



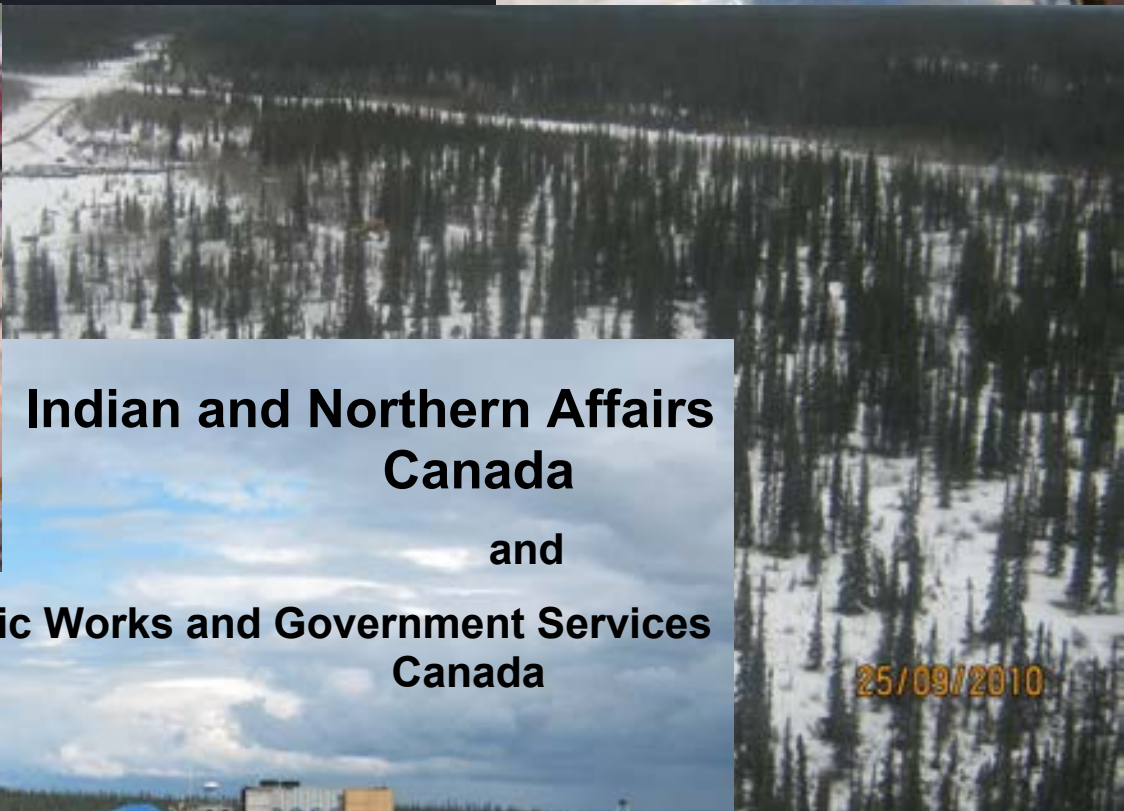
Annex A-6

Report: 2010 Completion Report for Great Bear Lake Sites – Phase I Remediation

2010 Completion Report for

Great Bear Lake Sites - Phase I Remediation

Sawmill Bay, Contact Lake,
El Bonanza, Bonanza, NWT



Indian and Northern Affairs
Canada

and

Public Works and Government Services
Canada

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EXECUTIVE SUMMARY

Phase I of the Great Bear Lake Sites Remediation program occurred during 2010. The Phase I program involved the consolidation and crushing of discarded drums and debris clean up at the former military airstrip at Sawmill Bay and a small scale demolition/debris consolidation program at the former Contact Lake, El Bonanza and Bonanza mine sites located in close proximity to Great Bear Lake.

Site work was conducted between August 12th and October 1st, 2010. Operations for the on-site clean-up program were based at Sawmill Bay. Overall, 8235 empty drums were crushed at the Sawmill Bay site. An additional 2590 drums known to contain some residual liquid or solids remain uncrushed and will be the subject of future remedial work in 2011. In addition to the drum crushing, surface debris at Sawmill Bay was collected and transported to non-hazardous debris stockpiles on-site. The debris was collected by hand to a depth of 0.5 metres below grade. Buried debris beyond the 0.5 metre depth was observed at the main camp dump and debris area #23. The Sawmill Bay buildings were boarded up. One hazardous debris stockpile was built on-site to temporarily accommodate items such as old batteries, paint cans, and old transformers. At the end of the construction season two twin otter planes transported hazardous material to Yellowknife. This material included 5 m³ of DDT impacted wood, 3 old transformers, 70 old batteries, and PCB impacted soil collected from beneath a transformer at the El Bonanza site. Two burns of untreated, unpainted wood occurred at Sawmill Bay. The ash was contained by wrapping the ash pile in poly-liners.

The remedial work at the former Contact Lake Mine commenced on September 9th, 2010. The focus of the program at Contact Lake was to consolidate surface debris and demolish buildings save for the headframe. The timber frame buildings were stripped of materials and burnt. Ash from the burns was left in place and covered with poly-liners. Laboratory analysis of the ash showed elevated levels of metals. Empty drums were transported to Sawmill Bay; however, there remain drums with residual liquid contents at Contact Lake. In some areas surface debris extended beyond 0.5 m depth. The head frame and the building adjacent to the head frame remain standing. At Contact Lake, large metal debris objects were left in place. One outhouse and the Quonset also remain standing.

Site work commenced on September 22nd at the former El Bonanza/Bonanza mines. Timber frame buildings were stripped of all hazardous and non-hazardous material. The unpainted, untreated wood was burnt. Surface debris was collected by hand at the El Bonanza and Bonanza sites and consolidated in debris stockpiles. The mine headframe and Building #2 remain at El Bonanza as does the Bonanza headframe. Empty drums were transported to Sawmill Bay; however, there remain drums with liquid contents at El Bonanza. All drums were removed from Bonanza. At the El Bonanza and Bonanza sites the large metal debris objects were left in place.

On-site community representatives were on-site from September 21st onward. Their presence provided valuable assistance with the remediation program, and a communication link for decision making.

To complete the Phase I work, the remaining drums require processing. The drums at El Bonanza and Contact Lake require transport to Sawmill Bay. In order to process the remaining drums, the residual sludge and liquid contents require disposal. After washing, the remaining drums will be crushed and transported to adjacent non-hazardous debris stockpiles. It is foreseen that crushing and transport of these remaining drums will be completed in a similar manner as the 2010 program.

Additional remedial work at the respective sites will be completed as part of other remedial programs. Included in this future remedial work will be the consolidation and removal of ash from site.

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1.0 INTRODUCTION

1.1 BACKGROUND

The Great Bear Lakes Phase I Remediation project consists of Sawmill Bay, Contact Lake, Bonanza, and El Bonanza sites. Phase I of the on-site remediation began during the summer of 2010. The sites are situated within the Sahtu settlement lands at the edge of the Arctic Circle located at the south eastern corner of Great Bear Lake, Northwest Territories. The Dene community of Déline lies 230 km to the west of Sawmill Bay. Yellowknife lies 400 km southeast of Sawmill Bay. Figures 1, 2, and 3 show the locations of the sites. At the Great Bear Lake sites, mining, milling, military, and fishing activities were carried out at various intervals between the 1930s and 1980s.

1.1.1 Sawmill Bay

1.1.1.1 Location

The Sawmill Bay site is located at N 65°43'14", W 118°55'14", approximately 65 km southwest of Port Radium along the northern section of the Leith Peninsula at the eastern end of Great Bear Lake. Situated on the edge of the Canadian Shield, it covers an area of approximately 20 km², extending from the former sawmill and beach landing on the south shore of the bay, to the lodge area and the old airstrip located approximately 1 km inland from the western tip of the bay.

1.1.1.2 History

The Sawmill Bay site has had a varied history since the 1930s. Its known uses include: timber sawmills (1930s-40s); barge load-out facilities and an airfield for the transportation of uranium ore originating from the Port Radium mine (1940s-60s); air fields and base camps for Royal Canadian Air Force operations (late 1940-50s); Loran Navigation System site (1950s); staging area for the construction of the Distant Early Warning (DEW) Line (mid 1950s); and commercial fishing lodge (late 1950s to late 1980s).

1.1.2 Contact Lake

1.1.2.1 Location

The Contact Lake Mine site is located at approximately N 65° 59', W 117° 48' in the Northwest Territories, 425 km northwest of Yellowknife on the north shore of Contact Lake. The site is within the boundaries of the Sahtu Dene and Metis Comprehensive Land Claims Agreement. The

Dene community of Déline is approximately 263 km to the west. Relative to other abandoned sites, in the vicinity is Port Radium Mine (14 km northwest) and the former El Bonanza/Bonanza Mine (10 km west).

1.1.2.2 History

The Contact Lake Mine was operated for various periods from 1930 to 1980. The site was originally staked as a silver mine in 1931 by Bear Exploration and Radium Limited. Activities from 1931 to 1939 included staking, exploration, development and construction of a 25 ton/day mill. It has been reported that uranium and silver were milled up to the end of 1939 (with ore being shipped off-site in 1934). In 1942, the International Uranium Mining Company Ltd. acquired the property and carried out additional exploration until 1949. Prior to work stoppage and abandonment in 1950, the mining company reorganized itself as Acadia Uranium Mines Limited. Mining operations resumed from 1969-1975 with further exploration until abandonment.

1.1.3 Bonanza and El Bonanza

1.1.3.1 Location

The El Bonanza Mine site is located on the Dowdell Peninsula of Great Bear Lake, 435 km northwest of Yellowknife. The coordinates of the site are N 66°00'15", W 118°04'25" with an estimated elevation of 178 m above mean sea level. The co-ordinates of the Bonanza site are N 66°00'34", W 118°05'44". The Bonanza and El Bonanza sites are approximately 1 km apart. The sites are approximately 9 km southwest of Port Radium and 10 km west of the former Contact Lake Mine. The two sites are situated within the boundaries of the Sahtu Dene and Metis Comprehensive Land Claim Agreement. The Dene community of Déline is approximately 260 km to the west. The specific location of El Bonanza relative to other historic mining properties in the vicinity of the site is shown in Figure 2 and Figure 3.

1.1.3.2 History

The Bonanza and El Bonanza sites were mined for silver from the 1930s until the 1960s. The original claims on the Bonanza Group were staked in 1931 with preliminary surface and underground work taking place in 1934 and 1935. A drop in the price of silver during the following years resulted in the closure of the mine. Although minor showings of uranium were observed, no records of uranium being mined at El Bonanza have been identified. This suggests that the pitchblende deposit was not substantial, as the resource would have almost certainly been developed because of its proximity to the Port Radium mill. Despite the minimal

pitchblende deposit at El Bonanza, the mine was expropriated in 1944 by the federal government due to its relationship to Eldorado, then a crown corporation holding Port Radium and other strategic uranium properties. No records of significant mining activity at the site have been identified for the period from 1937 to 1955. Development ceased again in 1956 until the mine was re-opened in 1965. No records of milling on the sites have been identified.

1.2 SITE ACCESS

1.2.1 Sawmill Bay

The mobilization of equipment occurred through a combination of aircraft and barge. For the remediation project, Hercules aircraft transported heavy equipment to Déline. The equipment was then transported by barge to Sawmill Bay. Twin otter airplanes arriving from Yellowknife and Déline delivered supplies and personnel on a weekly basis.

1.2.2 Contact Lake

Historic access to Contact Lake was available by barge to the East Arm with a connecting road to the mine via a trail which passes by Cabins 13 and 14. During the summer of 2010, the site was accessed by helicopter. Equipment for Contact Lake was barged to the El Bonanza airstrip and subsequently slung by helicopter to site. Personnel were flown in daily by helicopter from Sawmill Bay.

1.2.3 Bonanza/El Bonanza

Historic access to the Bonanza sites was available by water and air to the El Bonanza airstrip located on the shores of Great Bear Lake. During the summer 2010 construction season, supplies were barged to the airstrip and subsequently slung by helicopter to the site. Personnel were flown daily from Sawmill Bay.

1.3 SUMMARY OF REMEDIATION ACTIVITIES

Phase I of the remediation program consisted mainly of surface debris collection, building demolition, and drum crushing. The main purpose in collecting surface debris was to consolidate and segregate the waste. The buildings were demolished by removing waste and burning the untreated wood. A major component of the surface debris was the vast amount of drums. A focus of the Phase I was to crush empty drums in order to reduce waste volume for future disposal. For further details on the program, please refer to Section 4 below, and to the Public Works and Government Services Canada Specifications for Environmental Site Remediation –

Phase I Great Bear Lake Sites document (August 2010). Maps and photographs showing the remediation activities at each site are attached as Appendix A and B, respectively.

1.4 THE PROJECT TEAM

Along with members of the Déline community, Table 1 presents the project team for the Phase I remediation program.

Table 1 Project Team

Element	Company/Group	Responsible Person
Site Custodian	Indian and Northern Affairs Canada NWT Region	Jessica Mace, Contaminant and Remediation Directorate
Owner's Representative	Public Works and Government Services Canada (Edmonton, AB)	Michael Bernardin, Project Manager, Northern Contaminated Sites
Contractor	Aboriginal Engineering Ltd. (Yellowknife, NT)	Robert Johnson, P.Eng., Project Manager
Site Quality Assurance	SENES Consultants Limited (Richmond Hill, ON)	Charles Gravelle, P.Eng., Senior Project Manager

2.0 ABORIGINAL INVOLVEMENT

2.1 COMMUNITY REPRESENTATIVES

The Déline First Nation on-site community representatives were Harley Andre and Denis Kenny. Mr. Andre was on-site at Sawmill Bay from September 21st until September 23rd, 2010. Mr. Kenny was on-site at Contact Lake, the El Bonanza/Bonanza sites, and Sawmill Bay from September 21st until September 30th, 2010. Both representatives were based at Sawmill Bay.

At Sawmill Bay, Mr. Andre inspected the surface debris areas, the building closures, the drum crushing areas, the three restricted access zones, and the camp living quarters. Mr. Andre inspected these areas with the PWGSC representative, Mr. Jason Mauchan. They agreed upon surface debris areas that were completed, surface debris areas that required further work, and the proper flagging of the restricted access zones. The areas that required further work were identified as SA-DA-9, SA-DA-10, SA-DA-23, and the main camp dump adjacent to SA-DA-12. These areas, which had surface debris extending beyond 0.3 m below ground surface, were subsequently re-excavated to a depth of 0.5 m per the remediation specifications. Of note is that during future clean-up activities at the Sawmill Bay site, there exists buried debris beyond the 0.5 m depth at SA-DA-23 and the main camp dump. Mr. Andre and Mr. Mauchan also inspected the non-hazardous debris stockpiles (NHDS) and the hazardous debris stockpile (HDS).

Mr. Kenny was on-site at Contact Lake, the El Bonanza/Bonanza sites, and Sawmill Bay to observe the remediation activities. At Contact Lake, Mr. Kenny inspected the surface debris locations, site buildings, non-hazardous debris stockpile locations, the hazardous debris stockpile location, and building demolition activities. Mr. Kenny assisted in the clean-up activities during his time on-site. Mr. Kenny and Mr. Mauchan also agreed upon the flagging of the restricted access zone, the transportation of hazardous material to Yellowknife via Sawmill Bay, and the need for additional work at areas CL-DA-1, CL-DA-2,3, CL-DA-4, the beach area, and the main camp area. The further work required is due to surface debris extending beyond 0.5 m depth, remaining large metal objects, and debris close to shore. Mr. Kenny and Mr. Mauchan agreed upon attaining the 0.5 m depth at debris areas and also the need to remove large metal objects during subsequent phases of the clean-up project.

At the El Bonanza/Bonanza sites, Mr. Kenny inspected the surface debris locations, buildings to be demolished, non-hazardous debris stockpile locations, and the hazardous debris stockpile location. Mr. Kenny assisted in the clean-up activities during his time on-site. Mr. Kenny and Mr. Kyle Hunt, the department representative, reviewed the work and agreed upon the transportation method for the hazardous material to be transferred to Yellowknife via Sawmill Bay, and the sign off of clean-up activities at each of the debris areas. Mr. Kenny and Mr. Hunt

agreed upon the need to remove large metal objects during subsequent phases of the clean-up project. Mr. Kenny left Sawmill Bay at the completion of the summer work program.

For further information on the remediation activities, see the attached daily and weekly reports in Appendix C and D, respectively.

2.2 WORKFORCE

The prime contractor for the Great Bear Lake Phase I remediation work was Aboriginal Engineering Limited (AEL). The head office of AEL is located in Yellowknife, Northwest Territories. AEL is part of the Tli Cho group of northern companies.

During the course of the summer 2010 construction season, 71% of the AEL workforce labour hours were performed by Sahtu beneficiaries. Table 2 below provides the person-hours for people on-site during the 2010 Great Bear Lake Sites Phase I Remediation program.

Table 2 Employment Summary

Total Employment		Employment - Northern		Employment - Aboriginal		Employment - Sahtu Beneficiaries		Employment - Women	
# persons	p-hrs	# persons	p-hrs	# persons	p-hrs	# persons	p-hrs	# persons	p-hrs
46	11,166	41	11,166	39	9,530	28	7,966	10	2,202
% of p-hrs		100		85		71		20	

2.3 TRAINING

Within the first 24 hours of being on-site, all persons completed a worker orientation seminar which included a WHIMIS course, the history of the sites, and site specific safety awareness.

On September 14, 2010, representatives from the Low Level Radioactive Waste Management Office (LLRWMO) of Atomic Energy Limited conducted an on-site training seminar. The representatives were John DeJong of AMEC Consulting and Ricki Hurst of Terriplan Consultants. The two hour course focussed on Health & Safety as it relates to the existing low level gamma radiation in the soils within the boundaries of the restricted access zones. The plain language briefing covered good hygiene, behavioural practices and awareness of radiological impacted areas, Personal Protection Equipment (PPE), and procedures for working in these cordoned off areas in the future. The course also presented a history of uranium and radium

mining in Canada. The seminar culminated with a question and answer session and a tour of the restricted access zones using specialized equipment such as a Geiger counter. This course was also presented in Déline.

The seminar handout and the worker orientation presentation are presented in Appendix E.

3.0 WORK SITE HEALTH AND SAFETY

Health and Safety of the workers employed for the Great Bear Lake Sites Remediation Phase I Program was of paramount concern to the project management team. As such, a site specific health and safety plan (AEL 2010) was developed prior to the start of the job. The plan detailed expected job hazards, recommended safety measures, safe work practices, emergency procedures and personal protective equipment requirements.

Prior to the start of the site work, AEL prepared a Worker Orientation Seminar (AEL 2010). The Seminar was conducted repeatedly at Sawmill Bay for all persons new to the site. The orientation seminar covered:

- the overview of the Great Bear Lake sites;
- project communication, organization and administration;
- remediation activities and scope of work;
- work specific task requirements;
- site specific health and safety;
- radio communication protocols; and
- environmental protection.

Each work day began with a safety meeting (tailgate meeting) lead by the site supervisor. During the safety meeting the activities for the day were outlined and safety topics were discussed. AEL incorporated daily record keeping of the tailgate meeting in their Sawmill Bay health and safety binder. The safety topics varied according to the remediation activities scheduled. The tailgate meetings included safety topics such as wildlife sightings, potential safety hazards regarding the day's work, bear fence operation, personal protective equipment, the restricted access zones, general hygiene, and input from the site medic. Worker feedback was incorporated into the morning meetings. The development of procedures and protocols to mitigate hazards also included worker feedback. A similar tailgate meeting occurred at the beginning of the night shifts when the night shift was in operation.

During the course of the site work, a weekly construction meeting, incorporating health and safety, was conducted on each Sunday. The site supervisor, foreman, field technician, and department representatives attended the weekly meeting. During these meetings, the work completed was documented, any incidents were reviewed, and selected health and safety topics were discussed.

The following subsections summarize key aspects of health and safety that were enforced on-site.

3.1 PERSONAL PROTECTIVE EQUIPMENT (PPE)

All personnel were required to wear the appropriate personal protective equipment (PPE), which at a minimum consisted of a CSA approved safety hard hat, CSA certified footwear Grade 1 approved, safety glasses and reflective clothing. Workers were also required to wear other safety equipment including hearing protection, or dust masks depending on the nature of the work.

For work involving asbestos handling, workers were required to wear additional safety equipment including:

- Tyvek coveralls;
- Half face-piece respirator with NIOSH approved P100 filter; and
- Nitrile gloves;

A decontamination area was established outside of the building demolition area during the asbestos removal. Eating, drinking, smoking and chewing tobacco were controlled by setting aside breaks for these activities. Tyvek coveralls were disposed of daily.

3.2 WILDLIFE SAFETY

A wildlife response plan was developed for the remediation work that addressed potential encounters, firearm protocols, basic safety principles, social responsibilities of a firearm user, preventing and responding to bear encounters and minimizing the impact on wildlife. During project work a wildlife monitor was retained full time for the duration of the work. The monitor patrolled accessible work areas on a rotational basis.

A black bear was seen on August 20th and 21st, 2010. On both days, the black bear was spotted near the garbage incineration area at the end of the old airstrip. Birds such as ravens and whiskey jacks were also seen. A fox by the airstrip was also spotted near the former old airstrip.

An electric bear fence was installed around the camp perimeter which was activated every evening and deactivated every morning prior to the safety meeting. To reduce the risk of attracting wildlife, food scraps were burned each day in the incinerator by the airstrip, and workers were required to return all food waste from the work site to camp disposal facilities.

3.3 RESTRICTED ACCESS ZONES

The restricted access zones were previously identified as containing low level gamma radiation in the soils. At each of the sites, the restricted access zones were demarcated using blue flagging tape. At each site, the workers were informed of the reasons for the restricted access zones. An on-site training seminar regarding health and safety of low level radiation in soils was attended by all people on-site. A similar seminar was conducted in Déline for those team members who were home on their rotational break. The seminar handout is attached in Appendix E.

4.0 REMEDIATION ACTIVITIES

4.1 TIMELINE

The Phase I on-site activities commenced in August 2010 with the mobilization of heavy equipment and supplies to Sawmill Bay. The heavy equipment and supplies were mobilized by barge to Sawmill Bay from Déline. Site remediation commenced August 12, 2010 with the mobilization of personnel and light equipment to Sawmill Bay via Twin Otter aircrafts, making use of the un-maintained airstrip. Site work for the 2010 field season continued daily until shut down for winter on October 1, 2010 with the demobilization of the last on-site personnel to Déline via twin otter aircraft. On the previous day, the barge was hoisted on shore at Sawmill Bay to over winter on-site.

4.2 REMEDIATION ACTIVITIES BY COST ITEM

Part of the basis of payment schedule for remediation activities were on a unit cost. These items included drum crushing, surface debris removal, and burning untreated wooden debris. A summary of these activities is presented in Table 3, Table 4, and Table 5.

Table 3 Summary of Drum Crushing

Activity	GBL Drum Crushing Summer 2010
Total number inspected	10911
Total number crushed	8235
With liquid/sludge	2590

Note: The totals do not add up due to the fact that 86 empty drums are waiting to be crushed at Sawmill Bay (SB). All drum crushing occurred at SB. 8214 SB drums crushed, 24 Contact Lake (CL) drums crushed totals 8235.

Table 4 Summary of Drum Transporting to Sawmill Bay from other sites

Activity	Contact Lake	Bonanza/ El Bonanza
Collected, crushed, stockpiled	24	0
Slung to Sawmill, waiting to be crushed	10	76

Note: There are 10 drums from CL and 76 drums from B/EB, totalling 86 drums waiting to be crushed at SB crush site#3. All drum crushing occurred at Sawmill Bay.

Table 5 Surface Debris Collection and Burn Volumes

Location	Surface Debris Collected (m³)	Burn Volume (m³)
Sawmill Bay	510	319
Contact Lake	248	695
Bonanza/El Bon.	58	432

Note: Totals for surface debris collected are non-hazardous waste volumes.
Burn volumes include all material burned in place.

4.3 LABORATORY WORK

Laboratory analysis of soils, drum contents, ash, and suspected asbestos containing material was performed by Maxxam Analytical Inc. Laboratory analysis of grey water was conducted by Taiga Environmental. The full laboratory reports are presented in Appendix F. Laboratory requirements included baseline soil analyses of stockpile locations, drum content classification, grey water analysis by the contractor, ash analysis by the contractor, confirmation sampling of soil beneath the old El Bonanza transformer, and testing of suspected asbestos containing material in the plane fuselage at Sawmill Bay. Soil sample results were compared to Canadian Council of Ministers of the Environment (CCME) soil quality guidelines for residential/parkland use. Grey water samples were compared to criteria stated in the water license.

4.4 REMEDIATION ACTIVITIES BY SITE

Summaries of the remediation activities completed at the GBL sites are provided in Table 6, Table 12, and Table 13 for Sawmill Bay, Contact Lake, and the Bonanza/El Bonanza sites, respectively. For further detail, consult:

- Site maps, Appendix A;
- Site Photographs, Appendix B;
- Daily reports, Appendix C (CD ROM only);
- Weekly reports, Appendix D (CD ROM only);
- Laboratory reports, Appendix F;
- Permits and Licenses, Appendix G; and
- Hazardous Material Transportation Documents, Appendix H.

4.4.1 Sawmill Bay

A summary of the remediation activities at Sawmill Bay are presented below in Table 6a 6b, and 6c for the three respective areas of the site.

Table 6a Summary of Remediation Activities Completed at Sawmill Bay Airstrip

Site	Area	Description
Sawmill Bay	Airstrip	<p>Restricted access area demarcated with flagging tape</p> <p>Non-hazardous debris stockpile-1 (SB-NHDS-1) established</p> <p>Empty drums collected, stockpiled, and crushed at crush site#1</p> <p>Drums with liquid/sludge classified and stockpiled at SB-NHDS-1</p> <p>Non-treated unpainted wood stockpiled at SB-Airstrip burn-1</p> <p>Surface debris collected, consolidated and stockpiled at SB-NHDS-1 from areas: SA-DA-1, SA-DA-2, SA-DA-3, SA-DA-4, SA-DA-5, SA-DA-6, SA-DA-7, SA-DA-8, SA-DA-9, SA-DA-10, SA-DA-11, and SA-DA-27</p> <p>Crush site #3 established to crush drums from Main Camp Area</p> <p>Burn area established for daily food waste and daily honey bucket</p> <p>Hazardous debris (batteries, paint cans) transported to HDS</p> <p>Boarded up the terminal building, outhouse, and shed to restrict access</p> <p>Baseline sampling of soil at SB-NHDS-1 and wood burn location-1</p> <p>Ash sampling at airstrip burn location-1</p>

Table 6b Summary of Remediation Activities Completed at Sawmill Bay Main Camp

Site	Area	Description
Sawmill Bay	Main Camp	<p>11 tents constructed of which included 5 sleeping quarters, kitchen/dining hall, showers/laundry, storage shed, medic tent, office, dry room</p> <p>Buildings boarded up</p> <p>Restricted access area demarcated with flagging tape</p> <p>Grey water lagoon constructed</p> <p>Surface debris collected and stockpiled at CL-NHDS-3 from areas: SA-DA-12, SA-DA-13, SA-DA-14, SA-DA-15, SA-DA-16, SA-DA-17, SA-DA-18, SA-DA-19, SA-DA-20, and SA-DA-21</p> <p>Drum fence dismantled</p> <p>Empty drums transported to Crush site #3</p> <p>Drums with liquid/sludge classified and transported to CL-NHDS-1</p> <p>NHDS-3 stockpile established adjacent to Main Camp dump area</p> <p>HDS established adjacent to Power House</p> <p>Two (2) transformers shipped out (Serial #130605 – S36 Powerhouse, #128064 - 6)</p> <p>Baseline soil sampling at SB-NHDS-3 and SB-HDS</p> <p>Ash sampling at wood burn location-2</p> <p>Soil sampling from underneath transformers</p> <p>Grey water sampling</p>

Table 6c Summary of Remediation Activities Completed at Sawmill Bay Barge Area

Site	Area	Description
Sawmill Bay	Barge Landing Area	Buildings boarded up in SA-DA-25 Restricted access zone demarcated with flagging tape NHDS-2 established Surface debris collected and stockpiled at CL-NHDS-2 from areas: SA-DA-22, SA-DA-23, SA-DA-24, SA-DA-25, and SA-DA-26 Empty drums crushed at Crush site #2 Drums with liquid/sludge classified and transported to CL-NHDS-2 Baseline sampling at SB-NHDS-2

4.4.1.1 Surface Debris Stockpiles

At Sawmill Bay, three non-hazardous debris stockpiles (NHDS) locations were agreed upon by the contractor, department representative, and the on-site community representatives. The three locations corresponded to the three main areas of the site. Having three separate NHDS locations resulted in shorter transportation distances for all previously identified Sawmill Bay surface debris (SA-DA) areas.

One hazardous debris stockpile (HDS) location was constructed at Sawmill Bay. The HDS was located next to the Power House in the main camp area. The HDS area was bermed and lined as per the specification requirements. The Sawmill Bay HDS was used to temporarily store old batteries, DDT impacted wood, old transformers, and old paint cans. Some of the hazardous material was shipped off site. In total, 3 transformers in steel overpacks, 5 m³ of DDT impacted wood, PCB impacted soil from underneath the El Bonanza transformer, and 70 old batteries were shipped from Sawmill Bay to Yellowknife by twin otter aircraft. Note that these materials originated from all four of the sites and were consolidated at Sawmill Bay for shipment to Yellowknife. Once in Yellowknife, the material was handled by KBL. The transportation documents are attached as Appendix H. The HDS area was not decommissioned at the end of the construction season. Hazardous waste remaining in the HDS includes an approximate 15 old empty paint cans and 20 old batteries.

4.4.1.2 Baseline Sampling

Baseline soil samples were collected to assess the contamination in the surficial soil at stockpile locations prior to placement of surface debris. The parameters tested for included hydrocarbons, BTEX, and metals. Polychlorinated biphenyls were also tested for in suspected areas. Table 7 outlines the results for baseline soil samples at Sawmill Bay.

Table 7 Sawmill Bay Baseline Soil Samples

Debris Stockpile	Location	Closest Surface Debris Location	Notes
SB-NHDS-1	Airstrip	SA-DA-4	All baseline soil sample results below applicable criteria
SB-NHDS-2	Dock Area	SA-DA-22	All baseline soil sample results below applicable criteria
SB-NHDS-3	Main Camp	SA-DA-12	All baseline soil sample results below applicable criteria
SB-HDS	Main Camp	SA-DA-12	All baseline soil sample results below applicable criteria except F3 PHC = 580 ppm
Airstrip Wood	Burn Location	SA-DA-4	All baseline soil sample results below applicable criteria

Baseline soil sample analyses were compared to CCME soil quality guidelines for residential/parkland land use. At Sawmill Bay, all baseline soil samples were below criteria for PHC and metals except for one sample. Sample SB-HDS-1 has a value of 580 ppm Fraction 3 PHC in soil. The HDS is located adjacent to the above ground storage tank (AST) of the power house. It is noted that due to the proximity of the power house AST to the hazardous debris stockpile, the light brown sand contains elevated levels of PHC in the soil. All soil results for hexavalent chromium were reported as non-detect however, note that the detection limit was 1.5 ppm.

4.4.1.3 Plane Fuselage

A plane fuselage is located in the vicinity of the old dock area of Sawmill Bay in SA-DA-20. The large metal debris object was inspected by department representatives for the presence of possible asbestos containing materials. The fuel line of the plane fuselage was confirmed to contain chrysotile asbestos. Table 8 outlines the findings. Photographs in Appendix B show the plane fuselage and associated fuel line wrapped in asbestos containing material.

Table 8 Summary of Plane Fuselage Fuel Line Pipe Wrap

Sawmill Bay Plane Fuselage	Chrysotile	Others ¹
Units	% (vol/vol)	% (vol/vol)
Pipe Wrap 1	90-99	<1
Pipe Wrap 2	90-99	<1
Pipe Wrap 3	90-99	<1

¹ Others includes Actinolite, Amosite, Anthrophyllite, Crocidolite, Tremolite, Cellulose, Glass Fibres, Hair, and Other Fibres

4.4.1.4 Drum Sampling

During the construction season at the Great Bear Lake sites, only empty drums were crushed. Drums with liquid contents of less than 5 cm were categorized as containing sludge (S). These drums containing sludge were labelled ‘S’ and are ready to be washed in subsequent remediation activities. Drums with liquid contents of greater than 5 cm were labelled as containing fuel (F), oil (O), or water (W). The contents of these drums require amalgamation and either burning or shipment off-site.

A selection of drums was sampled for further classification and disposal options. The analysis criteria determined was based on the disposal criteria for possible on-site incineration. For subsequent remediation activities, the disposal of the liquid contents is required. The options are either to ship liquid contents south or to incinerate on-site. In order to determine the acceptability of on-site incineration the following parameters were analysed: % glycol, PCBs, chlorine, cadmium, chromium, and lead. Note that the selection of drums sampled at Sawmill Bay all conformed to disposal criteria for on-site incineration. Further conformation samples are recommended for drums that were unable to be opened and to continue with the quality assurance and quality control program. The drum sampling of the different drums was based on the distinguishable types of fuel and oil observed in the drums at Sawmill Bay. Table 9 presents the disposal criteria summary for barrel contents as presented in the Abandoned Military Sites Remediation (AMSR) Protocol.

Table 9 Barrel Protocol Criteria and Disposal Summary

Phase	Alcohol or Glycols	PCBs	Chlorine	Cadmium	Chromium	Lead	Disposal
Units	%	ppm	ppm	ppm	ppm	ppm	
Organic		<2	<1000	<2	<10	<100	On-site incineration
Organic		>2	>1000	>2	>10	>100	Ship South
Aqueous	>2		>1000	>2	>10	>100	Ship South
Aqueous	>2		<1000	<2	<10	<100	On-site incineration
Aqueous	<2						Discharge in accordance with wastewater criteria

There are approximately 1500 drums remaining at Sawmill Bay which contain less than 5 cm of residual sludge. These drums are ready to be washed. The wash water will require sampling to be in accordance with grey water discharge criteria as presented in the water license. The 1000 drums containing greater than 5 cm of liquid contents were identified, classified based on visual observation, and will require conglomeration of the similar liquid. An estimated 100 samples will be required to classify the contents of the remaining drums. The 200 drums that were unable

to be opened by hand require a non-spark power tool for classification, amalgamation, disposal of liquid contents, washing, and final crushing.

4.4.1.5 Grey Water Results

Grey water was collected from the end of pipe leading into the grey water lagoon at Sawmill Bay. The sample analysis results were compared to the maximum allowable concentration as depicted in the water license. Table 10 presents the results. For further information regarding the grey water, consult the Sahtu Land and Water Board water permit, attached in Appendix G.

Table 10 Grey Water Analytical Results

Parameter	Reported Concentration	Maximum Allowable Concentration
Total Suspended Solids (TSS)	76 mg/L	100 mg/L
Oil and Grease	Non-visual	5 mg/L
BOD	< 1.0 mg/L	100 mg/L
Fecal Coliforms	150 CFU/100 mL	10000 CFU/100 mL
pH	7.80	Range 6 – 9

4.4.1.6 Ash Analysis

Two burns of unpainted untreated wood occurred at Sawmill Bay. The burns occurred at the former old airstrip, and south of the main camp toward the gully, respectively. The airstrip burn occurred on September 19th, 2010. The gully burn occurred on September 25th, 2010. Composite ash samples were collected from each of the burn locations. Parameters were compared to CCME guidelines for a residential/parkland land use. The ash sample results included exceedances of a variety of parameters. The burnable wood did contain nails and screws which were evident in the ash. Table 11 summarizes the ash results. The ash locations were covered with a poly-liner after samples were collected.

Table 11 Sawmill Bay Ash results

Burn Location	Sample Identity	Exceedances
Airstrip	SB-AA	Lead, zinc
Camp Gully	SB-CGA	Boron, hexavalent chromium, antimony, barium, copper, lead, zinc

Photographs of the remediation activities conducted at Sawmill Bay are presented in Appendix B.

4.4.2 Contact Lake

Phase I of the on-site remediation program occurred at Contact Lake from September 9th to 28th, 2010. A summary of the remediation activities at Contact Lake are presented below in Table 12. The Contact Lake location encompasses the old mine site with associated buildings as well as the East Arm site and cabins en route to the East Arm site.

Table 12a Summary of Remediation Activities Completed at Contact Lake Mine Site

Site	Area	Description
Contact Lake	Upper site (former mine area)	Restricted access zone demarcated with flagging tape Non-hazardous debris stockpiles (CL-NHDS) established Hazardous debris stockpile (CL-HDS) established Buildings stripped of hazardous and non-hazardous materials Surface debris collected, consolidated, and transported to stockpiles Untreated unpainted wood burnt Existing buildings demolished (except the headframe, hoist house shed, Quonset) DDT impacted wood transported to Yellowknife via Sawmill Bay Wooden ladder removed Baseline soil sampling and ash sampling Ash locations covered with poly-liner
	Lower site (cabins)	Non-hazardous debris stockpiles (CL-NHDS) established Surface debris collected, consolidated, and transported to stockpiles Buildings stripped of hazardous and non-hazardous materials Wooden dock dismantled DDT impacted wood transported to Yellowknife via Sawmill Bay Baseline soil sampling and ash sampling Ash locations covered with poly-liner

Table 12b Summary of Remediation Activities Completed at Contact Lake East Arm

Site	Area	Description
Contact Lake	Cabins en route to East Arm	Buildings stripped of materials Debris classified and transported to stockpiles Untreated unpainted wood was burnt Ash sampling Ash covered with poly-liner
	East Arm	Non-hazardous debris stockpiles established Fuel tank labelled with unique identifier number Surface debris collected and consolidated at NHDS Drums slung to Sawmill Bay Baseline soil sampling

4.4.2.1 Surface Debris Stockpiles

Similar to Sawmill Bay, surface debris was collected by hand and transported to stockpiles. In situations where the debris exists on a steep cliff or extending beyond 0.5 m below depth, the debris was left. Large metal debris objects were also left in place. Non-hazardous debris stockpile (NHDS) locations were established to consolidate the surface debris. One hazardous debris stockpile (HDS) was established at the upper site to temporarily store old batteries, which were double lined in heavy garbage bags. Note that asbestos containing material was double bagged prior to placement in the stockpiles.

4.4.2.2 Baseline Sampling

The stockpile locations at the upper site (CL-NHDS-1 and CL-HDS-1) near the mine opening contained elevated levels of metals as compared to the CCME guidelines for residential/parkland use. The results indicate elevated levels of antimony, arsenic, cobalt, copper, lead, mercury, molybdenum, nickel, silver, uranium, and zinc. The stockpile locations at the lower site adjacent to the cabins contained elevated levels of arsenic, cobalt, copper, silver, uranium, and zinc. The stockpile location adjacent to CL-DA-2,3 has elevated levels of copper. The stockpile locations at the East Arm site did not contain elevated levels of metals.

4.4.2.3 Building Demolition

Buildings at Contact Lake were demolished by removing previously identified materials and subsequent burning. Prior to the burns, the buildings were stripped of materials such as DDT-impacted door frames, asbestos containing shingles, as well as general refuse. Buildings were burnt in accordance with burn permit attached in Appendix G.

4.4.2.4 Ash Sampling

Most of the buildings were burnt in place after appropriate clearing and/or required grubbing. Burns were conducted in accordance with the burn permit attached in Appendix G. Ash samples were collected from each of the burn piles. Ash samples were analyzed for metals and poly-aromatic hydrocarbons (PAHs). One ash sample was sampled for PCBs due to the proximity of an old transformer. Overall, the ash contains elevated levels of metals including boron, hexavalent chromium, arsenic, copper, lead, silver, uranium, and zinc. The ash did not contain elevated levels of PAHs and PCBs were not detected in the sample of ash from wood adjacent to the old transformer. A variety of nails, screws, and small metal debris is present in the ash. To contain the ash, the piles were covered with poly-liner after sampling.

4.4.2.5 Drums

Thirty-four drums were slung from Contact Lake to Sawmill Bay. These drums were empty and ready to be crushed. An additional 25 drums were left in place. The drums left in place included nine drums on the steep slope adjacent to Shed No. 2, twelve drums located West of CL-DA-2, and four drums in NHDS-1. The drums located West of CL-DA-2 are welded together in groups of threes. The drums left in place in NHDS-1 were previously retrofitted to be used as stoves.

Photographs of the Contact Lake remediation are attached in Appendix B.

4.4.3 Bonanza and El Bonanza

Phase I of the on-site remediation activities occurred at the Bonanza and El Bonanza sites from September 22nd to September 30th, 2010. A summary of the remediation activities are presented below in Table 13. The El Bonanza site also includes the airstrip adjacent to the barge landing area.

Table 13a Summary of Remediation Activities Completed at Bonanza

Site	Area	Description
Bonanza	Lower cabin area	Non-hazardous debris stockpiles established (BZ-NHDS) Buildings stripped of non-hazardous materials Untreated and unpainted wood burnt Ash piles covered Collection, consolidation, and transport of surface debris to stockpiles
	Head frame area	Non-hazardous debris stockpiles established (BZ-NHDS) Untreated and unpainted wood burnt Collection, consolidation, and transport of surface debris to stockpiles

Table 13b Summary of Remediation Activities Completed at El Bonanza

Site	Area	Description
El Bonanza	Main mine and cabin areas	<p>Established survey control points on buildings 1 and 13</p> <p>Non-hazardous debris stockpiles (EB-NHDS) established.</p> <p>Collection, consolidation, and transport of surface debris to stockpiles</p> <p>Buildings stripped of hazardous and non-hazardous materials</p> <p>Untreated and unpainted wood burnt</p> <p>Ash piles covered</p> <p>Existing buildings demolished (except the headframe and shop)</p> <p>Baseline soil sampling and ash sampling</p> <p>Drums collected and consolidated on site</p> <p>Drums removed from Silver Lake and Mile Lake</p> <p>Empty drums transported by Argo from main mine area to former airstrip</p> <p>Samples from drums with unknown liquid taken and sent for analysis</p> <p>One Transformer shipped to Yellowknife via Sawmill Bay (Serial #54541)</p> <p>1 m³ DDT impacted wood shipped to Yellowknife via Sawmill Bay</p> <p>3 batteries shipped to Yellowknife via Sawmill Bay</p> <p>Soil collected beneath transformer location, shipped to Yellowknife via Sawmill Bay</p>
	Former airstrip	<p>Tanks labelled with unique identifier number.</p> <p>Collection, consolidation, and transport of surface debris to stockpiles</p> <p>Drums stockpiled for future transport offsite by barge</p>

4.4.3.1 Baseline Soil

Baseline soil samples at stockpile locations were collected and sent for laboratory analysis. Elevated hydrocarbon levels were reported in EB-NHDS-5, BZ-NHDS-1, and BZ-NHDS-2.

In EB-NHDS-1 a level of 0.72 ppm hexavalent chromium in soil was reported. In EB-NHDS-4 an elevated level of zinc was reported. In EB-NHDS-5 an elevated level of lead and zinc was reported. PCB analysis was also conducted on EB-NHDS-1, EB-NHDS-2, EB-HDS-1, and EB-Airstrip. The results of the metal analyses is consistent with the values reported for metal parameters in the environmental assessment work on the site and are believed to be naturally sourced and reflective of the mineralogy of the mine site area. All baseline PCB results at Bonanza and El Bonanza stockpile locations were below detection limit.

4.4.3.2 Confirmatory Sampling

One (1) transformer at the former El Bonanza mine site was shipped to Yellowknife via Sawmill Bay. The transformer, with serial #54541, was slung to Sawmill Bay by helicopter and subsequently transported to Yellowknife by twin otter aircraft. Soil from beneath the transformer was excavated and transported with the transformer. The transformer removal and

soil excavation were supervised by the PWGSC representative and the community observer. One (1) confirmatory soil sample was collected from the soil beneath the excavation. The value of PCBs in soil for the confirmation sample was reported by Maxxam Analytical Laboratories as 0.44 ppm. The reported value of the laboratory duplicate was 0.43 ppm PCBs in soil. The analytical reports are presented in Appendix F. The transportation documents are attached in Appendix H.

4.4.3.3 Drums

Drums at Bonanza and El Bonanza were categorized in a similar fashion to those at Sawmill Bay. Drums were labelled as empty (E), containing less than 5 cm residual contents (S), containing fuel (F), containing oil (O), or containing water (W). Three separate drums were sampled for analysis at Maxxam Analytical Laboratories. The results for the drums were < 2 % glycol, < 2 ppm PCBs, < 1000 ppm chlorine, < 2 ppm cadmium, < 10 ppm chromium, and < 100 ppm lead. These results correspond to the acceptability of on-site incineration during subsequent remediation activities.

The number of drums slung to Sawmill Bay from the El Bonanza sites was 76. Approximately 108 drums remain on site at El Bonanza. These drums require transport to Sawmill Bay for processing.

4.4.3.4 Building Demolition

Buildings at Bonanza and El Bonanza were demolished. Prior to demolishing the buildings through controlled burns, the buildings were stripped of previously identified hazardous materials. These materials included the DDT-impacted wood of the window sills and door frames of the warehouse and bunkhouse at El Bonanza, painted wood, previously identified asbestos containing materials, as well as general refuse located within the buildings. Buildings were burnt in accordance with burn permit attached in Appendix G. The head frame at both El Bonanza and Bonanza remain. Note that at El Bonanza, Building #2A (Shop) was not demolished. The side walls of the shop building are attached to the headframe and were deemed structurally integral in keeping the headframe standing.

