	0.427	0.241	0.190	0.263
121Sb	0.003	0.010		0.010	0.013	0.006	0.005	0.004
137Ba	0.001	0.003		1.7	1.6	0.583	0.557	0.888
202Hg	0.058	0.193		0.469	1.0	0.464	0.687	0.536
205Tl	0.001	0.003		0.053	0.030	0.036	0.044	0.044
208Pb	0.002	0.007		0.048	0.054	0.025	0.017	0.025
238U	0.001	0.003		0.002	0.002	<0.001	<0.001	<0.001

Notes:

ppm = parts per million

DL = detection limit

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< = less than detection limit

g = grams

% = percent

Worley Consulting

Tissue Analysis Results

			Client ID	AEMP-FS-01-53	AEMP-FS-01-54	AEMP-FS-01-55	AEMP-FS-01-57	AEMP-FS-01-59
			Lab ID	016	017	018	019	020
			Wet Weight (g)	0.1660	0.1719	0.1581	0.1006	0.1591
			Dry Weight (g)	0.0367	0.0326	0.0340	0.0218	0.0322
			Moisture (%)	77.9	81.0	78.5	78.3	79.8
Parameter	DL (ppm)	LOQ (ppm)		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023		0.039	0.035	0.035	0.027	0.047
11B	0.115	0.383		0.129	0.161	<0.115	0.129	0.118
23Na	3.0	10		4,414	4,405	5,561	3,788	5,172
24Mg	0.277	0.923		1,561	1,328	1,200	1,569	1,240
27Al	0.066	0.220		20	35	39	17	25
31P	81	270		13,974	14,166	10,652	12,989	12,728
39K	11	37		22,415	22,722	17,498	20,116	21,295
44Ca	19	63		1,822	1,698	1,669	1,958	1,830
49Ti	0.171	0.570		2.3	2.7	2.4	1.8	1.6
51V	0.017	0.057		0.119	0.379	0.255	0.145	0.219
52Cr	0.068	0.227		1.4	3.8	2.6	1.8	2.2
55Mn	0.008	0.027		3.3	4.6	3.2	3.1	3.4
57Fe	4.0	13		96	222	169	111	143
59Co	0.004	0.013		0.165	0.538	0.442	0.214	0.325
60Ni	0.001	0.003		4.3	18	12	6.5	7.6
63Cu	0.009	0.030		2.2	2.4	2.1	2.2	2.2
66Zn	0.396	1.3		62	110	63	47	74
75As	0.355	1.2		<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2		4.5	4.2	3.4	7.7	5.3
88Sr	0.001	0.003		2.9	2.6	2.8	3.2	3.2
95Mo	0.029	0.097		0.036	0.084	0.084	0.066	0.072
107Ag	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140		<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150		0.431	0.565	0.310	0.220	0.429
121Sb	0.003	0.010		0.003	0.007	0.006	0.005	0.007
137Ba	0.001	0.003		0.663	0.557	0.703	0.557	0.716
202Hg	0.058	0.193		0.813	1.0	0.844	1.1	0.911
205Tl	0.001	0.003		0.049	0.050	0.026	0.047	0.047
208Pb	0.002	0.007		0.025	0.017	0.023	0.017	0.027
238U	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

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Worley Consulting

Tissue Analysis Results

		Client ID	AEMP-FS-02-25	AEMP-FS-02-27	AEMP-FS-02-28	AEMP-FS-02-31	AEMP-FS-02-32
		Lab ID	021	022	023	024	025
		Wet Weight (g)	0.1399	0.2046	0.2018	0.2135	0.1737
		Dry Weight (g)	0.0406	0.0503	0.0536	0.0507	0.0451
		Moisture (%)	71.0	75.4	73.4	76.3	74.0
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023	0.020	0.047	0.024	0.031	0.031
11B	0.115	0.383	<0.115	0.140	0.129	0.140	0.161
23Na	3.0	10	3,245	3,967	3,330	3,835	3,551
24Mg	0.277	0.923	1,423	1,431	1,564	1,454	1,480
27Al	0.066	0.220	6.2	27	23	28	13
31P	81	270	12,782	13,968	12,185	12,065	12,176
39K	11	37	20,386	23,712	17,262	16,866	19,145
44Ca	19	63	1,634	1,591	1,840	1,728	1,810
49Ti	0.171	0.570	1.6	2.4	2.2	2.4	2.0
51V	0.017	0.057	0.074	0.123	0.196	0.182	0.132
52Cr	0.068	0.227	1.5	1.7	2.2	1.8	1.7
55Mn	0.008	0.027	2.0	4.6	4.5	3.9	2.8
57Fe	4.0	13	54	94	111	117	87
59Co	0.004	0.013	0.131	0.105	0.266	0.275	0.192
60Ni	0.001	0.003	3.6	6.5	8.9	5.8	5.7
63Cu	0.009	0.030	1.7	2.6	2.3	1.7	1.9
66Zn	0.396	1.3	30	42	49	57	41
75As	0.355	1.2	<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2	4.6	4.7	4.5	5.7	9.3
88Sr	0.001	0.003	2.3	1.7	2.5	2.2	2.7
95Mo	0.029	0.097	<0.029	0.096	0.036	0.048	0.036
107Ag	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140	<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150	0.296	0.296	0.353	0.306	0.280
121Sb	0.003	0.010	0.005	0.007	0.005	0.008	0.005
137Ba	0.001	0.003	0.318	0.557	0.451	0.769	0.424
202Hg	0.058	0.193	0.492	0.492	1.0	1.3	0.545
205Tl	0.001	0.003	0.029	0.046	0.054	0.045	0.027
208Pb	0.002	0.007	0.008	0.025	0.011	0.020	0.011
238U	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