4.4.3.5 Ash Sampling

All ash samples collected from El Bonanza and Bonanza burns contain elevated levels of metals. The samples contain elevated levels of one or more of boron, hexavalent chromium, arsenic, barium, cobalt, lead, nickel, selenium, tin, vanadium, or zinc. After sampling, the ash piles were covered with a poly-liner.

5.0 REGULATORY REQUIREMENTS

5.1 WATER LICENCE

Water licence S09L8-001 was granted on July 26, 2010. The licence is effective from July 26, 2010 until July 25, 2015. The water license is attached in Appendix G. On-site remediation work occurred from August 12, 2010 until October 1, 2010. During this time, a total of 74 m³ of fresh water was obtained from Great Bear Lake. Water use was metered using 1 m³ containers. Water collected from Great Bear Lake was used for camp activities. These camp activities included showering, laundry, and cleaning.

In accordance with the Surveillance Network Program (SNP) stipulated in the water license, station S09L8-001(2) was located at the grey water lagoon end-of-pipe. The analytical results for the SNP were collected on September 16th, 2010. The results were below the maximum allowable concentrations as stipulated in the licence. Raw sewage was collected in honey buckets and burned daily. Drinking water was shipped to site via Yellowknife. Note that the analytical results of the grey water are included in Appendix F.

An annual report was prepared to fulfill the reporting requirements stated within the licence. The annual report was submitted to the Sahtu Land and Water Board as a document entitled *Great Bear Lake Sites Remediation Phase I- Water Licence S09L8-001 Annual Report 2010*.

5.2 LAND USE PERMIT

The Sahtu Land & Water Board issued Land Use Permit S09D-001 Type ‘A’ permit to Indian and Northern Affairs, Contaminant and Remediation Directorate. The permit commenced on July 26, 2010 and is valid until July 25, 2015. A copy of the Land Use Permit is included in Appendix G.

An annual report was prepared to fulfill the reporting requirements stated within the license. The annual report was submitted to the Sahtu Land and Water Board as a document entitled *Great Bear Lake Sites Remediation Phase I - Land Use Permit S09D-001 - Annual Progress Report 2010*.

5.3 PERMIT TO BURN

The contractor, Aboriginal Engineering Limited, obtained a Permit to Burn from the Department of Environment and Natural Resources. Burn Permit #BP009158 was valid from 11 August 2010 until 31 October 2010. A copy of the permit is included in Appendix G.

6.0 FUTURE WORK

The Phase I remediation of the Great Bear Lake Sites began with on-site field work in 2010. The main goals were to crush drums, consolidate surface debris, and demolish selected buildings. In order to complete the Great Bear Lake Phase I project the remaining drums at the Contact Lake, El Bonanza, and Sawmill Bay, require processing. In addition to the 2590 drums at Sawmill Bay, there are 108 drums at El Bonanza, and 20 drums at Contact Lake. The drums at Sawmill Bay are being temporarily stored at the south end of the former old airstrip and near the barge landing area in debris area #22. These two locations correspond to crush sites number 1 and 2, respectively.

Any additional remedial work at the respective sites will be completed as part of other remedial programs associated with the Silver Bear remediation program scheduled to commence in 2012. Included in this future remedial work will be the consolidation and removal of ash from site.

7.0 SUMMARY

In general the remediation program at Sawmill Bay, the former Contact Lake mine site, the former El Bonanza mine site, and the former Bonanza mine site, was completed in accordance with the contract specifications and the regulatory requirements of the Sahtu Land and Water Board water licence and permit. Over the period of seven weeks, the surface debris was consolidated on-site, empty drums were crushed, selected buildings were demolished, and hazardous materials were transported to Yellowknife.

As a whole the remediation program at the Great Bear Lake sites was successfully completed and only the washing and crushing of the remaining drums is to be implemented.

APPENDIX A

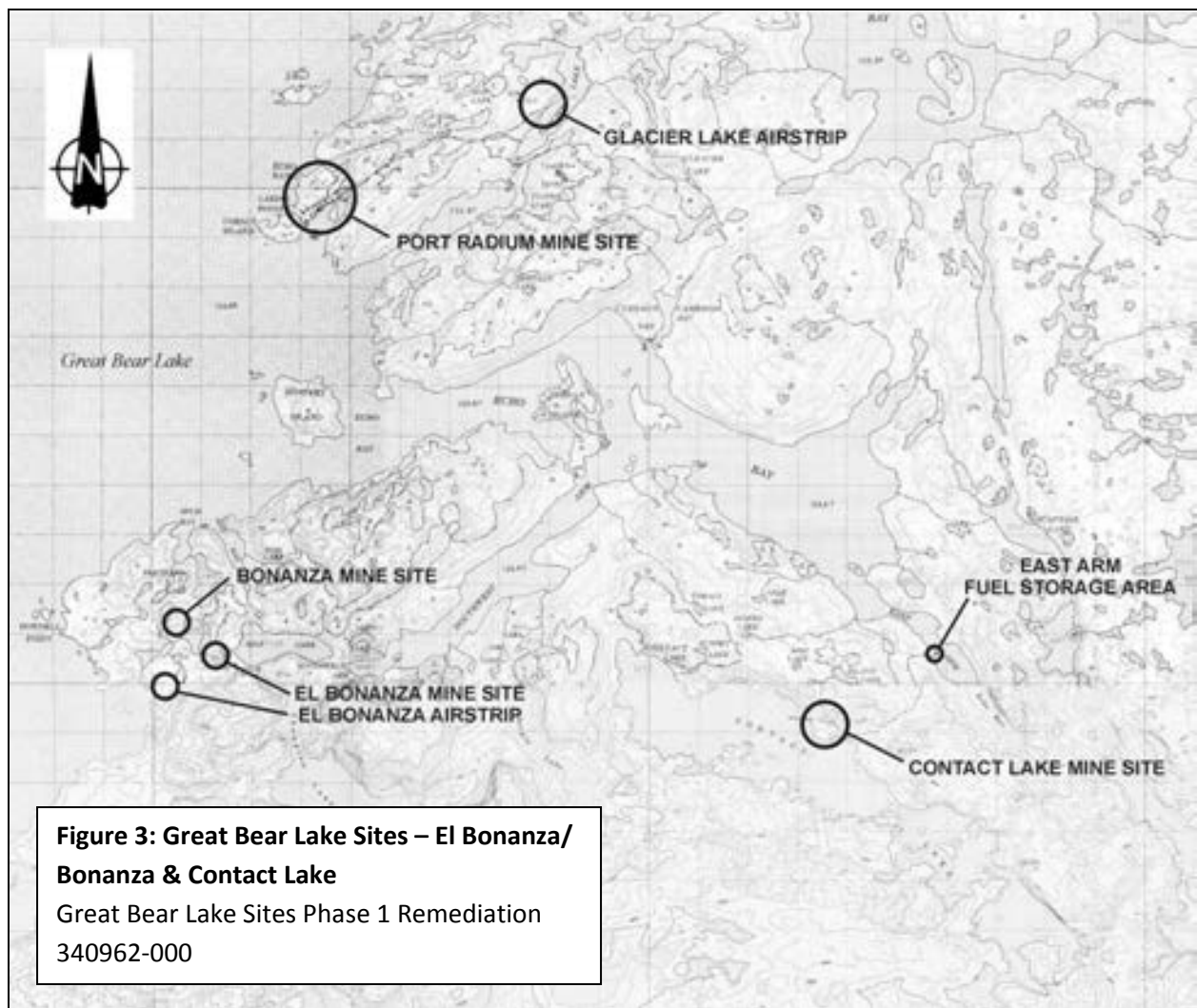
SITE MAPS

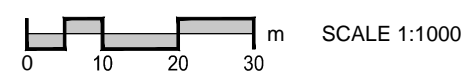


Figure 1: Great Bear Lake Locator Map

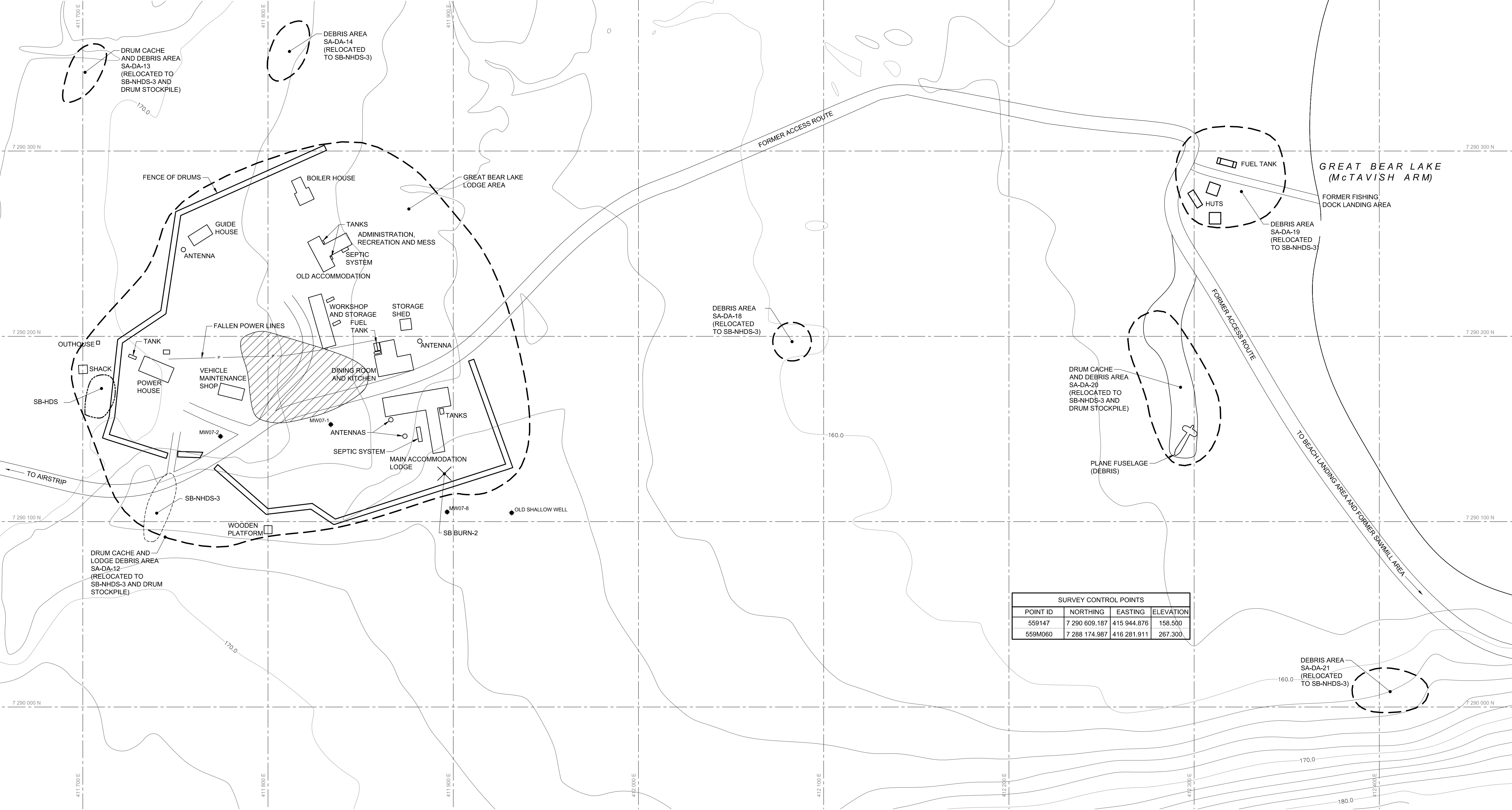
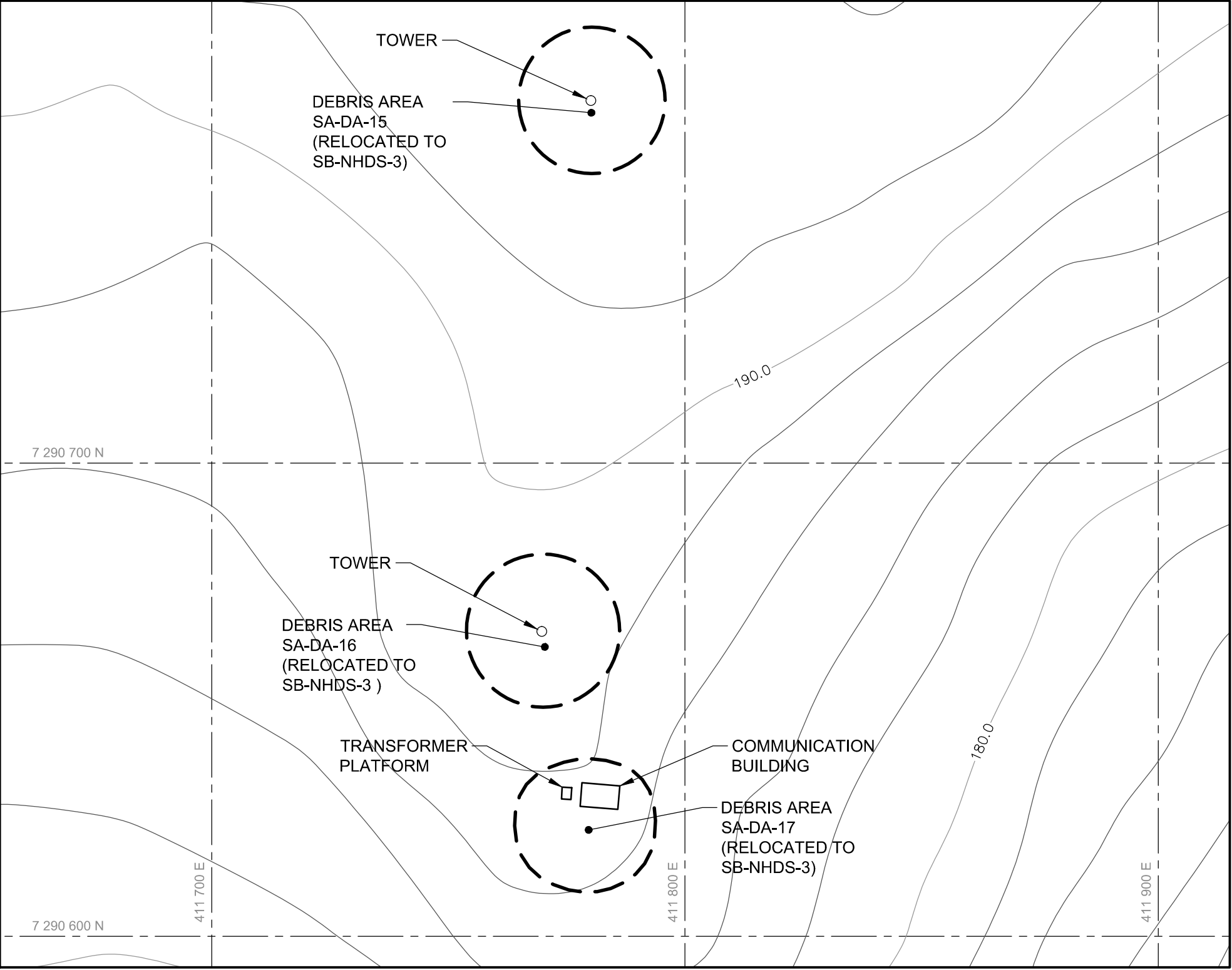
Great Bear Lake Sites Phase 1 Remediation
340962-000







COMMUNICATION TOWER AREA
(SEE SHEET C04 FOR LOCATION REFERENCE)



SURVEY CONTROL POINTS			
POINT ID	NORTHING	EASTING	ELEVATION
559147	7 290 609.187	415 944.876	158.500
559M060	7 288 174.987	416 281.911	267.300

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL COORDINATES AND ELEVATIONS ARE BASED ON UTM NAD83 DATUM.
3. DRAWING BASED ON UMVAECOM DRAWING R.0152211.027-C11 AUGUST 2010
4. FORMER ACCESS ROUTE LOCATIONS SHOWN ARE APPROXIMATE.
5. RESTRICT ACCESS TO IDENTIFIED AREAS.
6. ALL BUILDINGS IN SA-DA-12 CLOSED UP AUGUST 14/15 2010
7. EXTENTS OF HDS AN HDS ARE APPROXIMATE
8. BUILDING CLOSED UP AUGUST 14 & 15 2010

LEGEND

- 165.0 EXISTING CONTOURS AT 2.0m INTERVAL
- SITE GRID (100m INTERVAL)
- POWER LINE
- APPROXIMATE DEBRIS AREA
- HAZARDOUS STOCKPILE AREA
- NON HAZARDOUS STOCKPILE AREA
- BURN
- MW07-49 EXISTING MONITORING WELL
- RESTRICTED ACCESS AREA

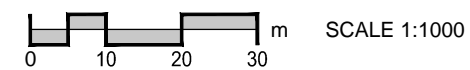
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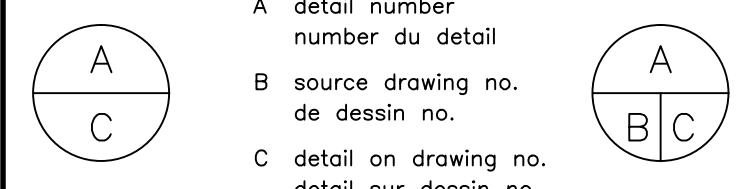
project title
**GREAT BEAR LAKE SITES
REMEDIATION PROJECT
NORTHWEST TERRITORIES
PHASE 1**

drawing title
**SAWMILL BAY
MAIN CAMP AREA**

designed by	J. MAUCHAN	conçu par	
drawn by	S. TAYLOR	dessiné par	
approved by	C. GRAVELLE	approuvé par	
PWGSC Project Manager	G. WIATZKA	Administrateur de Projets TPWGC	
scale	1:1000	échelle	feuille
project no.	R.015211.027	projet no.	Figure 5
date	JANUARY 2011	date	OF 11



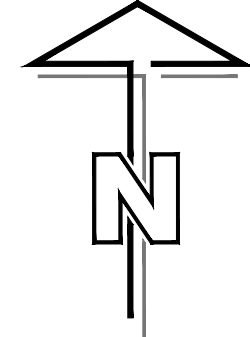
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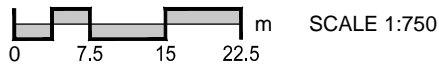
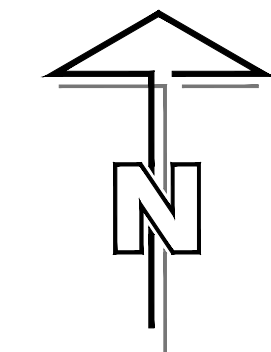
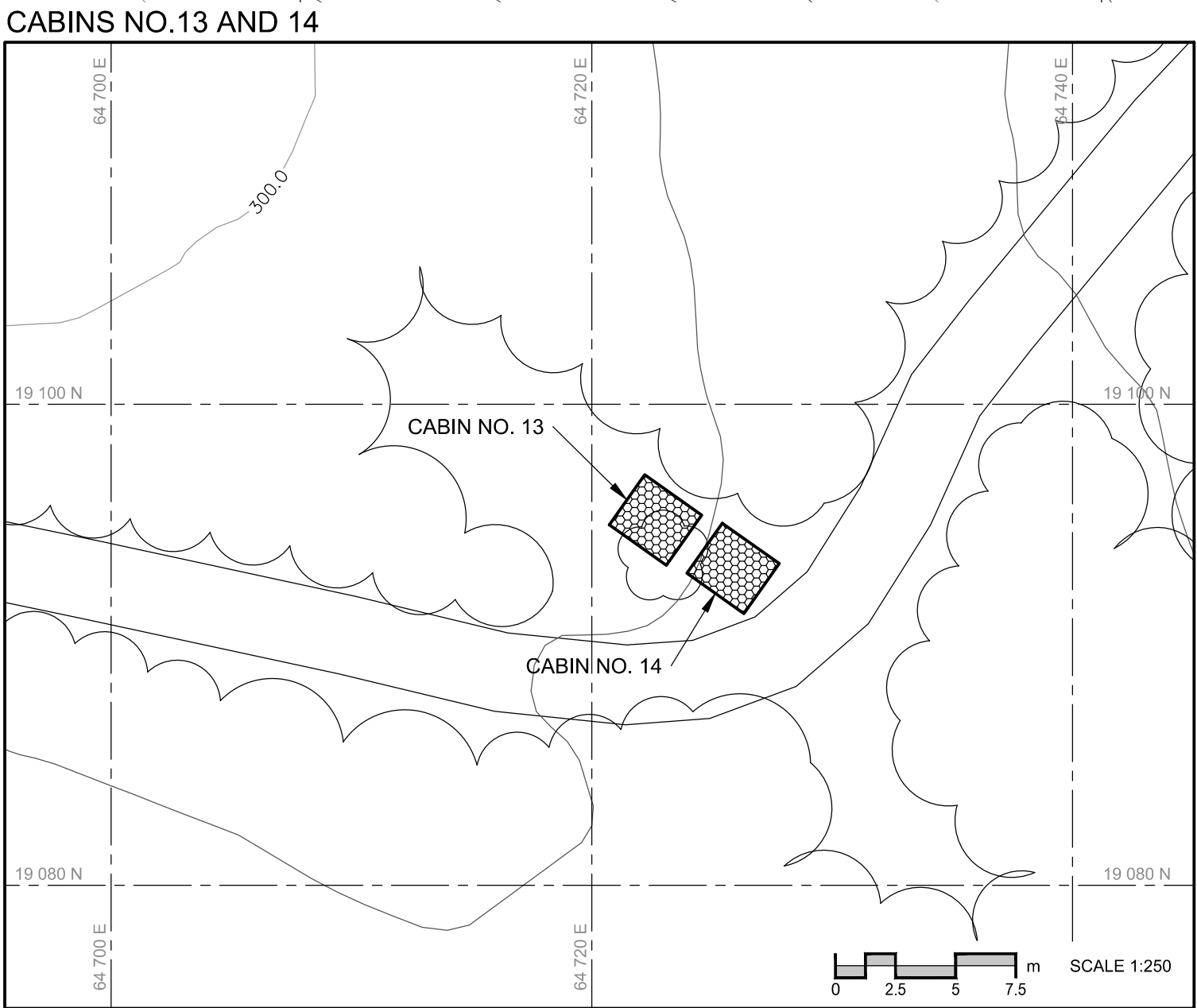
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GREAT BEAR LAKE SITES REMEDICATION PROJECT NORTHWEST TERRITORIES PHASE 1	


drawing title	titre du dessin
<p>SAWMILL BAY</p> <p>BARGE LANDING AREA</p>	

designed by		J. MAUCHAN		conçu par	
drawn by		S. TAYLOR		dessiné par	
approved by		C. GRAVELLE		approuvé par	
PWSCG Project Manager		Administrateur de Projets TIFSCG			
G. WIATZKA					
scale	1:1000	echelle	sheet	feuille	
project no.	R.015211.027	project no.	<div style="text-align: center;"> <h1>Figure 6</h1> <p>OF 11</p> </div>		
date	JANUARY 2011	date			



MINE OPENINGS			
ID NUMBER	OPENING NAME	COORDINATES	
		NORTHING	EASTING
CL-VNT-1	MINE RAISE	19 284	63 862
CL-OPN-1	OPEN STOPE/VEIN	19 229	63 781
CL-OPN-2	OPEN STOPE/VEIN	19 238	63 805
CL-OPN-3	OPEN STOPE/VEIN	19 250	63 837
CL-SFT-1	MINE SHAFT	19 226	63 759






Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

REAL PROPERTY SERVICES
Western Region

Client



Indian and Northern
Affairs Canada

Client

Affaires indiennes
et du Nord Canada

Canada

CONTAMINANTS and REMEDIATION DIRECTORATE
YELLOWKNIFE, N.W.T.

Client

Client

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

2. ALL COORDINATES AND ELEVATIONS ARE BASED ON LOCAL COORDINATE SYSTEM.

3. SITE PLANS AND TOPOGRAPHIC INFORMATION BASED ON AIR PHOTOS AND SURVEY PROVIDED BY OTHERS. CURRENT CONDITIONS AND LOCATIONS MAY NOT BE EXACTLY AS SHOWN.

4. FORMER ACCESS ROUTE LOCATIONS SHOWN ARE APPROXIMATE.

LEGEND

165.0

EXISTING CONTOURS AT
2.0m INTERVAL

SITE GRID (100m INTERVAL)

EXISTING TREELINE

APPROXIMATE DEBRIS AREA

HAZARDOUS STOCKPILE AREA

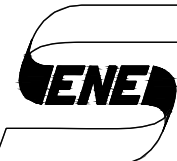
NON HAZARDOUS
STOCKPILE AREA

×

BURN

▨

STRUCTURE TO BE
DEMOLISHED

SENE Consultants

REVISIONS	DESCRIPTION	DATE
0	POST REMEDIATION	

A

C

A detail number
number du detail

B source drawing no.
de dessin no.

C detail on drawing no.
detail sur dessin no.

A

B

C

project title

GREAT BEAR LAKE SITES
REMEDATION PROJECT
NORTHWEST TERRITORIES
PHASE 1

titre du projet

drawing title

CONTACT LAKE MINE
DEBRIS REMOVAL
AREA 2

titre du dessin

designed by

J.MAUCHAN

conçu par

drawn by

S.TAYLOR

dessiné par

approved by

C.GRAVELLE

approuvé par

PWGSC Project Manager

G.WIATZKA

Administrateur de Projets TPWSC

scale

1:750

echelle

sheet

1

feuille

project no.

R.015211.027

project no.

Figure 8

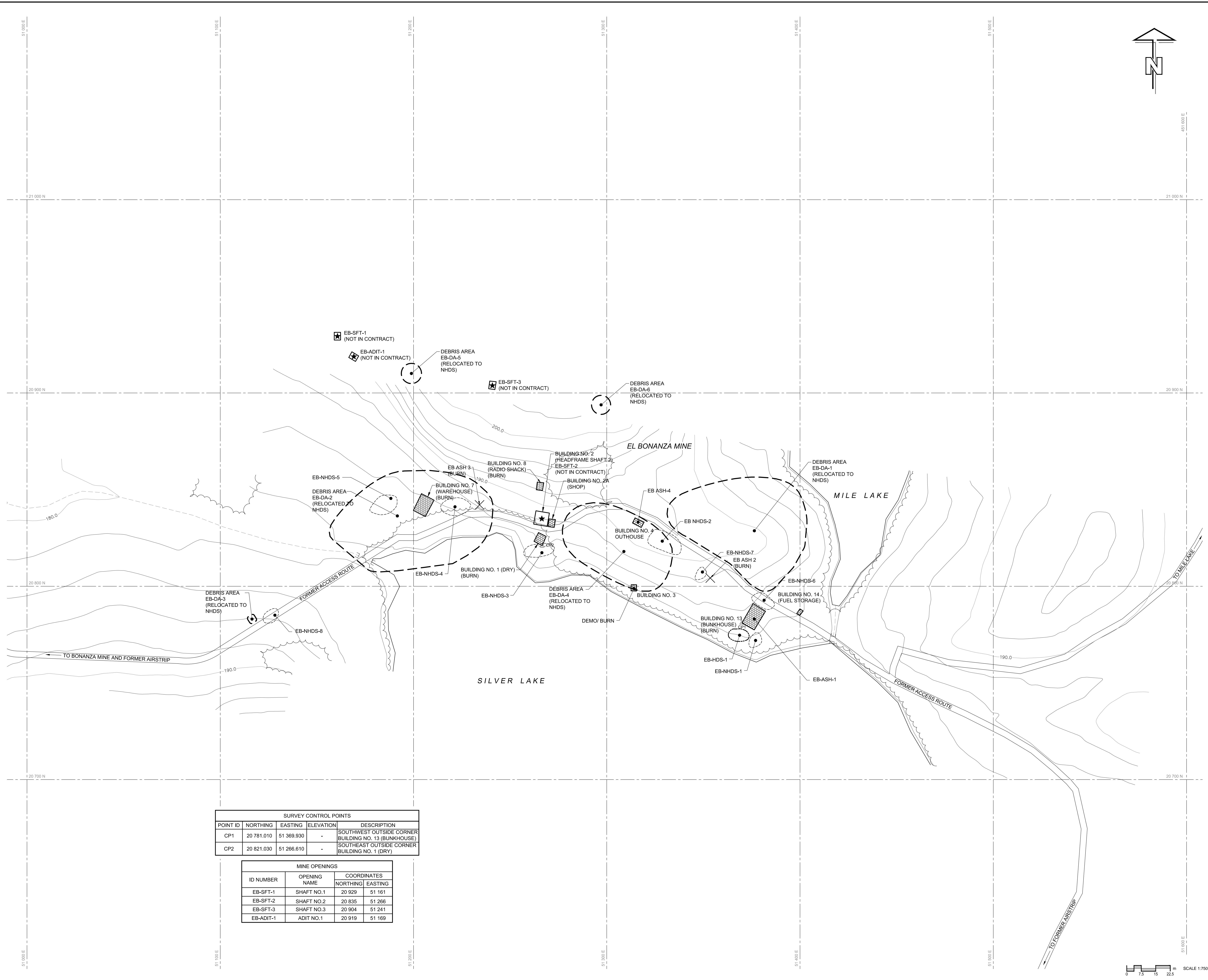
date

JANUARY 2011

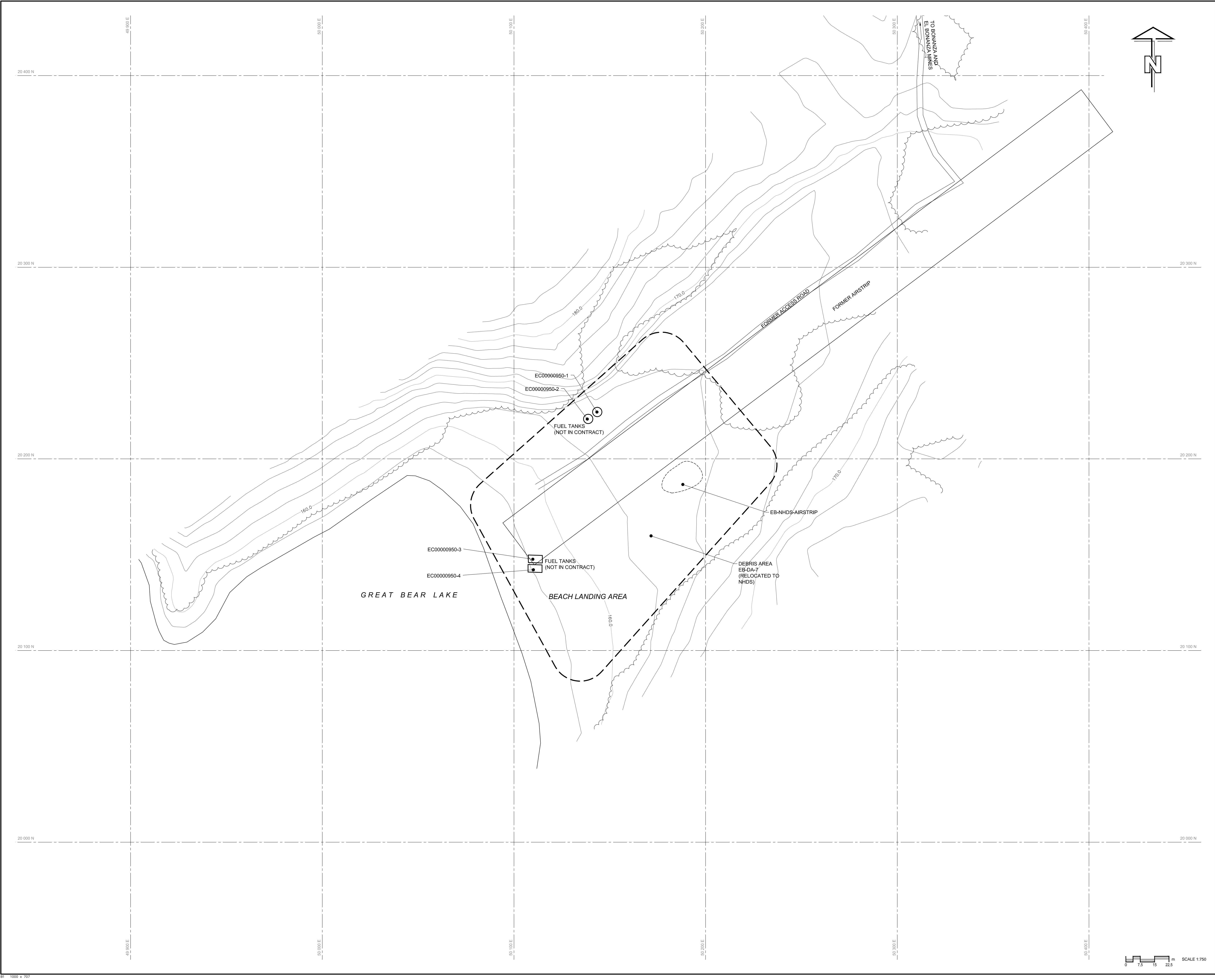
date


OF 11

R.015211.027 - C09

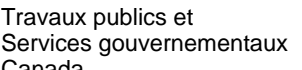


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PLOT: January-06-11 11:27:26 AM
Saved by: Steve Taylor
JMA FILE NO.: 340992-FIG 10.DWG






Public Works and
Government Services
Canada



Travaux publics et
Services gouvernementaux
Canada


REAL PROPERTY SERVICES
Western Region

Client




Indian and Northern
Affairs Canada

Client



Affaires indiennes
et du Nord Canada



CONTAMINANTS and REMEDIATION DIRECTORATE
YELLOWKNIFE, N.W.T.

Client

Client

GENERAL NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

2. ALL COORDINATES AND ELEVATIONS ARE BASED ON LOCAL COORDINATE SYSTEM.

3. SITE PLANS AND TOPOGRAPHIC INFORMATION BASED ON AIR PHOTOS AND SURVEY PROVIDED BY OTHERS. CURRENT CONDITIONS AND LOCATIONS MAY NOT BE EXACTLY AS SHOWN.


4. FORMER ACCESS ROUTES AND AIRSTRIIP LOCATIONS SHOWN ARE APPROXIMATE.

5. SITE MAP BASED ON AUGUST 2010 DRAWING R015211027.C06 BY UMA / AECOM


6. EXTENTS OF HAZARDOUS DEBRIS STOCKPILES (HDS) AND NON HAZARDOUS DEBRIS STOCKPILES (NHDS) ARE APPROXIMATE


7. FUEL TANKS LABELED SEPTEMBER 20 2010


LEGEND


 165.0


EXISTING CONTOURS AT
2.0m INTERVAL


 SITE GRID (100m INTERVAL)

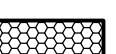
 EXISTING TREELINE

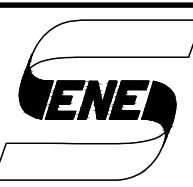
 APPROXIMATE DEBRIS AREA

 HAZARDOUS STOCKPILE AREA

 NON HAZARDOUS STOCKPILE AREA

 BURN

 STRUCTURE TO BE DEMOLISHED



Senes Consultants

0	POST REMEDIATION	
REVISIONS	DESCRIPTION	DATE
A	detail number	
B	source drawing no.	
C	detail on drawing no.	

project title

GREAT BEAR LAKE SITES
REMEDIATION PROJECT
NORTHWEST TERRITORIES
PHASE 1

titre du projet

drawing title

EL BONANZA AND BONANZA MINES
DEBRIS REMOVAL
EB AIRSTRIIP

titre du dessin

designed by

J.MAUCHAN

conçu par

drawn by

S.TAYLOR

dessiné par

approved by

C.GRAVELLE

approuvé par

PWGSC Project Manager

G.WIATZKA

Administrateur de Projets TPWGC

scale

1:750

echelle

sheet

feuille

project no.

R.015211.027

project no.

date

JANUARY 2011

date

Figure 10

OF 11

0 7.5 15 22.5 m

SCALE 1:750

R.015211.027 - C06

APPENDIX B

SITE PHOTOGRAPHS

Contact Lake Photos



Photo 1: Ongoing asbestos abatement work in Dry building, Contact Lake ↑



Photo 2: Drill shack demolition, Contact Lake ↑



Photo3: Electrical shack demolition, Contact Lake ↑



Photo 4: Cabin 5 asbestos abatement prior to demolition, Contact Lake ↑



Photo 5: Window sills and door frames removed from Cabin 1, Contact Lake ↑



Photo 6: Contact Lake controlled burn ↑



Photo 7: Typical burn nearing the conclusion, Contact Lake ↑



Photo 8: CL-DA-1 after first lift removal of ~1ft, required revisiting ↑



Photo 9: CL-DA-1, surface debris removal in progress ↑



Photo 10: Non-hazardous debris stockpile (NHDS) adjacent to CL-DA-1 ↑



Photo 11: CL-DA-2,3 prior to stockpiling surface debris ↑



Photo 12: CL-DA-2,3 after stockpiling surface debris ↑



Photo 13: Debris along shore in CL-DA-4, Contact Lake ↑



Photo 14: CL-DA-4, three barrels welded together along a central axis, left in place ↑



Photo 15: Debris 5 m in from shore, near the INAC dock in CL-DA-4, Contact Lake ↑



Photo 16: Large debris near shore, CL-DA-4, Contact Lake ↑



Photo 17: Barrel pile near shore, CL-DA-4, Contact Lake



Photo 18: An example of large metal debris in CL-DA-4, near floating dock ↑



Photo 19: Various debris in CL-DA-4, near floating dock ↑



Photo 20: Contact Lake Head frame, hoist house, and shed. Only shed was removed ↑



Photo 21: DDT impacted wood in bag for transportation to Yellowknife ↑



Photo 22: Large metal debris along the former access route towards the cabins ↑



Photo 23: Debris on slope near shed no. 2 (outhouse) ↑



Photo 24: Tank at Contact Lake East Arm, EC000015555-#1 ↑

Sawmill Bay Photographs 2010



Photo 1: Camp Living Quarters Sawmill Bay ↑



Photo 2: Bear Fence surrounding camp at Sawmill Bay ↑



Photo 3: All drum crushing occurred at Sawmill Bay. Hydraulic drum crusher not strong enough ↑



Photo 4: Closure of main door of the power house 15 August 2010, Sawmill Bay ↑



Photo 5: Crushing a drum at Sawmill Bay on August 14, 2010 ↑



Photo 6: Crushed drums on poly liner, 17 August 2010, Sawmill Bay ↑



Photo 7: Night crew supervisor, Dave Jobin inspecting barrels, 18 August 2010, Sawmill Bay ↑



Photo 8: Stockpile of drums containing liquid/sludge near barge area, SA-DA-22, Sawmill Bay ↑



Photo 9: ATVs with trailers used to haul barrels at Sawmill Bay ↑



Photo 10: Stockpile of hauled barrels adjacent to crush location at former old airstrip, Sawmill Bay



Photo 11: The burnable wood debris stockpile at the former old airstrip, Sawmill Bay ↑



Photo 12: Restricted access zone markings at the barge area, Sawmill Bay ↑



Photo 13: SA-DA-1 after surface debris removal, Sawmill Bay ↑



Photo 14: SA-DA-2 after surface debris has been removed, Sawmill Bay ↑



Photo 15: Large metal debris remaining at SA-DA-3, Sawmill Bay ↑



Photo 16: SA-DA-4 after debris has been removed, Sawmill Bay ↑



Photo 17: SA-DA-5 before debris removal, note outhouse in background, Sawmill Bay ↑



Photo 18: SA-DA-6 after surface debris removal, note SB-NHDS-1 in background



Photo 19: SA-DA-7, along barrel row, after debris has been removed, Sawmill Bay



Photo 20: SA-DA-8 after surface debris removal, Sawmill Bay ↑



Photo 21: SA-DA-9 after debris has been removed, Sawmill Bay ↑



Photo 22: Large metal debris beyond the former old airstrip SB, near SA-DA-9 ↑



Photo 23: SA-DA-10 after debris has been removed, Sawmill Bay ↑



Photo 24: SA-DA-11 after surface debris removal, note remaining buried metal objects ↑



Photo 25: An example of surface debris in SA-DA-12, Sawmill Bay Camp Dump



Photo 26: Large metal debris in SA-DA-12, Sawmill Bay ↑



Photo 27: SA-DA-12, main camp dump, South of old lodge, after small metal surface debris removed, note buried barrels ↑



Photo 28: SA-DA-12, an example of the mixed debris of wood, barrels, and metal debris at the main camp dump, Sawmill Bay ↑



Photo 29: SA-DA-12, main camp dump, gully behind the old lodge after surface debris removal ↑



Photo 30: An area of SA-DA-12, after surface debris removal, Sawmill Bay ↑



Photo 31: Batteries at main camp dump SA-DA-12, prior to removal, Sawmill Bay ↑



Photo 32: SA-DA-13 after surface debris removal ↑



Photo 33: SA-DA-14 after surface debris removal, Sawmill Bay ↑



Photo 34: Communication tower at SA-DA-15 ↑



Photo 35: Communication tower at Sawmill Bay SA-DA-16 ↑



Photo 36: SA-DA-17 after surface debris removal and building closure, Sawmill Bay ↑



Photo 37: SA-DA-18 surface debris, Sawmill Bay ↑



Photo 38: Large metal debris at SA-DA-18, Sawmill Bay



Photo 39: SA-DA-18 after surface debris removal. Sawmill Bay ↑



Photo 40: SA-DA-19 after debris removal, Sawmill Bay ↑



Photo 41: Pipe extending into the lake at SA-DA-19, Sawmill Bay ↑



Photo 42: Loose wooden debris collected, dock remains at SA-DA-19, Sawmill Bay ↑



Photo 43: R.Dillon inspecting the plane fuselage at SA, DA-20, Sawmill Bay ↑



Photo 44: Suspected asbestos containing material surrounding the fuel pipe inside the plane fuselage at SA-DA-20, Sawmill Bay ↑



Photo 45: After surface debris removal at SA-DA-21, Sawmill Bay ↑



Photo 46: SA-DA-23 mound, after surface debris removal. The mound is an old landfill containing layers of debris.



Photo 47: SA-DA-23, Sawmill Bay debris at depth. Unearthed barrels revealed further debris extending beyond 0.5 m depth ↑



Photo 48: Dock area, SA-DA-25, Sawmill Bay, after surface debris has been removed ↑



Photo 49: Sawmill Bay, SA-DA-26 after surface debris has been removed ↑



Photo 50: SA-DA-27, Sawmill Bay, after scattered debris has been removed ↑



Photo 51: Sawmill Bay, non-hazardous debris stockpile, SB-NHDS-1 ↑



Photo 52: Sawmill Bay, non-hazardous debris stockpile, SB-NHDS-2, near the dock area ↑



Photo 53: Sawmill Bay, non-hazardous debris stockpile, SB-NHDS-3, adjacent to main dump ↑



Photo 54: Batteries collected and stored in a poly-lined crates for shipping to Yellowknife ↑



**Photo 55: Transformer with PCB containing oil, from inside Power House, Sawmill Bay.
Transformer removed and packed in steel drum for transportation to Yellowknife ↑**

EL BONANZA PHOTOS



Photo 1: El Bonanza – Building 1 – before demolition ↑



Photo 2: El Bonanza – Building 1 – after demolition ↑



Photo 3: El Bonanza – Building 7 – before demolition ↑



Photo 4: El Bonanza – Building 7 – after demolition (note additional removal of flooring occurred) ↑



Photo 5: El Bonanza – Building 13 – before demolition ↑



Photo 6: El Bonanza – Building 13 after demolition – ash pile covered ↑



Photo 7: El Bonanza – Building 13 survey pin on southeast corner before demolition ↑



Photo 8: El Bonanza – Building 13 survey pin on southeast corner after demolition ↑



Photo 9: EB-DA-1 – after debris removal ↑



Photo 10: EB-DA-1 – after debris removal ↑



Photo 11: EB-DA-2 – before debris removal (note transformer location) ↑



Photo 12: EB-DA-2 – transformer location marked with pin following debris removal ↑



Photo 13: EB-DA-2 – before debris removal ↑



Photo 14: EB-DA-2 – before debris removal ↑



Photo 15: EB-DA-2 – crew removing debris ↑



Photo 16: EB-NHDS-4 following debris removal in EB-DA-2 ↑



Photo 17: EB-NHDS-5 following debris removal in EB-DA-2 ↑



Photo 18: EB-DA-3 before debris removal ↑



Photo 19: EB-DA-3 after debris removal ↑



Photo 20: EB-NHDS-8 after debris removal from EB-DA-3 ↑



Photo 21: EB-DA-4 before debris removal ↑



Photo 22: EB-DA-4 before debris removal ↑



Photo 23: EB-DA-4 before debris removal ↑



Photo 24: EB-DA-4 clean wood burn pile following debris removal ↑



Photo 25: NHDS 2 following debris removal ↑



Photo 26: NHDS 2 following debris removal ↑



Photo 27: Drum stockpile near NHDS 2 ↑



Photo 28: Leaking drum in overpack near NHDS 2 ↑



Photo 29: NHDS 7 following debris removal in EB-DA-4 ↑



Photo 30: NHDS 1 following debris removal near Building 13 ↑



Photo 31: NHDS 6 following debris removal near Building 13 ↑



Photo 32: NHDS 3 following debris removal near Building 1 ↑



Photo 33: DDT impacted wood stockpile at HDS 1 prior to removal off site ↑



Photo 34: Painted wood stockpiled and covered at HDS 1 ↑



Photo xx: El Bonanza airstrip tanks EC00000950-1 and 2 ↑



Photo 35: El Bonanza airstrip tanks EC00000950-3 and 4 ↑



Photo 36: EB-NHDS-airstrip in foreground, burnable wood pile in background ↑



Photo 37: Large metal debris at the El Bonanza airstrip ↑



Photo 38: Large metal debris at the El Bonanza airstrip ↑



Photo 39: Final flyover at El Bonanza airstrip following debris removal ↑



Photo 40: Final flyover at El Bonanza airstrip following debris removal ↑

BONANZA PHOTOS



Photo 1: BZ-DA-1 – Before debris removal



Photo 2: BZ-DA-1 – Before debris removal



Photo 3: BZ-NHDS-2 – After debris removal



Photo 4: BZ-DA-1 – Large debris remains



Photo 5: BZ-DA-1 – Large debris remains



Photo 6: BZ-DA-2 – near headframe before debris removal



Photo 7: BZ-DA-2 – after debris removal



Photo 8: BZ-DA-2 – after debris removal



Photo 9: BZ-DA-2 – after debris removal



Photo 10: BZ-NHDS-2 – after debris removal



Photo 11: BZ-NHDS-1 – after debris removal



Photo 12: BZ-NHDS-3 – after debris removal



Photo 13: Bonanza Cabin prior to demolition



Photo 14: Footprint of Bonanza Cabin after demolition (BZ-NHDS-1 below)



Photo 15: Bonanza Cabin footprint after to demolition



Photo 16: Bonanza Outhouse footprint after to demolition

APPENDIX C

DAILY REPORTS

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday August 12 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP: SENE/ DCS
 Resident Engineering Tech. Patrick Harrison

Remediation Contractor: Aboriginal Engineering Limited (AEL)
 Superintendent- Richard Hamilton
 Carpenter Dave Jobin
 Operator Lloyd Baton
 Labourer Simon Neyelle
 Labourer Cameron Yukon
 Labourer Tahti Bayha
 Labourer Jonas Kenny

Safety Health & Environment. Patrick Harrison until Saturday
 Cook & First Aid. Patrick Harrison until Saturday

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	NA	15 ⁰ C
Precipitation:	NA	none
Condition:	NA	overcast

General

We arrived in camp at 10:30hrs. C. Gravelle and P. Harrison spent the day touring the site and viewing the work areas. C. Gravelle left the site at 19:30hrs.