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Tissue Analysis Results

		Client ID	AEMP-FS-02-35	AEMP-FS-02-37	AEMP-FS-02-40	AEMP-FS-02-41	AEMP-FS-02-43
		Lab ID	026	027	028	029	030
		Wet Weight (g)	0.1865	0.1443	0.1600	0.1759	0.1342
		Dry Weight (g)	0.0468	0.0339	0.0426	0.0435	0.0335
		Moisture (%)	74.9	76.5	73.4	75.3	75.0
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023	0.031	0.036	0.018	0.018	0.018
11B	0.115	0.383	0.124	0.304	<0.115	0.138	0.124
23Na	3.0	10	3,650	3,458	2,436	3,150	3,370
24Mg	0.277	0.923	1,355	1,601	1,529	1,589	1,343
27Al	0.066	0.220	23	11	3.2	7.0	12
31P	81	270	12,048	11,633	10,248	11,416	9,922
39K	11	37	18,383	20,535	13,105	17,408	16,694
44Ca	19	63	1,672	1,975	1,632	1,872	1,716
49Ti	0.171	0.570	2.1	1.8	1.1	1.5	1.4
51V	0.017	0.057	0.149	0.139	0.055	0.067	0.135
52Cr	0.068	0.227	1.7	1.2	1.1	1.0	1.6
55Mn	0.008	0.027	3.4	2.2	2.1	2.6	3.2
57Fe	4.0	13	94	72	44	44	87
59Co	0.004	0.013	0.216	0.162	0.083	0.110	0.229
60Ni	0.001	0.003	5.9	2.9	1.8	1.9	6.1
63Cu	0.009	0.030	2.1	1.9	2.1	1.7	2.2
66Zn	0.396	1.3	47	66	54	43	47
75As	0.355	1.2	<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2	3.2	7.2	4.8	4.2	5.3
88Sr	0.001	0.003	2.4	3.6	2.3	2.9	2.4
95Mo	0.029	0.097	0.048	0.048	<0.029	<0.029	0.043
107Ag	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140	<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150	0.221	0.229	0.192	0.329	0.337
121Sb	0.003	0.010	<0.003	<0.003	<0.003	<0.003	0.003
137Ba	0.001	0.003	0.583	0.510	0.239	0.431	0.510
202Hg	0.058	0.193	0.755	0.496	0.954	1.3	0.507
205Tl	0.001	0.003	0.041	0.037	0.027	0.042	0.031
208Pb	0.002	0.007	0.014	0.012	0.003	0.006	0.009
238U	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

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Tissue Analysis Results

		Client ID	AEMP-FS-02-44	AEMP-FS-02-46	AEMP-FS-02-47	AEMP-FS-02-48	AEMP-FS-02-49
		Lab ID	031	032	033	034	035
		Wet Weight (g)	0.2047	0.3321	0.1154	0.1236	0.2667
		Dry Weight (g)	0.0477	0.0750	0.0282	0.0286	0.0713
		Moisture (%)	76.7	77.4	75.6	76.9	73.3
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023	0.022	0.022	0.018	0.036	0.013
11B	0.115	0.383	0.207	<0.115	0.138	0.180	0.152
23Na	3.0	10	3,887	2,943	3,147	4,442	2,620
24Mg	0.277	0.923	1,585	1,407	1,475	1,266	1,376
27Al	0.066	0.220	5.8	3.4	2.8	23	9.5
31P	81	270	11,687	10,247	10,594	12,296	9,420
39K	11	37	17,320	14,152	18,367	21,248	14,965
44Ca	19	63	1,654	1,610	1,686	1,721	1,553
49Ti	0.171	0.570	1.3	1.4	1.0	2.1	1.0
51V	0.017	0.057	0.097	0.073	0.067	0.143	0.100
52Cr	0.068	0.227	1.2	0.923	0.914	1.2	1.2
55Mn	0.008	0.027	2.3	2.0	2.5	3.0	2.4
57Fe	4.0	13	64	42	35	85	54
59Co	0.004	0.013	0.154	0.092	0.088	0.232	0.128
60Ni	0.001	0.003	2.8	1.5	1.3	4.6	3.4
63Cu	0.009	0.030	1.8	1.8	1.8	2.1	1.9
66Zn	0.396	1.3	50	50	38	71	35
75As	0.355	1.2	<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2	3.9	5.0	3.9	5.2	3.1
88Sr	0.001	0.003	2.3	2.6	2.2	2.3	2.4
95Mo	0.029	0.097	0.057	0.043	<0.029	0.057	0.043
107Ag	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140	<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150	0.176	0.214	0.226	0.319	0.117
121Sb	0.003	0.010	0.003	0.004	<0.003	0.004	<0.003
137Ba	0.001	0.003	0.223	0.287	0.271	0.478	0.446
202Hg	0.058	0.193	0.627	1.1	0.873	0.958	0.655
205Tl	0.001	0.003	0.045	0.043	0.037	0.042	0.050
208Pb	0.002	0.007	0.009	0.009	0.003	0.008	0.006
238U	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

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Tissue Analysis Results

		Client ID	AEMP-FS-02-50	AEMP-FS-02-52	AEMP-FS-02-53	AEMP-FS-02-54	AEMP-FS-02-56
		Lab ID	036	037	038	039	040
		Wet Weight (g)	0.3101	0.1584	0.1865	0.1907	0.1179
		Dry Weight (g)	0.0696	0.0338	0.0412	0.0439	0.0277
		Moisture (%)	77.6	78.7	77.9	77.0	76.5
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023	0.031	0.027	0.022	0.038	0.022
11B	0.115	0.383	0.152	0.193	0.138	0.166	0.152
23Na	3.0	10	3,377	4,192	3,971	3,937	3,668
24Mg	0.277	0.923	1,635	1,364	1,565	1,362	1,364
27Al	0.066	0.220	13	9.8	4.3	16	5.8
31P	81	270	10,064	12,440	11,860	11,143	11,481
39K	11	37	15,325	20,443	18,225	18,263	20,439
44Ca	19	63	1,618	1,609	1,738	1,596	1,552
49Ti	0.171	0.570	1.5	1.7	1.4	2.1	1.4
51V	0.017	0.057	0.075	0.123	0.075	0.080	0.105
52Cr	0.068	0.227	0.844	1.1	1.1	1.0	1.3
55Mn	0.008	0.027	3.3	2.2	2.4	1.8	1.9
57Fe	4.0	13	46	64	48	58	64
59Co	0.004	0.013	0.137	0.119	0.145	0.089	0.164
60Ni	0.001	0.003	1.4	3.2	2.2	2.0	3.3
63Cu	0.009	0.030	1.8	1.4	1.7	1.9	1.7
66Zn	0.396	1.3	63	77	51	66	46
75As	0.355	1.2	<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2	4.3	4.5	4.2	4.8	4.2
88Sr	0.001	0.003	2.4	2.5	2.6	2.5	2.1
95Mo	0.029	0.097	0.057	0.043	0.043	0.057	0.043
107Ag	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140	<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150	0.202	0.148	0.188	0.205	0.193
121Sb	0.003	0.010	<0.003	<0.003	<0.003	<0.003	<0.003
137Ba	0.001	0.003	0.765	0.446	0.319	0.383	0.319
202Hg	0.058	0.193	0.609	1.5	0.866	0.986	0.507
205Tl	0.001	0.003	0.046	0.047	0.041	0.050	0.031
208Pb	0.002	0.007	0.015	0.009	0.006	0.012	0.003
238U	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