Work in Progress

Construction of camp continued today. One weather haven and one tent, to be used as sleeping quarters, were constructed by the end of the day.

Health & Safety and Environmental Issues

The bear fence is not up as of today. This will be corrected in the upcoming days.

No cook or medic on site. They will be arriving on Saturday.

Sewer sump is located within the restricted access area and will be relocated once the limits of the camp area and the restricted access area are delineated.

Comments, Concerns and Correspondence

No major issues to discuss at this time as the DR has only been on site for one day. The PWGSC and INAC PMs have asked that restricted work areas be established around areas identified by the LLRWMO as having slightly elevated gamma readings. These areas will be delineated with survey tape once it arrives on site.

In addition to the above K. Silcock requested that a dry be established at the entry to the camp so workers could change from soiled clothes to clean clothes

Site Visitors

Charles Gravelle of SENES was on site for the day to inspect the site and camp.

Gutti Gudmundsson of Northern Communications and Navigation Systems Ltd was on site for the day to install the communication system. Both of the visitors left the site by 19:30hrs.

Michael Bernardin (PWGSC PM) and Katherine Silcock (INAC PM) were both on site brief during the DR drop off in the morning. They reviewed the camp location and provided input as to where the restricted access areas are located (due to elevated gamma) across the site.

Photos



Camp living quarters.



Camp living quarters.



Kitchen and showers.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Friday August 20 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:

SENE/ DCS

Resident Engineering Tech. Patrick Harrison

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent-	Richard Hamilton	Day shift supervisor
Carpenter	Dave Jobin	Night shift supervisor
Operator	Frank Elemie	Night shift
Labourer	Simon Neyelle	Day shift
Labourer	Cameron Yukon	Day shift
Operator	Tahti Bayha	Day shift
Labourer	Stanley Ferdinaed	Night shift
Labourer	Roddy Modeste	Night shift
Labourer	Kyle Bayha	Night shift
Wildlife Monitor	Paul Modeste	Night shift
Wildlife Monitor	Frank Tetso	Day shift

Safety Health & Environment. Reuben Makohoniuk

Frontier Medical Medic Devon Thomas

Cook Bernadette Yukon
 Cooks Helper Susan Neyelle
 Housekeeping Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	9 ⁰ C	13 ⁰ C	3 ⁰ C
Precipitation:	none	none	rain
Condition:	clear	overcast	overcast

General

Camp Complement today is 17 persons.

DR's work day 1430h to 0700h.

Work in Progress

Setup of camp is complete.

Drum crushing continued with two shift program. AEL crew are still working in the main drum cache on the south side of the bay.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 2010</i>
Total number inspected	678	622	4518
Total number crushed	587	575	3615
With liquid/sludge	91	47	817

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None.

Wildlife Observations

A small black bear was observed at the dining room and kitchen area of the Great Bear Lake Lodge area. A small red fox was observed on the former access road to the work site.

Site Visitors

Land and Water Board inspector Steve Deschene on site at 1500h to inspect the camp and operations to see that we are in keeping with the permits. He had no issues with the camp setup or operations.

Photos



Fire fighting equipment is stored beside the medic's tent.



The stock pile of drums containing liquid and or sludge. The view is from the hillside, at the main drum cache on the south side of the bay, toward the lake.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday August 19 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:

SENES/ DCS

Resident Engineering Tech. Patrick Harrison

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent-	Richard Hamilton	Day shift supervisor
Carpenter	Dave Jobin	Night shift supervisor
Operator	Frank Elemie	Night shift
Labourer	Simon Neyelle	Day shift
Labourer	Cameron Yukon	Day shift
Operator	Tahti Bayha	Day shift
Labourer	Stanley Ferdinaed	Night shift
Labourer	Roddy Modeste	Night shift
Labourer	Kyle Bayha	Night shift
Wildlife Monitor	Paul Modeste	Night shift
Wildlife Monitor	Frank Tetso	Day shift

Safety Health & Environment. Reuben Makohoniuk

Frontier Medical Medic Devon Thomas

Cook Bernadette Yukon
 Cooks Helper Susan Neyelle
 Housekeeping Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	11 ⁰ C	15 ⁰ C	3 ⁰ C
Precipitation:	none	none	none
Condition:	clear	clear	clear

General

Camp Complement today is 17 persons.

DR's work day 0700h to 0000h.

Work in Progress

Setup of camp is complete.

Drum crushing continued with two shift program. AEL crew are still working in the main drum cache on the south side of the bay.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 2010</i>
Total number inspected	565	634	3218
Total number crushed	472	519	2453
With liquid/sludge	93	115	679

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every morning and all camp personnel are to be in attendance.

Comments, Concerns and Correspondence

None.

Site Visitors

None.

Photos



Broken battery found near to main drum cache on the south side of the bay.



The stock pile of drums containing liquid and or sludge.



Night shift drum crushing operation.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Wednesday August 18 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP: SENE/ DCS
 Resident Engineering Tech. Patrick Harrison

Remediation Contractor: Aboriginal Engineering Limited (AEL)
 Superintendent- Richard Hamilton
 Carpenter Dave Jobin
 Operator Frank Elemie
 Labourer Simon Neyelle
 Labourer Cameron Yukon
 Labourer Tahti Bayha
 Labourer Stanley Ferdinaed
 Labourer Roddy Modeste
 Labourer Paul Modeste
 Wildlife Monitor Frank Tetso

Safety Health & Environment. Reuben Makohoniuk

Frontier Medical Medic Devon Thomas

Cook Bernadette Yukon
 Cooks Helper Susan Neyelle
 Housekeeping Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	4 ⁰ C	15 ⁰ C	4 ⁰ C
Precipitation:	none	none	none
Condition:	clear	overcast	clear

General

Camp Complement today is 16 persons.

DR's work day 07:00hrs to 00:00hrs. Worked with both shifts to inspect as many drums as possible

Work in Progress

Setup of camp is complete.

Drum crushing continued with a two shift program. AEL crews are still working in the main drum cache on the south side of the bay.

Drum Crushing

	<i>Day Shift (07:00-18:30hrs)</i>	<i>Night shift (19:00-06:30hrs)</i>	<i>Total to Date</i>
Total number inspected	521	631	2019
Total number crushed	400	517	1462
With liquid/sludge	121	96	471

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every morning and all camp personnel are to be in attendance.

The bear fence has been erected and is functional

Comments, Concerns and Correspondence

None.

Site Visitors

None.

Photos



Bear fence around camp.



Night shift drum checking area.



Night crew supervisor inspecting drums.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Tuesday August 17 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP: SENE/ DCS
 Resident Engineering Tech. Patrick Harrison

Remediation Contractor: Aberigional Engineering Limited (AEL)
 Superintendent- Richard Hamilton
 Carpenter Dave Jobin
 Operator Frank Elemie
 Labourer Simon Neyelle
 Labourer Cameron Yukon
 Labourer Tahti Bayha
 Labourer Stanley Ferdinaed
 Labourer Roddy Modeste
 Labourer Paul Modeste
 Wildlife Monitor Frank Tetso

Safety Health & Environment. Reuben Makohoniuk

Frontier Medical Medic Devon Thomas

Cook Bernadette Yukon
 Cooks Helper Susan Neyelle
 Housekeeping Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	10 ⁰ C	18 ⁰ C	4 ⁰ C
Precipitation:	none	none	none
Condition:	clear	clear	clear

General

Camp Complement today is 16 persons.

DR's work day 07:00hrs to 21:30hrs.

Work in Progress

Setup of camp continues today.

Drum crushing started today in the "Main Drum Cache and Debris Area" (aprox. Center of area 413040, 7289910), day shift 07:30-1900 and night shift will start at 00:00 and work to 07:00hrs (they worked in the camp during the day).

The crushed drums are placed on a sheet of poly.

Drum Crushing

	<i>Day Shift</i> <i>(07:00-18:30hrs)</i>	<i>Night shift</i> <i>(19:00-06:30hrs)</i>	<i>Total to Date</i>
Total number inspected	600	260	876
Total number crushed	350	185	550
With liquid/sludge	179	75	365

Note: 6 drums were inspected and crushed on the August 12.

I worked with the day shift 07:30-19:00hrs and then again with the night shift from 00:00-03:30hrs

Health & Safety and Environmental Issues

Site safety meeting is held every morning and all camp personnel are to be in attendance.

The bear fence is up and running.

Restricted access areas have marked with blue survey flagging, all site personnel and visitors will be asked to stay out of these areas.

Comments, Concerns and Correspondence

None.

Site Visitors

None.

Photos



Crushed drums placed on poly.



Staging of drums that have liquid and or sludge.



Night crew crushing drums.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Monday August 16 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP: SENE/ DCS
 Resident Engineering Tech. Patrick Harrison

Remediation Contractor: Aberigional Engineering Limited (AEL)
 Superintendent- Richard Hamilton
 Carpenter Dave Jobin
 Operator Frank Elemie
 Labourer Simon Neyelle
 Labourer Cameron Yukon
 Labourer Tahti Bayha
 Labourer Stanley Ferdinaed
 Labourer Roddy Modeste
 Labourer Paul Modeste
 Wildlife Monitor Frank Tetso

Safety Health & Environment. Reuben Makohoniuk

Frontier Medical Medic Devon Thomas

Cook Bernadette Yukon
 Cooks Helper Susan Neyelle
 Housekeeping Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	1 ⁰ C NA	15 ⁰ C
Precipitation:	none	none
Condition:	frost	overcast

General

Camp Complement today is 16 persons.

Work day will be from 07:00hrs to 22:00hrs until the camp is set up and the building closed. As soon as the drum crushing begins the work day will be from 07:30hrs to 19:00hrs (day shift) 19:30hrs to 07:00hrs (night shift)

Work day 07:00hrs to 21:30hrs.

Work in Progress

Setup of camp continues today.

Closure of all the buildings (Great Bear Lake Lodge area, communication tower area, former fishing dock area and the former Arctic Enterprise Lease area) was completed today.

The new operator was put through a trial run on the drum crushing, 9 drums were crushed.

Drum Crushing

	<i>Day Shift (07:00-18:30hrs)</i>	<i>Night shift (19:00-06:30hrs)</i>	<i>Total to Date</i>
Total number inspected		9	16
Total number crushed		9	15
With liquid/sludge		0	1

Note: 6 drums were inspected and crushed on the August 12.

Health & Safety and Environmental Issues

Site safety meeting is held every morning and all camp personnel are to be in attendance.

The bear fence is not up as of today. This will be corrected in the upcoming days.

Restricted access areas have marked with blue survey flagging, all site personnel and visitors will be asked to stay out of these areas.

Weather station installed today.

Comments, Concerns and Correspondence

None.

Site Visitors

None.

Photos



Closure of the communications building.



Closure of the boiler house.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Sunday August 15 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP: SENE/ DCS
 Resident Engineering Tech. Patrick Harrison

Remediation Contractor: Aberigional Engineering Limited (AEL)
 Superintendent- Richard Hamilton
 Carpenter Dave Jobin
 Operator Frank Elemie
 Labourer Simon Neyelle
 Labourer Cameron Yukon
 Labourer Tahti Bayha
 Labourer Stanley Ferdinaed
 Labourer Roddy Modeste
 Labourer Paul Modeste
 Wildlife Monitor Frank Tetso

Safety Health & Environment. Reuben Makohoniuk

Frontier Medical Medic Devon Thomas

Cook Bernadette Yukon
 Cooks Helper Susan Neyelle
 Housekeeping Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	3 ⁰ C NA	15 ⁰ C
Precipitation:	none	none
Condition:	frost	overcast

General

Camp Complement as of today is 16 persons.

Work day will be from 07:00hrs to 22:00hrs until the camp is set up and the building closed. As soon as the drum crushing begins the work day will be from 07:00hrs to 1830hrs (day shift) 19:00hrs to 06:30hrs (night shift)

Work day 07:00hrs to 22:00hrs.

Work in Progress

Setup of camp continues today. The building of a third tent platform was started today. This tent will be used as storage.

Closure of the buildings was started today. The doors of the power house were closed and 2x4's were nailed across them. Inside the building were 3 transformers with transformer oil, several light bulbs, 6x20 litre pails of oil, 2 x 1 litre of motor oil, 4 - empty 205 litre drums.

The windows of the main accommodation lodge were covered with plywood and plywood and 2x4's were nailed across the doors. The dining room and kitchen building has had the windows covered with the old interior doors. The workshop and storage building has been closed in. the storage shed and the old accommodation building have also been closed in.

Health & Safety and Environmental Issues

Site safety meeting is held every morning and all camp personnel are to be in attendance.

The bear fence is not up as of today. This will be corrected in the upcoming days.

Sewer sump has been relocated to beside the vehicle maintenance shop, behind the camp.

Restricted access areas have been walked with the site supervisor and two of the areas (main camp area and beach landing area) have been marked with blue survey flagging, the third area at the air strip has been partly marked. This will be finished on Monday. All site personnel and visitors will be asked to stay out of these areas.

Weather station installed today.

Comments, Concerns and Correspondence

None.

Site Visitors

A flight from Deline brought in 10 elders for a visit to the grave site of Joseph HoeYetsa. The grave site is located at 11W 0414294, 729000 and is a single grave well marked with a picket fence. The elders and family that were in attendance were: Veronica Bayha, Moise Bayha, Bethany Bayha, Joseph Bayha, Danny Bayha, Judy Bayha, Alphonse Takazo, Marie Takazo, Albert Semi and Margret Semi. They arrived on site at 16:00hrs visited the grave site and had left the site by 18:00hrs.

Photos



Closure of the main door of the Power House, the door is also latched on the inside. The two doors at the north side are sealed in the same fashion.



Grave site of Joseph HoeYetsa.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday August 14 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:	<u>SENE/ DCS</u>	
	Resident Engineering Tech.	Patrick Harrison
Remediation Contractor:	<u>Aberigional Engineering Limited (AEL)</u>	
	Superintendent-	Richard Hamilton
	Carpenter	Dave Jobin
	Operator	Frank Elemie
	Labourer	Simon Neyelle
	Labourer	Cameron Yukon
	Labourer	Tahti Bayha
	Labourer	Stanley Ferdinaed
	Labourer	Roddy Modeste
	Labourer	Paul Modeste
	Wildlife Monitor	Frank Tetso
	Safety Health & Environment.	Reuben Makohoniuk
Frontier Medical	Medic	Devon Thomas
	Cook	Bernadette Yukon
	Cooks Helper	Susan Neyelle
	Housekeeping	Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (07:00hrs)</i>	<i>Afternoon (18:00hrs)</i>	<i>Evening (21:00hrs)</i>
Temperature:	6 ⁰ C	15 ⁰ C	15 ⁰ C
Precipitation:	drizzle	none	none
Condition:	overcast	overcast	clear

General

Camp Complement as of today is 16 persons.

Setup of camp continues today.

Plane arrived today bringing in the cook and helpers, medic, four workers and the AEL office person.

Work in Progress

Construction of camp continued today. Continued building one weather haven and one tent to be used as sleeping quarters for incoming staff..

Several drum crushing tests were conducted today using the bucket of the CAT320C. The CAT will crush the drums to the required 25%.

Health & Safety and Environmental Issues

Site safety meeting is held every morning and all camp personnel are to be in attendance.

The bear fence is not up as of today. This will be corrected in the upcoming days.

Sewer sump has been relocated to beside the vehicle maintenance shop, behind the camp.

Restricted access areas have been walked with the site supervisor and two of the areas (main camp area and beach landing area) have been marked with blue survey flagging, the third will be located on Sunday.

All site personnel and visitors will be asked to stay out of these areas.

Comments, Concerns and Correspondence

None.

Site Visitors

Work crew arrived.

Photos



The markers on the edge of the “Restricted Access Area” are blue survey flagging on white rods..



Trial run on crushing drums with the Cat320C.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Friday August 13 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP: SENE/ DCS
 Resident Engineering Tech. Patrick Harrison

Remediation Contractor: Aberigional Engineering Limited (AEL)
 Superintendent- Richard Hamilton
 Carpenter Dave Jobin
 Operator Lloyd Baton
 Labourer Simon Neyelle
 Labourer Cameron Yukon
 Labourer Tahti Bayha
 Labourer Jonas Kenny

 Safety Health & Environment. Patrick Harrison until Saturday

 Cook & First Aid. Patrick Harrison until Saturday

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (07:00hrs)</i>	<i>Afternoon (18:00hrs)</i>	<i>Evening (21:00hrs)</i>
Temperature:	13 ⁰ C	15 ⁰ C	5 ⁰ C
Precipitation:	drizzle	none	none
Condition:	overcast	overcast	clear

General

Setup of camp continues.

Work in Progress

Construction of camp continued today. Continued building one weather haven and one tent to be used as sleeping quarters.

The barge left the site to go to the point to collect the diesel generator and barge mats. The mats will be used for the drum crushing.

Health & Safety and Environmental Issues

The bear fence is not up as of today. This will be corrected in the upcoming days.

No cook or medic on site. They will be arriving on Saturday.

Sewer sump has been relocated to beside the vehicle maintenance shop, behind the camp.

Restricted access areas have been walked with the site supervisor and will be marked with survey flagging, all site personal and visitors will be asked to stay out of these areas.

Comments, Concerns and Correspondence

None.

Site Visitors

None.

Photos



Hydraulic drum crusher, to light to crush the drums on site.



Tent floor and frame under construction.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday August 21 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:

SENE/ DCS

Resident Engineering Tech.

Patrick Harrison

Resident Engineer

Jason Mauchan

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent-

Richard Hamilton

Day shift
supervisor

Carpenter

Dave Jobin

Night shift
supervisor

Operator

Frank Elemie

Night shift

Labourer

Simon Neyelle

Day shift

Labourer

Cameron Yukon

Day shift

Operator

Tahti Bayha

Day shift

Labourer

Stanley Ferdinaed

Night shift

Labourer

Roddy Modeste

Night shift

Labourer

Kyle Bayha

Night shift

Wildlife Monitor

Paul Modeste

Night shift

Wildlife Monitor

Frank Tetso

Day shift

Field Technician

Joanne Black

Frontier Medical

Medic

Devon Thomas

Cook

Bernadette Yukon

Cooks Helper

Susan Neyelle

Housekeeping

Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	9 ⁰ C	13 ⁰ C	3 ⁰ C
Precipitation:	none	none	rain
Condition:	clear	overcast	overcast

General

Camp Complement today is 18 persons.

DR's work day 1430h to 0000h.

Work in Progress

Setup of camp is complete.

Drum crushing continued with two shift program. AEL crew are still working in the main drum cache on the south side of the bay.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 2010</i>
Total number inspected	678	622	4518
Total number crushed	587	575	3615
With liquid/sludge	91	47	817

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None.

Wildlife Observations

A small black bear was observed at the dining room and kitchen area of the Great Bear Lake Lodge area.
A small red fox was observed on the former access road to the work site.

Site Visitors

AEL office personnel change today, Reuben Makohoniuk left the site and Joanne Black came in to replace him.

Jason Mauchan of SENES arrive on site today.

Photos

Fire fighting equipment is stored beside the medic's tent.

The stock pile of drums containing liquid and or sludge. The view is from the hillside, at the main drum cache on the south side of the bay, toward the lake.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Monday August 30, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillan		1
Contractor: Aborignal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Johanne Black		1
Medic-Ex Logs	Bruce Powell		1
HEO	Tahti Bayha	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Kenny Jonas	1	
Bear Monitor	Charlie Neyelle	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Simon Neyelle	1	
Labourer	Cameron Yukon	1	
Labourer	Kyle Bayha	1	
Labourer	Warren Vandermeen	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Total	19 persons	14	5

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	4 °C	14 °C	1 °C
Precipitation:	None	None	None
Condition:	Clear cool	Partially cloudy	Partially cloudy

General

Camp Complement today is 19 persons.

Daily water usage is 1000 L / day.

Work in Progress

The day shift hauled barrels from North of the camp area. The empty barrels were hauled to the crush site. The barrels containing sludge/liquid were hauled to the airstrip cache. Empty barrels were crushed.

Brad Landry moved the entire crew to dayshift. Along with hauling barrels, the labour crew are hauling debris from beyond the former old airstrip area.

Three samples of suspected asbestos material were sampled today. The samples are from the fuel line of the plane fuselage. Note that the plane is considered debris, however, the removal of asbestos containing material will be considered potential additional work.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 30th, 2010</i>
Total number inspected	382	0	10611
Total number crushed	129	0	8073
With liquid/sludge	0	0	2273

Note: some totals may not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift. Today, only barrels ready to be crushed were hauled. Barrels with liquid/sludge will be hauled Tuesday to the barrel wash cache and subsequently counted.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0700

Daily water usage is 1000 L/day

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

Fuel Line Material 1, 2, and 3 were collected from the plane fuselage.

Photos



Hauling of debris from beyond the old former airstrip



Barrels ready to be crushed at the current crush location



Hauling barrels at the former old airstrip

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Sunday August 29, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP: SENE/ DCS
 Departmental Representative Jason Mauchan
 DR Engineering Tech Ryan Dillon

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent	Brad Landry
Field Technician	Johanne Black
Medic – Sahtu Ex Logs	Bruce Powell
HEO	Tahti Bayha
HEO	Frank Tetso
Labourer	Simon Neyelle
Labourer	Cameron Yukon
Labourer	Kyle Bayha
Labourer	Warren Vandermeen
Labourer	Roddy Modeste
Labourer	Greg Kenny
Labourer	Junior Gaudet
Cook	Denise Bayha
Cook's Assistant	Wanda Minoza
Housekeeper	Valerie Mackeinzo
Bear Monitor	Charlie Neyelle
Camp Attendant	Kenny Jonas

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	3 °C	15 °C	1 °C
Precipitation:	None	None	None
Condition:	Clear cool	Partially cloudy	Partially cloudy

General

Camp Complement today is 19 persons.

Work in Progress

Debris hauling beyond the former old airstrip continued today. Unpainted wood was kept separate from other debris.

An inspection tour was made of the two tower areas to the North of camp. The asbestos containing material was not located. The 4-person tour included Jason Mauchan, Ryan Dillan, Johanne Black, and Brad Landry. The waste volume estimate indicates 8 m³

The weekly construction meeting occurred today. Agenda and meeting minutes will be distributed in a separate document.

The drum cache North of camp contains ~500 barrels. These barrels will be inspected Monday and hauled to either the barrel crushing location or the barrel wash cache at the former old airstrip.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 29th, 2010</i>
Total number inspected	0	0	10229
Total number crushed	0	0	7944
With liquid/sludge	0	0	2273

Note: some totals may not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Brad Landry inspecting debris to be hauled



One of the two communication towers



Johanne Black and Ryan Dillan



Sunset at Sawmill Bay

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday August 28, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP: SENE/ DCS
 Departmental Representative Jason Mauchan
 DR Engineering Tech Ryan Dillon

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent	Brad Landry
Field Technician	Johanne Black
Medic – Sahut Ex Logs	Bruce Powell
HEO	Tahti Bayha
HEO	Frank Tetso
Labourer	Simon Neyelle
Labourer	Cameron Yukon
Labourer	Kyle Bayha
Labourer	Warren Vandermeen
Labourer	Roddy Modeste
Labourer	Greg Kenny
Labourer	Junior Gaudet
Cook	Denise Bayha
Cook's Assistant	Wanda Minoza
Housekeeper	Valerie Mackeinzo
Bear Monitor	Charlie Neyelle
Camp Attendant	Kenny Jonas

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Trailer maintenance during nightshift
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	5 °C	14 °C	-2 °C
Precipitation:	None	None	None
Condition:	Clear cool	Partially cloudy	Partially cloudy

General

Camp Complement today is 19 persons.

Work in Progress

Debris hauling at the airstrip commenced today using the ATVs and trailers. Hauling included burnable wood, large pieces of metal such as tracks and radiators, tin cans, glass, rubber, and plastic items. The items are being segregated on poly liners adjacent to the contaminated barrel cache.

Unpainted wood was also stockpiled in the vicinity of the airstrip contaminated barrel cache.

Crushing of cached barrels continued through the day and night.

There is suspected asbestos containing material at the plane fuselage. The wrapping around the fuel line is suspected to contain possible friable asbestos. Three samples of this material will be taken and shipped out on the next scheduled plane (Thursday).

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 28th, 2010</i>
Total number inspected	0	0	10229
Total number crushed	444	643	7944
With liquid/sludge	0	0	2273

Note: some totals may not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

Non-Hazardous Debris Stockpile-1 (baseline surficial soil sample)

Airstrip Burn Location-1 (baseline surficial soil sample)

Photos



The plane fuselage is in the contract to remove. There is suspected asbestos containing material around the fuel line.



Debris beyond the former old airstrip.



Large metal debris beyond the former old airstrip

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Friday August 27 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:

SENE/ DCS

Resident Engineering Tech

Jason Mauchan

Resident Engineer

Ryan Dillon

Remediation
Contractor:

Aboriginal Engineering Limited (AEL)

Superintendent Brad Landry

Labourer Simon Neyelle

Labourer Cameron Yukon

HEO Tahti Bayha

Labourer Kyle Bayha

HEO Frank Tetso

Labourer Warren Vandermeen

Labourer Roddy Modeste

Labourer Greg Kenny

Labourer Junior Gaudet

Cook Denise Bayha

Cook's Assistant Wanda Minoza

Field Technician Joanne Black

Housekeeper Valerie Mackeinzo

Medic – Sahut Ex Logs Bruce Powell

Bear Monitor Charlie Neyelle

Camp Attendant Kenny Jonas

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Trailers repaired during nightshift
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	14 °C	18 °C	2 °C
Precipitation:	None	None	None
Condition:	Partially cloudy	Clear and sunny	Overcast

General

Camp Complement today is 19 persons.

Work in Progress

During the day shift barrels were hauled, inspected, and crushed. The ATV trailers, which have required constant maintenance, finally gave out. The trailers were repaired during the night shift.

The next phase of the project is debris removal. The forecast is to begin hauling debris to stockpile and storage areas by Sunday. Storage locations for debris will be agreed upon and flagged out on Saturday. A burn location for the extensive amount of sawmill waste timber will also be agreed upon.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 25th, 2010</i>
Total number inspected	330	400	8967
Total number crushed	260	0	6857
With liquid/sludge	70	156	1730

Note: some totals may not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None

Wildlife Observations

A raven, seagull, and whiskey jack were spotted today.

Site Visitors

None

Samples

None taken

Photos



Frank Tetso on night shift repairing the ATV trailer



Sawmill waste debris at the camp dump



Wooden debris at the camp dump



Wood, barrel, and metal debris at camp dump

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday August 26 2010
Project ID PWGSC: R.015211.027
SENE/DCS: 340962-000

Site Personnel

DRAP:

SENE/ DCS

Resident Engineering Tech.	Patrick Harrison (OUT)
Resident Engineering Tech	Jason Mauchan
Resident Engineer	Ryan Dillon (IN)

Remediation Contractor:

Aboriginal Engineering Limited (AEL)

Superintendent	Richard Hamilton (OUT)
Carpenter	Dave Jobin (OUT)
Operator	Frank Elemie (OUT)
Labourer	Simon Neyelle
Labourer	Cameron Yukon
Operator	Tahti Bayha
Labourer	Stanley Ferdinaed(OUT)
Labourer	Roddy Modeste
Labourer	Kyle Bayha
Wildlife Monitor	Paul Modeste (OUT)
Wildlife Monitor	Frank Tetso
Superintendent	Brad Landry (IN)
Labourer	Warren Vandermeen (IN)
Labourer	Roddy Modeste (IN)
Labourer	Greg Kenny (IN)
Labourer	Junior Gaudet (IN)
Cook	Denise Bayha (IN)
Cook's Assistant	Wanda Minoza (IN)
Field Technician	Joanne Black
Housekeeper	Valerie Mackeinzo (IN)
Medic – Sahtu Ex Logs	Devon Thomas (OUT)
Medic – Sahut Ex Logs	Bruce Powell (IN)
Cook	Bernadette Yukon (OUT)
Cooks Helper	Susan Neyelle (OUT)
Housekeeping	Michelle Betsidea (OUT)
Bear Monitor	Charlie Neyelle (IN)
Camp Attendant	Kenny Jonas (IN)

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	14 °C	16 °C	2 °
Precipitation:	None	None	None
Condition:	Partially cloudy	Clear and sunny	Partially overcast

General

Camp Complement today is 18 persons.

Work in Progress

There were 4 planes today. Supplies and crew arrived from Yellowknife (2 flights) and Deline (2 flights). As per yesterday, during the day shift, barrels were hauled from the camp area. Hauling during the day occurred in between the arrivals. ~300 barrels were hauled during the day shift. The day shift stockpiled barrels adjacent to the crusher location to allow for inspection and classification.

Restricted access zones were reflagged (see photos).

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 25th, 2010</i>
Total number inspected	0	258	8237
Total number crushed	0	161	6597
With liquid/sludge	0	97	1504

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None taken

Photos



Restricted access zone near the bay



Restricted access zone near camp, note the loader which took the new road to the left



Restricted access zone at the former old airstrip

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Wednesday August 25 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:

SENE/ DCS

Resident Engineering Tech.

Patrick Harrison

Resident Engineer

Jason Mauchan

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent-

Richard Hamilton

Day shift
supervisor

Carpenter

Dave Jobin

Night shift
supervisor

Operator

Frank Elemie

Night shift

Labourer

Simon Neyelle

Day shift

Labourer

Cameron Yukon

Day shift

Operator

Tahti Bayha

Day shift

Labourer

Stanley Ferdinaed

Night shift

Labourer

Roddy Modeste

Night shift

Labourer

Kyle Bayha

Night shift

Wildlife Monitor

Paul Modeste

Night shift

Wildlife Monitor

Frank Tetso

Day shift

Field Technician

Joanne Black

Frontier Medical

Medic

Devon Thomas

Cook

Bernadette Yukon

Cooks Helper

Susan Neyelle

Housekeeping

Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	14 °C	18 °	6°
Precipitation:	None	None	None
Condition:	Partially cloudy	Clear and sunny	Clear and cool

General

Camp Complement today is 18 persons.

Work in Progress

As per yesterday, during the day shift, barrels were hauled from the camp area. Hauling all day allowed for the night shift to crush during darkness. The day shift stockpiled barrels adjacent to the crusher location to allow for inspection and classification.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 25th, 2010</i>
Total number inspected	0	648	7979
Total number crushed	0	440	6436
With liquid/sludge	0	208	1407

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

Three soil samples were collected.

SA-DA-22-1 through SA-DA-22-3 (surficial soil from Lake Barrel Cache)

Photos



Simon Neyelle hauling barrels with ATV and trailer



Hauled barrels in rows to allow for inspection

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Tuesday August 24 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:

SENE/ DCS

Resident Engineering Tech.

Patrick Harrison

Resident Engineer

Jason Mauchan

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent-

Richard Hamilton

Day shift
supervisor

Carpenter

Dave Jobin

Night shift
supervisor

Operator

Frank Elemie

Night shift

Labourer

Simon Neyelle

Day shift

Labourer

Cameron Yukon

Day shift

Operator

Tahti Bayha

Day shift

Labourer

Stanley Ferdinaed

Night shift

Labourer

Roddy Modeste

Night shift

Labourer

Kyle Bayha

Night shift

Wildlife Monitor

Paul Modeste

Night shift

Wildlife Monitor

Frank Tetso

Day shift

Field Technician

Joanne Black

Frontier Medical

Medic

Devon Thomas

Cook

Bernadette Yukon

Cooks Helper

Susan Neyelle

Housekeeping

Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	10°C	8°C	2°C
Precipitation:	Slight rain	Light rain	Light rain
Condition:	Partially cloudy	Overcast	Damp

General

Camp Complement today is 18 persons.

Work in Progress

During the day shift, barrels were hauled from the old airstrip and the camp area. Hauling all day allowed for the night shift to crush during darkness. The day shift stockpiled barrels adjacent to the crusher location to allow for inspection and classification.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 2010</i>
Total number inspected	0	696	7331
Total number crushed	0	402	5996
With liquid/sludge	0	170	1029

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

One barrel sample was collected. Barrel #1284 (Oil)

Photos



Stockpiling hauled barrels adjacent to current crusher location at former old airstrip

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Monday August 23 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:

SENE/ DCS

Resident Engineering Tech.

Patrick Harrison

Resident Engineer

Jason Mauchan

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent-

Richard Hamilton

Day shift
supervisor

Carpenter

Dave Jobin

Night shift
supervisor

Operator

Frank Elemie

Night shift

Labourer

Simon Neyelle

Day shift

Labourer

Cameron Yukon

Day shift

Operator

Tahti Bayha

Day shift

Labourer

Stanley Ferdinaed

Night shift

Labourer

Roddy Modeste

Night shift

Labourer

Kyle Bayha

Night shift

Wildlife Monitor

Paul Modeste

Night shift

Wildlife Monitor

Frank Tetso

Day shift

Field Technician

Joanne Black

Frontier Medical

Medic

Devon Thomas

Cook

Bernadette Yukon

Cooks Helper

Susan Neyelle

Housekeeping

Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	9 ⁰ C	16 ⁰ C	5 ⁰ C
Precipitation:	None	None	None
Condition:	Partially cloudy	Clear	Partially cloudy

General

Camp Complement today is 18 persons.

Work in Progress

Drum crushing continued with the two shift program. Barrels were collected from the former old airstrip area. Barrels with liquid contents were categorized. The count of barrels with sludge was 25 in the day and 71 at night. Only a few of these had liquid contents of >10cm. All of these had <30cm, and therefore no barrel samples were taken today.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 2010</i>
Total number inspected	494	413	5728
Total number crushed	488	327	4774
With liquid/sludge	25	71	933

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

Tuberculosis screening forms were handed out by the medic today.

Wildlife Observations

A bear was seen adjacent to the burn pit during the night shift. The bear was chased and a deterrent shot was fired.

Site Visitors

None

Samples

One soil baseline sample was taken today. The sample location is from surficial soil at the current barrel crushing site. The sample was taken prior to placing poly tarp. The tarp is used to temporarily store crushed drums.

Photos



Former Old Airstrip, note barrel crushing location in the background



Debris located at Great Bear Lodge Camp Dump (SA-DA-12)



Patrick Harrison noting the location of barrels beyond the former old airstrip (SA-DA-11)



Barrels at debris area south of former old airstrip SA-DA-10



Sawmill Bay



The camp. Note bear fence in foreground.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday August 22 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

DRAP:

SENE/ DCS

Resident Engineering Tech.

Patrick Harrison

Resident Engineer

Jason Mauchan

Remediation Contractor: Aboriginal Engineering Limited (AEL)

Superintendent-

Richard Hamilton

Day shift
supervisor

Carpenter

Dave Jobin

Night shift
supervisor

Operator

Frank Elemie

Night shift

Labourer

Simon Neyelle

Day shift

Labourer

Cameron Yukon

Day shift

Operator

Tahti Bayha

Day shift

Labourer

Stanley Ferdinaed

Night shift

Labourer

Roddy Modeste

Night shift

Labourer

Kyle Bayha

Night shift

Wildlife Monitor

Paul Modeste

Night shift

Wildlife Monitor

Frank Tetso

Day shift

Field Technician

Joanne Black

Frontier Medical

Medic

Devon Thomas

Cook

Bernadette Yukon

Cooks Helper

Susan Neyelle

Housekeeping

Michelle Betsidea

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	good
Argo 8x8 with trailer	1	good
Ford F350 Pickup	1	good
Cat D5 Dozer	1	good
Cat 250E Loader/Forklift	1	good
Cat 320C Excavator	1	good
Ingersoll Rand portable light tower	1	good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	9 ⁰ C	15 ⁰ C	3 ⁰ C
Precipitation:	none	none	none
Condition:	clear	clear	Partially cloudy

General

Camp Complement today is 18 persons.

With two SENES/DCS staff on-site, departmental representative coverage is on-going through both day-shift and night-shift. DR's work day will now include shifts of 0700h to 1900h and 1900h to 0700h respectively.

Work in Progress

Drum crushing continued with the two shift program. AEL day crew worked in the main drum cache on the south side of the bay. Day shift also collected drums from former fishing dock landing area and the drum cache and debris area near the fishing area. The night shift crushed 21 barrels at the south side main cache and subsequently moved the barrel crushing platform to the airstrip. 551 barrels were crushed adjacent to the former old airstrip by the night shift.

At the south side cache, barrels were inspected using barrel pipettes. The vast majority of the inspected barrels contain <5cm of sludge. Barrels were labelled F (fuel), O (oil), S (<5cm sludge contents), or X (unable to open). Barrels marked S are ready to be cleaned using the barrel wash.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 2010</i>
Total number inspected	551	659	5728
Total number crushed	587	21+551	4774
With liquid/sludge	64	52	933

Note: some totals will not add up due to the fact that the number of drums inspected is not necessarily the number of drums that was crushed, at the end of the shift there may be drums carried over to the next shift.

Health & Safety and Environmental Issues

Site safety meeting is held every day (day shift and camp support at 0700h, night shift at 1900h).

Comments, Concerns and Correspondence

None.

Wildlife Observations

No bears were seen today.

Site Visitors

None

Samples

Three barrel samples were collected. #2212 (F), #490 (O), and #1818 (O).

Photos



Categorizing Barrels. Note barrels placed in rows of 2 wide to allow for inspection and sampling if nec.



ATVs with trailers used to transport barrels



South side of the Bay cache. Crushing of barrels using excavator and platform

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Tuesday August 31, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aborignal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Johanne Black		1
Medic-Ex Logs	Bruce Powell		1
HEO	Tahti Bayha	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Kenny Jonas	1	
Bear Monitor	Charlie Neyelle	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Simon Neyelle	1	
Labourer	Cameron Yukon	1	
Labourer	Kyle Bayha	1	
Labourer	Warren Vandermeen	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Total	19 persons	14	5

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	2 Good, 2 for repair
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	5 °C	20 °C	1 °C
Precipitation:	None	None	None
Condition:	Clear cool	Partially cloudy	Partially cloudy

General

Camp Complement today is 19 persons.

Daily water usage is 1000 L / day.

A plane arrived today with fuel.

Work in Progress

The day shift continued to haul barrels from North of the camp area. The empty barrels were hauled to the crush site. The barrels containing sludge/liquid were hauled to the airstrip cache. Empty barrels were crushed. Twenty additional barrels were found North of camp. These will be inspected tomorrow.

The labour crew also hauled debris from beyond the former old airstrip area. Two ATVs went down today. Parts have been ordered, including a radiator, and will arrive on the Thursday.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of August 31st, 2010</i>
Total number inspected	2	0	10613
Total number crushed	13	0	8085
With liquid/sludge	255	0	2528

Note: some totals may not add up due to the fact that today barrels were hauled containing liquid/sludge. These barrels were counted upon arrival to the airstrip barrel cache.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0700

Daily water usage is 1000 L/day

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

One cooler of samples went out today. 2 soil, 3 fuel line material, and 1 barrel sample.

Photos



The burnable wood debris stockpile



The hauled debris stockpile



Ryan Dillon inspecting the plane fuselage



Material surrounding the fuel pipe. Three samples were taken for analysis



Ryan Dillon inspecting the restricted access zone near the dock



Greg Kenny, Charlie Neyelle, and Brad Landry

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Wednesday September 29, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR	Kyle Hunt (EB)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic	Bruce Powell (Ex Logs)		1
Cook	Denise Bayha	1	
Assistant Cook	Betty Modeste	1	
Housekeeper	Valerie Mackeinzo	1	
Carpenter	Charlie Neyelle	1	
HEO	Frank Tetso	1	
Foreman	Roddy Modeste (EB)	1	
Labourer	Tahti Bayha	1	
Labourer	Derek Neyelle (EB)	1	
Labourer	Cameron Yukon (EB)	1	
Bear Monitor	Paul Modeste	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (EB)		1
Bear Monitor	Alfred Betsidea (EB)	1	
Pilot	Jory Blott Cdn Heli (EB)		1
Labourer	Simon Neyelle (EB)	1	
Labourer	Kyle Bayha (EB)	1	
Observer	Dennis Kenny (EB)	1	
Total	22 persons	15	7

Note: CL refers to Contact Lake, EB refers El Bonanza, SB refers to Sawmill Bay. No site work was done at Contact Lake today.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	2°C	5°C
Precipitation:	None	None
Condition:	Partly Cloudy	Partly Cloudy

General

Camp Complement today 22 persons. Daily water usage is 2000 L / day.

Ten people worked at the El Bonanza today.

Work in Progress

A tour of all four Great Bear Lake sites occurred today. Jason Mauchan and Brad Landry inspected the sites and discussed items to be completed before close-out.

Preparations were made to deal with shipping batteries and DDT impacted wood off-site.

Cumulative totals for drum crushing, surface debris collection, and burn volumes are presented below.

Totals are compared to numbers presented in the specifications.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 29th, 2010</i>
Total number inspected	0	10843
Total number crushed	0	8235
With liquid/sludge	0	2590

Note: The totals do not add up due to the fact that barrels are waiting to be crushed. All crushing has occurred at Sawmill Bay.

Drum Collection as of September 29th, 2010

	Contact Lake	Spec	Bonanza/El Bonanza	Spec
Collect, crush, stockpile	24	65	0	67
Sling to EB airstrip	0	n/a	16	n/a

Surface Debris Collection and Burn Volumes as of September 29th, 2010

	Surface Debris Collected (m ³)	Surface Debris in spec. (m ³)	Burn Volume (m ³)	Burn Volume in Spec. (m ³)
Sawmill Bay	510	221	319	100
Contact Lake	248	1027	695	147
Bonanza/El Bon.	58	930	432	501

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

A site tour was conducted yesterday at Sawmill Bay. Attendees included Michael Bernardin, Bob Johnson, and Wyatt George.

Samples

Two ash samples. Camp Gully Ash (SB-CGA) and Airstrip Ash (SB-AA)

Photos



SB-NHDS-1



SB-NHDS-3



Airstrip Burn location, sample SB-AA



Camp Gully Burn, sample SB-CGA

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday September 25, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic	Bruce Powell		1
Cook	Denise Bayha	1	
Assitant Cook	Wanda Minoza	1	
Housekeeper	Valerie Mackeinzo	1	
Carpenter	Charlie Neyelle	1	
HEO	Frank Tetso	1	
Foreman	Roddy Modeste	1	
Labourer	Tahti Bayha	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon	1	
Bear Monitor	Paul Modeste	1	
HEO	Stanley Ferdinand	1	1
Medic/Haz Super.	Bob Eaton		
Bear Monitor	Alfred Betsidea	1	
Pilot	Jory Blott Cdn Heli		1
Labourer	Simon Neyelle	1	
Labourer	Kyle Bayha	1	
Observer	Dennis Kenny	1	
Total	22 persons	15	7

Note: CL refers to Contact Lake, EB refers El Bonanza, SB refers to Sawmill Bay

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	3 Good, trailer axles require daily repair
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	1°C	4°C
Precipitation:	Snow	None
Condition:	Overcast	Partly Cloudy

General

Camp Complement today 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Burn pile at SA-DA-12 was burned.

Small debris pile found in gully behind SA-DA-12 was found and barrels and debris were removed.

Crews starting to organize tools and equipment for shut down.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 23rd, 2010</i>
Total number inspected	0	10843
Total number crushed	0	8235
With liquid/sludge	0	2590

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

Due to snow and icing conditions there were no flights out to Contact or El Bonanza.