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Tissue Analysis Results

			Client ID	AEMP-FS-03-32	AEMP-FS-03-33	AEMP-FS-03-34	AEMP-FS-03-35	AEMP-FS-03-36
			Lab ID	041	042	043	044	045
			Wet Weight (g)	0.1670	0.0808	0.2042	0.1754	0.2473
			Dry Weight (g)	0.0389	0.0209	0.0531	0.0403	0.0595
			Moisture (%)	76.7	74.1	74.0	77.0	75.9
Parameter	DL (ppm)	LOQ (ppm)		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023		0.018	0.015	0.013	0.018	0.028
11B	0.115	0.383		<0.115	<0.115	<0.115	<0.115	0.174
23Na	3.0	10		3,389	3,082	2,615	3,897	4,162
24Mg	0.277	0.923		1,231	1,260	1,331	1,443	1,485
27Al	0.066	0.220		4.7	5.0	5.0	11	18
31P	81	270		10,604	8,425	8,861	13,014	11,669
39K	11	37		19,725	14,666	13,023	17,398	18,083
44Ca	19	63		1,540	1,709	1,533	1,603	1,587
49Ti	0.171	0.570		1.4	1.3	1.1	1.8	2.1
51V	0.017	0.057		0.069	0.074	0.053	0.105	0.096
52Cr	0.068	0.227		0.901	1.3	1.0	1.0	1.2
55Mn	0.008	0.027		2.3	2.2	1.7	3.0	3.1
57Fe	4.0	13		41	59	37	77	64
59Co	0.004	0.013		0.073	0.145	0.148	0.137	0.136
60Ni	0.001	0.003		1.5	3.3	1.5	2.2	3.1
63Cu	0.009	0.030		1.7	2.0	1.6	2.3	2.3
66Zn	0.396	1.3		39	47	37	98	64
75As	0.355	1.2		<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2		4.8	5.3	3.2	4.8	6.8
88Sr	0.001	0.003		2.2	2.7	2.1	2.6	3.1
95Mo	0.029	0.097		<0.029	<0.029	<0.029	<0.029	0.036
107Ag	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140		<0.042	<0.042	<0.042	0.045	<0.042
118Sn	0.045	0.150		0.297	0.347	0.121	0.223	0.276
121Sb	0.003	0.010		<0.003	<0.003	<0.003	<0.003	0.003
137Ba	0.001	0.003		0.287	0.319	0.287	0.414	0.418
202Hg	0.058	0.193		0.831	0.549	0.338	2.7	1.1
205Tl	0.001	0.003		0.036	0.031	0.052	0.044	0.043
208Pb	0.002	0.007		0.006	0.009	0.006	0.009	0.015
238U	0.001	0.003		<0.001	<0.001	<0.001	<0.001	0.002

Notes:

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Tissue Analysis Results

			Client ID	AEMP-FS-03-40	AEMP-FS-03-43	AEMP-FS-03-45	AEMP-FS-03-47	AEMP-FS-03-48
			Lab ID	046	047	048	049	050
			Wet Weight (g)	0.1387	0.2425	0.1696	0.2974	0.2308
			Dry Weight (g)	0.0311	0.0543	0.0435	0.0761	0.0547
			Moisture (%)	77.6	77.6	74.4	74.4	76.3
Parameter	DL (ppm)	LOQ (ppm)		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023		0.024	0.032	0.020	0.020	0.020
11B	0.115	0.383		0.128	<0.115	0.116	<0.115	0.128
23Na	3.0	10		3,908	4,042	2,843	2,783	2,832
24Mg	0.277	0.923		1,302	1,255	1,293	1,416	1,295
27Al	0.066	0.220		3.3	4.1	4.0	3.9	4.4
31P	81	270		11,737	11,288	10,120	11,074	9,844
39K	11	37		18,339	18,867	16,401	16,788	14,656
44Ca	19	63		1,743	1,444	1,534	1,638	1,532
49Ti	0.171	0.570		1.5	1.4	0.972	1.2	1.3
51V	0.017	0.057		0.041	0.036	0.052	0.043	0.038
52Cr	0.068	0.227		0.881	0.870	1.0	0.914	0.835
55Mn	0.008	0.027		2.0	2.6	1.9	2.3	1.7
57Fe	4.0	13		46	39	39	32	37
59Co	0.004	0.013		0.132	0.091	0.072	0.062	0.085
60Ni	0.001	0.003		1.2	1.3	1.6	0.858	1.1
63Cu	0.009	0.030		1.8	1.9	2.0	2.2	1.8
66Zn	0.396	1.3		64	39	44	38	45
75As	0.355	1.2		<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2		7.5	4.6	5.6	3.5	5.0
88Sr	0.001	0.003		2.8	1.7	2.6	2.7	2.5
95Mo	0.029	0.097		<0.029	<0.029	<0.029	<0.029	<0.029
107Ag	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140		<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150		0.278	0.167	0.165	0.176	0.125
121Sb	0.003	0.010		<0.003	<0.003	<0.003	<0.003	<0.003
137Ba	0.001	0.003		0.279	0.223	0.223	0.251	0.265
202Hg	0.058	0.193		0.789	0.904	0.576	0.713	0.866
205Tl	0.001	0.003		0.046	0.056	0.024	0.039	0.027
208Pb	0.002	0.007		0.007	0.007	0.005	0.005	0.005
238U	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

ppm = parts per million

DL = detection limit

LOQ = limit of quantitation

< = less than detection limit

g = grams

% = percent

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Tissue Analysis Results

			Client ID	AEMP-FS-03-50	AEMP-FS-03-51	AEMP-FS-03-52	AEMP-FS-03-53	AEMP-FS-03-54
			Lab ID	051	052	053	054	055
			Wet Weight (g)	0.1348	0.3076	0.1960	0.1346	0.1639
			Dry Weight (g)	0.0322	0.0654	0.0482	0.0338	0.0366
			Moisture (%)	76.1	78.7	75.4	74.9	77.7
Parameter	DL (ppm)	LOQ (ppm)		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023		0.020	0.028	0.016	0.028	0.024
11B	0.115	0.383		<0.115	0.128	<0.115	0.174	0.163
23Na	3.0	10		2,827	3,530	2,923	3,504	3,261
24Mg	0.277	0.923		1,361	1,196	1,059	1,148	1,388
27Al	0.066	0.220		5.3	9.5	4.5	5.0	6.2
31P	81	270		10,095	10,439	8,068	8,988	10,945
39K	11	37		14,180	18,300	14,432	16,268	16,257
44Ca	19	63		1,713	1,571	1,522	1,504	1,532
49Ti	0.171	0.570		1.1	1.4	0.912	1.1	1.1
51V	0.017	0.057		0.045	0.059	0.034	0.062	0.045
52Cr	0.068	0.227		0.942	0.785	0.778	0.984	0.826
55Mn	0.008	0.027		2.6	3.0	1.5	1.7	2.0
57Fe	4.0	13		44	53	37	46	44
59Co	0.004	0.013		0.097	0.102	0.104	0.134	0.092
60Ni	0.001	0.003		1.6	0.983	0.886	1.5	1.1
63Cu	0.009	0.030		2.2	2.0	1.6	1.3	2.4
66Zn	0.396	1.3		37	54	47	42	40
75As	0.355	1.2		<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2		4.8	3.2	5.2	3.5	4.3
88Sr	0.001	0.003		2.5	2.2	2.2	2.2	1.9
95Mo	0.029	0.097		<0.029	0.036	<0.029	0.048	<0.029
107Ag	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140		<0.042	0.063	<0.042	<0.042	<0.042
118Sn	0.045	0.150		0.225	0.170	0.225	0.295	0.330
121Sb	0.003	0.010		<0.003	<0.003	<0.003	<0.003	<0.003
137Ba	0.001	0.003		0.307	0.363	0.279	0.307	0.307
202Hg	0.058	0.193		0.522	0.703	0.458	0.716	0.834
205Tl	0.001	0.003		0.044	0.043	0.043	0.032	0.049
208Pb	0.002	0.007		0.007	0.015	0.010	0.012	0.012
238U	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