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Snow at Sawmill



Burn pile at SA-DA-12

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday September 23, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan (SB)		1
DR	Kyle Hunt (EB)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton (SB,OUT)		1
Superintendent	Brad Landry (IN)		1
Field Tech	Rodney Makohoniuk (SB)		1
Medic	Mike Bunting (Ex Logs OUT)		1
Medic	Bruce Powell (Ex Logs IN)		1
Cook	Bernadette Yukon (OUT)	1	
Cook	Denise Bayha (IN)	1	
Assistant Cook	Susan Neyelle (OUT)	1	
Assitant Cook	Wanda Minoza (IN)	1	
Housekeeper	Michelle Betsidea (OUT)	1	
Housekeeper	Valerie Mackeinzio (IN)	1	
Carpenter	Dave Jobin (SB OUT)		1
Carpenter	Charlie Neyelle (IN)	1	
Labourer	Warren Vandermeer (SB OUT)	1	
Labourer	Clyde Sewi (OUT)	1	
HEO	Frank Tetso (IN)	1	
Foreman	Roddy Modeste (IN)	1	
Labourer	Tahti Bayha (IN)	1	
Labourer	Derek Neyelle (EB)	1	
Labourer	Cameron Yukon (EB)	1	
Labourer	Kuri Mackeinzio (SB OUT)	1	
Bear Monitor	Paul Modeste (IN)	1	
Labourer	Clayton Modeste (OUT)	1	
Labourer	George Baton (SB OUT)	1	
HEO	Stanley Ferdinand (SB)	1	
Medic/Haz Super.	Bob Eaton (EB)		1
Supervisor	Kurt Stewart (EB,OUT)	1	
Bear Monitor	Alfred Betsidea (EB)	1	
Pilot	Jory Blott Cdn Heli (EB)		1
Labourer	Simon Neyelle (EB)	1	
Labourer	Junior Gaudet (SB, OUT)	1	
Labourer	Kyle Bayha (EB)	1	
Observer	Harley Andre (SB, OUT)	1	
Observer	Dennis Kenny (EB)	1	

Total **22 persons** **15** **7**

Note: CL refers to Contact Lake, EB refers El Bonanza, SB refers to Sawmill Bay

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	3 Good, trailer axles require daily repair
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	-2°C	5°C
Precipitation:	None	None
Condition:	Partly Cloudy	Partly Cloudy

General

Camp Complement today 22 persons. Daily water usage is 2000 L / day.

Work in Progress

A final site tour by Jason Mauchan and Harely Andre was completed today. Surface debris clean-up is complete at SA-DA-23, the main camp gully, and all debris areas. There remains a wood pile to burn and barrels to crush.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 23rd, 2010</i>
Total number inspected	0	10843
Total number crushed	0	8235
With liquid/sludge	0	2590

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Gully behind the old lodge after surface debris removal



Main camp dump after surface debris removed, note buried barrels



Stockpile of debris from the main camp dump



An example of large metal debris, behind the old lodge



Large metal debris left in SA-DA-3



SA-DA-11 after surface debris removal, note buried metal objects



Large metal debris in SA-DA-12



Pipe extends into the lake at SA-DA-19



SA-DA-19, loose wooden debris collected, dock remains



SA-DA-23 after surface debris collection



Debris collected from SA-DA-23

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Wednesday September 22, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan (CL)		1
DR	Kyle Hunt (EB)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton (SB)		1
Field Tech	Rodney Makohoniuk (SB)		1
Medic	Mike Bunting (Ex Logs SB)		1
Cook	Bernadette Yukon (SB)	1	
Assistant Cook	Susan Neyelle (SB)	1	
Housekeeper	Michelle Betsidea (SB)	1	
Carpenter	Dave Jobin (SB)		1
Labourer	Warren Vandermeer (EB)	1	
Labourer	Clyde Sewi (SB)	1	
Labourer	Derek Neyelle (CL)	1	
Labourer	Cameron Yukon (EB)	1	
Labourer	Kuri Mackeinzo (CL)	1	
Labourer	Clayton Modeste (SB)	1	
Labourer	George Baton (SB)	1	
HEO	Stanley Ferdinand (SB)	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (EB)	1	
Bear Monitor	Alfred Betsidea (EB)	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Labourer	Simon Neyelle (SB)	1	
Labourer	Junior Gaudet (SB)	1	
Labourer	Kyle Bayha (SB)	1	
Observer	Harley Andre (SB)	1	
Observer	Dennis Kenny (CL)	1	
Total	26 persons	18	8

Note: CL refers to Contact Lake, EB refers El Bonanza, SB refers to Sawmill Bay

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	3 Good, one trailer needs repair
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	-2°C	5°C
Precipitation:	None	None
Condition:	Partly Cloudy	Partly Cloudy

General

Camp Complement today is 26 persons. Daily water usage is 2000 L / day.

Work in Progress

Surface debris clean-up was completed at SA-DA-23. Surface debris clean-up continued in the main camp gully. Burnable wood was stockpiled.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 22nd, 2010</i>
Total number inspected	0	10843
Total number crushed	0	8235
With liquid/sludge	0	2590

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos

No photos were taken today at Sawmill Bay as Jason Mauchan and Kyle Hunt were at Contact Lake and Sawmill Bay, respectively.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Tuesday September 21, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan (CL)		1
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzio	1	
Labourer	Clayton Modeste	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Labourer	Simon Neyelle	1	
Labourer	Junior Gaudet	1	
Labourer	Kyle Bayha	1	
Env. Monitor	Harley Andre	1	
Env. Monitor	Dennis Kenny	1	
Total	26 persons	18	8

Note: CL refers to those scheduled to work at Contact Lake for the day.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	4 Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	0°C	4°C
Precipitation:	Rain/snow	None
Condition:	Overcast	Partly cloudy

General

Camp Complement today is 26 persons. Daily water usage is 2000 L / day.

Work in Progress

Clean up continued at SA-DA-23. Seven drums found along shoreline beyond SA-DA-23 were removed.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 20th, 2010</i>
Total number inspected	0	10843
Total number crushed	0	8235
With liquid/sludge	0	2590

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Debris removal at SA-DA-23



Debris removal at SA-DA-23



Barrels retrieved from shoreline beyond SA-DA-23

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Monday September 20, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan (CL)		1
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzo	1	
Labourer	Clayton Modeste	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Labourer	Simon Neyelle	1	
Labourer	Junior Gaudet	1	
Labourer	Kyle Bayha	1	
Total	24 persons	16	8

Note: CL refers to those scheduled to work at Contact Lake for the day.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	4 Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	0°C	8°C
Precipitation:	none	rain
Condition:	Overcast	Overcast

General

Camp Complement today is 24 persons. Daily water usage is 2000 L / day.

Work in Progress

Clean up continued at SA-DA-23 today.

Ash pile from yesterday's burn at the old airstrip was raked to remove nails and other debris.

A few more clean drums were crushed and moved to the storage location on old airstrip.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 20th, 2010</i>
Total number inspected	0	10843
Total number crushed	34	8235
With liquid/sludge	0	2590

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Debris removal at SA-DA-23



Debris removal at SA-DA-23



Raking ash pile at old airstrip



Drum crushing

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Sunday September 19, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan (CL)		1
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzio	1	
Labourer	Clayton Modeste	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Labourer	Simon Neyelle	1	
Labourer	Junior Gaudet	1	
Labourer	Kyle Bayha (CL)	1	
Total	24 persons	16	8

Note: CL refers to those scheduled to work at Contact Lake for the day.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	4 Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	Morning (0700hrs)	Afternoon (1800hrs)
Temperature:	3°C	6°C
Precipitation:	Snow/rain/sleet	none
Condition:	Overcast	Partly cloudy

General

Camp Complement today is 24 persons. Daily water usage is 2000 L / day.

Work in Progress

Debris removal continued at SA-DA-12 through the morning. A burn pile was established in the area and is ready for burning. Crew left SA-DA-12 in the afternoon to continue with debris removal at SA-DA-23. SA-DA-12 and SA-DA-23 are the only debris area remaining where removal is still required. Drums found yesterday at SA-DA-18 were removed.

Burn pile at the old airstrip was lit today.

Remaining drums at current stockpile location were inspected. All clean empty drums were crushed and drums requiring washing were stockpiled at storage location on old airstrip.

Drum Crushing

	Daily Count	Cumulative Totals as of September 19 th , 2010
Total number inspected	93	10843
Total number crushed	114	8201
With liquid/sludge	9	2590

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Debris removal at SA-DA-23



Burn pile at old airstrip



Drum crushing

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday September 18, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position DRAP: SENES/DCS	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DR	Jason Mauchan (CL)		1
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzoo	1	
Labourer	Clayton Modeste	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Labourer	Simon Neyelle	1	
Labourer	Junior Gaudet	1	
Labourer	Kyle	1	
Total	24 persons	16	8

Note: CL refers to those scheduled to work at Contact Lake for the day.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	4 Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	1°C	6°C
Precipitation:	snow	none
Condition:	Partly cloudy	Partly cloudy

General

Camp Complement today is 24 persons. Daily water usage is 2000 L / day.

Work in Progress

Ongoing debris removal at SA-DA-12. Several addition debris areas have been found at SA-DA-12 and removal has begun. Several drums were found at SA-DA-2 and SA-DA-7 which were all removed.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 18th, 2010</i>
Total number inspected	0	10750
Total number crushed	0	8087
With liquid/sludge	0	2581

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Drums found at SA-DA-7 were removed



Debris removal at SA-DA-12



Additional debris found at SA-DA-12

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday September 17, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan (CL)		1
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzio	1	
Labourer	Clayton Modeste	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Labourer	Simon Neyelle	1	
Labourer	Junior Gaudet	1	
Labourer	Kyle	1	
Total	24 persons	16	8

Note: CL refers to those scheduled to work at Contact Lake for the day.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	4 Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	Morning (0700hrs)	Afternoon (1800hrs)
Temperature:	0°C	8°C
Precipitation:	none	none
Condition:	Overcast	Overcast, clearing

General

Camp Complement today is 24 persons. Daily water usage is 2000 L / day.

Work in Progress

Ongoing debris removal at SA-DA-18. Completed debris removal at SA-DA-1, SA-DA-3, SA-DA-4, SA-DA-5.

Drum Crushing

	Daily Count	Cumulative Totals as of September 17 th , 2010
Total number inspected	0	10750
Total number crushed	0	8087
With liquid/sludge	0	2581

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Final debris removal from SA-DA-3



Debris removal at SA-DA-18



Debris removal at SA-DA-18

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday September 16, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan (CL)		1
DR	Ryan Dillon (OUTBOUND)		1
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzo	1	
Labourer	Clayton Modeste	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea	1	
Bear Monitor	Frank Elemie (OUTBOUND)	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Labourer	Simon Neyelle (INBOUND)	1	
Labourer	Junior Gaudet (INBOUND)	1	
Labourer	Kyle Bayha (INBOUND)	1	
Total	24 persons	16	8

Note: CL refers to those scheduled to work at Contact Lake for the day.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	3 Good, one trailer needs repair
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	2°C	5°C
Precipitation:	Snow	Scattered showers
Condition:	Overcast	Overcast, clearing

General

Camp Complement today is 24 persons. Daily water usage is 2000 L / day.

Work in Progress

Debris was hauled today from the main camp dump gulley. The debris included old pallets, tin cans, glass bottles, and various other metal debris. At the tower area, on trailer full of debris was hauled. This debris included plywood boards, and small loose metal objects.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 16th, 2010</i>
Total number inspected	0	10750
Total number crushed	0	8087
With liquid/sludge	0	2581

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Debris removal at main camp dump site



Debris removed from around communication building at SA-DA-17



Debris removed from SA-DA-15

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Wednesday September 15, 2010
Project ID PWGSC: R.015211.027
SENEC/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR	Ryan Dillon (CL)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle (CL)	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzo (CL)	1	
Labourer	Clayton Modeste (CL)	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea (CL)	1	
Bear Monitor	Frank Elemie	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Total	22 persons	14	8

Note: CL refers to those scheduled to work at Contact Lake for the day.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	3 Good, one trailer needs repair
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	2°C	5°C
Precipitation:	None	Snow
Condition:	Partly cloudy	Overcast

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Wooden pallets, tin cans, glass bottles, copper wire, rusted band straps, and various debris were removed from airstrip areas SA-DA-1, SA-DA-3, SA-DA-4, and SA-DA-5. A copper wire ran the entire length of the former old runway. The wire was removed where possible. Fallen poles were also removed. Note one light fixture remains at the top of a tree, see photo.

The total volume of wood ready to burn is 100 m³.

Drum Crushing

	Daily Count	Cumulative Totals as of September 15 th , 2010
Total number inspected	0	10750
Total number crushed	0	8087
With liquid/sludge	0	2581

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



SA-DA-4 after debris has been removed



SA-DA-5 before debris removal. Outhouse in background



The wood pile



Non-Hazardous Debris Stockpile-1 (NHDS-1)



Copper wire flagged at the airstrip, note light fixture at top of tree.



Crushed barrels at NHDS-1

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Tuesday September 14, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR	Ryan Dillon (CL)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzo (CL)	1	
Labourer	Clayton Modeste (CL)	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea (CL)	1	
Bear Monitor	Frank Elemie	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Total	22 persons	14	8

Note: CL refers to those working at Contact Lake for the day. All CL crew attended stationed at Sawmill during the afternoon for an orientation session.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	2°C	5°C
Precipitation:	None	Light rain and snow
Condition:	Partly cloudy	Overcast

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.
The first snow fell today. The light rain turned to snow at noon.

Work in Progress

Wooden debris was removed from SA-DA-19 and the main camp gully. Metal, glass, and various debris were removed. Two debris areas have buried debris below 0.5 m.

An inspection of SA-DA-23 concluded that heavy machinery will be required to completely unearth the layered debris. The landfill mound has been removed of surface debris. Visible barrels were also removed. In this area, each successive debris haul reveals further debris. SA-DA-23 requires further work.

An overall site clean-up was undertaken in the morning. During the afternoon an orientation session was held. All people on-site attended. The orientation was lead by John DeJong (AMEC) with assistance from Rick Hurst (Terriplan). The seminar covered the history of uranium/radium uses, the history of the Sawmill site with regards to uranium transportation from Port Radium, and health & safety in dealing with low level radiation. The seminar concluded with a tour of the restricted access zones.

Drum Crushing

	Daily Count	Cumulative Totals as of September 14 th , 2010
Total number inspected	2	10750
Total number crushed	0	8087
With liquid/sludge	2	2581

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

Five visitors arrived today. Three community representatives and two consultants arrived at 1300h. They departed at 1600h. The consultants ran an orientation session on Low Level Radiation Safety.

Samples None

Photos



Rodney (field tech), Colin (community rep), Mike (medic), John (AMEC), Rick (Terriplan), Rich (AEL), Ryan (DCS) and Derek (AEL) using the Geiger counter during the orientation session



Snow accumulation



SA-DA-23 mound, after surface debris removal. The mound is an old landfill containing layers of debris.



SA-DA-23 debris at depth. Unearthed barrels revealed further debris.



SA-DA-23 debris being dug out.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Monday September 13, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR	Ryan Dillon (CL)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kari Mackeinzo	1	
Labourer	Clayton Modeste	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea (CL)	1	
Bear Monitor	Frank Elemie	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Total	22 persons	14	8

Note: CL refers to those working at Contact Lake for the day

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	3°C	10°C
Precipitation:	None	None
Condition:	Partly cloudy	Overcast

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Debris was hauled from SA-DA-18, SA-DA-19 (former fishing dock), and the main camp dump.

At SA-DA-19, wooden debris from the dock remains.

The main camp dump extends beyond the borders of SA-DA-12 towards SA-DA-18.

Crew are hauling tin cans, bottles, and small debris. Sawmill slab boards and larger objects are remaining.

A partially buried barrel was removed from SA-DA-27. This area is now cleared of debris.

The Contact Lake work was shortened today due to weather. Crew scheduled to fly to Contact Lake that remained at Sawmill assisted with debris hauling.

Drum Crushing

	Daily Count	Cumulative Totals as of September 13 th , 2010
Total number inspected	1	10749
Total number crushed	0	8087
With liquid/sludge	1	2579

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

Two visitors are expected tomorrow for the on-site orientation of Low Level Radiation.

Samples None

Photos



SA-DA-19 after debris removal, adjacent to bridge



SA-DA-19 after debris removal



SA-DA-19 (former dock)



Debris extending East along gulley of the main camp dump

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday September 12, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan (CL)		1
DR	Ryan Dillon		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kurry Mackeinzo (CL)	1	
Labourer	Clayton Modeste (CL)	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea (CL)	1	
Bear Monitor	Frank Elemie	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Total	22 persons	14	8

Note: CL refers to those working at Contact Lake for the day

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	5°C	11°C
Precipitation:	None	None
Condition:	Partly cloudy	Overcast

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Debris was hauled from SA-DA-10 today. The debris consists mostly of tin cans, broken pallets, bottles, and half barrels. The debris is buried and access is difficult. There are large debris items that cannot be removed by hand at this debris site. Debris removal has been completed and was inspected.

Debris removal from the Main camp dump continued. Similar to SA-DA-10, the debris consists mostly of tin cans, broken pallets, bottles, and half barrels. The debris is buried and access is difficult. There are large debris items that cannot be removed by hand at this debris site.

Some of grey water was pumped out of lagoon into a storage tank for proper disposal pending future sample results.

Drum Crushing

	Daily Count	Cumulative Totals as of September 12 th , 2010
Total number inspected	0	10748
Total number crushed	0	8087
With liquid/sludge	0	2578

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples None

Photos



SA-DA-10 after debris has been removed



Main camp dump debris removed and sorted



Dave Jobin hand picking debris at Main camp dump.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday September 11, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR	Ryan Dillon (CL)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kurry Mackeinzo (CL)	1	
Labourer	Clayton Modeste (CL)	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea (CL)	1	
Bear Monitor	Frank Elemie	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Total	22 persons	14	8

Note: CL refers to those working at Contact Lake for the day

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	5°C	15°C
Precipitation:	Overcast	None
Condition:	Clear	Partly cloudy

General

Camp Complement today is 22 persons. Daily water usage is 1000 L / day.

Work in Progress

Debris was hauled from SA-DA-11 today. The debris consists mostly of tin cans, broken pallets, bottles, and half barrels. The debris is buried and access is difficult. There are large debris items that cannot be removed by hand at this debris site.

Debris removal from SA-DA-2 is complete. This debris area spread across the old runway. It comprised of mostly barrels and broken pallets.

1 barrel remains in SA-DA-27. The current volume of collected wood is ~100 m³. No burning has taken place yet.

Drum Crushing

	Daily Count	Cumulative Totals as of September 11 th , 2010
Total number inspected	0	10748
Total number crushed	0	8087
With liquid/sludge	0	2578

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples None

Photos



SA-DA-2 after debris has been removed



SA-DA-2 after debris has been removed



Clyde Sewi, Dave Jobin, and Frank Elemie next to wood pile



Debris at SA-DA-11

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Friday September 10, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR	Ryan Dillon (CL)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Richard Hamilton		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs)		1
Cook	Bernadette Yukon	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (CL)	1	
Labourer	Kurry Mackeinzo (CL)	1	
Labourer	Clayton Modeste (CL)	1	
Labourer	George Baton	1	
HEO	Stanley Ferdinand	1	
Medic/Haz	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea (CL)	1	
Bear Monitor	Frank Elemie	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Total	22 persons	14	8

Note: CL refers to those working at Contact Lake for the day

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	0°C	15°C
Precipitation:	None	None
Condition:	Clear	Partly cloudy

General

Camp Complement today is 22 persons.

Daily water usage is 1000 L / day.

Work in Progress

An additional cabin was completed today. The hazardous debris stockpile area was constructed. The hazardous debris stockpile footprint is bermed, lined, and slightly sloped. The footprint can be extended if required. During the morning, fuel barrels were relocated to their appropriate location. Subsequently, inspected barrels were hauled to the crush site and barrel wash cache.

The weekly construction meeting occurred today. Thursday was the superintendent cross-shift. We held the meeting to update Richard Hamilton on the progress of the project.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 10th, 2010</i>
Total number inspected	0	10748
Total number crushed	0	8087
With liquid/sludge	0	2578

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



The hazardous storage stockpile under construction



Wooden crate to store hazardous waste material



SA-DA-27 after debris and barrels were removed



SA-DA-27 after scattered debris has been removed

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday September 9, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Richard Hamilton (IN)		1
Field Tech	Rodney Makohoniuk		1
Medic	Mike Bunting (Ex Logs) (IN)		1
Cook	Bernadette Yukon (IN)	1	
Assistant Cook	Susan Neyelle	1	
Housekeeper	Michelle Betsidea	1	
Carpenter	Dave Jobin		1
Labourer	Warren Vandermeer (CL)	1	
Labourer	Clyde Sewi	1	
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon (IN)	1	
Labourer	Kurry Mackeinzo (CL)	1	
Labourer	Clayton Modeste (CL)	1	
Labourer	George Baton	1	
Labourer	Stanley Ferdinand	1	
Medic/Haz Contact	Bob Eaton (CL)		1
Supervisor	Kurt Stewart (CL)	1	
Bear Monitor	Alfred Betsidea (CL)	1	
Bear Monitor	Frank Elemie	1	
Pilot	Jory Blott Cdn Heli (CL)		1
Total	22 persons	14	8

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	8°C	16 °C
Precipitation:	None	Scattered light rain
Condition:	Overcast	Partially Cloudy

General

Camp Complement today is 22 persons.

Daily water usage is 1000 L / day.

A plane arrived today with crew from Deline and Yellowknife.

Work in Progress

Many of the crew were Outbound today. The majority that stayed were shuttled to Contact Lake for the first day of site remediation. The crew that stayed at Sawmill worked on the additional sleeping cabin. The storage shed was also turned into sleeping quarters.

Note that for the Contact Lake sites, a separate daily report will be completed. The crew for both projects are overnighing at Sawmill Bay.

The superintendent cross shift, Richard Hamilton, arrived today. The work still to be done was reviewed. Specifically, the debris areas still requiring collection, sorting, and stockpiling was discussed.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 9th, 2010</i>
Total number inspected	0	10748
Total number crushed	0	8087
With liquid/sludge	0	2578

Note: The totals do not add up due to the fact that 46 barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Debris remaining beyond the former airstrip, SA-DA-10



Debris remaining beyond the former old airstrip, SA-DA-10

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Wednesday September 8, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic	Bruce Powell (Frontier Medical)		1
HEO	Tahti Bayha (Barge)	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha (OUTBOUND)		
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Jonas Kenny	1	
Bear Monitor	Charlie Neyelle (Barge)	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Kyle Bayha (Barge)	1	
Labourer	Warren Vandermeen	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Medic/Haz Contact	Bob Eaton		1
Supervisor	Kurt Stewart	1	
Bear Monitor	Alfred Betsidea	1	
Pilot	Rory Blott Cdn Helicopters		1
Total	20 persons	13	7

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	6	5 Good, 1 for repair (2 for Contact)
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	0°C	14 °C
Precipitation:	None	None
Condition:	Partially cloudy	Partially Cloudy

General

Camp Complement today is 20 persons.

Daily water usage is 1000 L / day.

An additional cabin was built today to house the growing number of people expected

Work in Progress

60 barrels were inspected today. These barrels were recovered from SA-DA-23.

A helicopter pad was cleared today in the main camp area. The helicopter arrived in the afternoon. A scouting trip with Brad Landry, Kurt Stewart, Ryan Dillon, Jason Mauchan, and Alfred Betsidea took place. Remediation work at Contact Lake is scheduled to begin tomorrow, September 9th. Crew will be shuttled in two daily flights in a Canadian Helicopter A-Star. Two return trips per day are expected.

A final inspection of debris areas occurred today. Areas that have been approved of complete debris removal are SA-DA-7, SA-DA-9, SA-DA-25, and SA-DA-26.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 8th, 2010</i>
Total number inspected	60	10748
Total number crushed	0	8087
With liquid/sludge	23	2578

Note: The totals do not add up due to the fact that 46 barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

Hazardous Debris stockpile baseline-1

Photos



SA-DA-7, along barrel row, after debris has been removed



SA-DA-7 after debris has been removed



SA-DA-7, looking toward airstrip, after debris has been removed



SA-DA-9 after debris has been removed

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Tuesday September 7, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic	Bruce Powell (Frontier Medical)		1
HEO	Tahti Bayha (Barge)	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Jonas Kenny	1	
Bear Monitor	Charlie Neyelle (Barge)	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Kyle Bayha (Barge)	1	
Labourer	Warren Vandermeen (Barge)	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Medic/Haz Contact	Bob Eaton		1
Supervisor	Kurt Stewart	1	
Bear Monitor	Alfred Betsidea	1	
Total	20 persons	14	6

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	6	5 Good, 1 for repair (2 for Contact)
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	1 °C	12 °C
Precipitation:	None	None
Condition:	Partially cloudy	Partially Cloudy

General

Camp Complement today is 20 persons.

Daily water usage is 1000 L / day.

Work in Progress

Burnable wood was added to the pile at the airstrip. The estimated volume is ~45 m³. An accurate measurement will be taken prior to burning. The safety measure will include notification to Norman Wells, a 1000 litre supply of water, fire extinguishers on hand, and will be weather dependent.

Batteries were taken from debris areas to a poly-lined crate located in the hazardous debris stockpile. The battery locations were staked. The surrounding soils will be inspected and removed to the hazardous waste stockpile.

Debris from around the Power House was collected and hauled to the appropriate stockpiles. A chainsaw was used to cut the fallen telephone poles into pieces readily transportable.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 7th, 2010</i>
Total number inspected	0	10688
Total number crushed	0	8087
With liquid/sludge	0	2555

Note: The totals do not add up due to the fact that 46 barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

The logistics regarding the Contact Lake site were organized by AEL today. A Canadian Helicopter A-Star is expected September 8th.

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Batteries at main camp dump



Batteries collected and stored in a poly-lined crate



Burnable wood pile. Measurement to be calculated prior to burning



Debris adjacent to the power house. Chainsaw used to facilitate hauling.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Monday September 6, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic	Bruce Powell (Frontier Medical)		1
HEO	Tahti Bayha (Barge)	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Jonas Kenny	1	
Bear Monitor	Charlie Neyelle (Barge)	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Kyle Bayha (Barge)	1	
Labourer	Warren Vandermeen (Barge)	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Medic for Contact	Bob Eaton		1
Supervisor	Kurt Stewart	1	
Bear Monitor	Alfred Betsidea	1	
Total	20 persons	14	6

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	6	5 Good, 1 for repair (2 for Contact)
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	1 °C	14 °C
Precipitation:	None	None
Condition:	Partially cloudy	Clear

General

Camp Complement today is 20 persons.

Daily water usage is 1000 L / day.

Work in Progress

The barge was prepared with supplies for the trip to Contact Lake. The barge left during the afternoon, will offload supplies, overnight, and return to Sawmill.

The final surface debris was removed from SA-DA-25 and SA-DA-26. Debris hauling then continued from the main camp dump. For all debris removal the material was sorted into burnable (untreated wood) and other debris.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 6th, 2010</i>
Total number inspected	0	10688
Total number crushed	0	8087
With liquid/sludge	0	2555

Note: The totals do not add up due to the fact that 46 barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

AEL is determining project schedule on September 7th regarding basing operations from Sawmill, establishing a cache of materials at Port Radium with both the barge arriving today and Buffalo arriving tomorrow. Confirmation of the helicopter logistics will also occur on September 7th.

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Sawmill area (SA-DA-26) after surface debris has been removed



Dock area (SA-DA-25) after surface debris has been removed



The surface debris collected and stockpiled near SA-DA-23

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Sunday September 5, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aborignal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic	Bruce Powell (Frontier Medical)		1
HEO	Tahti Bayha	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Jonas Kenny	1	
Bear Monitor	Charlie Neyelle	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Kyle Bayha	1	
Labourer	Warren Vandermeen	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Superintendent	Bob Eaton		1
Supervisor	Kurt Stewart	1	
Labourer	Alfred Betsidea	1	
Total	20 persons	14	6

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	2 Good, 2 for repair
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	5°C	15°C
Precipitation:	None	None
Condition:	Partially cloudy	Clear

General

Camp Complement today is 20 persons.

Daily water usage is 1000 L / day.

Work in Progress

Debris hauling from continued with hauling surface debris from SA-DA-23.

Wires were also cut from fallen power and phone lines in the main camp area.

The area is getting prepped to allow for ATVs access to the main camp area where further debris hauling will occur.

The weekly construction meeting was held on-site. Minutes were recorded and sent in a separate document. A plane arrived today with 2 ATVs. Cooler 340962-#3 went out.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 5th, 2010</i>
Total number inspected	0	10688
Total number crushed	0	8087
With liquid/sludge	0	2555

Note: Some totals may not add up due to the fact that the number of barrels inspected is not necessarily the number of barrels crushed. Barrel crushing may carry over to the next day.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

Transformer Location-4 located in SA-DA-19, the former fishing dock debris area.

Photos



Debris at SA-DA-23, near dock area



Non-hazardous debris stockpile near dock area



Dock area after debris clean-up, SA-DA-25

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Saturday September 4, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aborignal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic	Bruce Powell (Frontier Medical)		1
HEO	Tahti Bayha	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Jonas Kenny	1	
Bear Monitor	Charlie Neyelle	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Kyle Bayha	1	
Labourer	Warren Vandermeen	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Superintendent	Bob Eaton		1
Supervisor	Kurt Steward	1	
Labourer	Alfred Betsidea	1	
Total	20 persons	14	6

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	2 Good, 2 for repair
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	7°C	11°C
Precipitation:	Light rain	Light rain
Condition:	Overcast	Overcast

General

Camp Complement today is 20 persons.

Daily water usage is 1000 L / day.

Work in Progress

Debris was hauled from beyond the dock area crushed barrel cache, SA-DA-23. There is scattered metal debris, wood, buried barrels, and various other rubbish at this debris area.

The number of transformers counted at Sawmill Bay is 18. Three transformers are located on the north side of the Power House. There are 8 transformers on the North side of the Boiler House. There is one transformer at the former fishing dock landing area, SA-DA-19. There are 3 transformers at the tower area. The Sawmill Bay Waste Summary table states 3 transformers. All the transformers are to be hauled, boxed in poly-lined crates, and stored at the temporary hazardous storage area. The extra work will be considered potential additional work. Tracking of hours, agreement of hours, and use of the Potential Additional Work Schedule will occur.

Soil samples were taken from underneath the transformer locations.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 4th, 2010</i>
Total number inspected	11	10688
Total number crushed	0	8087
With liquid/sludge	10	2555

Note: Some totals may not add up due to the fact that the number of barrels inspected is not necessarily the number of barrels crushed. Barrel crushing may carry over to the next day.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

Transformer location-1 through 3. Note that soil sample Transformer location-3 was taken from the prior sampling location ESG-35.

Photos



The 20-member Sawmill Bay camp crew.



The 2-member DCS crew.



Transformer location-1, power house



Transformer location-2, storage shed



Transformer location-3, boiler house



Metal debris near the dock area, note crushed barrels in background



Wooden debris stockpile adjacent to the dock area crushed barrel cache



Metal debris stockpile adjacent to the dock area crushed barrel cache

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Friday September 3, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
 Contractor: Aborignal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic-Ex Logs	Bruce Powell		1
HEO	Tahti Bayha	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Jonas Kenny	1	
Bear Monitor	Charlie Neyelle	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Kyle Bayha	1	
Labourer	Warren Vandermeen	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Superintendent	Bob Eaton		1
Supervisor	Kurt Steward	1	
Labourer	Alfred Betsidea	1	
Total	20 persons	14	6

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	2 Good, 2 for repair
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	9°C	13°C	5°C
Precipitation:	Light rain	Light rain	None
Condition:	Overcast	Overcast	Overcast

General

Camp Complement today is 20 persons.

Daily water usage is 1000 L / day.

Work in Progress

Today, debris hauling from the dock area and sawmill area occurred. The stockpile of burnable wood and other debris is located adjacent to the barrel containing sludge cache. Note that the material at the burnable wood stockpile will be hauled to the airstrip for burning.

Parts for 2 ATVs are still being waited on.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of September 3rd, 2010</i>
Total number inspected	2	0	10677
Total number crushed	0	0	8087
With liquid/sludge	2	0	2545

Note: Some totals may not add up due to the fact that the number of barrels inspected is not necessarily the number of barrels crushed. Barrel crushing may carry over to the next day.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Burnable wood stockpile adjacent to dock area barrel cache



Ryan Dillan inspecting the metal and other debris stockpile near the dock area

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday September 2, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aborignal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Johanne Black (OUTBOUND)		1
Field Tech	Rodney Makohoniuk		1
Medic-Ex Logs	Bruce Powell		
HEO	Tahti Bayha	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Jonas Kenny	1	
Bear Monitor	Charlie Neyelle	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Simon Neyelle (OUTBOUND)	1	
Labourer	Cameron Yukon (OUTBOUND)	1	
Labourer	Kyle Bayha	1	
Labourer	Warren Vandermeen	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Superintendent	Bob Eaton (INBOUND)		1
Supervisor	Kurt Steward (INBOUND)	1	
Labourer	Alfred Betsidea (INBOUND)	1	
Total	19 persons	14	5

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	2 Good, 2 for repair
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	8°C	22°C	1 °C
Precipitation:	None	None	None
Condition:	Clear	Partially cloudy	Partially Cloudy

General

Camp Complement today is 19 persons.

Daily water usage is 1000 L / day.

The monthly on-site progress meeting occurred today. The Thursday scheduled flight arrived today. Groceries arrived as well as an additional crew for the scout of Branson's.

Work in Progress

Two barrels were crushed today. The road to the dock area was repaired by 2 crew.

Hauling of debris to the airstrip stockpile areas continued today.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of September 2nd, 2010</i>
Total number inspected	11	0	10675
Total number crushed	2	0	8087
With liquid/sludge	11	0	2543

Note: Some totals may not add up due to the fact that the number of barrels inspected is not necessarily the number of barrels crushed. Barrel crushing may carry over to the next day.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

Minutes of the monthly progress meeting to be included in a separate document.

Wildlife Observations None

Site Visitors None

Samples None

Photos



The wood stockpile at the former old airstrip



The metal and other debris stockpile at the former old airstrip



Rodney Makohoniuk, Michael Bernardin, Bob Eaton, Katherine Silcock, Ryan Dillan



Crushing barrel

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Wednesday September 1, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan		1
DR Eng Tech	Ryan Dillon		1
Contractor: Aborignal Engineering Ltd (AEL)			
Supervisor	Brad Landry		1
Field Tech	Johanne Black		1
Medic-Ex Logs	Bruce Powell		1
HEO	Tahti Bayha	1	
HEO	Frank Tetso	1	
Cook	Denise Bayha	1	
Assistant Cook	Wanda Minoza	1	
Camp Attendant	Kenny Jonas	1	
Bear Monitor	Charlie Neyelle	1	
Housekeeper	Valerie Mackeinzo	1	
Labourer	Simon Neyelle	1	
Labourer	Cameron Yukon	1	
Labourer	Kyle Bayha	1	
Labourer	Warren Vandermeen	1	
Labourer	Roddy Modeste	1	
Labourer	Greg Kenny	1	
Labourer	Junior Gaudet	1	
Total	19 persons	14	5

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	2 Good, 2 for repair
Argo 8x8 with trailer	1	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 250E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0630hrs)</i>	<i>Afternoon (1800hrs)</i>	<i>Night (0000hrs)</i>
Temperature:	0°C	16 °C	-2 °C
Precipitation:	None	None	None
Condition:	Partially cloudy	Partially cloudy	Partially cloudy

General

Camp Complement today is 19 persons.

Daily water usage is 1000 L / day.

Work in Progress

A general camp clean-up occurred today. Clean-up of the main camp, dock area and barrel caches occurred.

Debris was hauled from the dock area to stockpiles adjacent to the barrel cache. A wood stockpile and a metal stockpile was started at the dock area.

The labour crew also hauled debris from beyond the former old airstrip area. Two ATVs are still waiting on parts which are due on the Thursday plane.

Drum Crushing

	<i>Daily Count Day Shift (0700-1830h)</i>	<i>Daily Count Night shift (1900-0630h)</i>	<i>Cumulative Totals as of September 1st, 2010</i>
Total number inspected	51	0	10664
Total number crushed	0	0	8085
With liquid/sludge	4	0	2532

Note: Some totals may not add up due to the fact that the number of barrels inspected is not necessarily the number of barrels crushed. Barrel crushing may carry over to the next day.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Daily water usage is 1000 L/day

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Frank Tetso



Simon Neyelle



Brad Landry



Denise Bayha and Charlie Neyelle



A raven watches over the main camp.

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Friday October 1, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position DRAP: SENES/DCS	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DR	Jason Mauchan (OUT)		1
DR	Kyle Hunt (OUT)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Brad Landry (OUT)		1
Field Tech	Rodney Makohoniuk (OUT)		1
Medic	Bruce Powell (Ex Logs) (OUT)		
Cook	Denise Bayha (OUT)	1	
Assistant Cook	Betty Modeste (OUT)	1	
Housekeeper	Valerie Mackeinzio (OUT)	1	
Carpenter	Charlie Neyelle (OUT)	1	
HEO	Frank Tetso (OUT)	1	
Foreman	Roddy Modeste (EB, OUT)	1	
Labourer	Tahti Bayha (OUT)	1	
Labourer	Cameron Yukon (EB, OUT)	1	
Medic/Haz Super.	Bob Eaton (OUT)		1
Bear Monitor	Alfred Betsidea (OUT)	1	
Pilot	Jory Blott Cdn Heli (EB, OUT)		1
Labourer	Simon Neyelle (OUT)	1	
Total	All persons outbound today	10	3

Note: CL refers to Contact Lake, EB refers El Bonanza, SB refers to Sawmill Bay.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	2°C	6°C
Precipitation:	None	None
Condition:	Sunny	Sunny

General

All crew left site today. Daily water usage is 2000 L / day.

Work in Progress

Five planes arrived today.

One plane took passengers and gear to Yellowknife in the morning.

Two planes hauled waste to Yellowknife in the afternoon.

The waste included:

1. Five Megabags of DDT impacted wood,
2. Three transformers in steel overpacks,
3. 70 old batteries
4. PCB impacted soil from underneath the EB transformer

Two planes took passengers to Deline.

56 barrels were slung from the El Bonanza airstrip to Sawmill Bay. Note that 20 barrels were previously slung from EB to the Sawmill Bay. Trailers and equipment were also slung from EB back to Sawmill Bay today.

Camp clean up and de-mob occurred.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of October 1st,2010</i>
Total number inspected	48	10911
Total number crushed	0	8235
With liquid/sludge	0	2590

Note: The totals do not add up due to the fact that 86 empty barrels are waiting to be crushed at Sawmill Bay. All drum crushing has occurred at Sawmill Bay

Drum Collection for CL and B/EB as of October 1st,2010

	Contact Lake	Spec	Bonanza/El Bonanza	Spec
Collect, crush, stockpile	24	65	0	67
Slung to Sawmill, waiting to be crushed	10	n/a	76	n/a

Note: 10 barrels from Contact Lake and 76 barrels from Bonanza/El Bonanza totals to 86 barrels waiting to be crushed.

Surface Debris Collection and Burn Volumes *as of October 1st, 2010*

	Surface Debris Collected (m ³)	Surface Debris in spec. (m ³)	Burn Volume (m ³)	Burn Volume in Spec. (m ³)
Sawmill Bay	510	221	319	100
Contact Lake	248	1027	695	147
Bonanza/El Bon.	58	930	432	501

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

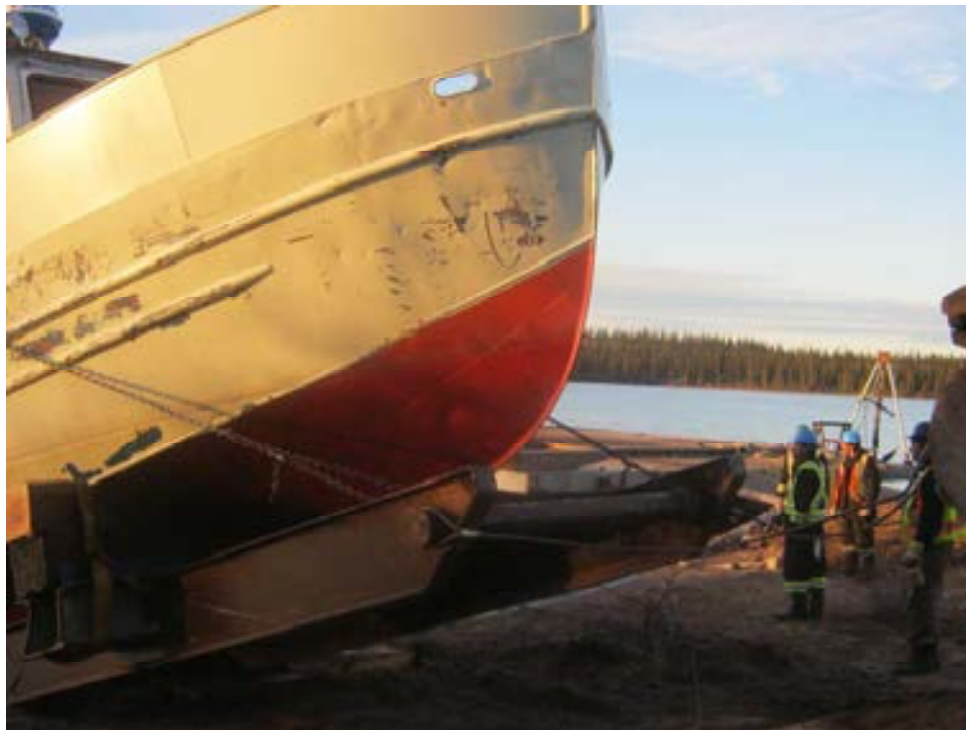
Photos



Transformer from inside Powerhouse loaded into steel overpack



Barrels slung from El Bonanza, ready to be crushed



Hauling the boat out of the water at Sawmill Bay

GBL –Phase I SAWMILL BAY REMEDIATION DAILY REPORT

Date Thursday September 30, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
DR	Kyle Hunt (EB)		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Superintendent	Brad Landry		1
Field Tech	Rodney Makohoniuk		1
Medic	Bruce Powell (Ex Logs)		1
Cook	Denise Bayha	1	
Assistant Cook	Betty Modeste	1	
Housekeeper	Valerie Mackeinzo	1	
Carpenter	Charlie Neyelle	1	
HEO	Frank Tetso	1	
Foreman	Roddy Modeste (EB/CL)	1	
Labourer	Tahti Bayha	1	
Labourer	Derek Neyelle (out)		
Labourer	Cameron Yukon (EB/CL)	1	
Bear Monitor	Paul Modeste (out)		
HEO	Stanley Ferdinand (out)		
Medic/Haz Super.	Bob Eaton (EB/CL)		1
Bear Monitor	Alfred Betsidea (EB/CL)	1	
Pilot	Jory Blott Cdn Heli (EB/CL)		1
Labourer	Simon Neyelle (EB/CL)	1	
Labourer	Kyle Bayha (out)		
Observer	Dennis Kenny (out)		
Total	17 persons	10	7

Note: CL refers to Contact Lake, EB refers El Bonanza, SB refers to Sawmill Bay.

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	4	Good
Ford F350 Pickup	1	Good
Cat D5 Dozer	1	Good
Cat 950E Loader/Forklift	1	Good
Cat 320C Excavator	1	Good
Ingersoll Rand portable light tower	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	2°C	7°C
Precipitation:	None	None
Condition:	Sunny	Sunny

General

Camp Complement today 17 persons. Daily water usage is 2000 L / day. The crew that left camp today was here for lunch.

Work in Progress

Slinging equipment and barrels from EB/CL back to Sawmill Bay.

Camp clean up and de-mob.

Organization of hazardous waste for shipment tomorrow.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 30th, 2010</i>
Total number inspected	20	10863
Total number crushed	0	8235
With liquid/sludge	0	2590

Note: The totals do not add up due to the fact that barrels are waiting to be crushed. All crushing has occurred at Sawmill Bay.

Drum Collection as of September 30th, 2010

	Contact Lake	Spec	Bonanza/El Bonanza	Spec
Collect, crush, stockpile	24	65	0	67
Sling to EB airstrip	0	n/a	16	n/a

Surface Debris Collection and Burn Volumes as of September 29th, 2010

	Surface Debris Collected (m ³)	Surface Debris in spec. (m ³)	Burn Volume (m ³)	Burn Volume in Spec. (m ³)
Sawmill Bay	510	221	319	100
Contact Lake	248	1027	695	147
Bonanza/El Bon.	58	930	432	501

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

No Photos

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Thursday September 9, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
DR	Ryan Dillon		1
Contractor: Aborignal Engineering Ltd (AEL)			
Bear Monitor	Alfred Betsidea	1	
Haz Mat	Warren Vandermeen	1	
Haz Mat	Kerri MacKenzo	1	
Haz Mat	Clayton Modeste	1	
Haz Mat	Derek Neyalle	1	
Pilot	Jory Blott		1
Supervisor	Kurt Steward	1	
Safety Officer	Bob Eaton		1
Total	10 persons	6	4

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good
AS 350 Helicopter	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	8°C	16 °C
Precipitation:	None	Light rain
Condition:	Partly Cloudy	Overcast

General

Site Complement today is 10 persons.

Work in Progress

Building demolition of Drill shack, machine shop and office, Asbestos abatement in Dry Building and debris clean-up at El Bonanza airstrip.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Office demolition



Ongoing asbestos abatement work in Dry building



Office building demolition



Drill shack demolition

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Monday September 27, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Labourer	Simon Neyelle	1	
Superintendent	Bob Eaton		1
Observer	Denis Kenny	1	
Labourer	Derek Neyelle	1	
Total	5 persons	3	2

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4	1	Good, one low tire

Weather

	Morning (0800hrs)	Afternoon (1600hrs)
Temperature:	3°C	8°C
Precipitation:	None	None
Condition:	Partially cloudy	Partially cloudy

General

Site Complement today is 5 persons.