ppm = parts per million

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% = percent

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Tissue Analysis Results

			Client ID	AEMP-FS-03-55	AEMP-FS-03-56	AEMP-FS-03-57	AEMP-FS-03-58	AEMP-FS-03-59
			Lab ID	056	057	058	059	060
			Wet Weight (g)	0.1657	0.1579	0.2500	0.2046	0.0815
			Dry Weight (g)	0.0382	0.0377	0.0676	0.0565	0.0247
			Moisture (%)	76.9	76.1	73.0	72.4	69.7
Parameter	DL (ppm)	LOQ (ppm)		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023		0.020	0.020	0.016	0.020	0.037
11B	0.115	0.383		<0.115	0.174	<0.115	<0.115	0.232
23Na	3.0	10		2,984	2,874	2,725	2,959	3,272
24Mg	0.277	0.923		1,216	1,416	1,204	1,290	1,232
27Al	0.066	0.220		7.6	3.7	8.6	8.1	28
31P	81	270		9,830	9,712	8,667	10,423	10,439
39K	11	37		16,314	14,014	14,587	16,117	17,122
44Ca	19	63		1,584	1,483	1,413	1,459	1,631
49Ti	0.171	0.570		1.1	0.851	1.2	1.1	1.8
51V	0.017	0.057		0.050	0.043	0.057	0.061	0.068
52Cr	0.068	0.227		0.897	0.853	1.1	0.895	0.940
55Mn	0.008	0.027		1.4	2.0	1.7	2.0	2.7
57Fe	4.0	13		43	39	53	45	47
59Co	0.004	0.013		0.088	0.065	0.157	0.067	0.119
60Ni	0.001	0.003		1.2	1.4	1.8	1.6	1.5
63Cu	0.009	0.030		1.6	1.9	1.8	2.0	2.0
66Zn	0.396	1.3		53	34	46	38	60
75As	0.355	1.2		<0.355	<0.355	<0.355	<0.355	<0.355
77Se	0.367	1.2		5.3	3.3	3.8	4.7	7.3
88Sr	0.001	0.003		2.0	2.1	2.0	2.3	3.0
95Mo	0.029	0.097		0.036	<0.029	<0.029	<0.029	<0.029
107Ag	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140		<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150		0.262	0.126	0.229	0.212	0.278
121Sb	0.003	0.010		<0.003	<0.003	<0.003	<0.003	<0.003
137Ba	0.001	0.003		0.390	0.279	0.279	0.363	0.558
202Hg	0.058	0.193		0.535	0.824	0.547	0.936	0.516
205Tl	0.001	0.003		0.043	0.036	0.028	0.033	0.041
208Pb	0.002	0.007		0.012	0.010	0.009	0.010	0.015
238U	0.001	0.003		<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

ppm = parts per million

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g = grams

% = percent

Worley Consulting

Tissue Analysis Results

		Client ID	FGH-1	FGH-2	FGH-3	FGH-4	FGH-5
		Lab ID	061	062	063	064	065
		Wet Weight (g)	12.2942	7.7630	10.8995	16.8507	9.4026
		Dry Weight (g)	2.8639	1.6914	2.3489	3.7574	2.4319
		Moisture (%)	76.7	78.2	78.4	77.7	74.1
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.007	0.023	0.051	0.047	0.020	0.032	<0.007
11B	0.115	0.383	<0.115	<0.115	<0.115	<0.115	<0.115
23Na	3.0	10	1,203	1,140	1,402	1,224	964
24Mg	0.277	0.923	1,069	1,445	1,118	568	767
27Al	0.066	0.220	1.0	1.0	1.2	1.8	0.251
31P	81	270	9,134	11,107	15,024	8,353	9,306
39K	11	37	13,885	11,103	24,458	13,206	12,501
44Ca	19	63	789	546	453	429	277
49Ti	0.171	0.570	0.729	0.608	0.608	0.729	0.486
51V	0.017	0.057	<0.017	<0.017	<0.017	<0.017	<0.017
52Cr	0.068	0.227	0.682	0.619	0.654	0.691	0.539
55Mn	0.008	0.027	0.526	0.340	0.281	0.239	0.151
57Fe	4.0	13	13	20	19	16	5.0
59Co	0.004	0.013	0.012	0.020	0.023	0.018	<0.004
60Ni	0.001	0.003	0.125	0.180	0.111	0.194	0.055
63Cu	0.009	0.030	0.848	0.513	0.712	0.804	0.422
66Zn	0.396	1.3	11	12	12	8.0	6.2
75As	0.355	1.2	<0.355	<0.355	0.377	<0.355	<0.355
77Se	0.367	1.2	2.2	1.0	3.0	1.6	0.493
88Sr	0.001	0.003	0.352	0.431	0.806	0.236	0.197
95Mo	0.029	0.097	<0.029	<0.029	<0.029	<0.029	<0.029
107Ag	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
111Cd	0.042	0.140	<0.042	<0.042	<0.042	<0.042	<0.042
118Sn	0.045	0.150	0.064	0.069	0.084	<0.045	<0.045
121Sb	0.003	0.010	<0.003	<0.003	<0.003	<0.003	<0.003
137Ba	0.001	0.003	0.028	0.028	0.056	0.028	0.028
202Hg	0.058	0.193	1.5	0.522	0.102	2.2	0.312
205Tl	0.001	0.003	0.061	0.015	0.005	0.033	0.003
208Pb	0.002	0.007	0.002	0.002	0.002	0.002	<0.002
238U	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:

ppm = parts per million

DL = detection limit

LOQ = limit of quantitation

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g = grams

% = percent

Worley Consulting

Tissue QA/QC Relative Percent Difference Results

Client ID		AEMP-FS-01-38			AEMP-FS-01-42			AEMP-FS-02-25		
Lab ID		005			008			021		
Parameter	DL (ppm)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)
7Li	0.007	0.096	0.092	4.3	0.030	0.030	-	0.020	0.016	-
11B	0.115	0.126	0.121	-	<0.115	<0.115	-	<0.115	<0.115	-
23Na	3.0	3,250	3,070	5.7	3,745	3,509	6.5	3,245	3,179	2.1
24Mg	0.277	1,418	1,381	2.6	1,546	1,476	4.6	1,423	1,483	4.1
27Al	0.066	82	89	8.2	23	20	14	6.2	7.0	12
31P	81	11,409	10,801	5.5	11,385	11,569	1.6	12,782	13,020	1.8
39K	11	16,221	14,847	8.8	16,972	17,845	5.0	20,386	19,098	6.5
44Ca	19	1,954	1,941	0.7	2,110	2,012	4.8	1,634	1,758	7.3
49Ti	0.171	5.0	5.5	9.5	2.0	2.0	0.0	1.6	1.7	-
51V	0.017	0.277	0.292	5.3	0.179	0.158	-	0.074	0.080	-
52Cr	0.068	2.3	2.7	16	2.0	1.9	5.1	1.5	1.4	6.9
55Mn	0.008	5.0	5.8	15	3.8	3.5	8.2	2.0	2.1	4.9
57Fe	4.0	168	183	8.5	115	117	1.7	54	58	7.1
59Co	0.004	0.292	0.344	16	0.286	0.294	2.8	0.131	0.135	3.0
60Ni	0.001	10	12	18	7.9	7.2	9.3	3.6	4.0	11
63Cu	0.009	2.0	2.1	4.9	1.9	1.7	11	1.7	1.7	0.0
66Zn	0.396	42	41	2.4	57	54	5.4	30	34	13
75As	0.355	<0.355	<0.355	-	<0.355	<0.355	-	<0.355	<0.355	-
77Se	0.367	5.6	5.6	0.0	6.6	6.1	7.9	4.6	4.8	4.3
88Sr	0.001	2.9	3.0	3.4	3.4	3.2	6.1	2.3	2.4	4.3
95Mo	0.029	0.043	0.038	-	0.033	0.038	-	<0.029	<0.029	-
107Ag	0.001	0.004	0.004	-	<0.001	<0.001	-	<0.001	<0.001	-
111Cd	0.042	<0.042	<0.042	-	<0.042	<0.042	-	<0.042	<0.042	-
118Sn	0.045	0.177	0.181	-	0.237	0.180	-	0.296	0.306	-
121Sb	0.003	0.006	0.004	-	0.004	0.003	-	0.005	0.003	-
137Ba	0.001	1.3	1.3	0.0	0.628	0.546	14	0.318	0.318	0.0
202Hg	0.058	0.864	0.890	3.0	0.775	0.700	10	0.492	0.514	-
205Tl	0.001	0.036	0.036	0.0	0.045	0.043	4.5	0.029	0.028	3.5
208Pb	0.002	0.031	0.027	14	0.015	0.015	-	0.008	0.008	-
238U	0.001	0.002	0.002	-	<0.001	<0.001	-	<0.001	<0.001	-

Notes:

ppm = parts per million

RPD = relative percent difference

DL = detection limit

< = less than detection limit

% = percent

Data Quality Objectives:

Laboratory Duplicates - RPD ≤40% for all elements, except Ca and Sr, which are ≤60%

Minimum DQOs apply to individual samples at concentrations above 10x DL

Worley Consulting

Tissue QA/QC Relative Percent Difference Results

Client ID		AEMP-FS-02-46			AEMP-FS-03-36			AEMP-FS-03-43		
Lab ID		032			045			047		
Parameter	DL (ppm)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)
7Li	0.007	0.022	0.022	-	0.028	0.028	-	0.032	0.032	-
11B	0.115	<0.115	<0.115	-	0.174	0.151	-	<0.115	<0.115	-
23Na	3.0	2,943	3,545	19	4,162	4,300	3.3	4,042	3,663	9.8
24Mg	0.277	1,407	1,329	5.7	1,485	1,488	0.2	1,255	1,271	1.3
27Al	0.066	3.4	2.4	35	18	17	5.7	4.1	3.7	10
31P	81	10,247	10,871	5.9	11,669	11,873	1.7	11,288	11,236	0.5
39K	11	14,152	16,695	17	18,083	18,701	3.4	18,867	15,150	22
44Ca	19	1,610	1,464	9.5	1,587	1,672	5.2	1,444	1,390	3.8
49Ti	0.171	1.4	1.3	-	2.1	1.8	15	1.4	1.2	-
51V	0.017	0.073	0.062	-	0.096	0.084	-	0.036	0.032	-
52Cr	0.068	0.923	0.851	8.1	1.2	1.2	0.0	0.870	0.864	0.7
55Mn	0.008	2.0	1.8	11	3.1	2.9	6.7	2.6	2.5	3.9
57Fe	4.0	42	43	2.4	64	63	1.6	39	37	-
59Co	0.004	0.092	0.089	3.3	0.136	0.122	11	0.091	0.088	3.4
60Ni	0.001	1.5	1.1	31	3.1	2.8	10	1.3	1.2	8.0
63Cu	0.009	1.8	2.0	11	2.3	2.3	0.0	1.9	1.9	0.0
66Zn	0.396	50	56	11	64	62	3.2	39	37	5.3
75As	0.355	<0.355	<0.355	-	<0.355	<0.355	-	<0.355	<0.355	-
77Se	0.367	5.0	4.6	8.3	6.8	6.7	1.5	4.6	4.8	4.3
88Sr	0.001	2.6	2.1	21	3.1	2.9	6.7	1.7	1.7	0.0
95Mo	0.029	0.043	0.057	-	0.036	0.036	-	<0.029	<0.029	-
107Ag	0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	-
111Cd	0.042	<0.042	<0.042	-	<0.042	<0.042	-	<0.042	<0.042	-
118Sn	0.045	0.214	0.224	-	0.276	0.329	-	0.167	0.131	-
121Sb	0.003	0.004	0.004	-	0.003	0.007	-	<0.003	<0.003	-
137Ba	0.001	0.287	0.223	25	0.418	0.418	0.0	0.223	0.167	29
202Hg	0.058	1.1	0.972	12	1.1	1.0	9.5	0.904	0.872	3.6
205Tl	0.001	0.043	0.045	4.5	0.043	0.044	2.3	0.056	0.056	0.0
208Pb	0.002	0.009	0.006	-	0.015	0.012	-	0.007	0.007	-
238U	0.001	<0.001	<0.001	-	0.002	0.003	-	<0.001	<0.001	-

Notes:

ppm = parts per million

RPD = relative percent difference

DL = detection limit

< = less than detection limit

% = percent

Data Quality Objectives:

Laboratory Duplicates - RPD ≤40% for all elements, except Ca and Sr, which are ≤60%