Work in Progress

Nine barrels were slung from Contact Lake today.

Surface debris removal from CL-DA-1 was completed today. Note that in CL-DA-1 the debris area is larger than indicated on the map. Also note that the frozen ground and snow cover hinder locating further buried debris. In the vicinity of CL-DA-1 the debris is covered from multiple years of fallen leaves and growing roots.

Debris was removed from shore in CL-DA-4. The debris consisted of wooden planks.

Health & Safety and Environmental Issues

Site safety meeting is held every at 0645 every morning at Sawmill Bay prior to departure. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Wooden debris pulled from the rocky beach in CL-DA-4



Tin cans collected in CL-DA-1



Debris collected from CL-DA-1



Debris collected from CL-DA-1



Scattered surface debris along access road

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Sunday September 26, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Pilot	Jory Blott		1
Labourer	Simon Neyelle	1	
Superintendent	Bob Eaton		1
Observer	Denis Kenny	1	
Labourer	Derek Neyelle	1	
Total	6 persons	3	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4	1	Good

Weather

	<i>Morning (0800hrs)</i>	<i>Afternoon (1400hrs)</i>
Temperature:	3°C	4°C
Precipitation:	None	None
Condition:	Partially cloudy	Cloudy

General

Note that no site work was done at Contact Lake on September 25, 2010. Today crew left Contact Lake at 1400h due to incoming bad weather. Site Complement today is 6 persons.

Work in Progress

Thirteen barrels were found near shore in CL-DA-4. Seven of the barrels are empty. Six of the barrels contain liquid/sludge. Small debris was collected and large metal debris was left. Barrels will be slung to the EB airstrip next site visit. One more full day projected to complete Contact Lake.

Debris clean-up continued around CL-DA-1. The ground is now frozen.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



CL-DA-4, three barrels welded together along a central axis, left in place



Large debris near shore, CL-DA-4



Old boat near shore, West of CL-DA-2,3 and North of CL-DA-4



Wooden debris on shore, CL-DA-4



Barrel pile near shore, CL-DA-4



Tin cans beneath snow covered foliage, CL-DA-1



Scattered debris near CL-DA-1

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Friday September 24, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Pilot	Jory Blott		1
Labourer	Simon Neyelle	1	
Superintendent	Bob Eaton		1
Observer	Denis Kenny	1	
Labourer	Derek Neyelle	1	
Total	6 persons	3	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4	1	Good

Weather

	<i>Morning (0800hrs)</i>	<i>Afternoon (1600hrs)</i>
Temperature:	5°C	8°C
Precipitation:	None	Light snow
Condition:	Partially cloudy	Sunny

General

Note that no site work was done at Contact Lake on September 23, 2010
 Site Complement today is 6 persons.

Work in Progress

The old dock was hauled out of the water today. Debris was also collected along the shoreline (CL-DA-4). Debris collection continued at CL-DA-1. Note that in the vicinity of this debris area, the waste extends below 0.5 m. Also note that along with tin cans, glass bottles, and metal debris the soil contains an abundance of flaked metal from old cans.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



CL-DA-1 debris clean-up in progress



Shoreline debris inside CL-DA-4



Debris 5 m in from shore, near the INAC dock in CL-DA-4



Debris along shore in CL-DA-4



Scattered debris near CL-DA-1

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Wednesday September 23, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Pilot	Jory Blott		1
Labourer	Kuri Mackeinzio	1	
Superintendent	Bob Eaton		1
Observer	Denis Kenny	1	
Labourer	Derek Neyelle	1	
Total	6 persons	3	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4	1	Good

Weather

	<i>Morning (0800hrs)</i>	<i>Afternoon (1600hrs)</i>
Temperature:	5°C	8°C
Precipitation:	None	None
Condition:	Partially cloudy	Sunny

General

Site Complement today is 6 persons. A light snow fall occurred the night before.

Site work began at El Bonanza today. Both flights of crew will be working at El Bonanza tomorrow. On Friday, the crew will be at Contact Lake. It is projected that Contact Lake will be completed on Friday. Note there will be a separate daily report for El Bonanza.

Work in Progress

Debris that was collected yesterday in the vicinity of the dock (CL-DA-4) was hauled to stockpiles today. Additionally, broken pieces of dock were collected. The remaining intact wooden dock was left in place.

Small and large metal debris was located along the former access roads. The small debris was placed on poly. The large debris was left in place.

A tidy up around the upper site occurred today. Small debris was placed on poly. Collecting the small debris proved difficult due to the snow.

CL-DA-2,3 was completed today.

Note there is one outhouse not on the map that is still standing.

Debris removal continued at CL-DA-1 today. CL-DA-1 is the last remaining debris area to complete.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

One outhouse, not on map located next to Cabin No. 9 remains standing.

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Clearing up small debris around the machine shop footprint



Small metal and plastic debris collected within CL-DA-4



CL-DA-4, wooden debris along shore was collected



CL-DA-2,3



Large metal debris remains in the vicinity of CL-DA-1



Outhouse remains beyond Cabin No. 9, not on map



CL-DA-1



Six inches of moss above tin cans in CL-DA-1



Debris collected from CL-DA-1

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Tuesday September 21, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Haz Mat	Warren Vandermeer	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Labourer	Junior Gaudet	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Kuri Mackeinzio	1	
Labourer	Clayton Modeste	1	
Labourer	Clyde Sewi	1	
Superintendent	Bob Eaton		1
Total	11 persons	8	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good, 1 trailer requires repair
Argo 8x8 with trailer	1	Good, at El Bonanza airstrip
AS 350 Helicopter	1	Good

Weather

	Morning (0800hrs)	Afternoon (1600hrs)
Temperature:	5°C	4°C
Precipitation:	None	Light rain
Condition:	Partially cloudy	Partially cloudy

General

Site Complement today is 11 persons.

Work in Progress

Debris removal continued at CL-DA-1 and CL-DA-2,3. The aim of today was to reach 0.5 m below the existing ground surface.

The shed next to the hoist house was demolished today.

The cable that extended along part of the former access road was cut and hauled to a stockpile.

Debris was collected in the vicinity of the dock. A few large metal objects remain. An example of which is a bed frame.

Nine barrels were located on the slope near shed number 2. Five of them are empty and were removed. Four of the barrels are submerged under rock and large metal debris.

Small and large metal debris was located along the former access road. The small debris was placed on poly. The large debris was left in place.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

CL-NHDS-3 (Contact Lake-Non Hazardous Debris Stockpile-#3)

Photos



CL-DA-2,3



The 'shed next to the hoist house' was removed



Large metal debris along the former access route towards the cabins



Large metal debris along the former access route towards the cabins



Cable cut into pieces prior to hauling to stockpile



The old Contact Lake dock



Debris on slope near shed no. 2 (outhouse)



Debris on slope near shed no. 2 (outhouse)

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Monday September 20, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Haz Mat	Warren Vandermeer	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Labourer	Junior Gaudet	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Kuri Mackeinzio	1	
Labourer	Clayton Modeste	1	
Labourer	Clyde Sewi	1	
Superintendent	Bob Eaton		1
Total	11 persons	8	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good, 1 trailer requires repair
Argo 8x8 with trailer	1	Good, at El Bonanza airstrip
AS 350 Helicopter	1	Good

Weather

	Morning (0800hrs)	Afternoon (1400hrs)
Temperature:	8°C	8°C
Precipitation:	Rain and snow	Rain and snow
Condition:	Overcast	Fog

General

Site Complement today is 11 persons. All crew returned during the afternoon due to overcast conditions and the fog rolling in.

Work in Progress

Tanks were labelled at the El Bonanza airstrip and at the Eastern Arm of the Contact Lake site.

At the El Bonanza air strip 16 barrels were inspected. Four of the barrels are from this year (3 Jet A-1, 1 gasoline), 9 contain liquid/sludge, and 3 are empty. Surface debris at the airstrip has been collected. There is a small pile of burnable wood, and some burnable wood remains on the beach.

At Contact Lake, debris removal continued at CL-DA-2,3. The debris mostly consists of tin cans. Four batteries were located in the CL-DA-2,3 area. The batteries were placed in plastic bags and transported to the hazardous debris stockpile. Debris removal also continued at CL-DA-1. CL-DA-1 and CL-DA-2,3 require further work to reach 0.5 m depth.

At Cabin 13 and 14, poly was placed down to protect the ash from wind and rain. The corners of the cabin footprints were staked. Five pieces of large metal debris and wire mesh were pulled from the ash.

Surface debris was gathered at the East Arm of the Contact Lake site, CL-DA-7. Nine barrels were inspected at the East Arm. Eight of the barrels are empty, one barrel contains sludge.

During the afternoon the fog came in. The crew left Contact Lake at 1400h.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

CL-NHDS-EA (Non-hazardous debris stockpile – East arm)

CL-C13A (Cabin 13 ash)

CL-C14A (Cabin 14)

Photos



El Bonanza airstrip tanks EC00000950-1 and 2



El Bonanza airstrip tanks EC00000950-3 and 4



The sixteen barrels at the El Bonanza airstrip



EB-NHDS-airstrip in foreground, burnable wood pile in background



Large metal debris at the El Bonanza airstrip



Large metal debris at the El Bonanza airstrip



Contact Lake, Cabin 13 and Cabin 14



Tank at Contact Lake East Arm, EC000015555-#1



Barrels at Contact Lake East Arm, metal debris stockpile in background



Boiler at Contact Lake East Arm coated in ACM, labelled as 'Not in Contract'

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Sunday September 19, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Haz Mat	Kyle Bayha	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Labourer	Junior Gaudet	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Kuri Mackeinzio	1	
Labourer	Clayton Modeste	1	
Labourer	Clyde Sewi	1	
Superintendent	Bob Eaton		1
Total	11 persons	8	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good, 1 trailer requires repair
Argo 8x8 with trailer	1	Good, at El Bonanza airstrip
AS 350 Helicopter	1	Good

Weather

	Morning (0800hrs)	Afternoon (1800hrs)
Temperature:		10°C
Precipitation:		Rain and snow
Condition:	Fog	Partly Cloudy

General

Site Complement today is 11 persons. Crew unable to access site until after lunch due to fog

Work in Progress

Weather at Contact Lake in the morning prevented crew from arriving to site. The weather cleared after lunch. Two flights of crew were shipped to site and began clearing debris at 1400h.

Debris was removed from CL-DA-1, CL-DA-2,3, and adjacent to Cabin 11 today.

At six of the burn locations, poly tarp was placed to protect the ash from wind and rain.

Batteries were wrapped in plastic and placed at the hazardous-debris stockpile.

Ten empty barrels were slung back to Sawmill Bay from Contact Lake, one of which was an empty gasoline barrel from this year's work.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

The 'shed next to the hoist house' was not demolished today.

CL-DA-1 and CL-DA-2,3 require further work to reach 0.5 m depth

Wildlife Observations

None

Site Visitors

None

Samples

CL-C1A (Cabin 1 ash)

CL-C2A (Cabin 2 ash)

CL-C3A (Cabin 3 ash)

CL-C4A (Cabin 4 ash)

CL-C6A (Cabin 6 ash)

CL-C11A (Cabin 11 ash)

CL-CCA ('Cabin' ash)

CL-CFA (ash from burn adjacent to Concrete Foundation, from shed 4,5,driving wood)

CL-DOA (dry and office ash)

CL-MSA (Machine Shop ash)

CL-DSA (Drill Shack ash)

CL-CSA (Core Shack ash)

Photos



Cabin 2 footprint staked out



**Overhead view of headframe, hoist house, and shed next to hoist house
(foggy picture due to weather conditions of fog, rain, and sleet)**



Poly liner above ash



Storage driving shed footprint

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Saturday September 18, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Haz Mat	Warren Vandermeen	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Labourer	Junior Gaudet	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Kuri Mackeinzo	1	
Labourer	Clayton Modeste	1	
Labourer	Clyde Sewi	1	
Superintendent	Bob Eaton		1
Total	11 persons	8	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good, 1 trailer requires repair
Argo 8x8 with trailer	1	Good, at El Bonanza airstrip
AS 350 Helicopter	1	Good

Weather

	Morning (0800hrs)	Afternoon (1800hrs)
Temperature:	5°C	10°C
Precipitation:	None	None
Condition:	Partly Cloudy	Partly Cloudy

General

Site Complement today is 11 persons.

Work in Progress

Nineteen barrels were inspected today, of which sixteen are empty. Two of the barrels are old stoves, two barrels require cleaning due to sludge. 15 inspected barrels were transported from Contact Lake to Sawmill Bay.

A trail was cut to access CL-DA-1. This debris area extends beyond the extent of the drawings. The surficial 0.3 m was placed onto adjoining poly. This debris area extends beyond 0.5 m below depth and requires revisiting.

Debris was hauled from CL-DA-2,3 onto adjacent poly. 0.3 m of surficial debris was removed. This debris area extends beyond 0.5 m below depth and requires revisiting. The majority of the debris is tin cans. Five batteries were located in CL-DA-2,3. These batteries were transported to the hazardous debris stockpile.

A start was made on removing nails from ash piles. This metal debris was hauled to non-hazardous debris stockpiles.

Previously bagged asbestos containing material was double-bagged today.

Cabin footprint corners were staked out today.

Debris was removed from a pile next to the footpath near the floating dock. At this location, which is inside CL-DA-4, there are pieces of metal debris of various sizes. Debris movable by hand was transported to NHDS-2.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL. One labour crew injured his back today. A previous injury was aggravated due to lifting. He saw the medic on his return to Sawmill Bay.

Comments, Concerns and Correspondence

The 'shed next to the hoist house' was not demolished today.

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Double-bagged Asbestos containing material



CL-DA-2,3



CL-DA-2,3 debris removal



Piling cans at CL-DA-2,3



Cabin 2 burn location, after removal of nails, prior to containment



Cabin 5, the outhouse location



Cabin 7 footprint, prior to staking corners



Various debris in CL-DA-4, near floating dock



An example of large metal debris in CL-DA-4, near floating dock



Access to the debris near the floating dock required clearing/grubbing



Debris from CL-DA-1



CL-DA-1 after first lift removal of ~1ft, requires revisiting



Example of extensive debris from CL-DA-1



Miscellaneous wood that is to remain



Bob Eaton preparing the sling for transport of 15 barrels to Sawmill Bay

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Friday September 17, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Haz Mat	Warren Vandermeen	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Labourer	Junior Gaudet	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Kuri Mackeinzo	1	
Labourer	Clayton Modeste	1	
Labourer	Clyde Sewi	1	
Superintendent	Bob Eaton		1
Total	11 persons	8	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good, at El Bonanza airstrip
AS 350 Helicopter	1	Good

Weather

	Morning (0800hrs)	Afternoon (1800hrs)
Temperature:	5°C	8°C
Precipitation:	None	None
Condition:	Partly Cloudy	Partly Cloudy

General

Site Complement today is 11 persons.

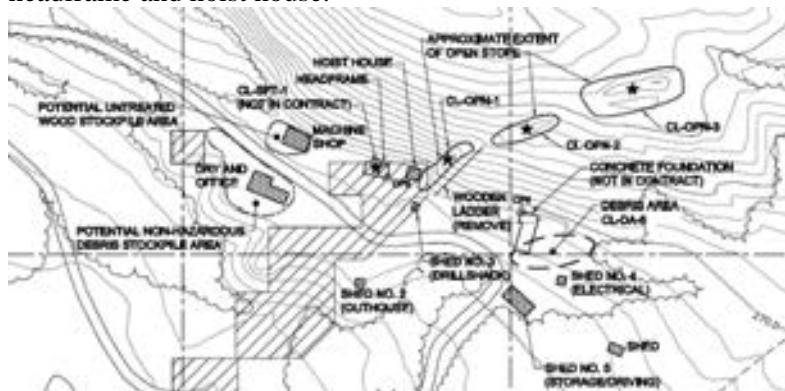
Work in Progress

The wood from Cabin 1, 2, 3, 4, 8, 9, 13, 14, and 'Cabin' were burned today. The total volume burnt was 325 m³. The previous two days involved clearing areas around burn sites and removing debris from buildings. This schedule allowed for commencing the burns at 0930h. The early burn allows for a continual fire watch throughout the day.

Sixteen barrels were inspected. Ten are empty and six require cleaning due to sludge or ash contents.

One question that arose today is the demolition of the 'shed next to the hoist house' and/or the 'hoist house'.

The map below shows clearly that the headframe is to remain, and indicates a separation between headframe and hoist house.



In reality, there are 3 adjoining buildings. In the Appendix B of the contract, the building on the right is indicated as 'shed next to hoist house'



The current plan is to demolish the 'shed next to the hoist house'. The shed can be removed without causing disturbance to the headframe. The middle building (hoist house) will stay unless otherwise notified. The headframe will remain.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

CL-HDS-1 (Contact Lake-Hazardous Debris Stockpile Location 1)

CL-NHDS-2 (Contact Lake – Non Hazardous Debris Stockpile Location 2)

CL-MSA (Contact Lake – Machine Shop Ash)

CL-C6A (Contact Lake – Cabin 6 Ash)

Note that laboratory analysis of ash samples is the contractor's responsibility from 01.29.83.1.3.2.4

Photos



The core shack, cabin 8.



Cabins 1, 2, 3, and 4



Material in Non-Hazardous Debris Stockpile-#1 (CL-NHDS-1)



Material in Non-Hazardous Debris Stockpile #2 (CL-NHDS-2)



CL-DA-2



‘Cabin’ burn in progress



‘Cabin’ burn in progress



‘Cabin’ burn in progress



An example of a cleared trail, access to CL-DA-2



An example of clearing/grubbing around cabins to allow for controlled burn

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Thursday September 16, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu	Other
		Beneficiary	
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Haz Mat	Warren Vandermeen	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Superintendent	Bob Eaton		1
Total	6 persons	3	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good, at El Bonanza airstrip
AS 350 Helicopter	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	1°C	0°C
Precipitation:	None	Sleet/ Snow
Condition:	overcast	Overcast

General

Site Complement today is 6 persons. The work at Contact Lake started after lunch due to bad weather..

Work in Progress

At site, 175 m³ of wood was burned. The clearing of the burn area occurred yesterday. Fire measures were in place which included having the chopper on standby with the water bucket, extinguishers on hand, and continual monitoring. After the burn, Cabin 4 was cleared of debris from inside the building to the non-hazardous debris stockpile (CL-NHDS-2).

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Cabin after debris removal, prior to burning



Burn in progress



Burn nearing the conclusion



Tour over Contact Lake East Arm

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Wednesday September 15, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Ryan Dillon		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Bear Monitor	Alfred Betsidea	1	
Haz Mat	Warren Vandermeen	1	
Haz Mat	Kerri MacKenzo	1	
Haz Mat	Clayton Modeste	1	
Haz Mat	Derek Neyalle	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Steward	1	
Superintendent	Bob Eaton		1
Total	10 persons	7	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good
AS 350 Helicopter	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	1°C	0°C
Precipitation:	None	Sleet/ Snow
Condition:	overcast	Overcast

General

Site Complement today is 10 persons.

Work in Progress

Morning: Last wood pile at the mine site was burnt totalling 5m³. Asbestos abatement in Cabin 6 was completed. Helicopter moved fuel from Port Radium cache to El Bonanza airstrip cache.

Afternoon: Slashing areas around buildings and work spaces and access routes continued. Light demolition of Cabin 9 interior started. At 3:30pm weather conditions deteriorated and crew began to depart the site.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Controlled burn of wood debris at Contact Lake mine site.



Machine shed wood debris burn location, post burn.



Warren Vandermeer slashing vegetation.

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Tuesday September 14, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Ryan Dillon		1
 Contractor: Aboriginal Engineering Ltd (AEL)			
Bear Monitor	Alfred Betsidea	1	
Haz Mat	Warren Vandermeer	1	
Haz Mat	Derek Neyalle	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Superintendent	Bob Eaton		1
Total	8 persons	5	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good
AS 350 Helicopter	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	0°C	1°C
Precipitation:	Rain	Rain/ Sleet/ Snow
Condition:	overcast	Overcast

General

Site Complement today is 6 persons. Bob Eaton and Ryan Dillon never made it to site due to poor weather conditions.

Work in Progress

Morning: Late going out to Contact Lake site due to heavy rain and poor visibility. Crew left base camp at 0930h after an inspection flight was made earlier in the morning to the site to see if the conditions were acceptable to access the site. Slashing area around one building continued. Only 1 flight of crew made it to site due to deteriorating weather conditions. Crew returned to base camp at 1100h.

Afternoon: Contact Lake crew joined the debris clean-up activities at Sawmill Bay for the remainder of the day.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos

No photos were taken of the work on site today as the Department Representative never made it to the Contact Lake work site.

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Monday September 13, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Ryan Dillon		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Bear Monitor	Alfred Betsidea	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Superintendent	Bob Eaton		1
Total	6 persons	3	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good
AS 350 Helicopter	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	1°C	15 °C
Precipitation:	None	None
Condition:	Fog	Overcast

General

Site Complement today is 6 persons.

Work in Progress

Morning: Contact Lake mine site was fogged in and safe access could not be made. We returned to main camp until after lunch.

Afternoon: Controlled burn of Dry Building (40m³), Machine Shop (20m³) and Powder Shack (5m³). Slashing areas around buildings and work spaces and access routes continued. Only 1 flight of crew made it to site due to deteriorating weather conditions.

Full barrels of fuel were transported by helicopter from the cache at Port Radium to Sawmill Bay.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Slashing debris at Contact Lake



Demolition debris being moved to burning location



Diesel transported from Port Radium cache to Sawmill Bay.

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Sunday September 12, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Bear Monitor	Alfred Betsidea	1	
Haz Mat	Warren Vandermeer	1	
Haz Mat	Kerri MacKienzo	1	
Haz Mat	Clayton Modeste	1	
Haz Mat	Derek Neyelle	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Stewart	1	
Superintendent	Bob Eaton		1
Total	10 persons	7	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good
AS 350 Helicopter	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	1°C	12 °C
Precipitation:	None	None
Condition:	Partially cloudy	Partially cloudy

General

Site Complement today is 10 persons.

Work in Progress

A successful burn of untreated wood occurred today. In total 75 m³ was burnt in two separate burns. Norman Wells was notified and proper fire procedures were in place. These included clearing around the burn location, fire extinguishers on hand, the pilot on standby with the water bucket, and continual

monitoring of the burn. Prior to the burn, Jory Blott, the pilot performed a trial water drop. The trial water drop will occur daily prior to the burn, in the area downwind to the burn.

Debris was removed from Cabins 1, 2, 3, and 4. The window sills and door frames were removed from Cabin 1.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

NHDS-CL-2 (Non-hazardous debris stockpile location #2, adjacent to cabin 1)

Photos



Window sills and door frames removed from Cabin 1



Contact Lake controlled burn.



Helicopter with water bucket attached during the pre-burn water drop trial run

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Saturday September 11, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Ryan Dillon		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Bear Monitor	Alfred Betsidea	1	
Haz Mat	Warren Vandermeen	1	
Haz Mat	Kerri MacKenzo	1	
Haz Mat	Clayton Modeste	1	
Haz Mat	Derek Neyalle	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Steward	1	
Superintendent	Bob Eaton		1
Total	10 persons	7	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good
AS 350 Helicopter	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	1°C	15 °C
Precipitation:	None	None
Condition:	Overcast	Overcast

General

Site Complement today is 10 persons.

Work in Progress

Building demolition of Powder shed, Cabin 5 asbestos abatement and demolition, Cabin number 1 demolition of interior and DDT removal, Cabin 2 demolition of interior. Slashing of roads and required work had begun.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Cabin 1 DDT removal around windows and doors.



Cabin 5 asbestos abatement prior to demolition.



Buildings with asbestos labelled accordingly.

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Friday September 10, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
DRAP: SENES/DCS		Sahtu Beneficiary	Other
DR	Ryan Dillon		1
Contractor: Aborignal Engineering Ltd (AEL)			
Bear Monitor	Alfred Betsidea	1	
Haz Mat	Warren Vandermeen	1	
Haz Mat	Kerri MacKenzo	1	
Haz Mat	Clayton Modeste	1	
Haz Mat	Derek Neyalle	1	
Haz Mat	Cameron Yukon	1	
Pilot	Jory Blott		1
Supervisor	Kurt Steward	1	
Medic	Bob Eaton		1
Total	10 persons	7	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	2	2 Good
Argo 8x8 with trailer	1	Good
AS 350 Helicopter	1	Good

Weather

	Morning (0630hrs)	Afternoon (1800hrs)
Temperature:	1°C	15 °C
Precipitation:	None	None
Condition:	Clear	Clear

General

Site Complement today is 10 persons.

Work in Progress

Building demolition of Electrical shed, Out House shed, Storage/Driving shed, and ladder.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

El Bonanza airstrip debris pile

Photos



Electrical shed and ladder debris.



Storage/drilling shed and outhouse debris pile.



Non-hazardous debris pile.



Electrical shack demolition.

GBL –Phase I CONTACT LAKE REMEDIATION DAILY REPORT

Date Tuesday September 28, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Labourer	Simon Neyelle	1	
Superintendent	Bob Eaton		1
Observer	Denis Kenny	1	
Labourer	Derek Neyelle	1	
Total	5 persons	3	2

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4	1	Good

Weather

	Morning (0800hrs)	Afternoon (1400hrs)
Temperature:	3°C	5°C
Precipitation:	Rain	Rain
Condition:	Partially cloudy	Overcast

General

Site Complement today is 5 persons. Crew left Contact Lake at 1400h due to foggy conditions.

Work in Progress

Surface debris clean-up at Contact Lake is finished. There remains barrels to be slung at the East Arm. Batteries were double bagged and left at the hazardous debris stockpile (CL-HDS). There are 16 batteries in the HDS. There is an estimated 3 m³ of DDT impacted wood on-site. A general clean-up of the site occurred prior to departure.

Health & Safety and Environmental Issues

Site safety meeting is held every at 0645 every morning at Sawmill Bay prior to departure. Minutes are recorded by AEL.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



CL-HDS



Non-hazardous debris stockpile adjacent to CL-DA-1



Mega Bags to be used for transporting DDT impacted wood to Sawmill Bay

GBL –Phase I EL BONANZA/CONTACT LAKE REMEDIATION DAILY REPORT

Date Thursday September 30, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Roddy Modeste	1	
Medic/Haz Super.	Bob Eaton		1
Bear Monitor	Alfred Betsidea	1	
Labourer	Cameron Yukon	1	
Labourer	Simon Neville	1	
Pilot	Jory Blott Cdn Heli		1
Total	7 persons	4	3

Site Equipment

All equipment has been pulled from site. Argo was moved to El Bonanza airstrip and Quad was slung back to Sawmill Bay.

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	-2°C	5°C
Precipitation:	none	none
Condition:	clear	clear

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Raked burn of building 3 at EB.

Covered remaining burn sites at El Bonanza and Bonanza in poly to protect ash.

Placed three drums with holes in overpacks. One overpack to go out tomorrow for last drum with holes.

Twenty (20) empty drums slung from El Bonanza to Sawmill Bay. Remaining drums as outlined in spec to be slung tomorrow.

Final clean wood burn at Contact Lake

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 30th, 2010</i>
Total number inspected	0	184
Total number crushed	0	0
With liquid/sludge	0	86

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

No Photos

GBL –Phase I EL BONANZA REMEDIATION DAILY REPORT

Date Wednesday September 29, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic
DRAP: SENES/DCS		Sahtu Beneficiary Other
DR	Kyle Hunt	1
Contractor: Aboriginal Engineering Ltd (AEL)		
Superintendent	Bob Eaton	1
Supervisor	Roddy Modeste	1
Bear Monitor	Alfred Betsidea	1
Observer	Dennis Kenney	1
Labourer	Cameron Yukon	1
Labourer	Simon Neyelle	1
Pilot	Jory Blott Cdn Heli	1
Labourer	Kyle Bayha	1
Labourer	Derek Neyelle	1
Total	10 persons	7 3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	1	Good
Argo	1	Good

Weather

	Morning (0700hrs)	Afternoon (1800hrs)
Temperature:	-2°C	5°C
Precipitation:	none	none
Condition:	clear	clear

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Demolished building #3 at El Bonanza and burned untreated wood.

Hauled DDT wood and transformer from El Bonanza to fuel cache for removal to Sawmill Bay tomorrow.

Consolidated clean wood at Bonanza at old fuel cache site and burned. Consolidated surface debris at all sites at Bonanza. Removed 16 barrels from Bonanza to El Bonanza airstrip.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 29th, 2010</i>
Total number inspected	47	184
Total number crushed	0	0
With liquid/sludge	16	86

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

BZ-NHDS-1 (Bonanza non-hazardous debris stockpile 1)

BZ-NHDS-2 (Bonanza non-hazardous debris stockpile 2)

BZ-Ash-1 (Bonanza ash sample 1 – cabin 1)

BZ-Ash-2 (Bonanza ash sample 2 – outhouse)

EB-A (Unknown liquid sample A at El Bonanza – 4 orange and blue drums near NHDS 2)

EB-B (Unknown liquid sample B at El Bonanza – 1 drum at southeast corner of drum cache)

EB-C (Unknown liquid sample C at El Bonanza – 1 grey drum at southwest corner of drum cache)

Photos



Large debris remaining at Bonanza



Burn pile at Bonanza's old fuel cache site



Ash pile raked and covered at old Building 13 at El Bonanza



Covered ash at Building 1



NHDS 1 at Bonanza (near Cabin 1 footprint)



Covered ash pile of Cabin 1 at Bonanza (NHDS 1 in background)



NHDS 2 at Bonanza near old fuel stand



Aerial of EB-DA-1, EB-DA-4 and Bldg 13 footprint at El Bonanza



Aerial of El Bonanza



Aerial of Bonanza headframe with debris stockpile beside



Aerial of Bonanza Cabin 1 footprint

GBL –Phase I EL BANANZA REMEDIATION DAILY REPORT

Date Tuesday September 28, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Roddy Modeste	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Cameron Yukon	1	
Pilot	Jory Blott Cdn Heli		1
Labourer	Kyle Bayha	1	
Total	6 persons	4	2

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	1	Good
Argo	1	Good

Weather

	Morning (0700hrs)	Afternoon (1800hrs)
Temperature:	0°C	2°C
Precipitation:	mist/rain	Mist/rain
Condition:	Overcast	Overcast

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Debris clean up at EB-DA-2 and EB-DA-3.

Raked burns at building 7, building 13 and building 4 to remove remaining debris.

Final sweep of site for debris.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 28th, 2010</i>
Total number inspected	0	137
Total number crushed	0	0
With liquid/sludge	0	70

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Non-hazardous debris pile at EB-DA-2



Non-hazardous debris pile at EB-DA-3



Clean debris area at EB-DA-3



Raking ash at Building 13



Painted wood pile prior to covering



DDT wood and painted wood packaged wood

GBL –Phase I EL BONANZA REMEDIATION DAILY REPORT

Date Monday September 27, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Roddy Modeste	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Cameron Yukon	1	
Pilot	Jory Blott Cdn Heli		1
Labourer	Kyle Bayha	1	
Total	6 persons	4	2

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	1	Good
Argo	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	0°C	2°C
Precipitation:	mist/rain	Snow
Condition:	Overcast	Overcast

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Removing barrels from EB-DA-2 and consolidating debris at the main camp dump in EB-DA-2. Leaking barrel placed in overpack for transport.

Barrel inspections for barrels found to date.

DDT contaminated wood and PCB containing transformer placed in mega bags for potential transport off site.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 27th, 2010</i>
Total number inspected	35	137
Total number crushed	0	0
With liquid/sludge	57	70

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

Only 10 barrels identified on the waste inventory for El Bonanza/Bonanza while a total of 137 have been found so far with a few still to be counted.

AEL has requested to leave small shed (Building #3) as a storage shed for future.

Wildlife Observations

None

Site Visitors

None

Samples

EB-Ash-1 (El Bonanza Ash 1)

EB-Ash-2 (El Bonanza Ash 2)

EB-Ash-3 (El Bonanza Ash 3)

EB-Ash-4 (El Bonanza Ash 4)

EB-Trans (El Bonanza Transformer Site)

EB-NHDS-7 (El Bonanza non-hazardous debris site 7)

Photos



Barrels at El Bonanza



Non-hazardous debris stockpile area in EB-DA-2



Leaking barrel placed in overpack



Pin marking location of PCB transformer

GBL –Phase I EL BONANZA REMEDIATION DAILY REPORT

Date Sunday September 26, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Roddy Modeste	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Cameron Yukon	1	
Pilot	Jory Blott Cdn Heli		1
Labourer	Kyle Bayha	1	
Total	6 persons	4	2

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	1	Good
Argo	1	Good

Weather

	Morning (0700hrs)	Afternoon (1800hrs)
Temperature:	0°C	2°C
Precipitation:	none	Snow
Condition:	Partly cloudy	Overcast

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Slung barrels from fuel cache to airstrip in the morning. Slung three barrels of diesel from airstrip to camp for generator.

Started debris removal at remaining dump site in EB-DA-2 when chopper arrived to pull crew due to bad weather.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 26th, 2010</i>
Total number inspected	0	40
Total number crushed	0	0
With liquid/sludge	0	13

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

No Photos

GBL –Phase I EL BONANZA REMEDIATION DAILY REPORT

Date Friday September 24, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Supervisor	Roddy Modeste	1	
Bear Monitor	Alfred Betsidea	1	
Labourer	Cameron Yukon	1	
Pilot	Jory Blott Cdn Heli		1
Labourer	Kyle Bayha	1	
Total	6 persons	4	2

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	1	Good
Argo	1	Good

Weather

	Morning (0700hrs)	Afternoon (1800hrs)
Temperature:	-2°C	2°C
Precipitation:	none	None
Condition:	Partly cloudy	Partly cloudy

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Completed debris collection at EB-DA-1 including drums around shoreline of Mile Lake. Stockpiled clean wood from around EB-DA-1 in footprint of Building #13 and burned along with unburnt remnants of building #13. Building #14 was included in this burn. Small amounts of non-hazardous debris collected from around building #13 and added to NHDS.

Final sweep of EB-DA-5 and EB-DA-6 to complete debris removal.

Removed barrels from shore of Silver Lake with Argo.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 24th, 2010</i>
Total number inspected	0	40
Total number crushed	0	0
With liquid/sludge	0	13

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

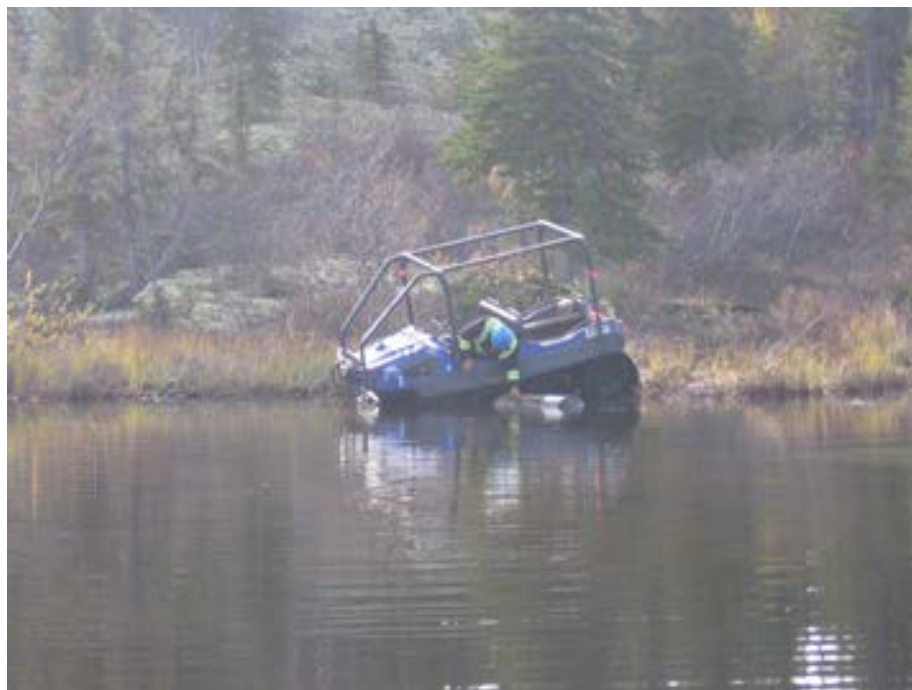
Samples

EB-NHDS-3 (El Bonanza non-hazardous debris stockpile 3)

EB-NHDS-4 (El Bonanza non-hazardous debris stockpile 4)

EB-NHDS-5 (El Bonanza non-hazardous debris stockpile 5)

Photos



Barrel removal from Silver Lake with Argo



Poly over footprint of Building #1



EB-DA-1 – final sweep



EB-DA-1 – final sweep



EB-DA-1 – final sweep



EB-DA-5 – final sweep

GBL –Phase I EL BONANZA REMEDIATION DAILY REPORT

Date Thursday September 23, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton		1
Supervisor	Kurt Stewart	1	
Bear Monitor	Alfred Betsidea	1	
Pilot	Jory Blott Cdn Heli		1
Labourer	Simon Neyelle	1	
Labourer	Kyle Bayha	1	
Env. Monitor	Dennis Kenny	1	
Total	11 persons	8	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	1	Good
Argo	1	Good

Weather

	Morning (0700hrs)	Afternoon (1800hrs)
Temperature:	-2°C	5°C
Precipitation:	none	None
Condition:	Partly cloudy	Partly cloudy

General

Camp Complement today is 22 persons. Daily water usage is 2000 L / day.

Work in Progress

Building #7 was burned in place along with pile of clean wood adjacent to the building.

Debris was collected at EB-DA-5 and EB-DA-6. Non-hazardous debris was taken to the stockpile near EB-DA-4. Clean wood was consolidated and burned on site. An additional burn pile was established at building #8 and all was burned in place.

Brush was cleared to provide access to debris in EB-DA-2. Barrels were removed from EB-DA-2 and debris was consolidated near building #7. Debris consolidation in this area will continue tomorrow.

Debris was consolidated and removed from EB-DA-1. Small amount remains.

One crew flew to Bonanza to demolish buildings and consolidate debris. Clean wood was consolidated around building #1 and placed in the building. Building #1 was burned in place. Non-hazardous debris pile was established near building #1 and non-hazardous debris was consolidated.

Outhouse was burned in place.

Debris collection at Bonanza will continue once El Bonanza work is complete.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 23rd, 2010</i>
Total number inspected	40	40
Total number crushed	0	0
With liquid/sludge	13	13

Note: The totals do not add up due to the fact that barrels are waiting to be crushed.

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

Debris area found near EB-SFT-1 that is well outside of debris areas marked on drawings. There are several barrels and some small debris at this location. AEL is willing to remove but is requesting PAW.

There is also a single barrel at the top of the hill above EB-DA-5 that is outside of the plan area. Could be slung down by chopper.

Wildlife Observations

None

Site Visitors

None

Samples

None

Photos



Non hazardous debris and drums at EB-DA-4



Hazardous debris pile near building 13



Non-hazardous debris stockpile near Building 1 at Bonanza



Building #1 at Bonanza prior to burning

GBL –Phase I EL BONANZA REMEDIATION DAILY REPORT

Date Wednesday September 22, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DRAP: SENES/DCS			
DR	Kyle Hunt		1
Contractor: Aboriginal Engineering Ltd (AEL)			
Labourer	Derek Neyelle	1	
Labourer	Cameron Yukon	1	
HEO	Stanley Ferdinand	1	
Medic/Haz Super.	Bob Eaton		1
Supervisor	Kurt Stewart	1	
Bear Monitor	Alfred Betsidea	1	
Pilot	Jory Blott Cdn Heli		1
Labourer	Simon Neyelle	1	
Labourer	Kyle Bayha	1	
Env. Monitor	Dennis Kenny	1	
Total	11 persons	8	3

Site Equipment

Equipment	Number of	Condition
Yamaha Grizzly 4x4 with trailer	1	Good
Argo	1	Good

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	-1°C	5°C
Precipitation:	none	None
Condition:	Partly cloudy	Partly cloudy

General

Camp Complement today is 26 persons. Daily water usage is 2000 L / day.

Work in Progress

First day of work at El Bonanza today. Southwest corner of building #13 was marked with a spike to establish survey control following demolition. Hazardous and non-hazardous debris stockpile areas were established near building #13 to allow for demolition. DDT impacted wood from window frames and

door frames were removed and stockpiled in hazardous debris area. Painted wood from walls was removed and stockpiled in hazardous debris area. All non-hazardous debris was removed from the building and stockpiled. Non-hazardous debris scattered outside of building #13 was collected and stockpiled. Once all debris was removed, structure was burned on site.

Debris was collected from EB-DA-2 and EB-DA-4 and consolidated at non-hazardous debris stockpile areas.

Survey control point at southeast corner of building # 1 was marked with spike. Debris surrounding building #1 were consolidated in non-hazardous debris stockpile area. Core samples were placed in nonhazardous debris pile and core sample boxes were placed in building for burning. Building #1 was burnt in place.

Crew cleared brush around building #2 to provide access to debris area and allow for safe burning. Burn will likely take place tomorrow.

Clean wood pile was established near building #8 and building #8 was demolished onto the pile. Burn will likely take place tomorrow.

Drums were collected around the site and consolidated near building #3. Inspections will occur tomorrow.

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of September 22nd , 2010</i>
Total number inspected	0	0
Total number crushed	0	0
With liquid/sludge	0	0

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

EB-NHDS-1 (El Bonanza non-hazardous debris stockpile 1)

EB-NHDS-2 (El Bonanza non-hazardous debris stockpile 2)

EB-HDS-1 (El Bonanza hazardous debris stockpile 1)

Photos



Building 13 prior to burning



Hazardous debris pile near building 13



EB-DA-4 prior to debris removal



Clean wood pile near building 7

GBL –Phase I EL BONANZA/CONTACT LAKE REMEDIATION DAILY REPORT

Date Friday October 1, 2010
Project ID PWGSC: R.015211.027
 SENES/DCS: 340962-000

Site Personnel

Position DRAP: SENES/DCS	Name	Socioeconomic	
		Sahtu Beneficiary	Other
DR	Jason Mauchan		1
Contractor: Aboriginal Engineering Ltd (AEL) Supervisor	Roddy Modeste	1	
Labourer	Cameron Yukon	1	
Pilot	Jory Blott Cdn Heli		1
Total	4 persons	2	2

Site Equipment

All equipment has been pulled from site. Argo was moved to El Bonanza airstrip and Quad was slung back to Sawmill Bay.

Weather

	<i>Morning (0700hrs)</i>	<i>Afternoon (1800hrs)</i>
Temperature:	-2°C	5°C
Precipitation:	none	none
Condition:	clear	clear

General

Camp Complement today is 13 persons. Daily water usage is 2000 L / day.

Work in Progress

Twenty (20) empty drums slung from El Bonanza to Sawmill Bay. Remaining drums as outlined in spec to be slung tomorrow.

Covered burn from yesterday at Contact Lake

Drum Crushing

	<i>Daily Count</i>	<i>Cumulative Totals as of October 1st, 2010</i>
Total number inspected	0	184
Total number crushed	0	0
With liquid/sludge	0	86

Health & Safety and Environmental Issues

Site safety meeting is held every day at 0645.

Comments, Concerns and Correspondence

None

Wildlife Observations

None

Site Visitors

None

Samples

None

No Photos

APPENDIX D

WEEKLY REPORTS

MINUTES OF MEETING

Weekly Construction Meeting

Project Name: Great Bear Lake. Environmental Site Remediation – Phase 1
Project No.: R.015211.027

Date: Tuesday September 28, 2010
Location: Sawmill Bay

Purpose: Weekly Construction Meeting

Attendance and Distribution

Person	Initials	Company	Role	Email	Attended	Distributed
Brad Landry	BL	AEL	Superintendent	blandry@aboriginaleng.com	√	√
Johanne Black	JB	AEL	Field Tech.	jblack@aboriginaleng.com		√
Jason Mauchan	JDM	SENEC/DCS	DR	jmauchan@dcsltd.ca	√	√
Michael Bernardin	MB	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		√
Kyle Hunt	KH	SENEC/DCS	DR	khunt@senes.ca	√	√
Richard Hamilton	RH	AEL	Site Super	Richard.poor66@hotmail.com		√
Charles Gravelle	CG	SENEC/DCS	DR PM	cgravelle@dcsltd.ca		√
Rodney Makohoniuk	RM	AEL	Field Tech.	aelgreatbearlake@gmail.com	√	√
Bob Eaton	BE	Cl. Eaton	Medic Sup.	Col.rbc.survival@gmail.com	√	√
Dennis Katherine Silcock	KS	INAC	INAC PM	Katherine.Silcock@inac-a-inc.gc.ca		√
Robert Johnson	RJ	AEL	AEL PM	rjohnson@aboriginaleng.ca		√

i) Introduction

Weekly Construction Meeting

Agenda:

1. Review and approve minutes of previous meetings;
2. Review of Work progress since previous meeting;
3. Field observations, problems, conflict;
4. Problems which impede construction Schedule;
5. Review of off-site fabrication delivery Schedules;
6. Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage;
7. Corrective measures and procedures to regain Projected Schedule;
8. Revisions to construction Schedule;

9. Progress Schedule, during succeeding Work period;
10. Review submittal Schedules and expedite as required;
11. Maintenance of quality standards;
12. Review proposed changes for effect on construction Schedule and on completion date;
13. Health, Safety and Security issues;
14. Correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ;
15. Camp requirements; and
16. Regulatory compliance
17. Other business.

1 Review and approve minutes of previous meetings.

- ✓ Review of previous daily reports

2 Review of Work progress.

Sawmill Bay

Barrel Crushing

As of noon on September xxth 2010, xxxx barrels have been crushed.

There are ~2500 barrels with liquid contents, approximately 400 of which are full

Barrels with liquid contents have been categorized as containing sludge, fuel, oil, or oily water.

Barrels containing sludge are ready to be washed. Barrels containing fuel or oil or oily water will require conglomeration or burning.

Debris Clean-Up ADD Other areas

- Debris Areas which are complete include:

Airstrip

SA-DA-1, SA-DA-2, SA-DA-3, SA-DA-4, SA-DA-5, SA-DA-8, SA-DA-9, SA-DA-10¹, SA-DA-11, SA-DA-27

¹SA-DA-10 has large metal debris and buried debris remaining beyond 0.5 m depth below ground level

Main Camp Area

SA-DA-13, SA-DA-14, SA-DA-15, SA-DA-16, SA-DA-17, SA-DA-20²

²Decision made to leave plane fuselage in place due to inability to move by hand

Barge Area

SA-DA-22, SA-DA-25, SA-DA-26,

Burnable wood

294 m³ was burned at the airstrip

Contact Lake

In total at Contact Lake, 695 m³ burnt.

Debris removal complete at CL-DA-1, CL-DA-2, CL-DA-3, CL-DA-4, CL-DA-5
B/EB

All buildings demolished, except one attached to headframe
Storage Building No. 3 at EB

Debris removal began, 75% at EB, 25% done at B

3 Field observations, Aboriginal Workforce content.

- Contact Lake work basing operations from Sawmill Bay
- Current workforce of Sahtu beneficiaries is ~80%, RM to update statistics

4 Problems which may impede construction Schedule.

- Weather at Sawmill Bay, Contact Lake, Bonanza/El Bonanza solution

5 Review of off-site delivery schedule

- Barrel wash parts are expected Wednesday September 22nd

6 Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage.

(AEL project schedule to be determined and submitted to JM)

Overall project is moving forward well.

	<i>Progress</i>
Building closures Sawmill	Completed
Building demolition at Contact	Completed note outhouse
Barrel crushing of clean drums	crushed
Debris hauling at Sawmill	Complete note
Debris hauling at Contact	3/4
Burns at Sawmill Bay	294 m ³
Burns at Contact	695 m ³

Debris hauling at Bonanza/El Bonanza projected to be complete in 2 days.

Debris hauling at Contact projected to be complete in 1 days

7 Corrective measures and procedures to regain Projected Schedule.

- AEL to set project schedule based on progress at Contact Lake and Sawmill Bay

8 Revisions to construction Schedule.

- To be determined by AEL and submitted to JM

9 Progress Schedule, during succeeding Work period.

Succeeding Week

Contact Lake

- Finish with debris removal
- Sling barrels from beach and East Arm

- Bag batteries, transport to haz-debris stockpile
- Maintain protection of ash from wind and water³

Bonanza/El Bonanza sites

- Complete debris hauling
- All buildings done?

³Ash

The contract states to provide means to protect the ash from wind and water until it is sampled. The containment system salvaged from materials on-site is acceptable

10 Review submittal Schedules and expedite as required.

- ✓ Contractor daily reports submitted as LMEs (Labour, Machines, Equipment)
 - Daily reports contain minutes of toolbox meetings
- ✓ Maintain weekly construction meeting on Sunday

11 Maintenance of quality standards

- Quality standards being maintained through daily record keeping and monitoring

12 Review proposed changes for effect on Construction Schedule and on completion date.

- AEL to submit construction schedule to JM and KH

13 Health, Safety and Security issues.

- No bears seen during preceding week
- The bear fence is in operation during the evenings
- PPE in use by all crew

14 Correspondence from AHJ or expected visits from AHJ.

- Two Deline representatives arrived last week, One reexpected during succeeding week
- Final Monthly progress meeting tentatively scheduled for the end of the summer season

15 Camp requirements

- No specific requirements outlined

16 Regulatory compliances issues and other business

- Tracking daily Water Use. Water inspector requires daily and cumulative totals.
- Grey water lagoon maintaining level
- 2000 litres per day being used as camp water
- Amendment of Land Use Permit is required in writing on-site
- JM waiting for analytical results of grey water samples

17 Any Other Business

- None

Action BL to set project schedule for Contact and Bonanza Sites, submit to JM.

Action RM to post Land Use Permit amendments

Action RM to update Sahtu Beneficiaries Statistics

Action RM to update cumulative totals of water use

Action *JB to provide grey water sample results*

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Jason Mauchan

Sawmill Bay Great Bear Lake Environmental Site Remediation Phase I – Department Representative

Decommissioning Consulting Services Limited

19 September 2010

MINUTES OF MEETING

Weekly Construction Meeting

Project Name: Sawmill Bay, Great Bear Lake. Environmental Site Remediation – Phase 1
Project No.: R.015211.027

Date: Friday September 10, 2010
Location: Sawmill Bay

Purpose: Weekly Construction Meeting

Attendance and Distribution

Person	Initials	Company	Role	Email	Attended	Distributed
Brad Landry	BL	AEL	Superintendent	blandry@aboriginaleng.com		✓
Johanne Black	JB	AEL	Field Tech.	jblack@aboriginaleng.com		✓
Richard Hamilton	RH	AEL	Superintendent	Richard.poor66@hotmail.com	✓	✓
Jason Mauchan	JDM	SENE/DCS	DR	jmauchan@dcsltd.ca	✓	✓
Ryan Dillon	RD	SENE/DCS	DR	rdillon@dcsltd.ca		✓
Michael Bernardin	MB	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		✓
Charles Gravelle	CG	SENE/DCS	DR PM	cgravelle@dcsltd.ca		✓
Rodney Makohoniuk	RM	AEL	Field Tech.	aelgreatbearlake@gmail.com	✓	✓
Katherine Silcock	KS	INAC	INAC PM	Katherine.Silcock@inac-ainc.gc.ca		✓
Pat Harrison	PH	SENE/DCS	DR	pharrison@dcsltd.ca		✓
Robert Johnson	RJ	AEL	AEL PM	rjohnson@dcsltd.ca		✓

i) Introduction

Weekly Construction Meeting

Agenda:

1. Review and approve minutes of previous meetings;
2. Review of Work progress since previous meeting;
3. Field observations, problems, conflict;
4. Problems which impede construction Schedule;
5. Review of off-site fabrication delivery Schedules;
6. Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage;
7. Corrective measures and procedures to regain Projected Schedule;
8. Revisions to construction Schedule;
9. Progress Schedule, during succeeding Work period;

10. Review submittal Schedules and expedite as required;
11. Maintenance of quality standards;
12. Review proposed changes for affect on construction Schedule and on completion date;
13. Health, Safety and Security issues;
14. Correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ;
15. Camp requirements; and
16. Regulatory compliance
17. Other business.

1 Review and approve minutes of previous meetings.

- ✓ Review of previous daily reports

2 Review of Work progress.

Sawmill

Barrel Crushing

As of noon on September 10th 2010, 8087 barrels have been crushed.

There are ~100 inspected barrels waiting to be crushed/transported at the current crush site.

There are ~25 inspected barrels waiting to be transported/crushed at the first crush site

Overall, ~2500 barrels with liquid contents, approximately 400 of which are full

Barrels categorized as containing less than 5 cm of sludge (S), greater than 5 cm of fuel (F), or greater than 5 cm of oil (O)

Debris Clean-Up

- Sawmill waste (untreated wood) will be taken to the side and left to naturally decay
- Completed areas to date
 - SA-DA-7, SA-DA-9, SA-DA-25, SA-DA-26
- Focus is to continue to use manpower, ATVs and trailers for this facet of the work.

Transformers moved to Hazardous Storage

- Three transformers listed in Sawmill Bay Waste Inventory
 - 12 transformers moved to Hazardous Debris Stockpile (HDS)

Contact Lake and Bonanza Sites

- Operations based from Sawmill Bay
- Fuel and supply cache established at beach of Bonanza former airstrip
- Remediation at Contact began September 9th
- Asbestos containing material identified at Contact, see action item JB

3 Field observations, Aboriginal Workforce content.

- Stockpiles located near to debris areas
- Current workforce of Sahtu beneficiaries is ~80%
- Basing operations from Sawmill allows for efficient communication links

4 Problems which may impede construction Schedule.

- Number of crew is lower than expected

- Debris at the main camp dump is extensive
- Barrel washing station is not on site
- ✓ Going forward, an additional cabin being constructed
- ✓ Debris clean-up to be the main focus at Sawmill
- ✓ Barrel washing to commence after debris clean-up, parts being ordered
- The helicopter is not able to transport the Argo as planned
- ✓ 6-man work crew daily at Contact

5 Review of off-site delivery schedule

- Barrel washing station parts expected from Colomac and South
- ATV parts received, 2 ATVs repaired

6 Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage.

(AEL project schedule to be determined)

Overall project is moving forward well.

	<i>Progress</i>
Building closures	Completed
Barrel Hauling and crushing of clean drums (~50 remain)	~99% complete
Barrel Hauling and washing of barrels with minimal sludge	Hauling ~99% complete
Barrel Hauling of barrels with significant amounts of liquid	Hauling ~99% complete
Conglomerating the like fuels / burning fuels	Start date TBD
Washing and crushing of barrels with either sludge or grouped liquid	Start date TBD
Debris hauling	Started 28.Aug
Debris sorting	Started 28.Aug
Wood collection	Started 28.Aug
Contact Lake Remediation	Started 9.Sep

Project schedule to be updated by AEL

Debris hauling projected end-date for Sawmill Bay is 4 days plus time needed at main camp dump. Barrel washing tentatively scheduled for last 2 weeks of September.

Site Remediation at Contact Lake scheduled to be complete in 1-2 weeks.

7 Corrective measures and procedures to regain Projected Schedule.

- Additional crew expected

8 Revisions to construction Schedule.

- To be updated by AEL and submitted to MB and CG

9 Progress Schedule, during succeeding Work period.

- Continue with debris removal, sorting, and consolidation at Sawmill
- Commence burning of wood, following proper procedures
- Barrel crushing of remaining barrels at Sawmill
- Complete the hazardous storage stockpile berm to house transformers, batteries
- Impacted soil around staked battery locations to be hauled to haz-storage
- Cut the tops of the barrels in preparation for cleaning

- Barrel Wash scheduled to commence after Debris clean-up
 - Refer to AEL document for barrel wash liner requirements
 - Consolidation and burning of fuel contents (diesel, oil)
 - Barrel washing of ~2000 barrels marked S (Sludge) at 2 locations
- 10 Review submittal Schedules and expedite as required.**
 - ✓ Contractor daily reports submitted as LMEs (Labour, Machines, Equipment)
 - ✓ Maintain weekly construction meetings
- 11 Maintenance of quality standards**
 - Quality standards being maintained through daily record keeping and monitoring
- 12 Review proposed changes for affect on Construction Schedule and on completion date.**
 - Debris removal will continue for ~1 week at Sawmill
 - Contact Lake and Bonanza sites to base from Sawmill
- 13 Health, Safety and Security issues.**
 - Health and Safety meetings occur daily at 0645, minutes recorded by RM
 - Weekly Meeting agenda includes health and safety, minutes recorded by JM
 - No bears seen during preceding week
 - The bear fence is in operation during the evenings
 - PPE in use by all crew
- 14 Correspondence from AHJ or expected visits from AHJ.**
 - Monthly site meeting expected end of September 2010
 - Community representatives scheduled to arrive September 14th
 - Health and Safety seminar scheduled for September 14th
- 15 Camp requirements**
 - Additional lodgings being built to house expected crew increase
- 16 Regulatory compliances issues and other business**
 - Tracking daily Water Use. Water inspector requires daily and cumulative totals.
 - Grey water lagoon level, sample grey water, receive results prior to discharge
 - 1000 litres per day being used as camp water, will increase with more crew
 - A copy of the Amendment to the Land Use Permit is required on-site
- 17 Any Other Business**
 - None

Action RH and Kurt Stewart to set project schedule, submit to MB and CG

Action JB to provide copy of 'Contractor's Asbestos Liability Insurance'

Action RM to post updated Land Use Permit with amendment

Action RM to sample grey water discharge, ensure compliance criteria

Action JM to update progress of Sawmill haz-mat storage area

Action JM to review PCB transformer information

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Jason Mauchan

Sawmill Bay Great Bear Lake Environmental Site Remediation Phase I – Department Representative
Decommissioning Consulting Services Limited

10 September 2010

MINUTES OF MEETING

Weekly Construction Meeting

Project Name: Great Bear Lake. Environmental Site Remediation – Phase 1
Project No.: R.015211.027

Date: Sunday September 19, 2010
Location: Sawmill Bay

Purpose: Weekly Construction Meeting

Attendance and Distribution

Person	Initials	Company	Role	Email	Attended	Distributed
Brad Landry	BL	AEL	Superintendent	blandry@aboriginaleng.com		✓
Johanne Black	JB	AEL	Field Tech.	jblack@aboriginaleng.com		✓
Jason Mauchan	JDM	SENES/DCS	DR	jmauchan@dcsltd.ca	✓	✓
Michael Bernardin	MB	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		✓
Kyle Hunt	KH	SENES/DCS	DR	khunt@senes.ca	✓	✓
Richard Hamilton	RH	AEL	Site Super	Richard.poor66@hotmail.com	✓	✓
Charles Gravelle	CG	SENES/DCS	DR PM	cgravelle@dcsltd.ca		✓
Rodney Makohoniuk	RM	AEL	Field Tech.	aelgreatbearlake@gmail.com	✓	✓
Kurt Stewart	K	AEL	Supervisor			
Dave Jobin	DJ	AEL	Foreman		✓	
Bob Eaton	BE	Cl. Eaton	Medic Sup.	Col.rbe.survival@gmail.com	✓	✓
Katherine Silcock	KS	INAC	INAC PM	Katherine.Silcock@inac-ainc.gc.ca		✓
Robert Johnson	RJ	AEL	AEL PM	rjohnson@aboriginaleng.ca		✓

i) Introduction

Weekly Construction Meeting

Agenda:

1. Review and approve minutes of previous meetings;
2. Review of Work progress since previous meeting;
3. Field observations, problems, conflict;
4. Problems which impede construction Schedule;
5. Review of off-site fabrication delivery Schedules;
6. Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage;
7. Corrective measures and procedures to regain Projected Schedule;

8. Revisions to construction Schedule;
9. Progress Schedule, during succeeding Work period;
10. Review submittal Schedules and expedite as required;
11. Maintenance of quality standards;
12. Review proposed changes for effect on construction Schedule and on completion date;
13. Health, Safety and Security issues;
14. Correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ;
15. Camp requirements; and
16. Regulatory compliance
17. Other business.

1 Review and approve minutes of previous meetings.

- ✓ Review of previous daily reports

2 Review of Work progress.

Sawmill Bay

Barrel Crushing

As of noon on September 19th 2010, 8087 barrels have been crushed.

There are ~2500 barrels with liquid contents, approximately 400 of which are full

Barrels with liquid contents have been categorized as containing sludge, fuel, oil, or oily water.

Barrels containing sludge are ready to be washed. Barrels containing fuel or oil or oily water will require conglomeration or burning.

Debris Clean-Up

- Debris Areas which are complete include:

Airstrip

SA-DA-1, SA-DA-2, SA-DA-3, SA-DA-4, SA-DA-5, SA-DA-8, SA-DA-9, SA-DA-10¹, SA-DA-11, SA-DA-27

¹SA-DA-10 has large metal debris and buried debris remaining beyond 0.5 m depth below ground level

Main Camp Area

SA-DA-13, SA-DA-14, SA-DA-15, SA-DA-16, SA-DA-17, SA-DA-20²

²Decision made to leave plane fuselage in place due to inability to move by hand

Barge Area

SA-DA-22, SA-DA-25, SA-DA-26,

Burnable wood

On September 19th, 294 m³ was burned at the airstrip

Contact Lake

Building demolition of all scheduled structures on-site except the ‘shed next to the hoist house’ and the ‘hoist house’. In total at Contact Lake, 695 m³ burnt.

Debris removal began at CL-DA-1, CL-DA-2, CL-DA-3, CL-DA-4, CL-DA-5

3 Field observations, Aboriginal Workforce content.

- Contact Lake work basing operations from Sawmill Bay
- Current workforce of Sahtu beneficiaries is ~80%, RM to update statistics

4 Problems which may impede construction Schedule.

- Weather at Contact Lake
 - Going forward, 2 chopper flights are scheduled daily to Contact
- The debris at the Sawmill main camp dump is extensive
 - Going forward, debris clean-up is the current main focus at Sawmill
- The debris at Contact Lake, SA-DA-1,2,3 is extensive
 - Going forward, debris clean-up is main focus at Contact
- The chopper is unable to sling the Argo from EB airstrip to Contact
 - Two ATVs at Contact

5 Review of off-site delivery schedule

- Barrel wash parts are expected Wednesday September 22nd

6 Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage.

(AEL project schedule to be determined and submitted to JM)

Overall project is moving forward well.

	<i>Progress</i>
Building closures Sawmill	Completed
Building demolition at Contact	1 building remains
Barrel crushing of clean drums	8087 crushed
Debris hauling at Sawmill	2 areas remain
Debris hauling at Contact	4 areas remain
Burns at Sawmill Bay	294 m ³
Burns at Contact	695 m ³

Debris hauling at Sawmill projected to be complete in 2-3 days.

Debris hauling at Contact projected to be complete in ~4 days

Movement of supplies to B/EB sites scheduled for week of September 20th.

7 Corrective measures and procedures to regain Projected Schedule.

- AEL to set project schedule based on progress at Contact Lake and Sawmill Bay

8 Revisions to construction Schedule.

- To be determined by AEL and submitted to JM

9 Progress Schedule, during succeeding Work period.

Succeeding Week

Sawmill Bay

- Continue with debris removal, sorting, and consolidation
- Barrel crushing of remaining barrels
- Burn remaining wood
- Protect ash from wind and water³
- Measure debris piles

Contact Lake

- Continue with debris removal
- Demolish last remaining structure
- Bag batteries, transport to haz-debris stockpile
- Protect ash from wind and water³

Bonanza/El Bonanza sites

- Begin transporting supplies to site
- Locate the two survey points
- Begin remediation

³Ash

The contract states to provide means to protect the ash from wind and water until it is sampled. The containment system salvaged from materials on-site is acceptable

- 10 Review submittal Schedules and expedite as required.**
- ✓ Contractor daily reports submitted as LMEs (Labour, Machines, Equipment)
 - Daily reports contain minutes of toolbox meetings
 - ✓ Maintain weekly construction meeting on Sunday
- 11 Maintenance of quality standards**
- Quality standards being maintained through daily record keeping and monitoring
- 12 Review proposed changes for effect on Construction Schedule and on completion date.**
- AEL to submit construction schedule to JM and KH
- 13 Health, Safety and Security issues.**
- No bears seen during preceding week
 - The bear fence is in operation during the evenings
 - PPE in use by all crew
 - One worker with minor back injury, medic was informed
- 14 Correspondence from AHJ or expected visits from AHJ.**
- Deline representatives expected during succeeding week
 - Final Monthly progress meeting tentatively scheduled for the end of the summer season
- 15 Camp requirements**
- No specific requirements outlined
- 16 Regulatory compliances issues and other business**
- Tracking daily Water Use. Water inspector requires daily and cumulative totals.
 - Grey water lagoon maintaining level

- 2000 litres per day being used as camp water
- Amendment of Land Use Permit is required in writing on-site
- JB to provide grey water sample results

17 Any Other Business

- None

Action BL, RH, and K to set project schedule for Sawmill, Contact, Bonanza Sites.

Action RM to post Land Use Permit amendments

Action RM to update Sahtu Beneficiaries Statistics

Action RM to update cumulative totals of water use

Action JB to provide grey water sample results

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Jason Mauchan

Sawmill Bay Great Bear Lake Environmental Site Remediation Phase I – Department Representative
Decommissioning Consulting Services Limited

19 September 2010

MINUTES OF MEETING

Weekly Construction Meeting

Project Name: Sawmill Bay, Great Bear Lake. Environmental Site Remediation – Phase 1
Project No.: R.015211.027

Date: Sunday September 5, 2010
Location: Sawmill Bay

Purpose: Weekly Construction Meeting

Attendance and Distribution

Person	Initials	Company	Role	Email	Attended	Distributed
Brad Landry	BL	AEL	Superintendent	blandry@aboriginaleng.com	√	√
Johanne Black	JB	AEL	Field Tech.	jblack@aboriginaleng.com		√
Jason Mauchan	JDM	SENEC/DCS	DR	jmauchan@dcsdtd.ca	√	√
Ryan Dillon	RD	SENEC/DCS	DR	rdillon@dcsdtd.ca	√	√
Michael Bernardin	MB	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		√
Charles Gravelle	CG	SENEC/DCS	DR PM	cgravelle@dcsdtd.ca		√
Rodney Makohoniuk	RM	AEL	Field Tech.	aelgreatbearlake@gmail.com		√
Kurt Stewart	K	AEL	Supervisor		√	
Katherine Silcock	KS	INAC	INAC PM	Katherine.Silcock@inac-ainc.gc.ca		√
Pat Harrison	PH	SENEC/DCS	DR	pharrison@dcsdtd.ca		√
Robert Johnson	RJ	AEL	AEL PM	rjohnson@dcsdtd.ca		√

i) Introduction

Weekly Construction Meeting

Agenda:

1. Review and approve minutes of previous meetings;
2. Review of Work progress since previous meeting;
3. Field observations, problems, conflict;
4. Problems which impede construction Schedule;
5. Review of off-site fabrication delivery Schedules;
6. Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage;
7. Corrective measures and procedures to regain Projected Schedule;
8. Revisions to construction Schedule;

9. Progress Schedule, during succeeding Work period;
10. Review submittal Schedules and expedite as required;
11. Maintenance of quality standards;
12. Review proposed changes for affect on construction Schedule and on completion date;
13. Health, Safety and Security issues;
14. Correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ;
15. Camp requirements; and
16. Regulatory compliance
17. Other business.

1 Review and approve minutes of previous meetings.

- ✓ Review of previous daily reports

2 Review of Work progress.

Barrel Crushing

As of noon on September 5th 2010, 8087 barrels have been crushed.

There are ~2500 barrels with liquid contents, approximately 400 of which are full

Debris Clean-Up

- Debris hauling from beyond the former old airstrip
 - Stockpiles adjacent to crushed barrels
- Debris hauling from dock loading area SA-DA-25, and dock barrel cache SA-DA-23
 - Stockpiles adjacent to dock area crushed barrels
- Sawmill waste will be taken to the side and left to naturally decay
- Focus is to use manpower, ATVs and trailers, and not heavy equipment

Transformers Moved to Hazardous Storage

- 3 transformers listed in Sawmill Bay Waste Inventory
- 18 transformers located
 - Power House, Boiler House, Storage Shed, Tower Area

Contact Lake and Bonanza Sites

- Decision made to base operations from Sawmill Bay
- Land Use Permit amendment confirmed by RJ

3 Field observations, Aboriginal Workforce content.

- Stockpiles located near to debris areas
- Current workforce of Sahtu beneficiaries is ~80%

4 Problems which may impede construction Schedule.

- Two ATVs require repair
- The debris at the main camp dump and dock area dump is extensive
- Barrel washing station is not on site
- ✓ Going forward, the ATV parts are en route, 2 ATVs en route
- ✓ Debris clean-up is the current main focus
- ✓ Barrel washing to commence after debris clean-up

5 Review of off-site delivery schedule

- Barrel washing station and pressure washer to be constructed on-site using pre-fab parts from Colomac
- ATV parts due, 2 ATVs due

6 Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage.

(AEL project schedule to be determined)

Overall project is moving forward well.

Progress

	Completed
Building closures	Completed
Barrel Hauling and crushing of clean drums (~50 remain)	~99% complete
Barrel Hauling and washing of barrels with minimal sludge	Hauling ~99% complete
Barrel Hauling of barrels with significant amounts of liquid	Hauling ~99% complete
Conglomerating the like fuels / burning fuels	Start date TBD
Washing and crushing of barrels with either sludge or grouped liquid	Start date TBD
Debris hauling	Started 28.Aug
Debris sorting	Started 28.Aug
Wood collection	Started 28.Aug

Debris hauling projected end-date is ~Sep 16th. Barrel washing scheduled for last 2 weeks of September.

Barge delivery of supplies to Contact scheduled for Sept 6th/7th

Site Remediation at Contact Lake scheduled to commence Sept 8th/9th

7 Corrective measures and procedures to regain Projected Schedule.

- AEL will determine project schedule based on debris hauling progress

8 Revisions to construction Schedule.

- To be determined by AEL

9 Progress Schedule, during succeeding Work period.

Succeeding Week

- Continue with debris removal, sorting, and consolidation
- Unpainted wood in a separate burn pile
- Barrel crushing of remaining barrels
- Burn the unpainted wood (after volume calculation and Norman Wells notification)
- Establish hazardous material stockpile area (for batteries, transformers)
- Containerize the electrical equipment with possible PCBs (transformers)

Barrel Wash scheduled to commence after Debris clean-up

- Consolidation of similar liquid contents (fuel, oil)
- Barrel washing of ~2000 barrels marked S at 2 locations
- Possible burning of fuel

- 10 Review submittal Schedules and expedite as required.**
 - ✓ Contractor daily reports submitted as LMEs (Labour, Machines, Equipment)
 - ✓ Maintain weekly construction meeting on Sunday
- 11 Maintenance of quality standards**
 - Quality standards being maintained through daily record keeping and monitoring
- 12 Review proposed changes for affect on Construction Schedule and on completion date.**
 - Debris removal will continue for ~2 weeks
 - Contact Lake and Bonanza sites to base from Sawmill
- 13 Health, Safety and Security issues.**
 - No bears seen during preceding week
 - The bear fence is in operation during the evenings
 - PPE in use by all crew
- 14 Correspondence from AHJ or expected visits from AHJ.**
 - Monthly site meeting occurred 2.September.2010
 - Final Monthly progress meeting tentatively scheduled for the end of the summer season
- 15 Camp requirements**
 - No specific requirements outlined
- 16 Regulatory compliances issues and other business**
 - Tracking daily Water Use. Water inspector requires daily and cumulative totals.
 - Grey water lagoon maintaining level
 - 1000 litres per day being used as camp water
 - Amendment of Land Use Permit is required in writing on-site
- 17 Any Other Business**
 - None

Action JDM to compile PCB temporary storage binder

Action BL and K to set project schedule for Contact, Bonanza Sites, and barrel wash.

Action RM to post Land Use Permit amendments

Action BL to confirm with helicopter company regarding landing on sand airstrip at Sawmill

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Jason Mauchan

Sawmill Bay Great Bear Lake Environmental Site Remediation Phase I – Department Representative
Decommissioning Consulting Services Limited

5 September 2010

MINUTES OF MEETING

Weekly Construction Meeting

Project Name: Sawmill Bay, Great Bear Lake. Environmental Site Remediation – Phase 1
Project No.: R.015211.027

Date: Sunday August 29, 2010
Location: Sawmill Bay

Purpose: Weekly Construction Meeting

Attendance and Distribution

Person	Initials	Company	Role	Email	Attended	Distributed
Brad Landry	BL	AEL	Superintendent	blandry@aboriginaleng.com	√	√
Johanne Black	JB	AEL	Field Tech.	jblack@aboriginaleng.com	√	√
Jason Mauchan	JDM	SENEC/DCS	DR	jmauchan@dcsltd.ca	√	√
Ryan Dillan	RD	SENEC/DCS	DR	rdillan@dcsltd.ca	√	√
Michael Bernardin	MB	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		√
Charles Gravelle	CG	SENEC/DCS	DR PM	cgravelle@dcsltd.ca		√
Katherine Silcock	KS	INAC	INAC PM	Katherine.Silcock@inac-ainc.gc.ca		√
Pat Harrison	PH	SENEC/DCS	DR	pharrison@dcsltd.ca		√
Robert Johnson	RJ	AEL	AEL PM	rjohnson@dcsltd.ca		√

i) Introduction

Weekly Construction Meeting

Agenda:

1. Review and approve minutes of previous meetings;
2. Review of Work progress since previous meeting;
3. Field observations, problems, conflict;
4. Problems which impede construction Schedule;
5. Review of off-site fabrication delivery Schedules;
6. Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage;
7. Corrective measures and procedures to regain Projected Schedule;
8. Revisions to construction Schedule;
9. Progress Schedule, during succeeding Work period;
10. Review submittal Schedules and expedite as required;
11. Maintenance of quality standards;
12. Review proposed changes for affect on construction Schedule and on completion date;

13. Health, Safety and Security issues;
14. Correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ;
15. Camp requirements; and
16. Regulatory compliance
17. Other business.

1 Review and approve minutes of previous meetings.

- ✓ Review of previous daily reports

2 Review of Work progress.

Boarded up buildings

All buildings on-site were boarded up.

Restricted Access Zone

The three zones of restricted access were flagged.

The zones and mitigations are:

1. Main camp area, a detour road was put through
2. Former airstrip, we drive around the long way
3. Lake loading area, access through area is not required

Note that barrels were collected from the airstrip zone, and reflagging subsequently occurred.

Barrel Crushing

As of noon on August 29th 2010, 7944 barrels have been crushed.

There are 2273 barrels with liquid contents, approximately 400 of which are full

The barrel crushing operation was located in 3 different locations

- Main drum cache at the dock landing area (SA-DA-22)
- Former old airstrip (SA-DA-4)
- Former access route to airstrip (near SA-DA-8)

Debris Clean-Up

Debris clean-up started 28.Aug.2010

3 Field observations, Aboriginal Workforce content.

- The system of hauling during the day and crushing at night was effective
- ATV trailers required maintenance
- AEL tracking socio-economic statistics. Current workforce of Sahtu beneficiaries is ~80%

4 Problems which may impede construction Schedule.

- The ATV trailers are small and fragile
- The debris at the main camp dump is extensive
- Barrel washing station is not on site
- ✓ Going forward, the ATV trailers were fixed, monitored, and maintained
- ✓ Debris clean-up started August 28th
- ✓ The Potential Additional Work (PAW) of barrel washing is yet to be determined

5 Review of off-site delivery schedule

- Barrel washing station to be fabricated on-site from pre-fab parts in Colomac
 - Dependent on going ahead with this PAW
- ~10 Overpacks for barrels which will leak when moved for cleaning
- ATV maintenance products arriving Thursday
- Samples will be shipped out on the Thursday plane (~3 soil, ~2 barrels, 1 asbestos)

6 Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage.

(AEL project schedule to be determined)

Overall project is moving forward well.

	<i>Progress</i>
Building closures	Completed
Barrel Hauling and crushing of clean drums	~95% complete
Barrel Hauling and washing of barrels with minimal sludge	Hauling ~95% complete
Barrel Hauling of barrels with significant amounts of liquid	Hauling ~90% complete
Conglomerating the like fuels	Start date TBD
Washing and crushing of barrels with either sludge or grouped liquid	Start date TBD
Debris hauling	Started 28.Aug
Debris sorting	Started 28.Aug
Wood collection	Started 28.Aug

7 Corrective measures and procedures to regain Projected Schedule.

- AEL will determine project schedule based on the balance between progress at Sawmill and setting up camp at Contact Lake

8 Revisions to construction Schedule.

- To be determined by AEL

9 Progress Schedule, during succeeding Work period.

Succeeding Week

- Continue with debris removal, sorting, and consolidation,
- Unpainted wood in a separate burn pile
- Barrel crushing of remaining barrels
- Burn the unpainted wood (after volume calculation)
- Samples will be shipped out on Thursday
- Confirm the whereabouts of the asbestos containing material at the tower area
Possible Additional Work (PAW)
- Consolidation of similar liquid contents (fuel, oil)
- Possible barrel washing
- Possible burning of fuel
- Sample the suspected asbestos material in the plane fuselage
- Possible asbestos containing material along the fuel line in the plane fuselage
- Containerize the electrical equipment with possible PCBs (transformers)
- Establish hazardous material stockpile area for batteries

- 10 Review submittal Schedules and expedite as required.**
 - ✓ Contractor daily reports submitted.
 - ✓ Maintain weekly construction meeting on Sunday
- 11 Maintenance of quality standards**
 - Quality standards being maintained through daily record keeping and monitoring
- 12 Review proposed changes for affect on Construction Schedule and on completion date.**
 - Debris removal will continue for ~2 weeks
- 13 Health, Safety and Security issues.**
 - Bear sighting. The bear was seen next to the garbage burn area. A warning shot was fired and the bear has not been seen since.
 - The bear fence is in operation during the evenings
 - PPE in use by all crew
- 14 Correspondence from AHJ or expected visits from AHJ.**
 - Monthly site meeting scheduled for 2.September.2010
- 15 Camp requirements**
 - No specific requirements outlined
- 16 Regulatory compliances issues and other business**
 - Track daily Water Use. Water inspector requires daily and cumulative totals.
 - Grey water lagoon maintaining level
 - 1000 litres per day being used as camp water
- 17 Any Other Business**
 - None

Action JDM to confirm the action of burning the extensive wood debris from sawmill operations

Action JDM to compile PCB temporary storage binder

Action BL to set project schedule. Barrel washing and Contact Lake camp set-up dates

Action JB to compile socio-economic statistics

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Jason Mauchan

Sawmill Bay Great Bear Lake Environmental Site Remediation Phase I – Department Representative
Decommissioning Consulting Services Limited

29 August 2010

MINUTES OF MEETING

Weekly Construction Meeting

Project Name: Great Bear Lake. Environmental Site Remediation – Phase 1
Project No.: R.015211.027

Date: Friday October 1, 2010
Location: Sawmill Bay

Purpose: Weekly Construction Meeting

Attendance and Distribution

Person	Initials	Company	Role	Email	Attended	Distributed
Brad Landry	BL	AEL	Superintendent	blandry@aboriginaleng.com	√	√
Johanne Black	JB	AEL	Field Tech.	jblack@aboriginaleng.com		√
Jason Mauchan	JDM	SENES/DCS	DR	jmauchan@dcsltd.ca	√	√
Michael Bernardin	MB	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		√
Kyle Hunt	KH	SENES/DCS	DR	khunt@senes.ca		√
Charles Gravelle	CG	SENES/DCS	DR PM	cgravelle@dcsltd.ca		√
Rodney Makohoniuk	RM	AEL	Field Tech.	aelgreatbearlake@gmail.com		√
Bob Eaton	BE	Cl. Eaton	Medic Sup.	Col.rbe.survival@gmail.com		√
Katherine Silcock	KS	INAC	INAC PM	Katherine.Silcock@inac-ainc.gc.ca		√
Robert Johnson	RJ	AEL	AEL PM	rjohnson@aboriginaleng.com		√

i) Introduction

Weekly Construction Meeting

Agenda:

1. Review and approve minutes of previous meetings;
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7. Corrective measures and procedures to regain Projected Schedule;
8. Revisions to construction Schedule;
9. Progress Schedule, during succeeding Work period;
10. Review submittal Schedules and expedite as required;

11. Maintenance of quality standards;
12. Review proposed changes for effect on construction Schedule and on completion date;
13. Health, Safety and Security issues;
14. Correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ;
15. Camp requirements; and
16. Regulatory compliance
17. Other business.

1 Review and approve minutes of previous meetings.

- ✓ Review of previous daily reports

2 Review of Work progress.

October 1st, 2010 is the last day on-site

Barrel Crushing

All barrel crushing occurred at Sawmill Bay

10911 barrels were inspected

There are ~2500 barrels with liquid contents, approximately 400 of which are full

Barrels with liquid contents have been categorized as containing sludge, fuel, oil, or oily water.

Barrels containing sludge are ready to be washed. Barrels containing fuel or oil or oily water will require conglomeration or burning.

Surface Debris and Burn Volumes

Surface Debris Collection and Burn Volumes as of October 1st, 2010

	Surface Debris Collected (m ³)	Surface Debris in spec. (m ³)	Burn Volume (m ³)	Burn Volume in Spec. (m ³)
Sawmill Bay	510	221	319	100
Contact Lake	248	1027	695	147
Bonanza/El Bon.	58	930	432	501

Off-site Removal of Waste

On Friday October 1st, three twin otter planes transported waste to KBL Environmental of Yellowknife. The waste included:

3 transformers in steel overpack containers

5 m³ of DDT impacted wood in double lined Megabags

70 old batteries in poly-lined wooden crates

PCB impacted soil from underneath the EB transformer in double lined Megabag

3 Field observations, Aboriginal Workforce content.

- Current workforce of Sahtu beneficiaries is ~80%, RM to update statistics

4 Problems which may impede construction Schedule.

- October 1st is the last day on-site

- 5 **Review of off-site delivery schedule**
 - Not applicable
- 6 **Project Schedule review, identifying activities that are behind Schedule and providing measures to regain slippage.**
 - Grey water results are overdue. AEL is responsible for grey water analysis
- 7 **Corrective measures and procedures to regain Projected Schedule.**
 - BL and JB to provide JM with grey water results
- 8 **Revisions to construction Schedule.**
 - Not applicable
- 9 **Progress Schedule, during succeeding Work period.**
Succeeding Week
 - AEL to submit laboratory analysis to JM
 - Ash results, grey water results
 - JM to provide JB with ash sampling priority list
 - JM and BL to report final numbers
 - Crushed barrels, burn volumes, debris volumes
 - JM to identify outstanding issues
 - Contractual
 - 86 empty barrels waiting to be crushed at SB
 - 3 old batteries left at EB airstrip
 - Regulatory
 - Grey water results required, grey water discharged at SB on 1.Oct
 - Ash results required, submit to JM
 - Final water use statistics required
 - Updated Land Use permit has not been submitted to JM
 - RM to update socioeconomic statistics, submit to JM
 - RM to report final water usage statistics to JM
 - JM to report to MB on removal of hazardous waste
- 10 **Review submittal Schedules and expedite as required.**
 - ✓ Contractor daily reports submitted as LMEs (Labour, Machines, Equipment)
 - Daily reports contain minutes of toolbox meetings
 - ✓ Maintain weekly construction meetings
 - ✓ Final daily and final weekly report on October 1st, 2010
- 11 **Maintenance of quality standards**
 - Quality standards being maintained through daily record keeping and monitoring
- 12 **Review proposed changes for effect on Construction Schedule and on completion date.**
 - Not applicable

13 Health, Safety and Security issues.

- No bears seen during preceding week
- The bear fence was in operation during the evenings
- PPE in use by all crew

14 Correspondence from AHJ or expected visits from AHJ.

- The priority to remove 3 transformers was acted upon

15 Camp requirements

- No specific requirements outlined

16 Regulatory compliances issues and other business

- Daily Water Use was tracked. Water inspector requires daily and cumulative totals.
- Grey water lagoon maintained level
- Grey water discharged at SB on October 1st, 2010
- 2000 litres per day was used as camp water during preceding week
- Amendment of Land Use Permit is required in writing
- JM waiting for AEL to provide analytical results of grey water samples

17 Any Other Business

- None

Action RM to provide written Land Use Permit amendments to JM

Action RM to update socioeconomic statistics including Sahtu Beneficiaries statistics

Action RM to update cumulative totals of water use

Action JB to provide grey water sample results

Action JB to provide ash analytical data

Action JM to report to MB the outstanding issues

Action JM and BL to report final numbers to RJ and MB

Action JM and BL to report PAW Waste removal numbers to RJ and MB

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Jason Mauchan

Sawmill Bay Great Bear Lake Environmental Site Remediation Phase I – Department Representative
Decommissioning Consulting Services Limited

1 October 2010

APPENDIX E

**ON-SITE HEALTH & SAFETY TRAINING SEMINAR-
LOW-LEVEL GAMMA RADIATION HANDOUT**

AND

ON-SITE ORIENTATION PRESENTATION



Sawmill Bay - 2010 Site Worker Radiation Safety Briefing

History

First Nations people have used this place for countless years for hunting, fishing and trapping. At a camp near the bay, a logging operation to supply timbers for the Eldorado mine employed First Nations people before and after construction of the first airstrip at Sawmill Bay.

Eldorado's larger aircraft could land on skis, but not on water. In 1946, two ground crewmen and a "cat bulldozer" cut a 1500 m runway out of the bush near Sawmill Bay in nine days. Using this new airstrip, DC-3s delivered personnel, perishables and packaged goods to Great Bear and uranium ore and concentrates to Edmonton.

The original lodge was constructed in 1947 to service the airstrip in support of the DEW Line project and a Loran Beacon was installed to aid pilots flying to and through the area. The service buildings were added to and expanded over the years until 1960 when the mine closed.

The ore and concentrates were transported by barge to the landing, loaded onto a truck for delivery to the south end of the airstrip where they were loaded onto the aircraft. At times, these shipments were stockpiled at the landing and the airstrip awaiting transport. Spills of the ore occurred at these handling points.

Great Bear Lodge opened at the abandoned site in 1961 and provided summer fishing charter services until 1987. The second airstrip was built during this period. Occasional visitors still fly in to explore the site.

Radiation Surveys and Cleanup at Sawmill Bay

In 1993, during a survey of all portages and ore handling points along the uranium shipping route, spill locations of uranium ore and concentrates were found at the beach landing, in front of the Lodge and at the south end of the original 1947 runway. No evidence of spills was found on the haul roads or on the newer runway. A small number of trucks used to haul the ore showed some evidence of contamination on the deck and other crevices. No evidence of radioactive contamination was found in any of the buildings on site.

In 1996, an extensive detailed characterization and delineation survey was carried out. In addition to radiological work, the site was investigated to determine the presence of other chemical and mineral contaminants (asbestos, PCBs, hydrocarbons, etc.). A recommendation of the report was that soil exhibiting radioactivity levels that would be regulated for possession and disposal by the Atomic Energy Control Board (AECB) be excavated, containerized and shipped to a facility licensed to handle these materials.



In 1997, a cleanup crew providing the labour and assisted by Radiation Specialists, hand-excavated the three locations identified in the 1996 survey. 87 drums of uranium-contaminated soil were moved by aircraft to Yellowknife and from there to Chalk River, Ontario by truck. Over the course of the work, measurements for airborne radioactivity (dust) were run continuously near to and downwind from each controlled work area. All results showed no detectable levels of long-lived alpha emitters. Direct-reading dose meter instruments worn by each worker showed that the external doses from gamma radiation were very low. Routine surface contamination monitoring (frisking) of all workers' clothing upon leaving any controlled area showed no evidence of the presence of uranium or its decay products on their clothing, boots, gloves, etc even when handling the more active soils. Personal Protective Equipment (PPE), supplied, consisted of cloth coveralls, safety boots, cloth gloves and eye protection. Hardhats were optional because there was no overhead work. Respiratory protection (dust masks) were available for some who did use them, but as mentioned above, no long-lived alpha emitters (evidence of uranium) were found in the dust samples.

In 2007, the Low-Level Radioactive Waste Management Office (LLRWMO) conducted additional radiation surveys of the area. No new areas of uranium ore impacted soils were discovered on the Sawmill Bay site and surrounding area.

Description of the Hazards

The uranium ore and concentrates range in size from small black chips of rock down to sand-sized grains. Special radiation monitoring equipment is required to detect the radiation emitted by the uranium and its decay products. At Sawmill Bay, the uranium is found at locations where ore was mishandled; at the landing, in an area by the former lodge, at the south end of the older runway and, to a lesser extent, on trucks used to transport the ore.

In the native rock containing uranium, other metals including silver and arsenic are present. The uranium ore and concentrate contaminated areas at Sawmill Bay have shown the presence of arsenic at levels above Canadian guidelines for areas to be developed for residential or parkland use. Where you find the uranium, you will also find arsenic mostly locked into the particles of ore.

External Dose (Gamma Radiation)

The uranium ore and concentrates emit gamma radiation which can travel through materials such as soil, concrete and air. Gamma rays are a contributor to the external radiation "dose" we all receive on Earth. Everything around us emits some gamma radiation...like the soil, the sun, your house, even your body...it is part of the natural "background" radioactivity everyone gets by living on Earth. Some places on the Precambrian Shield, like the Port Radium area away from the tailings and waste rock, exhibit natural background levels of radiation that are similar to the residual levels left at Sawmill Bay.



If you were to spend an entire "work year (2000 hours)" inside the area that is contaminated with uranium at Sawmill Bay, you could NOT exceed 1 mSv, a level agreed internationally to be an acceptable maximum incremental dose to members of the "General Public" and in regulation here enforced by the Canadian Nuclear Safety Commission (CNSC).

A basic guideline of radiation protection is that, even if the dose an individual may get is considered acceptable, any "unnecessary" exposure should be avoided and the dose should be "as low as reasonably achievable" (ALARA).

Three things to minimize your gamma radiation dose are:

1. Reduce the amount of TIME you spend in an area known to exhibit gamma radiation in excess of background radiation.
2. Increase your DISTANCE from the source of gamma radiation. A few metres distance is sufficient to get to "background" at Sawmill Bay.
3. Place SHIELDING between yourself and the source of gamma radiation. This applies to persons in situations where higher levels are encountered. This is NOT the case at Sawmill Bay.

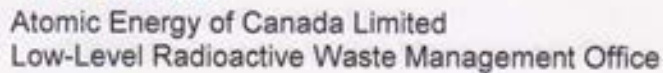
At Sawmill Bay, simply reduce the time you spend in the areas containing uranium ore.

Internal Dose (Ingestion and Inhalation)

Internal exposure is the result of eating or breathing radioactive material, and comes mainly from alpha and beta radiation emitted from the surface of particles of ore which may get inside your body. Alpha and beta emissions are not very penetrating and only travel a short distance in air. Alpha particles are blocked by a layer as thin as a piece of tissue paper. Beta particles are blocked by a slightly thicker layer of material like the plastic lens of safety glasses.

The small particles of ore, when eaten or breathed can get closer to sensitive internal parts of the body. Internal exposure is minimized by using good work practices such as not eating, drinking or smoking in areas known to contain uranium ore, wearing the proper protective clothing and eye protection, keeping dust levels from radioactive contamination low, and using appropriate respiratory protection if conditions indicate. One reason that all equipment and personnel working with radioactive materials are checked for contamination before leaving controlled work areas is to minimize the chance of internal exposure.

At Sawmill Bay, avoid contact with the uranium-contaminated areas and with the trucks used to haul the ore. A good practice when handling ANY materials that might be harmful to you is to wash your hands before eating or smoking.



ore.

LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT OFFICE RADIATION PROTECTION BRIEFING HANDOUT

C.H. Clement, LLRWMO Radiation Protection Program Manager
9 September 1998, Rev.2010

Introduction

Radiation protection training is given to all personnel who work with radioactive materials on Low-Level Radioactive Waste Management Office (LLRWMO) projects. This is a requirement of the Atomic Energy of Canada Limited (AECL) Radiation Protection Program. The hazards associated with the radioactive materials on LLRWMO projects tend to be very small, particularly when compared to the normal hazards of construction work. However, because people are generally less familiar with radiation than with normal construction work, it is important to review the basic principles of radiation protection.



The level of training depends on the length of the work, the amount of supervision, and the maximum radiation dose estimated for an individual worker. The table

to the right shows how the level of radiation protection training differs for different projects. For short projects with full supervision by qualified radiation protection personnel and where the maximum estimated individual dose is very low, this Radiation Protection Briefing is provided. This handout

outlines some of the basic principles of radiation protection, although it does not discuss all topics covered in the briefing. If at any time you have questions or concerns on any aspect of working safely with radiation, do not hesitate to ask the on-site radiation safety contact person whose name and telephone number are on the project specific information page at the end of this handout.

Levels of Radiation Protection Training

Project Description	Training Required
All of the following: <ul style="list-style-type: none">- Short duration (up to 10 days)- 100% radiation protection supervision- Doses < 5% of the annual limit (50 µSv)	Basic project specific Radiation Protection Briefing (~1-2 hours)
Exceeds any of the "basic" project conditions (listed above), but none of the "full" project conditions (listed below)	Project specific Radiation Protection Training (~½-1 day)
Any of the following: <ul style="list-style-type: none">- Long-term projects (> 6 months)- Little radiation protection supervision- Doses > 50% of the annual limit (500 µSv)	Full AECL Group 3 Training (~1 week)

Control of the Work Area

The area where work with contaminated materials will take place will be clearly marked and secured against casual access. Under normal circumstances, this area, called the *Controlled Area*, will be restricted to authorized personnel only, and visitors must be escorted by qualified radiation protection personnel.

All work within the Controlled Area must be directly supervised by qualified radiation protection personnel.

Personnel entering the Controlled Area will be required to wear basic protective equipment and clothing, and must follow good practices for working with radioactive contaminated materials. The basic equipment required for this project is listed on the project specific information page at the end of this handout, although this may change from time-to-time depending on working conditions. A sign at the entrance to the Controlled Area (like the one to the right) will list the required equipment. An

RADIATION DANGER RAYONNEMENT	
Radiological Safety Zone 3	
Radiation Zone	
RADIATION LEVEL	Estimated: _____
SUPPLEMENTARY EQUIPMENT REQUIRED FOR ENTRY	
<input type="checkbox"/> No specific	<input type="checkbox"/> Additional Safety Measures
<input type="checkbox"/> Area Restriction	<input type="checkbox"/> Safety Signs
<input type="checkbox"/> Other	
Contamination Zone	
PRINCIPAL TYPE OF SURFACE CONTAMINATION	
<input type="checkbox"/> No specific	<input type="checkbox"/> Special Surface Treatments
<input type="checkbox"/> Alpha Emitters	<input type="checkbox"/> No specific
<input type="checkbox"/> Beta Emitters	
<input type="checkbox"/> Gamma Emitters	
PROTECTIVE CLOTHING REQUIRED FOR ENTRY	
<input type="checkbox"/> No specific	<input type="checkbox"/> Additional Safety Measures
<input type="checkbox"/> Protective Clothing	<input type="checkbox"/> Safety Signs
<input type="checkbox"/> Lab Coat	<input type="checkbox"/> Safety Boots
<input type="checkbox"/> Cover Suit	<input type="checkbox"/> Safety Goggles
<input type="checkbox"/> Other	<input type="checkbox"/> Safety Glasses
PRINCIPAL TYPE OF AIRBORNE CONTAMINATION	
<input type="checkbox"/> No specific	<input type="checkbox"/> Safety Signs
<input type="checkbox"/> Alpha Emitters	<input type="checkbox"/> Safety Boots
<input type="checkbox"/> Beta Emitters	<input type="checkbox"/> Safety Goggles
<input type="checkbox"/> Gamma Emitters	<input type="checkbox"/> Safety Glasses
RESPIRATORY PROTECTION REQUIRED FOR ENTRY	
<input type="checkbox"/> No specific	<input type="checkbox"/> Full Face Respirator
<input type="checkbox"/> Half Face Respirator	<input type="checkbox"/> No Respirator
<input type="checkbox"/> Other	
CONTAMINATION MONITORING REQUIRED FOR ENTRY	
<input type="checkbox"/> No specific	<input type="checkbox"/> Safety Signs
<input type="checkbox"/> Hand/Wrist	<input type="checkbox"/> Safety Boots
<input type="checkbox"/> Other	<input type="checkbox"/> Safety Goggles
<input type="checkbox"/> Special Area Radiation Surveyor's only	
For assistance contact the Area Radiation Surveyor at: _____	
Signature: _____	Date: _____

example of good work practices includes ensuring that all protective equipment is being used properly and is in good working order, and not eating, drinking or smoking in the Controlled Area.

Workers and equipment will be checked for contamination before leaving the Controlled Area. If any contamination is detected, it will be removed to prevent it from spreading. Generally, contamination can be removed by lightly brushing the dirt off of the effected area.

Radiation and Radiation Risks Associated with the Work

Average Radiation Doses from Natural Sources

Source	$\mu\text{Sv} / \text{day}$	$\mu\text{Sv} / \text{year}$
Natural radon gas in homes	2.7	1000
Natural radioactive materials in our bodies	1.0	350
Natural radioactive materials in the soil	1.0	350
Radiation from the sun and outer space	0.8	300
TOTAL	5.5	2000

The amount of radiation a person is exposed to is called the *dose*, and is measured in units of microsieverts (μSv). Every day of their lives, the average Canadian receives about 5.5 μSv of dose from natural sources (see the table to the left). Many people also receive radiation doses as part of their jobs.

For example, the average Canadian physician receives about 220 μSv extra dose in a year, and construction workers at nuclear reactors receive about 1520 μSv above average in a year. The job category with the highest extra dose is fuel handlers at nuclear reactors, who receive

about an extra 4470 μSv per year. Even flying in an airplane can result in extra dose from the sun and outer space, particularly at the higher altitudes and latitudes (closer to the poles). Every hour at normal airliner cruising altitude over Canada results in about an extra 5 μSv of dose.

The Canadian Nuclear Safety Commission (CNSC) regulates the amount of dose that an individual can receive from activities within their jurisdiction. For members of the general public, the maximum allowed dose is 1,000 μSv over one year above normal background. All personnel on LLRWMO projects are considered members of the general public, and so may not receive more than 1,000 μSv per year above background. Individual doses during LLRWMO projects are always kept much lower than this limit. Doses due to working with radioactive materials have been estimated for this project and are shown on the project specific information page at the end of this handout. These dose estimates have been made using assumptions that ensure the actual doses will not be underestimated. Based on experience with past projects, it is generally found that the measured doses are only about $1/5^{\text{th}}$ to $1/10^{\text{th}}$ of the estimated doses.

The main risks from low doses of radiation are cancer and hereditary effects. It is difficult to say exactly how much risk is associated with doses as low as the ones estimated for this project. It is widely felt within the radiation protection community that the risk is extremely small, maybe none. Conservative estimates say that an extra dose of 25 μSv increases the risk of fatal cancer by one in a million. Since about one-quarter of the population will die from cancer, this is an increase in the risk of fatal cancer from about 25% to 25.0001%. Other activities that increase the chance of death from that activity by one in a million are shown in the table to the right.

Activities which increase the chance of death (from that activity) by about one in one million

Activity	Cause of death
Adult worker receiving 25 μSv	Cancer
6 hours of construction work	Accident
40 hours of trade work	Accident
Smoking 1 cigarette	Cancer, heart disease
Drinking $\frac{1}{2}$ liter of wine	Cirrhosis of the liver
Travelling 20 km by bicycle	Accident
Travelling 100 km by car	Accident
Travelling 2000 km by jet	Accident
One chest x-ray	Cancer
Living 2 months with a smoker	Cancer
Eating 40 tsp. of peanut butter	Cancer from aflatoxin B
Drinking 30 cans of diet soda	Cancer from saccharin



Minimizing the Risks from Radiation

Since doses cannot be eliminated completely, one of the primary goals of radiation protection is to keep doses As Low As Reasonably Achievable (known as the ALARA principle). A person can receive a dose through both external exposure and internal exposure to radioactive materials. *External exposure* comes from a type of radiation called gamma radiation (sometimes shown as γ) which can travel through materials such as soil, concrete and air. Working near radioactive material that emits gamma radiation results in an external exposure. *Internal exposure* is the result of eating or breathing radioactive material, and comes mainly from alpha and beta radiation (sometimes shown as α/β) which gets inside your body.

External exposure can be minimized in three ways: using time, distance and shielding. Decreasing the time spent near a source or increasing the distance from the source reduces the external exposure. Placing shielding around the source also reduces external exposure. For example, if contaminated material is being placed into drums for shipment, moving away from these drums during break times will reduce external exposure.

Minimize external exposure by
Minimizing **TIME** spent near a source
Maximizing the **DISTANCE** from the source
Putting **SHIELDING** around the source

Internal exposure is minimized by using good work practices such as not eating or drinking in the Controlled Area, keeping dust levels from radioactive contamination low, and using the proper respiratory protection for the job. One reason that all equipment and personnel are checked for contamination before leaving the controlled area is to minimize the chance of internal exposure. Washing your hands after working in the controlled area, particularly before eating or smoking, is another good way to minimize the chance of internal exposure.

Minimize internal exposure by
Keeping dust levels from contaminated material low
Wearing the proper protective equipment
Not eating or drinking in the Controlled Area
Checking for contamination when leaving the Controlled Area
Washing your hands before eating or smoking

Emergency Situations

Any individual may enter and exit the Controlled Area in response to an emergency situation without regard for normal radiation protection procedures. This includes workers on the site as well as emergency response personnel (fire, police, etc.). In the case of fire, severe injury, or other emergency, radiation protection procedures take second place to prompt response to the emergency situation. The potential risks from coming into contact with contaminated material are extremely small compared to the potential risks in an emergency situation. Any spread of contamination can be dealt with after the emergency is under control.



! *One of the most important things to remember from this briefing is that prompt response to an emergency situation always comes before standard radiation protection procedures.*



Aboriginal Engineering Ltd.

Great Bear Lake Phase I Cleanup



Great Bear Lake Worker Orientation : Aboriginal Engineering Ltd.

AUGUST 2010



Aboriginal Engineering Ltd.

Great Bear Lake Phase I Cleanup

Objectives

- Orientate new workers to camp and to the project
- To discuss Aboriginal Engineering Ltd. approach to the implementation of the Great Bear Lake Phase I Cleanup
 - The four sites are Sawmill Bay, Contact Lake, El Bonanza and Bonanza in the Great Bear Lake Area



Aboriginal Engineering Ltd.

Great Bear Lake Phase I Cleanup

Overview

1. Aboriginal Engineering Ltd. Corporate Information
2. History of the four sites on Great Bear Lake
3. Logistical Constraints Related to the Remediation of the Great Bear Lake Sites
4. Overview of the Great Bear Lake Phased Remediation Approach
5. Great Bear Lake Phase I Remediation
6. Camp Rules
7. General Site Specific Health and Safety



Great Bear Lake Site History

- Sawmill Bay
 - Originally a sawmill (1930's), a staging area for barging and air transportation of uranium ore (1940-1950), military activities (1950's), and a fishing lodge (late 1950's to 1987)
- Contact Lake
 - Originally a silver mine in the 1930's, mined for uranium ore from 1949-1950 with intermittent mining operations until 1980
- Bonanza and El Bonanza
 - Primary development occurred during the 1930's, 1950's and 1960's when the area was mined for silver



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Great Bear Lake Phase I Cleanup

Logistical Constraints

- Access to Great Bear Lake sites from Yellowknife available only through helicopter and fix wing air craft (air strip available)
- Equipment have been mobilized to the area for the Port Radium project and since that project is complete have since stored them at Sawmill Bay. AEL has a Land Use Permit for the storage of equipment.
- Movement of supplies and equipment between sites will be accomplished with a barge
- Phase I Project timeframe limited to period between now until approximately first week in October.
- Remote Northern conditions require innovative approaches to implementing remedial plan
- Coordinating Aboriginal staff from various Remote Northern communities can be difficult at times due to limited transportation



Aboriginal Engineering Ltd.

Great Bear Lake Phase I Cleanup

Great Bear Lake Phase I Remediation

- Project Overview

- Remediation plan developed by AEL to meet requirements outlined by PWGSC on behalf of Indian and Northern Affairs Canada
- Key remedial tasks include:
 - a) Closure of windows, doors or other openings on existing structures at Sawmill Bay prior to other work
 - b) Demolition of buildings and stockpiling of demolition materials at El Bonanza, Bonanza and Contact Lake Mines only, not including buildings at Sawmill Bay site, excluding mine head frames and structures above the mine openings.
 - c) Collection and containerization of known hazardous material, including surface debris and demolition material
 - d) Collection and stockpiling of non-hazardous surface debris, including but not limited to debris removal from water bodies at Sawmill Bay
- PWGSC developed and will oversee the contract work



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Great Bear Lake Phase I Cleanup

Great Bear Lake Phase I Remediation

- Closure and Demolition of Existing Buildings

Work

- Closure of windows, doors and openings at Sawmill Bay prior to other work being done
- Remove hazardous material prior to demolition
- Demolish small buildings including cabins, sheds, outhouse etc. at El Bonanza, Bonanza and Contact Lake Mines only, excluding the Mine Head Frames and structures above mine openings
- Collection and Stockpiling of demolition materials



Great Bear Lake Worker Orientation : Aboriginal Engineering Ltd.



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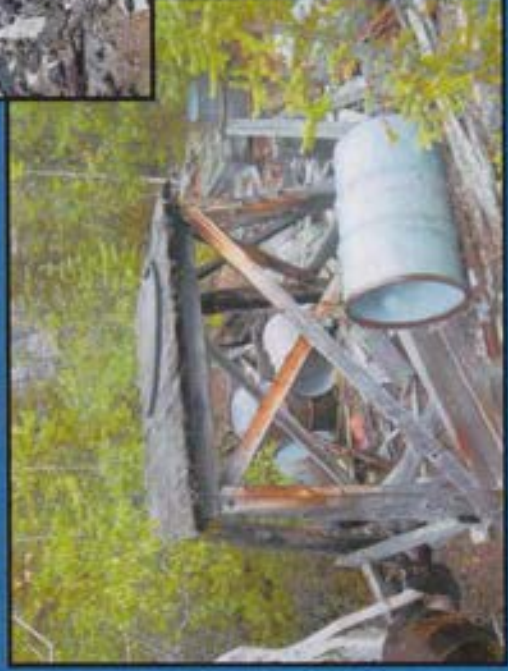
Great Bear Lake Phase 1 Cleanup

Great Bear Lake Phase 1 Remediation

- Surface Debris Cleanup

Work

- Identify the hazardous material amongst the surface debris
- Remove and containerize the hazardous debris properly
- Remove surface debris to allocated area (ex. burnables to burn pile)



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Great Bear Lake Phase I Cleanup

Great Bear Lake Phase I Remediation

- Removal of Surface Debris Along Shoreline



Work

- Removal of debris along various lakes including Great Bear Lake
- Shoreline taking care not to contaminate the lake



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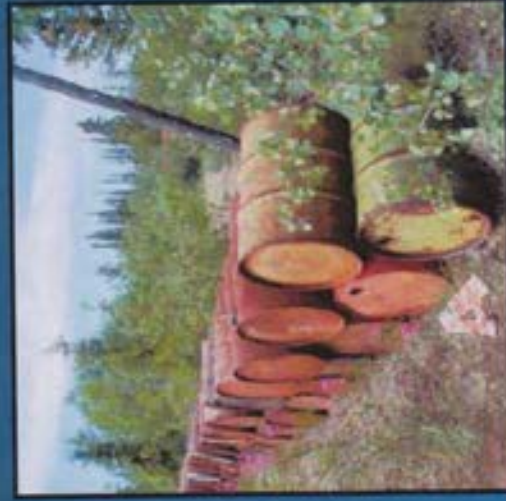
Great Bear Lake Phase I Cleanup

Great Bear Lake Phase I Remediation

- Processing and Cleaning of Barrels

Work

- There are over 11,000 barrels to be crushed at Sawmill bay
- Prior to crushing barrels, barrels will be inspected for residue or product, if containing residue or product, barrel cleaning will be completed prior to crushing
- Barrels on other sites will be barged to Sawmill bay for processing/cleaning





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Great Bear Lake Phase I Cleanup

Great Bear Lake Phase I Remediation

- Consolidation and Containerization of Hazardous Material

Work

- Remove hazardous material from structures, barrels and general debris. The buildings will have the hazardous material removed and containerized prior to demolition
- Hazardous Material will be collected and containerized in Transportation of Dangerous Goods Approved Containers.



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Great Bear Lake Phase I Cleanup

Great Bear Lake Phase I Remediation

- Hazardous Waste Abatement

Work

Hazardous waste abatement to include:

- friable and non-friable asbestos
- lead and pcb-amended paint
- miscellaneous items such as household cleaners etc.
- All materials will be collected and stored in approved TDG containers.



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Great Bear Lake Phase 1 Cleanup

Great Bear Lake Phase 1 Remediation

Occupational Health and Safety Training

Training

- All aspects of Safe Work Practices
- WHMIS, Wildlife Safety, Water Safety, Fire Response, and Spill Contingency training on-site
- On-site training reduces the logistical difficulties of coordinating training in remote Northern communities
- Aboriginal Supervisors trained as Level 2 Mine Supervisors under the NWT Mines Health and Safety Act



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Great Bear Lake Phase I Cleanup

Camp Rules – Site Employee Responsibilities

Basic Responsibilities Include:

- Reading the Site Specific Health and Safety Plan
- Maintaining cleanliness within the work area
- Promptly reporting all accidents and injuries
- Immediately reporting unsafe conditions
- Comply with applicable safe work procedures
- Cooperate with accident investigations in order to help prevent reoccurrence



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Great Bear Lake Phase I Cleanup

Camp Rules – Company Safety

Company Safety Rules:

- Consumption of alcohol and illicit drugs is strictly forbidden
- Running, horseplay or fooling around is strictly forbidden on the job
- Theft and vandalism will not be tolerated
- Do not wear torn or loose clothing
- Identify, store and handle hazardous material in accordance with WHMIS
- Maintain good house keeping on the job site
- Never smoke in a "No Smoking" area
- Turn in fire extinguishers immediately after use



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Great Bear Lake Phase I Cleanup

Camp Rules and Security

- Property damage will not be tolerated
- No vehicles or equipment are to be used for recreational purposes
- Smoking is permitted in designated areas only
- Possession and/or consumption of alcohol will result in immediate termination
- Possession and/or consumption of illicit drugs will result in immediate termination
- Possession of firearms and/or ammunition without approval is forbidden
- Camp and work areas are to be maintained in a clean and orderly manner
- All personnel entering work areas must wear all required Personal Protective Equipment (PPE)



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Great Bear Lake Phase I Cleanup

Camp Rules and Security

- No horseplay, harassment, verbal abuse or shouting will be allowed in camp or work areas
- In the event of an emergency, all personnel are to follow the applicable procedures
- The following activities will result in dismissal and immediate removal from site:
 - Tampering with smoke/fire detectors
 - Fighting, physical violence
 - Discrimination
 - Harassment in any form



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Great Bear Lake Phase I Cleanup

Camp Rules – Three Strikes Policy

Employee enforcement is three strikes and you're out.

VERBAL WARNING – Infraction discussed with employee to modify/rectify work practice

STRIKE ONE – Written warning requesting compliance given to offender by Superintendent

STRIKE TWO – Written warning requesting compliance given to offender by Project Manager

STRIKE THREE – Written acknowledgment of the third infraction signed by Project Manager is to be given to the offender with an order to immediately leave the workplace.

An individual with three strikes may request for reinstatement after a 2 month duration. This request must be to the Project Manager



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Great Bear Lake Phase I Cleanup

Camp Rules – Standard PPE

- Standard PPE
 - Hard hat
 - CSA approved steel toes boots
 - Safety glasses
 - Work gloves
 - Reflective vest
 - Dust mask (in dusty conditions)



Great Bear Lake Phase I Cleanup

Aboriginal Engineering Ltd.

General Site Specific Health and Safety – Heavy Equipment



- Only trained Heavy Equipment Operators (HEO) shall operate heavy equipment
- HEO's shall sign off on how many hours they have spent on each piece of heavy equipment
- HEO shall inspect their equipment and fill out an equipment checklist
 - Deficiencies to be reported to Site Supervisor and/or Mechanic immediately
- All HEO must wear appropriate PPE
- Excavations shall be graded to a safe slope as determined by the Resident Engineer
- Persons on foot shall stay a safe distance from equipment and gain eye contact and radio contact with HEO prior to approaching equipment
- Dust control on haul roads to minimize dust in the air



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Great Bear Lake Phase I Cleanup

General Site Specific Health and Safety – Powered Hand Tools

- Report all shocks and/or sparks from electrical tools to Site Supervisor
- Verify power source is same voltage (120 or 220) and current (AC or DC) as indicated on tool
- Ensure switches of tools are OFF before connecting to power source
- Maintain electrical cords and appliances in good working order – report deficiencies immediately
- Store electrical cords in a clean, dry area
- Do not impair or remove any machine guards
- Stand to one side when throwing (engage or disengage) circuit breakers to avoid flash backs
- Do not use electric tools in wet or damp locations



**6.0 General Site Specific
Health and Safety –
Non-Powered Hand Tools**

- Ensure right tools are being used for right circumstances
- Check tools for damage and wear
- Replace worn jaws on wrenches, pipe tools, and pliers
- Sharpen cutting tools frequently
- Store hand tools properly
- Never leave tools on ladders, scaffolds, or overhead work areas when not in use
- Carry tools using a utility belt, or in a tool case
- Avoid using hand tools with your wrist bent
- Be aware of other employees when using picks or axes



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Great Bear Lake Phase I Cleanup

General Site Specific Health and Safety – Fuel Management/ Spill Contingency

- Always place drip trays underneath fuelling hoses when refueling
- Use spill pads to soak up any spills on equipment or Jerry cans
- Always ensure there is a spill kit on hand when transferring fuel
- Ensure vehicles/equipment are OFF when refueling
- Ensure fuel drums are grounded when fueling from barrels
- Ensure proper fuel type is used (diesel, gasoline) for given application
- Jerry Cans: diesel (yellow), gas (red)
- Ensure appropriate amount of oil is added for mixed gas for chainsaws, augers, etc.
 - If in doubt ASK Site Supervisor

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Great Bear Lake Phase I Cleanup

General Site Specific Health and Safety – Wildlife Awareness

- Report all wildlife sightings immediately
- A wildlife sighting sheet shall be kept in the camp, and a description of type of animal
- All employees to be trained on bear awareness
- Bear monitors to carry 12 gauge shotguns with rubber bullets and slug shells
- Bear monitors to have a current Possession Acquisition License (PAL)
- Field crews shall carry bear spray and bear bangers
- Field workers shall not carry food or drinks other than water with them



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Great Bear Lake Phase 1 Cleanup

Environmental Protection

- All work on site must adhere to the Water and Land Use Permit
- Site Supervisor and Field Engineer to ensure that provisions of Water and Land Use Permit are met
- A copy of the Water and Land Use Permit to be kept on-site at all times

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Great Bear Lake Phase I Cleanup

Environmental Protection – Spill Response

- Drip trays to be used when performing maintenance on equipment, and when refueling
- Spill pads to be placed in designated bins, after used
- REPORT all spills immediately, no matter how small
- Site Supervisor and Field Engineer to devise spill response and cleanup plans when necessary
- Site Supervisor and Field Engineer responsible for notifying authorities for reportable quantities



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Great Bear Lake Phase 1 Cleanup

Environmental Protection – Waste Management

- Food scraps and camp waste to be incinerated daily
- Cooking grease to be collected in pails and incinerated
- Waste oil from equipment maintenance to be collected in pails and incinerated
- Used spill pads to be incinerated
- Incinerator ash to be containerized in a TDG approved container and shipped off-site for disposal
- No rubbish can be discarded unless anywhere other than in approved receptacles



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Great Bear Lake Phase I Cleanup

Environmental Protection – Wildlife Protection

- Workers must not harass wildlife
 - However, bears may be deterred by firing warning shots
 - Only persons authorized to use firearms may fire warning shots
- Workers must not feed wildlife
- Any traps found in the area must be left undisturbed



Great Bear Lake Phase I Cleanup

Aboriginal Engineering Ltd.

Thank you for your attendance.

ANY QUESTIONS, CONCERNS or COMMENTS?

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APPENDIX F

LABORATORY DATA

Your Project #: 304962
Site: SAWMILL BAY
Your C.O.C. #: A019501

Attention: CHARLES F. GRAVELLE
SENE CONSULTANTS LIMITED
121 GRANTON DRIVE, UNIT 12
RICHMOND HILL, ON
CANADA L4B 3N4

Report Date: 2010/09/22

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B077638
Received: 2010/08/26, 12:00

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	4	2010/09/01	2010/09/02	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	2	2010/08/29	2010/09/01	CAL SOP-00190	EPA 8260C/CCME
BTEX/F1 by HS GC/MS (MeOH extract)	2	2010/08/29	2010/09/02	CAL SOP-00190	EPA 8260C/CCME
Hexavalent Chromium	4	2010/09/01	2010/09/01	CAL SOP-00056	SM 3500-Cr B
CCME Hydrocarbons (F2-F4 in soil)	3	2010/09/30	2010/09/01	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in soil)	1	2010/09/30	2010/09/02	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
Elements by ICPMS - Soils	4	2010/08/31	2010/09/01	AB SOP-00043	EPA 200.8
Moisture	4	N/A	2010/08/30	CAL SOP-00023	McKeague MSSMA 2.411

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS	1	N/A	2010/08/31	CAL SOP-00190	EPA 8260 C / CCME
BTEX/F1 in Water by HS GC/MS	3	N/A	2010/09/01	CAL SOP-00190	EPA 8260 C / CCME
CCME Hydrocarbons (F2-F4 in water)	3	2010/08/31	2010/09/01	CAL SOP-00086 AB WI-00017	EPA3510C/CCME PHCCWS
CCME Hydrocarbons (F2-F4 in water)	1	2010/08/31	2010/09/02	CAL SOP-00086 AB WI-00017	EPA3510C/CCME PHCCWS
Flash Point (Closed Cup), ASTM D93	4	N/A	2010/09/02	EINDSOP-00082	ASTM D93
Polychlorinated Biphenyls	5	N/A	2010/09/22	CAL SOP# 0062	GC/ECD-EXTRACTION

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

- (1) This test was performed by Maxxam Edmonton Petroleum
(2) This test was performed by Maxxam Ontario (From Calgary)

Maxxam Job #: B077638
Report Date: 2010/09/22

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Sampler Initials: JM , PH

-2-

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LISA MCMANES, Sample Reception Supervisor
Email: lisa.mcmanes@maxxamanalytics.com
Phone# (403) 291-3077

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

Maxxam Job #: B077638
Report Date: 2010/09/22

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Sampler Initials: JM , PH

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		W55686	W55688	W55689	W55690		
Sampling Date		2010/08/23	2010/08/24	2010/08/24	2010/08/24		
COC#		A019501	A019501	A019501	A019501		
	Units	SA-DA-4-#1 @ SURFACE	SA-DA-22-1 @ SURFACE	SA-DA-22-2 @ SURFACE	SA-DA-22-3 @ SURFACE	RDL	QC Batch
Physical Properties							
Moisture	%		5.2	3.5	8.1	0.3	4219948
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	<10	10	4221391
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	29	11	<10	10	4221391
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	<10	10	4221391
Reached Baseline at C50	mg/kg	YES	YES	YES	YES		4221391
Surrogate Recovery (%)							
O-TERPHENYL (sur.)	%	89	83	102	100		4221391
Volatiles							
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4225840
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	4225840
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	0.010	4225840
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	4225840
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	4225840
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	4225840
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	12	4225840
(C6-C10)	mg/kg	<12	<12	<12	<12	12	4225840
Surrogate Recovery (%)							
4-BROMOFLUOROBENZENE (sur.)	%	99	98	97	99		4225840
D10-ETHYLBENZENE (sur.)	%	90	83	88	86		4225840
D4-1,2-DICHLOROETHANE (sur.)	%	88	89	89	89		4225840
D8-TOLUENE (sur.)	%	100	100	101	99		4225840

RDL = Reportable Detection Limit

Maxxam Job #: B077638
Report Date: 2010/09/22

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Sampler Initials: JM , PH

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		W55677		W55678		W55680		W55681		
Sampling Date		2010/08/22		2010/08/22		2010/08/22		2010/08/22		
COC#		A019501		A019501		A019501		A019501		
	Units	BARREL # 2212	RDL	BARREL # 490	RDL	BARREL # 1284	RDL	BARREL # 266	RDL	QC Batch
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/L	690000 ⁽¹⁾	20	330 ⁽²⁾	10	130 ⁽²⁾	10	330000 ⁽²⁾	10	4221922
F3 (C16-C34 Hydrocarbons)	mg/L	6300 ⁽¹⁾	20	77000 ⁽²⁾	10	34000 ⁽²⁾	10	290000 ⁽²⁾	10	4221922
F4 (C34-C50 Hydrocarbons)	mg/L	270 ⁽¹⁾	20	370000 ⁽²⁾	10	100000 ⁽²⁾	10	5500 ⁽²⁾	10	4221922
Reached Baseline at C50	mg/L	YES		NO		NO		YES		4221922
Volatiles										
Benzene	ug/L	<400	400	400	400	41	40	16000	4000	4221669
Toluene	ug/L	<400	400	720	400	120	40	300000	4000	4221669
Ethylbenzene	ug/L	<400	400	<400	400	280	40	530000	4000	4221669
o-Xylene	ug/L	<400	400	720	400	950	40	1100000	4000	4221669
m & p-Xylene	ug/L	<800	800	1400	800	1900	80	2600000	8000	4221669
Xylenes (Total)	ug/L	<800	800	2200	800	2900	80	3700000	8000	4221669
F1 (C6-C10) - BTEX	ug/L	2800000	100000	2200000	100000	16000	10000	37000000	1000000	4221669
(C6-C10)	ug/L	2800000	100000	2200000	100000	20000	10000	41000000	1000000	4221669
Surrogate Recovery (%)										
4-BROMOFLUOROBENZENE (sur.)	%	74		81		80		112		4221669
D4-1,2-DICHLOROETHANE (sur.)	%	88		117		173 ⁽³⁾		96		4221669
D8-TOLUENE (sur.)	%	92		128		120		117		4221669

RDL = Reportable Detection Limit

(1) - Due to the sample matrix, sample required dilution to bring analyte within the calibrated range. Detection limit was adjusted accordingly

(2) - Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

(3) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B077638
Report Date: 2010/09/22

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Sampler Initials: JM , PH

REGULATED METALS (CCME/AT1)

Maxxam ID		W55686	W55686	W55688	W55689		W55690		
Sampling Date		2010/08/23	2010/08/23	2010/08/24	2010/08/24		2010/08/24		
COC#		A019501	A019501	A019501	A019501		A019501		
	Units	SA-DA-4-#1 @ SURFACE	SA-DA-4-#1 @ SURFACE Lab-Dup	SA-DA-22-1 @ SURFACE	SA-DA-22-2 @ SURFACE	RDL	SA-DA-22-3 @ SURFACE	RDL	QC Batch
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.1		<0.1	<0.1	0.1	0.1	0.1	4230196
Hex. Chromium (Cr 6+)	mg/kg	<1.5 ⁽¹⁾	<1.5	<1.5 ⁽²⁾	<1.5 ⁽²⁾	1.5	<0.30 ⁽²⁾	0.30	4225860
Total Antimony (Sb)	mg/kg	<1		<1	<1	1	<1	1	4226018
Total Arsenic (As)	mg/kg	2		2	2	1	1	1	4226018
Total Barium (Ba)	mg/kg	41		36	61	10	67	10	4226018
Total Beryllium (Be)	mg/kg	<0.4		<0.4	<0.4	0.4	<0.4	0.4	4226018
Total Cadmium (Cd)	mg/kg	0.1		<0.1	<0.1	0.1	<0.1	0.1	4226018
Total Chromium (Cr)	mg/kg	7		7	9	1	9	1	4226018
Total Cobalt (Co)	mg/kg	3		4	4	1	4	1	4226018
Total Copper (Cu)	mg/kg	<5		10	<5	5	<5	5	4226018
Total Lead (Pb)	mg/kg	11		11	8	1	6	1	4226018
Total Mercury (Hg)	mg/kg	0.06		0.07	<0.05	0.05	<0.05	0.05	4226018
Total Molybdenum (Mo)	mg/kg	<0.4		<0.4	<0.4	0.4	<0.4	0.4	4226018
Total Nickel (Ni)	mg/kg	5		5	6	1	5	1	4226018
Total Selenium (Se)	mg/kg	<0.5		<0.5	<0.5	0.5	<0.5	0.5	4226018
Total Silver (Ag)	mg/kg	<1		<1	<1	1	<1	1	4226018
Total Thallium (Tl)	mg/kg	<0.3		<0.3	<0.3	0.3	<0.3	0.3	4226018
Total Tin (Sn)	mg/kg	<1		<1	<1	1	<1	1	4226018
Total Uranium (U)	mg/kg	<1		<1	<1	1	<1	1	4226018
Total Vanadium (V)	mg/kg	18		19	23	1	26	1	4226018
Total Zinc (Zn)	mg/kg	34		50	62	10	50	10	4226018

RDL = Reportable Detection Limit

(1) - Matrix Spike recovery non calculable due to matrix interference. Detection limits raised due to matrix interference. Original sample diluted to remove interference.

(2) - Detection limits raised due to matrix interference

Maxxam Job #: B077638
Report Date: 2010/09/22

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Sampler Initials: JM , PH

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		W55686	W55686		
Sampling Date		2010/08/23	2010/08/23		
COC#		A019501	A019501		
	Units	SA-DA-4-#1 @ SURFACE	SA-DA-4-#1 @ SURFACE Lab-Dup	RDL	QC Batch
Physical Properties					
Moisture	%	6.4	6.5	0.3	4219948

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		W55677	W55678	W55680	W55681		
Sampling Date		2010/08/22	2010/08/22	2010/08/22	2010/08/22		
COC#		A019501	A019501	A019501	A019501		
	Units	BARREL # 2212	BARREL # 490	BARREL # 1284	BARREL # 266	RDL	QC Batch
Physical Properties							
Closed Cup Flash point	°C	84.0	222.0	>100.0	63.0		4221146

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		W55677	W55678	W55679	W55680	W55681		
Sampling Date		2010/08/22	2010/08/22	2010/08/22	2010/08/22	2010/08/22		
COC#		A019501	A019501	A019501	A019501	A019501		
	Units	BARREL # 2212	BARREL # 490	BARREL # 1818	BARREL # 1284	BARREL # 266	RDL	QC Batch
Polychlorinated Biphenyls								
Total Aroclors	mg/kg	SEE ATTACH	SEE ATTACH	SEE ATTACH	SEE ATTACH	SEE ATTACH	0.4	4261107

RDL = Reportable Detection Limit

Maxxam Job #: B077638
Report Date: 2010/09/22

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Sampler Initials: JM , PH

Package 1	17.3°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Total Chlorine results are attached to this report file. Subcontracting job number from Petro Laboratories Inc. #10912 1 to 4.
% Alcohol and Glycol results are attached to this report file. Subcontracting job number from Petro Laboratories Inc. #10912 1 to 4B.
Total Chlorine - Barrel 1818 results are attached to this report file. Subcontracting job number from Petro Laboratories Inc. #10951 A.
% Alcohol and Glycol - Barrel 1818 results are attached to this report file. Subcontracting job number from Petro Laboratories Inc. #10951 B.
PCB & Metals Cd, Cr & Pb results are attached to this report file. Subcontracting job number from Maxxam Mississauga B0C0205.
PCB & Metals Cd, Cr & Pb results for Barrel 1818 are attached to this report file. Subcontracting job number from Maxxam Mississauga B0C4624.

AT1 BTEX AND F1-F4 IN WATER (WATER) Comments

Sample W55677-01 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to matrix interference
Sample W55678-01 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to matrix interference
Sample W55680-01 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to matrix interference
Sample W55681-01 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to matrix interference

Maxxam Job #: B077638
Report Date: 2010/09/22

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Sampler Initials: JM , PH

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4219948	Moisture	2010/08/30							1.6	20		
4221391	O-TERPHENYL (sur.)	2010/09/01	94	50 - 130	94	50 - 130	98	%				
4221391	F2 (C10-C16 Hydrocarbons)	2010/09/01	96	50 - 130	98	80 - 120	<10	mg/kg	NC	50		
4221391	F3 (C16-C34 Hydrocarbons)	2010/09/01	101	50 - 130	98	80 - 120	<10	mg/kg	NC	50		
4221391	F4 (C34-C50 Hydrocarbons)	2010/09/01	95	50 - 130	94	80 - 120	<10	mg/kg	NC	50		
4221669	4-BROMOFLUOROBENZENE (sur.)	2010/08/31	106	70 - 130	102	70 - 130	99	%				
4221669	D4-1,2-DICHLOROETHANE (sur.)	2010/08/31	103	70 - 130	108	70 - 130	99	%				
4221669	D8-TOLUENE (sur.)	2010/08/31	106	70 - 130	105	70 - 130	99	%				
4221669	Benzene	2010/08/31	102	70 - 130	119	70 - 130	<0.4	ug/L	NC	40		
4221669	Toluene	2010/08/31	109	70 - 130	123	70 - 130	<0.4	ug/L	NC	40		
4221669	Ethylbenzene	2010/08/31	104	70 - 130	117	70 - 130	<0.4	ug/L	NC	40		
4221669	o-Xylene	2010/08/31	114	70 - 130	125	70 - 130	<0.4	ug/L	NC	40		
4221669	m & p-Xylene	2010/08/31	114	70 - 130	125	70 - 130	<0.8	ug/L	NC	40		
4221669	(C6-C10)	2010/08/31			74	70 - 130	<100	ug/L	NC	40		
4221669	Xylenes (Total)	2010/08/31					<0.8	ug/L	NC	40		
4221669	F1 (C6-C10) - BTEX	2010/08/31					<100	ug/L	NC	40		
4221922	F2 (C10-C16 Hydrocarbons)	2010/09/01	102	70 - 130	106	70 - 130	<0.1	mg/L	NC	40		
4221922	F3 (C16-C34 Hydrocarbons)	2010/09/01	102	70 - 130	109	70 - 130	<0.1	mg/L	NC	40		
4221922	F4 (C34-C50 Hydrocarbons)	2010/09/01	93	70 - 130	99	70 - 130	<0.1	mg/L	NC	40		
4225840	4-BROMOFLUOROBENZENE (sur.)	2010/09/01	100	60 - 140	101	60 - 140	97	%				
4225840	D10-ETHYLBENZENE (sur.)	2010/09/01	93	30 - 130	89	30 - 130	86	%				
4225840	D4-1,2-DICHLOROETHANE (sur.)	2010/09/01	99	60 - 140	91	60 - 140	90	%				
4225840	D8-TOLUENE (sur.)	2010/09/01	105	60 - 140	102	60 - 140	101	%				
4225840	Benzene	2010/09/02	117	60 - 140	71	60 - 140	<0.0050	mg/kg	NC	50		
4225840	Toluene	2010/09/02	116	60 - 140	72	60 - 140	<0.020	mg/kg	NC	50		
4225840	Ethylbenzene	2010/09/02	122	60 - 140	77	60 - 140	<0.010	mg/kg	NC	50		
4225840	m & p-Xylene	2010/09/02	122	60 - 140	79	60 - 140	<0.040	mg/kg	NC	50		
4225840	o-Xylene	2010/09/02	123	60 - 140	78	60 - 140	<0.020	mg/kg	NC	50		
4225840	(C6-C10)	2010/09/02	107	60 - 140	98	60 - 140	<12	mg/kg	NC	50		
4225840	Xylenes (Total)	2010/09/02					<0.040	mg/kg	NC	50		
4225840	F1 (C6-C10) - BTEX	2010/09/02					<12	mg/kg	NC	50		
4225860	Hex. Chromium (Cr 6+)	2010/09/01			101	90 - 110	<0.15	mg/kg	NC	35		
4226018	Total Antimony (Sb)	2010/09/01	96	75 - 125	111	75 - 125	<1	mg/kg	NC	35		
4226018	Total Arsenic (As)	2010/09/01	89	75 - 125	94	75 - 125	<1	mg/kg	4.8	35	99	50 - 150
4226018	Total Barium (Ba)	2010/09/01	NC	75 - 125	104	75 - 125	<10	mg/kg	6.1	35	109	69 - 131
4226018	Total Beryllium (Be)	2010/09/01	89	75 - 125	111	75 - 125	<0.4	mg/kg	NC	35		
4226018	Total Cadmium (Cd)	2010/09/01	91	75 - 125	92	75 - 125	<0.1	mg/kg	NC	35		
4226018	Total Chromium (Cr)	2010/09/01	106	75 - 125	108	75 - 125	<1	mg/kg	6.3	35	105	41 - 159
4226018	Total Cobalt (Co)	2010/09/01	107	75 - 125	112	75 - 125	<1	mg/kg	5.7	35	108	75 - 125
4226018	Total Copper (Cu)	2010/09/01	97	75 - 125	107	75 - 125	<5	mg/kg	NC	35	99	72 - 127

Maxxam Job #: B077638
Report Date: 2010/09/22

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Sampler Initials: JM , PH

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4226018	Total Lead (Pb)	2010/09/01	96	75 - 125	97	75 - 125	<1	mg/kg	4.4	35	94	54 - 146
4226018	Total Mercury (Hg)	2010/09/01	82	75 - 125	90	80 - 120	<0.05	mg/kg	NC	35	91	75 - 125
4226018	Total Molybdenum (Mo)	2010/09/01	111	75 - 125	108	75 - 125	<0.4	mg/kg	NC	35		
4226018	Total Nickel (Ni)	2010/09/01	NC	75 - 125	109	75 - 125	<1	mg/kg	6.0	35	112	61 - 139
4226018	Total Silver (Ag)	2010/09/01	77	75 - 125	96	75 - 125	<1	mg/kg	NC	35		
4226018	Total Thallium (Tl)	2010/09/01	76	75 - 125	95	75 - 125	<0.3	mg/kg	NC	35		
4226018	Total Tin (Sn)	2010/09/01	109	75 - 125	106	75 - 125	<1	mg/kg	NC	35		
4226018	Total Uranium (U)	2010/09/01	78	75 - 125	109	75 - 125	<1	mg/kg	NC	35		
4226018	Total Vanadium (V)	2010/09/01	NC	75 - 125	111	75 - 125	<1	mg/kg	6.6	35	118	50 - 150
4226018	Total Zinc (Zn)	2010/09/01	NC	75 - 125	96	75 - 125	<10	mg/kg	2.7	35	86	72 - 128
4226018	Total Selenium (Se)	2010/09/01			90	75 - 125	<0.5	mg/kg	NC	35		
4230196	Soluble (Hot water) Boron (B)	2010/09/02	104	75 - 125	106	80 - 120	<0.1	mg/kg	NC	35		

N/A = Not Applicable

RPD = Relative Percent Difference

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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.

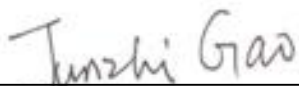
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

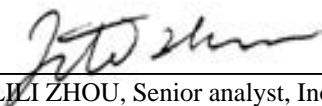
Validation Signature Page

Maxxam Job #: B077638

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



JANET GAO, Senior Analyst, Organics Department



LILI ZHOU, Senior analyst, Inorganic department.



ORLA JORGENSEN, Organics Supervisor



RON VENZI, Scientific Specialist

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Company:	Invoice To: <input type="checkbox"/> CO Report Address	Report To: <input type="checkbox"/> Same as Invoice	Report Distribution (E-Mail):	REGULATORY GUIDELINES:
Contact:	SENES	Same	pharrisee@desltd.ca	<input type="checkbox"/> AT1
Address:	Charles Gervelle		mauchet@desltd.ca	<input checked="" type="checkbox"/> CCME
Contact #:	121 Greenford Drive, Unit 11		cgervelle@desltd.ca	<input type="checkbox"/> Regulated Drinking Water
	100 Richmond Rd. E. St.			<input type="checkbox"/> Other:
	in 305 882 5984			

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: _____
Project # / Name: 304962
Site Location: Sawmill Bay
Quote #: _____
Sampled By: PH, VM

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve)
Date Required: _____
☒ REGULAR (5 to 7 Days)

All samples are held for 30 calendar days after sample receipt, unless specified otherwise

PO #: _____ Project # / Name: <u>304962</u> Site Location: <u>Sawmill Bay</u> Quote #: _____ Sampled By: <u>FM, JM</u>		SERVICE REQUESTED: <input type="checkbox"/> RUSH (Contact lab to reserve) Date Required: _____ <input checked="" type="checkbox"/> REGULAR (5 to 7 Days)	
--	--	--	--

Sample ID	Depth (m)	Matrix (SW / SL / SOL)	Date/Time Sampled YYMMDD HH:MM	SOIL					WATER					Other Analysis						
				BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	□ BTEX F1	□ VOC's	□ BTEX F1-F4	□ Routine Water	□ Turb	□ P	□ TOC	□ DOC	Regulated Metals (CCME / AT1)	Mercury	□ Total
1 Barrel # 2212		W	2012 Aug 22																	
2 Barrel # 490		I																		
3 Barrel # 1818		I																		
4 Barrel # 1384		I																		
5 Barrel # 2610		I																		
6 SA-DA-4-#1	surface	S	2012 Aug 23	✓	✓															
7 SA-DA-22-1	surface	I	2012 Aug 24	✓	✓															
8 SA-DA-22-2	"	I		✓	✓															
9 SA-DA-22-3	"	I		✓	✓															
10																				
11																				
12																				

See invoice for package specifics

Drum Characterization

Other Analysis

HOLD - Do not Analyze

ARRIVED AT DEPOT

AUG 25 2012

TEMP: 15.7/17

Please indicate Filtered, Preserved or Both (F, P, F/P)

Requisitioned by (Signature/Print)	Date (YYMMDD)	Time (24:00)
Requisitioned by (Signature/Print)	Date (YYMMDD)	Time (24:00)
Special Instructions:		# of Jars Used & Not Submitted

LAB USE ONLY					
Received By: 	Date: _____ Time: _____ Maxam Job #: <u>Chomose</u>				
Lab Comments: <u>Aug 27 2012</u> <u>15:30</u>	<table border="1"> <tr> <td>Catalyst Used</td> <td>Temperature</td> </tr> <tr> <td>✓</td> <td>8, 7, 8</td> </tr> </table>	Catalyst Used	Temperature	✓	8, 7, 8
	Catalyst Used	Temperature			
✓	8, 7, 8				

Lisa McManes

From: Jason Mauchan [jmauchan@dcsltd.ca]
Sent: Tuesday, September 07, 2010 5:11 PM
To: Lisa McManes
Subject: RE: Job Confirmation Report [B077638] - Project 304962 , Site Location: SAWMILL BAY

Hi Lisa,

How about we go with glycol and metals for this one.
If there is no product, then BTEX f1-F4 is not needed.

I believe this barrel was mostly rain water with sludge at the bottom.

If there is extra sample, go ahead with other analysis.

Jason

-----Original Message-----

From: Lisa McManes [mailto:Lisa.McManes@maxxamanalytics.com]
Sent: September-07-10 4:12 PM
To: jmauchan@dcsltd.ca
Subject: RE: Job Confirmation Report [B077638] - Project 304962 , Site Location: SAWMILL BAY

Hi Jason,

On this file there is Barrel #1818 - this sample appears to be all water.
For the analysis requested we would need more sample to complete it all with the required DL's. If it was a product it would not be an issue but all water we would not be able to complete the analysis. Can you please let me know how you would like to proceed on this one?

For water minimum volume:
BTEX F1-F4 - 1xvial, 250mL amber
Total metals (Cl, Cd, Cr, Pb) - 60mL
PCBs - 500mL amber
Flash point - 75mL in vials (2xvials)
Glycol % - 1xvial

Please let me know if you have any questions.

Thanks,

Lisa McManes B.Sc. | Sample Reception Supervisor
Maxxam Analytics | Driven By Service and Science(r)

4000 - 19th Street NE Calgary, Alberta T2E 6P8

Office: 403-735-2204

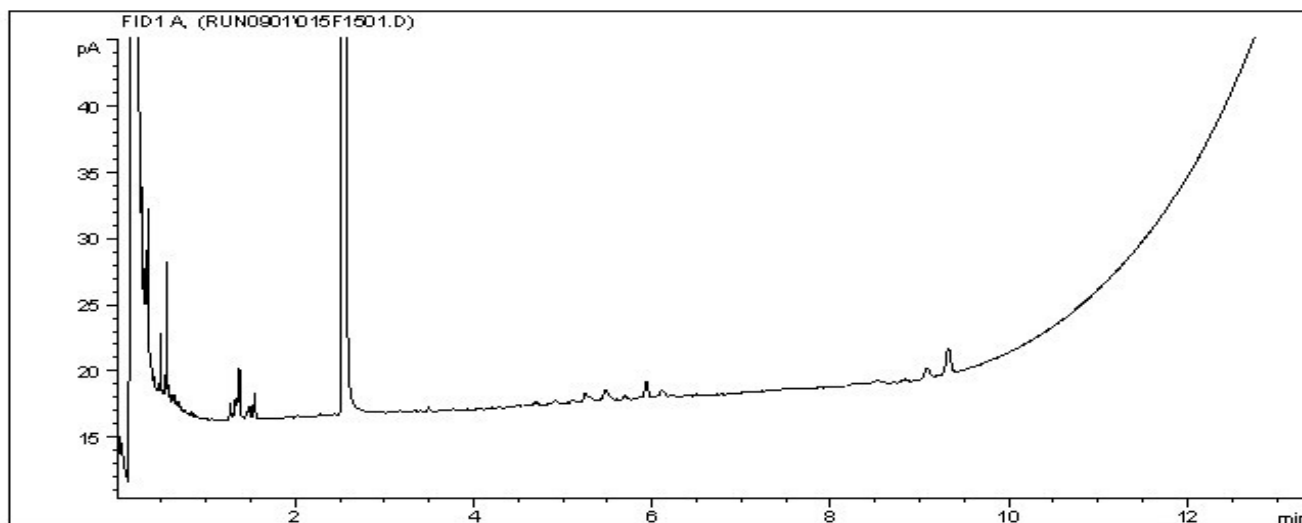
Fax: 403-735-2240

lisa.mcmanes@maxxamanalytics.com

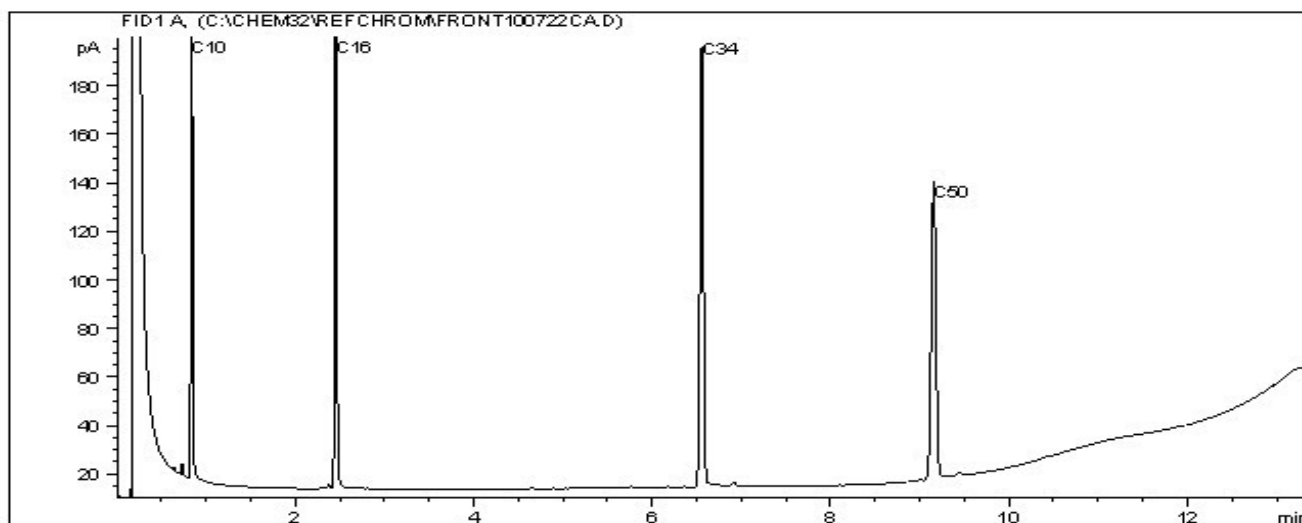
Report Date: 2010/09/22
Maxxam Job #: B077638
Maxxam Sample: W55686

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Client ID: SA-DA-4-#1 @ SURFACE

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

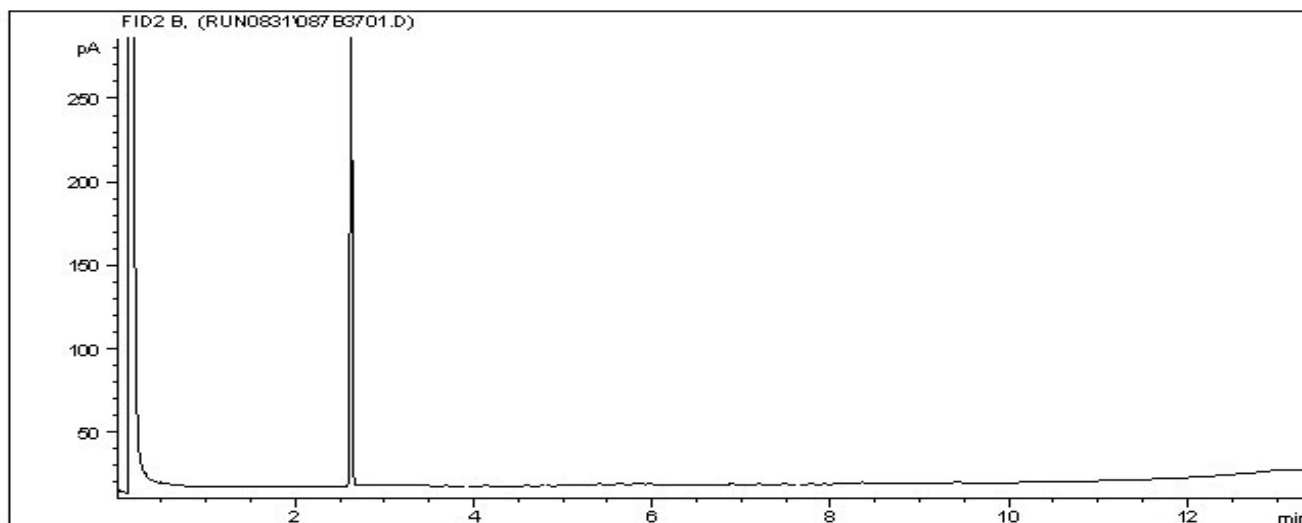
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

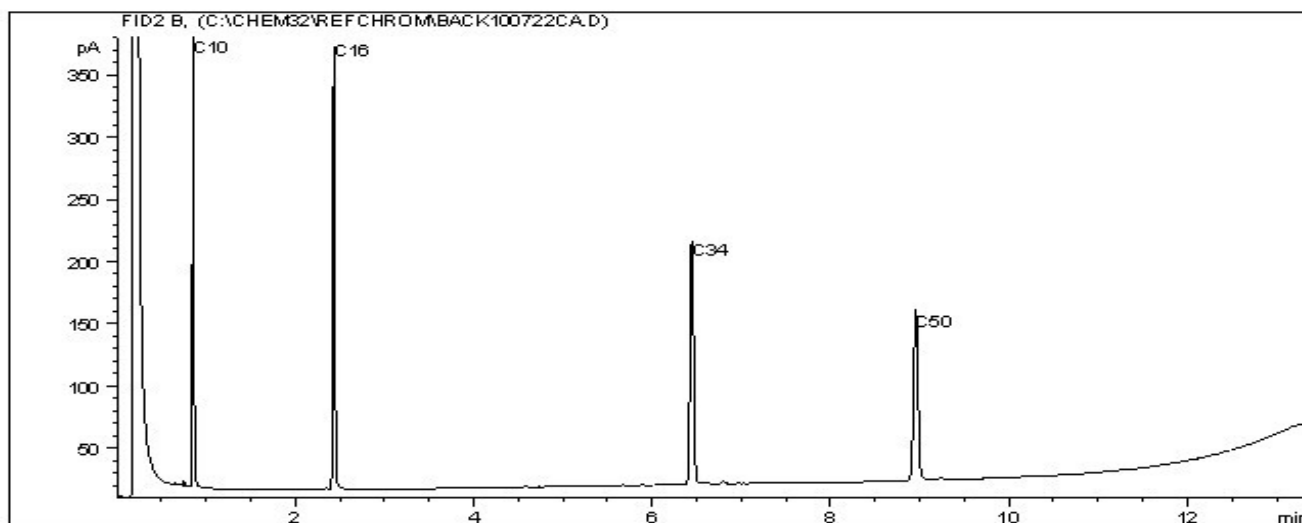
Report Date: 2010/09/22
Maxxam Job #: B077638
Maxxam Sample: W55688

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Client ID: SA-DA-22-1 @ SURFACE

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

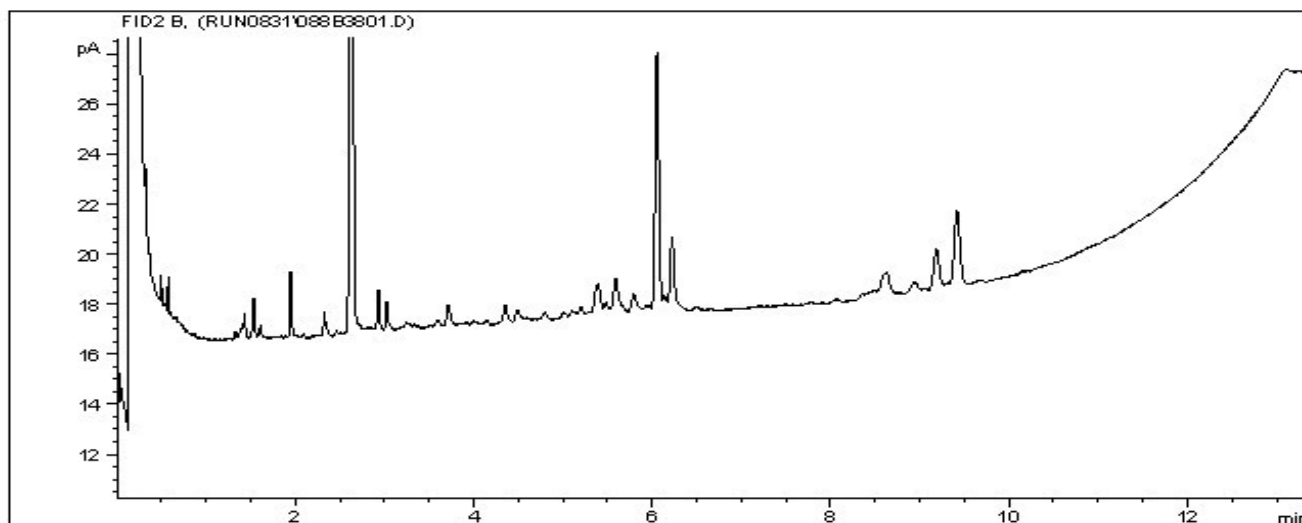
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

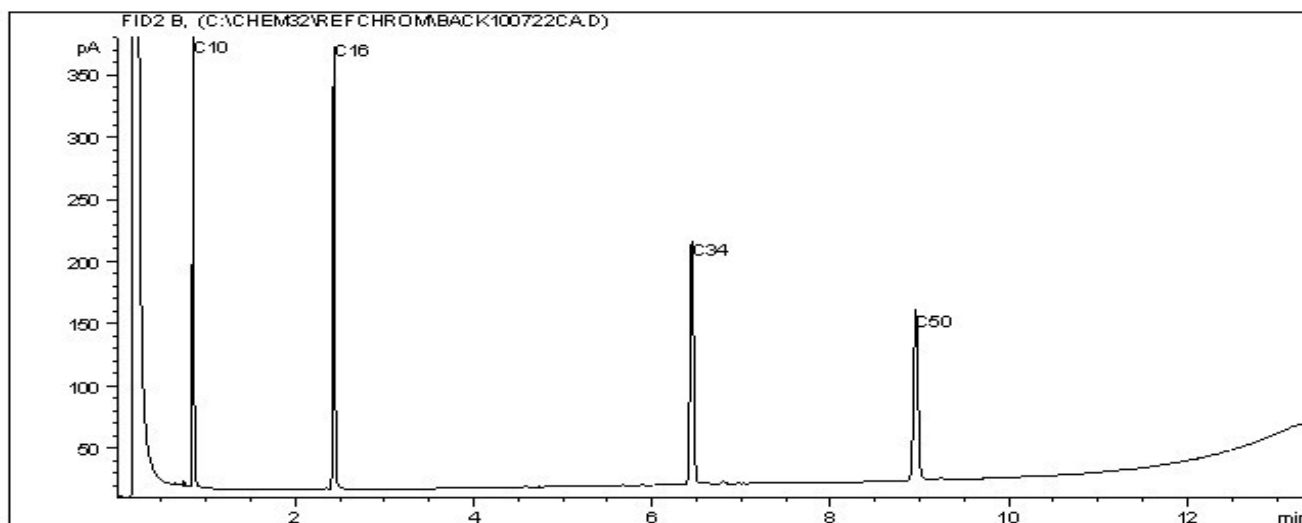
Report Date: 2010/09/22
Maxxam Job #: B077638
Maxxam Sample: W55689

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Client ID: SA-DA-22-2 @ SURFACE

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

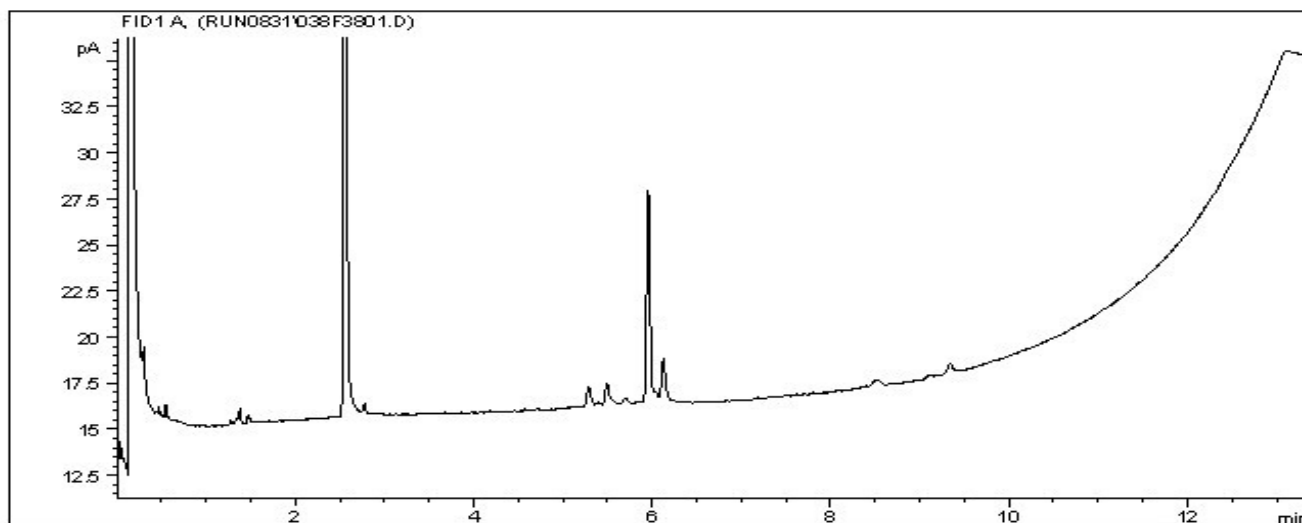
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

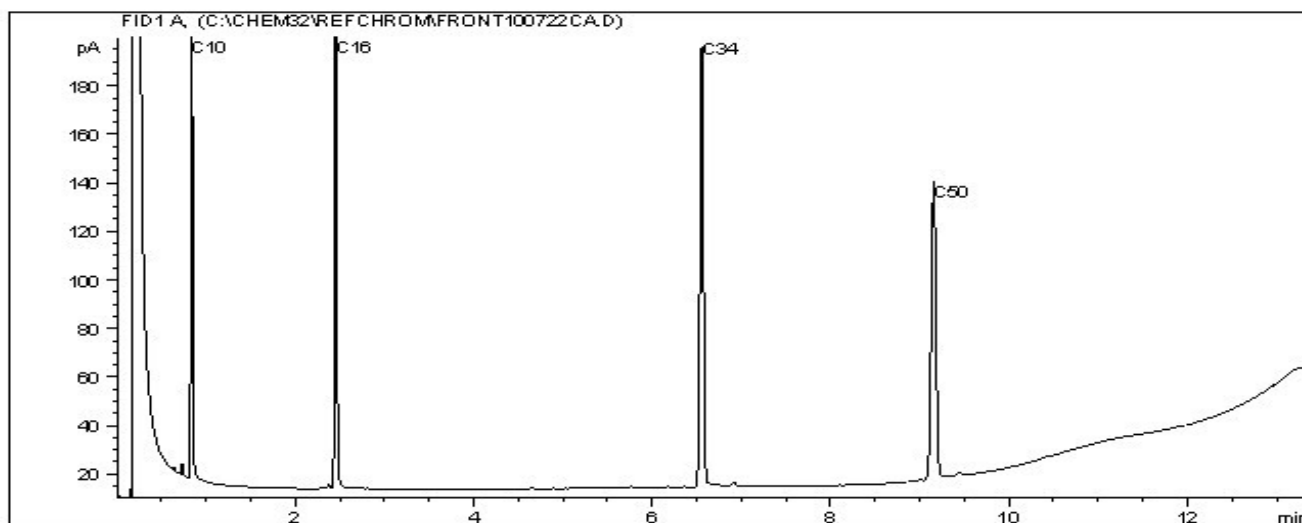
Report Date: 2010/09/22
Maxxam Job #: B077638
Maxxam Sample: W55690

SENE CONSULTANTS LIMITED
Client Project #: 304962
Site Reference: SAWMILL BAY
Client ID: SA-DA-22-3 @ SURFACE

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

Petro Laboratories Inc.

1295 Matheson Blvd. East, Mississauga, Ontario, L4W 1R1 Tel: (905) 361-2388 Fax: (905) 361-2411
E-mail: petrolab@gmail.com

Laboratory Report

Maxxam Analytics Inc.

4000-19 St. NE.

Calgary, AB

T2E 6P8

Lab no.: 10912 - 1 to 4 (Part B)

Date report: Sept 3, 2010

Sample in : Sept 1, 2010

Project No.: B077638

Attention: Lisa McManes

Re: Oil samples taken on Aug 22, 2010 for testing.

TEST - 2. Alcohol and Glycol content in % wt. by GC/FID method. ASTM D4815 Modified

Parameter	Lab No.	10912 - 1	10912 - 2	10912 - 3	10912 - 4
	Sample ID: BARREL	#2212 (W55677)	#490 (W55678)	#1284 (W55680)	#266 (W55681)
Alcohol Content			Results		
Methanol		<0.1	<0.1	<0.1	<0.1
Ethanol		<0.1	<0.1	<0.1	<0.1
1-Propanol		<0.1	<0.1	<0.1	<0.1
n-Propanol		<0.1	<0.1	<0.1	<0.1
1-Butanol		<0.1	<0.1	<0.1	<0.1
n-Butanol		<0.1	<0.1	<0.1	<0.1
Glycol Content					
Ethylene Glycol		0.1	0.1	0.1	0.1
Propylene Glycol		0.1	0.1	0.1	0.1
Triethylene Glycol		0.1	0.1	0.1	0.1

Control sample - Standard Alcohol and Glycol

Expected Conc., in % wt. - 0.1 Found Conc. - 0.1 Recovery - 99%

Method detection limit - 0.1%

Test by: Z.H (Chemist)

Member of ASTM

JS:LN

Approved by:

James Szeto

James Szeto, B.Sc.

Chief Chemist

Petro Laboratories Inc.

1295 Matheson Blvd. East, Mississauga, Ontario, L4W 1R1 Tel: (905) 361-2388 Fax: (905) 361-2411

E-mail: petrolab@gmail.com

Laboratory Report

Maxxam Analytics Inc.

4000-19 St. NE.

Calgary, AB

T2E 6P8

Lab no.: 10912 - 1 to 4 (A)

Date report: Sept 3, 2010

Sample in : Sept 1, 2010

Project No.: B077638

Attention: Lisa McManes

Re: Oil samples taken on Aug 22, 2010 for testing.

TEST - 1. Chlorine Content, in mg/l or ppm by ASTM D808, bomb method				
Lab No.	10912 - 1	10912 - 2	10912 - 3	10912 - 4
Sample ID BARREL	#2212 (W55677)	#490 (W55678)	#1284 (W55680)	#266 (W55681)
Results	66	196	920	85

Method detection limit - 1 mg/l

Control sample - CONOCO Conostain chlorine standard

Expected Conc., mg/l - 5, Found Conc. - 4, Recovery - 94 %

Expected Conc. - 95 Found Conc. - 94 Recovery - 95%

Test by: A.C. (Chemist)

Member of ASTM

JS:LN

Approved by: James Szeto
James Szeto, B.Sc.
Chief Chemist

Petro Laboratories Inc.

1295 Matheson Blvd. East, Mississauga, Ontario, L4W 1R1 Tel: (905) 361-2388 Fax: (905) 361-2411
E-mail: petrolab@gmail.com

Laboratory Report

Maxxam Analytics Inc.

4000-19 St. NE.

Calgary, AB

T2E 6P8

Lab no.: 10951 (Part B)

Date report: Sept 10, 2010

Sample in : Sept 9, 2010

Project No.: B077638

Attention: Ms. Lisa McManes

Re: Water sample taken on Aug 22, 2010 for testing.

TEST - 2. Alcohol and Glycol content in % wt. by GC/FID method. ASTM D4815 Modified

Parameter	Lab No.	10951
	Sample ID	BARREL #1818 (W55679) WATER
Alcohol Content		Results
Methanol		<0.1
Ethanol		<0.1
1-Propanol		<0.1
n-Propanol		<0.1
1-Butanol		<0.1
n-Butanol		<0.1
Glycol Content		
Ethylene Glycol		<0.1
Propylene Glycol		<0.1
Triethylene Glycol		<0.1

Control sample - Standard Alcohol and Glycol

Expected Conc., in % wt. - 0.1 Found Conc. - 0.1 Recovery - 99%

Method detection limit - 0.1%

Test by: Z.H. (Chemist)

Member of ASTM

JS:LN

Approved by: James Szeto
James Szeto, B.Sc.
Chief Chemist

Your Project #: 340962, SAWMILL BAY, GBL
Site: GREAT BEAR LAKE
Your C.O.C. #: 103668

Attention: CHARLES F. GRAVELLE
SENE CONSULTANTS LIMITED
121 GRANTON DRIVE, UNIT 12
RICHMOND HILL, ON
CANADA L4B 3N4

Report Date: 2010/09/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B079576
Received: 2010/09/01, 8:30

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Asbestos Identification Ø	3	N/A	2010/09/09	67-C-002	NIOSH Method 9002
Boron (Hot Water Soluble)	2	2010/09/08	2010/09/09	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	2	2010/09/03	2010/09/05	CAL SOP-00190	EPA 8260C/CCME
Hexavalent Chromium	2	2010/09/07	2010/09/07	CAL SOP-00056	SM 3500-Cr B
CCME Hydrocarbons (F2-F4 in soil)	2	2010/09/02	2010/09/05	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
Elements by ICPMS - Soils	2	2010/09/07	2010/09/07	AB SOP-00043	EPA 200.8
Moisture	2	N/A	2010/09/03	CAL SOP-00023	McKeague MSSMA 2.411
Polychlorinated Biphenyls	2	2010/09/02	2010/09/07	CAL SOP-00149	EPA 3550B, EPA 8082A

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS	1	N/A	2010/09/09	CAL SOP-00190	EPA 8260 C / CCME
CCME Hydrocarbons (F2-F4 in water)	1	2010/09/03	2010/09/09	CAL SOP-00086 AB WI-00017	EPA3510C/CCME PHCCWS
Flash Point (Closed Cup), ASTM D93 Ø	1	N/A	2010/09/08	EINDSOP-00082	ASTM D93
Polychlorinated Biphenyls Ø	1	N/A	2010/09/15	CAL SOP# 0062	GC/ECD-EXTRACTION

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

- (1) This test was performed by Maxxam Vancouver
(2) This test was performed by Maxxam Edmonton Petroleum
(3) This test was performed by Maxxam Ontario (From Calgary)

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

-2-

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LISA MCMANES, Sample Reception Supervisor
Email: lisa.mcmanes@maxxamanalytics.com
Phone# (403) 291-3077

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		W66605	W66617		
Sampling Date		2010/08/28	2010/08/28		
COC#		103668	103668		
	Units	NHDS AIRSTRIP 1	AIRSTRIP BURN BASELINE 1	RDL	QC Batch
Physical Properties					
Moisture	%	1.8	2.0	0.3	4234582
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	10	4233300
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	<10	10	4233300
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	10	4233300
Reached Baseline at C50	mg/kg	YES	YES		4233300
Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	87	89		4233300
Volatiles					
Benzene	mg/kg	<0.0050	<0.0050	0.0050	4237666
Toluene	mg/kg	<0.020	<0.020	0.020	4237666
Ethylbenzene	mg/kg	<0.010	<0.010	0.010	4237666
Xylenes (Total)	mg/kg	<0.040	<0.040	0.040	4237666
m & p-Xylene	mg/kg	<0.040	<0.040	0.040	4237666
o-Xylene	mg/kg	<0.020	<0.020	0.020	4237666
F1 (C6-C10) - BTEX	mg/kg	<12	<12	12	4237666
(C6-C10)	mg/kg	<12	<12	12	4237666
Surrogate Recovery (%)					
4-BROMOFLUOROBENZENE (sur.)	%	95	98		4237666
D10-ETHYLBENZENE (sur.)	%	94	95		4237666
D4-1,2-DICHLOROETHANE (sur.)	%	86	88		4237666
D8-TOLUENE (sur.)	%	99	100		4237666

RDL = Reportable Detection Limit

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		W66618		
Sampling Date		2010/08/28		
COC#		103668		
	Units	BARREL #8856	RDL	QC Batch
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/L	1100 ⁽¹⁾	10	4244352
F3 (C16-C34 Hydrocarbons)	mg/L	<10 ⁽¹⁾	10	4244352
F4 (C34-C50 Hydrocarbons)	mg/L	<10 ⁽¹⁾	10	4244352
Reached Baseline at C50	mg/L	YES		4244352
Volatiles				
Benzene	ug/L	860000	4000	4237284
Toluene	ug/L	1000000	4000	4237284
Ethylbenzene	ug/L	95000	4000	4237284
o-Xylene	ug/L	110000	4000	4237284
m & p-Xylene	ug/L	310000	8000	4237284
Xylenes (Total)	ug/L	420000	8000	4237284
F1 (C6-C10) - BTEX	ug/L	4700000	1000000	4237284
(C6-C10)	ug/L	7100000	1000000	4237284
Surrogate Recovery (%)				
4-BROMOFLUOROBENZENE (sur.)	%	102		4237284
D4-1,2-DICHLOROETHANE (sur.)	%	89		4237284
D8-TOLUENE (sur.)	%	98		4237284

RDL = Reportable Detection Limit

(1) - Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		W66605	W66617		
Sampling Date		2010/08/28	2010/08/28		
COC#		103668	103668		
	Units	NHDS AIRSTRIP 1	AIRSTRIP BURN BASELINE 1	RDL	QC Batch
Elements					
Soluble (Hot water) Boron (B)	mg/kg	<0.1	<0.1	0.1	4243298
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	0.15	4240798
Total Antimony (Sb)	mg/kg	<1	<1	1	4240788
Total Arsenic (As)	mg/kg	2	2	1	4240788
Total Barium (Ba)	mg/kg	33	23	10	4240788
Total Beryllium (Be)	mg/kg	<0.4	<0.4	0.4	4240788
Total Cadmium (Cd)	mg/kg	0.1	0.1	0.1	4240788
Total Chromium (Cr)	mg/kg	8	7	1	4240788
Total Cobalt (Co)	mg/kg	3	3	1	4240788
Total Copper (Cu)	mg/kg	<5	<5	5	4240788
Total Lead (Pb)	mg/kg	11	9	1	4240788
Total Mercury (Hg)	mg/kg	<0.05	<0.05	0.05	4240788
Total Molybdenum (Mo)	mg/kg	<0.4	<0.4	0.4	4240788
Total Nickel (Ni)	mg/kg	5	5	1	4240788
Total Selenium (Se)	mg/kg	<0.5	<0.5	0.5	4240788
Total Silver (Ag)	mg/kg	<1	<1	1	4240788
Total Thallium (Tl)	mg/kg	<0.3	<0.3	0.3	4240788
Total Tin (Sn)	mg/kg	<1	<1	1	4240788
Total Uranium (U)	mg/kg	<1	<1	1	4240788
Total Vanadium (V)	mg/kg	20	17	1	4240788
Total Zinc (Zn)	mg/kg	41	30	10	4240788

RDL = Reportable Detection Limit

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		W66605	W66617		
Sampling Date		2010/08/28	2010/08/28		
COC#		103668	103668		
	Units	NHDS AIRSTRIP 1	AIRSTRIP BURN BASELINE 1	RDL	QC Batch
Polychlorinated Biphenyls					
Aroclor 1016	mg/kg	<0.010	<0.010	0.010	4233986
Aroclor 1221	mg/kg	<0.010	<0.010	0.010	4233986
Aroclor 1232	mg/kg	<0.010	<0.010	0.010	4233986
Aroclor 1242	mg/kg	<0.010	<0.010	0.010	4233986
Aroclor 1248	mg/kg	<0.010	<0.010	0.010	4233986
Aroclor 1254	mg/kg	<0.010	<0.010	0.010	4233986
Aroclor 1260	mg/kg	<0.010	<0.010	0.010	4233986
Aroclor 1262	mg/kg	<0.010	<0.010	0.010	4233986
Aroclor 1268	mg/kg	<0.010	<0.010	0.010	4233986
Total Aroclors	mg/kg	<0.010	<0.010	0.010	4233986
Surrogate Recovery (%)					
NONACHLOROBIPHENYL (sur.)	%	83	90		4233986

ASBESTOS IDENTIFICATION (SOIL)

Maxxam ID		W66620	W66621	W66622		
Sampling Date		2010/08/30	2010/08/30	2010/08/30		
COC#		103668	103668	103668		
	Units	PIPE WRAP 1	PIPE WRAP 2	PIPE WRAP 3	RDL	QC Batch
Asbestos Type						
Actinolite	% vol/vol	<1	<1	<1	1	4247434
Amosite	% vol/vol	<1	<1	<1	1	4247434
Anthophyllite	% vol/vol	<1	<1	<1	1	4247434
Chrysotile	% vol/vol	90-99	90-99	90-99	1	4247434
Crocidolite	% vol/vol	<1	<1	<1	1	4247434
Tremolite	% vol/vol	<1	<1	<1	1	4247434
Others						
Cellulose	% vol/vol	<1	<1	<1	1	4247434
Filler	% vol/vol	1-10	1-10	1-10	1	4247434
Glass Fibres	% vol/vol	<1	<1	<1	1	4247434
Hair	% vol/vol	<1	<1	<1	1	4247434
Other Fibers	% vol/vol	<1	<1	<1	1	4247434

RDL = Reportable Detection Limit

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		W66618		
Sampling Date		2010/08/28		
COC#		103668		
	Units	BARREL #8856	RDL	QC Batch
Physical Properties				
Closed Cup Flash point	°C	<0.0		4231634

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		W66618		
Sampling Date		2010/08/28		
COC#		103668		
	Units	BARREL #8856	RDL	QC Batch
Polychlorinated Biphenyls				
Total Aroclors	mg/kg	SEE ATTACH	0.4	4261107

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

Package 1	10.3°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

PCB results are attached to this report file. Subcontracting job number from Mississauga is B0C2652.

Total Chlorine results are attached to this report file. Subcontracting job number from Petro Laboratories Inc. #10934 A.

% Alcohol and % Glycol results are attached to this report file. Subcontracting job number from Petro Laboratories Inc. #10934 B.

Sample W66618-01: Sample had two visible layers and it's cool down to -0.0 and flashed instantly.

AT1 BTEX AND F1-F4 IN WATER (WATER) Comments

Sample W66618-01 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4233300	O-TERPHENYL (sur.)	2010/09/04	79	50 - 130	74	50 - 130	85	%				
4233300	F2 (C10-C16 Hydrocarbons)	2010/09/04	89	50 - 130	90	80 - 120	<10	mg/kg	NC	50		
4233300	F3 (C16-C34 Hydrocarbons)	2010/09/04	85	50 - 130	87	80 - 120	<10	mg/kg	NC	50		
4233300	F4 (C34-C50 Hydrocarbons)	2010/09/04	85	50 - 130	89	80 - 120	<10	mg/kg	NC	50		
4233986	NONACHLOROBIPHENYL (sur.)	2010/09/07	99	30 - 130	71	30 - 130	76	%				
4233986	Aroclor 1260	2010/09/07	NC	30 - 130	87	30 - 130	<0.010	mg/kg	NC	50		
4233986	Aroclor 1016	2010/09/07					<0.010	mg/kg	NC	50		
4233986	Aroclor 1221	2010/09/07					<0.010	mg/kg	NC	50		
4233986	Aroclor 1232	2010/09/07					<0.010	mg/kg	NC	50		
4233986	Aroclor 1242	2010/09/07					<0.010	mg/kg	NC	50		
4233986	Aroclor 1248	2010/09/07					<0.010	mg/kg	NC	50		
4233986	Aroclor 1254	2010/09/07					<0.010	mg/kg	NC	50		
4233986	Aroclor 1262	2010/09/07					<0.010	mg/kg	NC	50		
4233986	Aroclor 1268	2010/09/07					<0.010	mg/kg	NC	50		
4233986	Total Aroclors	2010/09/07					<0.010	mg/kg	NC	50		
4234582	Moisture	2010/09/03							10.7	20		
4237284	4-BROMOFLUOROBENZENE (sur.)	2010/09/04	99	70 - 130	100	70 - 130	102	%				
4237284	D4-1,2-DICHLOROETHANE (sur.)	2010/09/04	93	70 - 130	92	70 - 130	99	%				
4237284	D8-TOLUENE (sur.)	2010/09/04	93	70 - 130	93	70 - 130	99	%				
4237284	Benzene	2010/09/04	93	70 - 130	85	70 - 130	<0.4	ug/L	5.2	40		
4237284	Toluene	2010/09/04	88	70 - 130	85	70 - 130	<0.4	ug/L	5.8	40		
4237284	Ethylbenzene	2010/09/04	90	70 - 130	86	70 - 130	<0.4	ug/L	9.6	40		
4237284	o-Xylene	2010/09/04	94	70 - 130	91	70 - 130	<0.4	ug/L	NC	40		
4237284	m & p-Xylene	2010/09/04	92	70 - 130	89	70 - 130	<0.8	ug/L	NC	40		
4237284	(C6-C10)	2010/09/04			71	70 - 130	<100	ug/L	NC	40		
4237284	Xylenes (Total)	2010/09/04					<0.8	ug/L	NC	40		
4237284	F1 (C6-C10) - BTEX	2010/09/04					<100	ug/L	NC	40		
4237666	4-BROMOFLUOROBENZENE (sur.)	2010/09/05	96	60 - 140	99	60 - 140	97	%				
4237666	D10-ETHYLBENZENE (sur.)	2010/09/05	92	30 - 130	95	30 - 130	93	%				
4237666	D4-1,2-DICHLOROETHANE (sur.)	2010/09/05	88	60 - 140	91	60 - 140	86	%				
4237666	D8-TOLUENE (sur.)	2010/09/05	100	60 - 140	100	60 - 140	100	%				
4237666	Benzene	2010/09/05	80	60 - 140	73	60 - 140	<0.0050	mg/kg	NC	50		
4237666	Toluene	2010/09/05	81	60 - 140	75	60 - 140	<0.020	mg/kg	NC	50		
4237666	Ethylbenzene	2010/09/05	86	60 - 140	79	60 - 140	<0.010	mg/kg	NC	50		
4237666	m & p-Xylene	2010/09/05	88	60 - 140	80	60 - 140	<0.040	mg/kg	NC	50		
4237666	o-Xylene	2010/09/05	88	60 - 140	81	60 - 140	<0.020	mg/kg	NC	50		
4237666	(C6-C10)	2010/09/05	NC	60 - 140	85	60 - 140	<12	mg/kg	NC	50		
4237666	Xylenes (Total)	2010/09/05					<0.040	mg/kg	NC	50		
4237666	F1 (C6-C10) - BTEX	2010/09/05					<12	mg/kg	NC	50		
4240788	Total Arsenic (As)	2010/09/07	95	75 - 125	99	81 - 103	<1	mg/kg	7.1	35	103	50 - 150

Maxxam Job #: B079576
Report Date: 2010/09/28

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4240788	Total Barium (Ba)	2010/09/07	NC	75 - 125	96	75 - 125	<10	mg/kg	1.8	35	119	69 - 131
4240788	Total Beryllium (Be)	2010/09/07	96	75 - 125	99	75 - 116	<0.4	mg/kg	NC	35		
4240788	Total Cadmium (Cd)	2010/09/07	97	75 - 125	99	75 - 125	<0.1	mg/kg	NC	35		
4240788	Total Chromium (Cr)	2010/09/07	99	75 - 125	99	75 - 125	<1	mg/kg	6.0	35	101	41 - 159
4240788	Total Cobalt (Co)	2010/09/07	99	75 - 125	101	75 - 125	<1	mg/kg	1.4	35	98	75 - 125
4240788	Total Copper (Cu)	2010/09/07	91	75 - 125	99	75 - 125	<5	mg/kg	NC	35	90	72 - 127
4240788	Total Lead (Pb)	2010/09/07	106	75 - 125	101	85 - 112	<1	mg/kg	1.3	35	103	54 - 146
4240788	Total Mercury (Hg)	2010/09/07	94	75 - 125	97	75 - 125	<0.05	mg/kg	NC	35	82	75 - 125
4240788	Total Molybdenum (Mo)	2010/09/07	93	75 - 125	101	75 - 125	<0.4	mg/kg	NC	35		
4240788	Total Nickel (Ni)	2010/09/07	97	75 - 125	101	75 - 125	<1	mg/kg	0.9	35	101	61 - 139
4240788	Total Selenium (Se)	2010/09/07	86	75 - 125	92	75 - 125	<0.5	mg/kg	NC	35		
4240788	Total Thallium (Tl)	2010/09/07	98	75 - 125	100	75 - 125	<0.3	mg/kg	NC	35		
4240788	Total Tin (Sn)	2010/09/07	87	75 - 125	98	75 - 125	<1	mg/kg	NC	35		
4240788	Total Uranium (U)	2010/09/07	107	75 - 125	102	75 - 125	<1	mg/kg	NC	35		
4240788	Total Vanadium (V)	2010/09/07	98	75 - 125	100	75 - 125	<1	mg/kg	3.7	35	111	50 - 150
4240788	Total Zinc (Zn)	2010/09/07	NC	75 - 125	95	75 - 125	<10	mg/kg	0.1	35	90	72 - 128
4240788	Total Antimony (Sb)	2010/09/07			103	75 - 125	<1	mg/kg	NC ⁽¹⁾	35		
4240788	Total Silver (Ag)	2010/09/07			103	75 - 125	<1	mg/kg	NC ⁽²⁾	35		
4240798	Hex. Chromium (Cr 6+)	2010/09/07	97	75 - 125	97	90 - 110	<0.15	mg/kg	NC	35		
4243298	Soluble (Hot water) Boron (B)	2010/09/09	112	75 - 125	105	80 - 120	<0.1	mg/kg	NC	35		
4244352	F2 (C10-C16 Hydrocarbons)	2010/09/09	NC	70 - 130	96	70 - 130	<0.1	mg/L	3.4	40		
4244352	F3 (C16-C34 Hydrocarbons)	2010/09/09	NC	70 - 130	84	70 - 130	<0.1	mg/L	1.1	40		
4244352	F4 (C34-C50 Hydrocarbons)	2010/09/09	85	70 - 130	87	70 - 130	<0.1	mg/L	NC	40		

N/A = Not Applicable

RPD = Relative Percent Difference

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

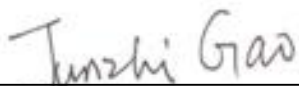
(1) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:23%, limits:75-125%).

(2) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:14%, limits:75-125%).

Validation Signature Page

Maxxam Job #: B079576

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



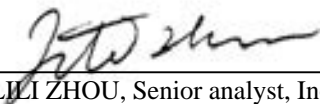
JANET GAO, Senior Analyst, Organics Department



LISA MCMANES, Sample Reception Supervisor



LUBA SHYMUSHOVSKA, Senior Analyst, Organic Department



LILI ZHOU, Senior analyst, Inorganic department.

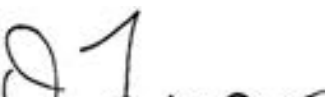
Validation Signature Page

Maxxam Job #: B079576

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



OMID GHAYYUR, Analyst II



ORLA JORGENSEN, Organics Supervisor