Minimum DQOs apply to individual samples at concentrations above 10x DL

Worley Consulting

Tissue QA/QC Relative Percent Difference Results

Client ID	FGH-1
Lab ID	061

Parameter	DL (ppm)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)
7Li	0.007	0.051	0.051	-
11B	0.115	<0.115	<0.115	-
23Na	3.0	1,203	1,308	8.4
24Mg	0.277	1,069	798	29
27Al	0.066	1.0	1.2	18
31P	81	9,134	11,335	22
39K	11	13,885	18,126	27
44Ca	19	789	711	10
49Ti	0.171	0.729	0.851	-
51V	0.017	<0.017	<0.017	-
52Cr	0.068	0.682	0.688	0.9
55Mn	0.008	0.526	0.484	8.3
57Fe	4.0	13	13	-
59Co	0.004	0.012	0.012	-
60Ni	0.001	0.125	0.111	12
63Cu	0.009	0.848	0.808	4.8
66Zn	0.396	11	10	9.5
75As	0.355	<0.355	<0.355	-
77Se	0.367	2.2	2.3	-
88Sr	0.001	0.352	0.302	15
95Mo	0.029	<0.029	<0.029	-
107Ag	0.001	<0.001	<0.001	-
111Cd	0.042	<0.042	<0.042	-
118Sn	0.045	0.064	0.060	-
121Sb	0.003	<0.003	<0.003	-
137Ba	0.001	0.028	0.028	0.0
202Hg	0.058	1.5	1.6	6.5
205Tl	0.001	0.061	0.058	5.0
208Pb	0.002	0.002	0.002	-
238U	0.001	<0.001	<0.001	-

Notes:

ppm = parts per million

RPD = relative percent difference

DL = detection limit

< = less than detection limit

% = percent

Data Quality Objectives:

Laboratory Duplicates - RPD ≤40% for all elements, except Ca and Sr, which are ≤60%

Minimum DQOs apply to individual samples at concentrations above 10x DL

Worley Consulting

Tissue QA/QC Accuracy and Precision Results

			Sample Group ID	01			02	
Parameter	DL (ppm)	Certified Conc. (ppm)	Mean Estimated Conc. (ppm)	Accuracy (%)	Precision RSD (%)	Mean Estimated Conc. (ppm)	Accuracy (%)	Precision RSD (%)
7Li	0.007	0.391	0.413	106	4.3	0.418	107	5.0
11B	0.115	4.5	4.6	103	1.8	4.6	102	2.7
23Na	3.0	9,200	10,690	116	4.1	10,071	110	3.6
24Mg	0.277	1,030	1,117	108	6.2	1,120	109	3.0
27Al	0.066	197.2	196	99	10	191	97	3.8
31P	81	6,230	7,125	114	4.0	6,321	102	4.3
39K	11	11,600	13,406	116	4.2	12,694	109	5.1
44Ca	19	2,010	2,264	113	9.5	2,002	100	5.1
49Ti	0.171	12.24	12	96	17	11	93	7.8
51V	0.017	0.347	0.374	108	4.4	0.370	107	4.9
52Cr	0.068	0.515	0.609	118	4.9	0.574	112	6.1
55Mn	0.008	1.06	1.2	111	3.8	1.1	108	4.8
57Fe	4.0	113	123	109	4.3	127	112	2.5
59Co	0.004	0.063	0.080	126	11	0.071	112	2.9
60Ni	0.001	0.44	0.528	120	5.3	0.500	114	6.0
63Cu	0.009	3.3	3.9	117	6.5	3.7	113	4.1
66Zn	0.396	28.7	32	111	3.4	29	102	3.0
75As	0.355	13.3	15	111	5.7	14	102	6.6
77Se	0.367	2.4	2.7	112	2.6	2.3	95	8.4
88Sr	0.001	9.87	11	114	7.5	10	105	5.7
95Mo	0.029	0.134	0.129	96	18	0.149	111	19
107Ag	0.001	0.135	0.161	120	3.4	0.157	116	8.4
111Cd	0.042	0.148	0.151	102	11	0.152	103	14
118Sn	0.045	0.077	0.080	103	13	0.075	98	18
121Sb	0.003	0.011	0.011	102	15	0.010	87	5.7
137Ba	0.001	8.6	8.9	103	5.3	8.4	98	4.9
202Hg	0.058	0.316	0.349	110	2.7	0.341	108	4.8
205Tl	0.001	0.0013	-	-	-	-	-	-
208Pb	0.002	0.058	0.065	113	7.8	0.064	110	10
238U	0.001	0.0163	0.017	102	8.1	0.019	114	14

Notes:

ppm = parts per million; % = percent; DL = detection limit; RSD = relative standard deviation

Data Quality Objectives:

Accuracy: DQO of 60 - 140% of the certified values for B, Ti, Ag, Sn, Sb, and Ba.

Accuracy: DQO of 70 - 130% of the certified values for all other elements provided.

Precision: DQO of ≤20% for all elements.

DORM-5 used for all parameters except B, Ti, Sb, Ba, and Al where NIST-1566b was used.

Tl certified concentration from NIST-2976.

Accuracy and precision for Tl are not reported as the certified concentration is too close to the reportable detection limit.

Worley Consulting

Tissue QA/QC Accuracy and Precision Results

			Sample Group ID	03			04	
Parameter	DL (ppm)	Certified Conc. (ppm)	Mean Estimated Conc. (ppm)	Accuracy (%)	Precision RSD (%)	Mean Estimated Conc. (ppm)	Accuracy (%)	Precision RSD (%)
7Li	0.007	0.391	0.378	97	3.1	0.397	102	7.6
11B	0.115	4.5	5.0	111	1.7	5.1	113	2.8
23Na	3.0	9,200	9,092	99	5.6	9,237	100	3.2
24Mg	0.277	1,030	1,005	98	7.8	992	96	2.3
27Al	0.066	197.2	204	104	7.0	203	103	3.1
31P	81	6,230	5,869	94	4.8	5,724	92	4.5
39K	11	11,600	11,589	100	4.5	11,469	99	4.4
44Ca	19	2,010	1,955	97	7.8	2,068	103	3.1
49Ti	0.171	12.24	12	95	9.8	12	96	11
51V	0.017	0.347	0.339	98	5.8	0.316	91	3.9
52Cr	0.068	0.515	0.517	100	5.3	0.550	107	2.7
55Mn	0.008	1.06	1.0	96	8.3	1.0	96	4.4
57Fe	4.0	113	108	96	6.1	108	95	4.7
59Co	0.004	0.063	0.067	107	6.7	0.074	118	3.4
60Ni	0.001	0.44	0.440	100	9.4	0.471	107	6.9
63Cu	0.009	3.3	3.4	104	2.4	3.4	102	3.2
66Zn	0.396	28.7	27	96	5.5	27	95	4.0
75As	0.355	13.3	12	90	5.9	12	87	4.7
77Se	0.367	2.4	2.3	98	7.2	2.2	90	7.7
88Sr	0.001	9.87	9.2	94	7.0	9.9	101	7.2
95Mo	0.029	0.134	0.134	100	11	0.130	97	12
107Ag	0.001	0.135	0.121	90	7.5	0.145	108	9.4
111Cd	0.042	0.148	0.150	102	10	0.168	113	19
118Sn	0.045	0.077	0.062	81	17	0.067	87	18
121Sb	0.003	0.011	0.009	84	18	0.009	86	14
137Ba	0.001	8.6	9.0	105	3.9	8.5	99	3.6
202Hg	0.058	0.316	0.344	109	6.5	0.344	109	5.6
205Tl	0.001	0.0013	-	-	-	-	-	-
208Pb	0.002	0.058	0.053	91	4.2	0.062	106	5.2
238U	0.001	0.0163	0.014	86	0.0	0.015	94	5.8

Notes:

ppm = parts per million; % = percent; DL = detection limit; RSD = relative standard deviation

Data Quality Objectives:

Accuracy: DQO of 60 - 140% of the certified values for B, Ti, Ag, Sn, Sb, and Ba.

Accuracy: DQO of 70 - 130% of the certified values for all other elements provided.

Precision: DQO of ≤20% for all elements.

DORM-5 used for all parameters except B, Ti, Sb, Ba, and Al where NIST-1566b was used.

Tl certified concentration from NIST-2976.

Accuracy and precision for Tl are not reported as the certified concentration is too close to the reportable detection limit.

Worley Consulting
Sample Group Information

Sample Group ID	Client ID	Lab ID	Date of Analysis
01	AEMP-FS-01-32	001	29 Oct 2025
	AEMP-FS-01-33	002	
	AEMP-FS-01-34	003	
	AEMP-FS-01-35	004	
	AEMP-FS-01-38	005	
	AEMP-FS-01-39	006	
	AEMP-FS-01-40	007	
	AEMP-FS-01-42	008	
02	AEMP-FS-01-44	009	29 Oct 2025
	AEMP-FS-01-45	010	
	AEMP-FS-01-46	011	
	AEMP-FS-01-47	012	
	AEMP-FS-01-48	013	
	AEMP-FS-01-51	014	
	AEMP-FS-01-52	015	
	AEMP-FS-01-53	016	
	AEMP-FS-01-54	017	
	AEMP-FS-01-55	018	
	AEMP-FS-01-57	019	
	AEMP-FS-01-59	020	
	AEMP-FS-02-25	021	
	AEMP-FS-02-27	022	
	AEMP-FS-02-28	023	
	AEMP-FS-02-31	024	
	AEMP-FS-02-32	025	
	AEMP-FS-02-35	026	
03	AEMP-FS-02-37	027	29 Oct 2025
	AEMP-FS-02-40	028	
	AEMP-FS-02-41	029	
	AEMP-FS-02-43	030	
	AEMP-FS-02-44	031	
	AEMP-FS-02-46	032	
	AEMP-FS-02-47	033	
	AEMP-FS-02-48	034	
	AEMP-FS-02-49	035	
	AEMP-FS-02-50	036	
	AEMP-FS-02-52	037	
	AEMP-FS-02-53	038	
	AEMP-FS-02-54	039	
	AEMP-FS-02-56	040	

Worley Consulting
Sample Group Information

Sample Group ID	Client ID	Lab ID	Date of Analysis
03	AEMP-FS-03-32	041	29 Oct 2025
	AEMP-FS-03-33	042	
	AEMP-FS-03-34	043	
	AEMP-FS-03-35	044	
04	AEMP-FS-03-36	045	29 Oct 2025
	AEMP-FS-03-40	046	
	AEMP-FS-03-43	047	
	AEMP-FS-03-45	048	
	AEMP-FS-03-47	049	
	AEMP-FS-03-48	050	
	AEMP-FS-03-50	051	
	AEMP-FS-03-51	052	
	AEMP-FS-03-52	053	
	AEMP-FS-03-53	054	
	AEMP-FS-03-54	055	
	AEMP-FS-03-55	056	
	AEMP-FS-03-56	057	
	AEMP-FS-03-57	058	
	AEMP-FS-03-58	059	
	AEMP-FS-03-59	060	
	FGH-1	061	
	FGH-2	062	
	FGH-3	063	
	FGH-4	064	
	FGH-5	065	

TrichAnalytics Inc. 207-1753 Sean Heights, Saanichton, BC, V8M 0B3 Ph: (250) 532-1084		Chain of Custody (COC) for LA-ICP-MS Analysis	
Invoicing		Reporting (if different from Invoicing)	
Project Number: 417085-59897-25200			
Company Name:	Worley Consulting	Company Name:	
Contact Name:	Graham Young	Contact Name:	
Address:	49 Quarry Park Blvd	Address:	
City, Province:	Calgary, Alberta	City, Province:	
Postal Code:	T2C 5H9	Postal Code:	
Phone:	403-968-1545	Phone:	
Email:	stacy.gibb@worley.com; SSCAPinv-AMERICAS@worley.com	Email:	canada.chemistry@worley.com; graham.young@worley.com

Sample Analysis Requested

Trich ID		Sample Identification:	Sample Type: Species	Sample type
001	1	AEMP-FS-01-32	SLSC	Whole Body
002	2	AEMP-FS-01-33	SLSC	Whole Body
003	3	AEMP-FS-01-34	SLSC	Whole Body
004	4	AEMP-FS-01-35	SLSC	Whole Body
005	5	AEMP-FS-01-38	SLSC	Whole Body
006	6	AEMP-FS-01-39	SLSC	Whole Body
007	7	AEMP-FS-01-40	SLSC	Whole Body
008	8	AEMP-FS-01-42	SLSC	Whole Body
009	9	AEMP-FS-01-44	SLSC	Whole Body
010	10	AEMP-FS-01-45	SLSC	Whole Body
011	11	AEMP-FS-01-46	SLSC	Whole Body
012	12	AEMP-FS-01-47	SLSC	Whole Body
013	13	AEMP-FS-01-48	SLSC	Whole Body
014	14	AEMP-FS-01-51	SLSC	Whole Body
015	15	AEMP-FS-01-52	SLSC	Whole Body
016	16	AEMP-FS-01-53	SLSC	Whole Body
017	17	AEMP-FS-01-54	SLSC	Whole Body
018	18	AEMP-FS-01-55	SLSC	Whole Body
019	19	AEMP-FS-01-57	SLSC	Whole Body
020	20	AEMP-FS-01-59	SLSC	Whole Body

Sample(s) Released By: Graham Young	Sample(s) Received By: Eliza Sparks
Signature:	Signature:
Date Sent:	Date Received: 09 Oct 2025 (Project #: 2025-930)
Sample(s) Returned to Client By: please Cc invoice graham.young@worley.com. Hold analysis until PO is in place	Shipping Conditions:
	Shipping Container:
Signature:	Date Sent:

TrichAnalytics Inc. 207-1753 Sean Heights, Saanichton, BC, V8M 0B3 Ph: (250) 532-1084		Chain of Custody (COC) for LA-ICP-MS Analysis	
Invoicing		Reporting (if different from Invoicing)	
Project Number: 417085-59897-25200			
Company Name:	Worley Consulting	Company Name:	
Contact Name:	Graham Young	Contact Name:	
Address:	49 Quarry Park Blvd	Address:	
City, Province:	Calgary, Alberta	City, Province:	
Postal Code:	T2C 5H9	Postal Code:	
Phone:	403-968-1545	Phone:	
Email:	stacy.gibb@worley.com; SSCAPinv-AMERICAS@worley.com	Email:	canada.chemistry@worley.com; graham.young@worley.com

Sample Analysis Requested

Trich ID		Sample Identification:		Sample Type: Species	Sample Type: Sample type
021	21	AEMP-FS-02-25	✓	SLSC	Whole Body
022	22	AEMP-FS-02-27	✓	SLSC	Whole Body
023	23	AEMP-FS-02-28	✓	SLSC	Whole Body
024	24	AEMP-FS-02-31	✓	SLSC	Whole Body
025	25	AEMP-FS-02-32	✓	SLSC	Whole Body
026	26	AEMP-FS-02-35	✓	SLSC	Whole Body
027	27	AEMP-FS-02-37	✓	SLSC	Whole Body
028	28	AEMP-FS-02-40	✓	SLSC	Whole Body
029	29	AEMP-FS-02-41	✓	SLSC	Whole Body
030	30	AEMP-FS-02-43	✓	SLSC	Whole Body
031	31	AEMP-FS-02-44	✓	SLSC	Whole Body
032	32	AEMP-FS-02-46	✓	SLSC	Whole Body
033	33	AEMP-FS-02-47	✓	SLSC	Whole Body
034	34	AEMP-FS-02-48	✓	SLSC	Whole Body
035	35	AEMP-FS-02-49	✓	SLSC	Whole Body
036	36	AEMP-FS-02-50	✓	SLSC	Whole Body
037	37	AEMP-FS-02-52	✓	SLSC	Whole Body
038	38	AEMP-FS-02-53	✓	SLSC	Whole Body
039	39	AEMP-FS-02-54	✓	SLSC	Whole Body
040	40	AEMP-FS-02-56	✓	SLSC	Whole Body

Sample(s) Released By: Graham Young	Sample(s) Received By: Eliza Sparks
Signature:	Signature:
Date Sent:	Date Received: 09 Oct 2025 (Project #: 2025-930)
Sample(s) Returned to Client By: please Cc invoice graham.young@worley.com. Hold analysis until PO is in place	Shipping Conditions:
	Shipping Container:
Signature:	Date Sent:

TrichAnalytics Inc. 207-1753 Sean Heights, Saanichton, BC, V8M 0B3 Ph: (250) 532-1084		Chain of Custody (COC) for LA-ICP-MS Analysis	
Invoicing		Reporting (if different from Invoicing)	
Project Number: 417085-59897-25200			
Company Name:	Worley Consulting	Company Name:	
Contact Name:	Graham Young	Contact Name:	
Address:	49 Quarry Park Blvd	Address:	
City, Province:	Calgary, Alberta	City, Province:	
Postal Code:	T2C 5H9	Postal Code:	
Phone:	403-968-1545	Phone:	
Email:	stacy.gibb@worley.com; SSCAPinv-AMERICAS@worley.com	Email:	canada.chemistry@worley.com; graham.young@worley.com

Sample Analysis Requested

Sample Identification:			Sample Type:	
Trich ID			Species	Sample type
041	41	AEMP-FS-03-32	SLSC	Whole Body
042	42	AEMP-FS-03-33	SLSC	Whole Body
043	43	AEMP-FS-03-34	SLSC	Whole Body
044	44	AEMP-FS-03-35	SLSC	Whole Body
045	45	AEMP-FS-03-36	SLSC	Whole Body
046	46	AEMP-FS-03-40	SLSC	Whole Body
047	47	AEMP-FS-03-43	SLSC	Whole Body
048	48	AEMP-FS-03-45	SLSC	Whole Body
049	49	AEMP-FS-03-47	SLSC	Whole Body
050	50	AEMP-FS-03-48	SLSC	Whole Body
051	51	AEMP-FS-03-50	SLSC	Whole Body
052	52	AEMP-FS-03-51	SLSC	Whole Body
053	53	AEMP-FS-03-52	SLSC	Whole Body
054	54	AEMP-FS-03-53	SLSC	Whole Body
055	55	AEMP-FS-03-54	SLSC	Whole Body
056	56	AEMP-FS-03-55	SLSC	Whole Body
057	57	AEMP-FS-03-56	SLSC	Whole Body
058	58	AEMP-FS-03-57	SLSC	Whole Body
059	59	AEMP-FS-03-58	SLSC	Whole Body
060	60	AEMP-FS-03-59	SLSC	Whole Body

Sample(s) Released By: Graham Young	Sample(s) Received By: Eliza Sparks
Signature:	Signature:
Date Sent:	Date Received: 09 Oct 2025 (Project #: 2025-930)
Sample(s) Returned to Client By: please Cc invoice graham.young@worley.com. Hold analysis until PO is in place	Shipping Conditions:
	Shipping Container:
Signature:	Date Sent:

TrichAnalytics Inc. 207-1753 Sean Heights, Saanichton, BC, V8M 0B3 Ph: (250) 532-1084		Chain of Custody (COC) for LA-ICP-MS Analysis	
Invoicing		Reporting (if different from Invoicing)	
Project Number: 417085-59897-25200			
Company Name:	Worley Consulting	Company Name:	
Contact Name:	Graham Young	Contact Name:	
Address:	49 Quarry Park Blvd	Address:	
City, Province:	Calgary, Alberta	City, Province:	
Postal Code:	T2C 5H9	Postal Code:	
Phone:	403-968-1545	Phone:	
Email:	stacy.gibb@worley.com; SSCAPinv-AMERICAS@worley.com	Email:	canada.chemistry@worley.com; graham.young@worley.com

Sample Analysis Requested

Trich ID	Sample Identification:		Sample Type: Species	Sample type
061	61	FGH-1 ✓	INCONNU	MUSCLE
062	62	FGH-2 ✓	WHITEFISH	MUSCLE
063	63	FGH-3 ✓	WHITEFISH	MUSCLE
064	64	FGH-4 ✓	INCONNU	MUSCLE
065	65	FGH-5 ✓	WHITEFISH	MUSCLE

Sample(s) Released By: Graham Young	Sample(s) Received By: Eliza Sparks
Signature:	Signature:
Date Sent:	Date Received: 09 Oct 2025 (Project #: 2025-930)
Sample(s) Returned to Client By: please Cc invoice graham.young@worley.com. Hold analysis until PO is in place	Shipping Conditions:
	Shipping Container:
Signature:	Date Sent: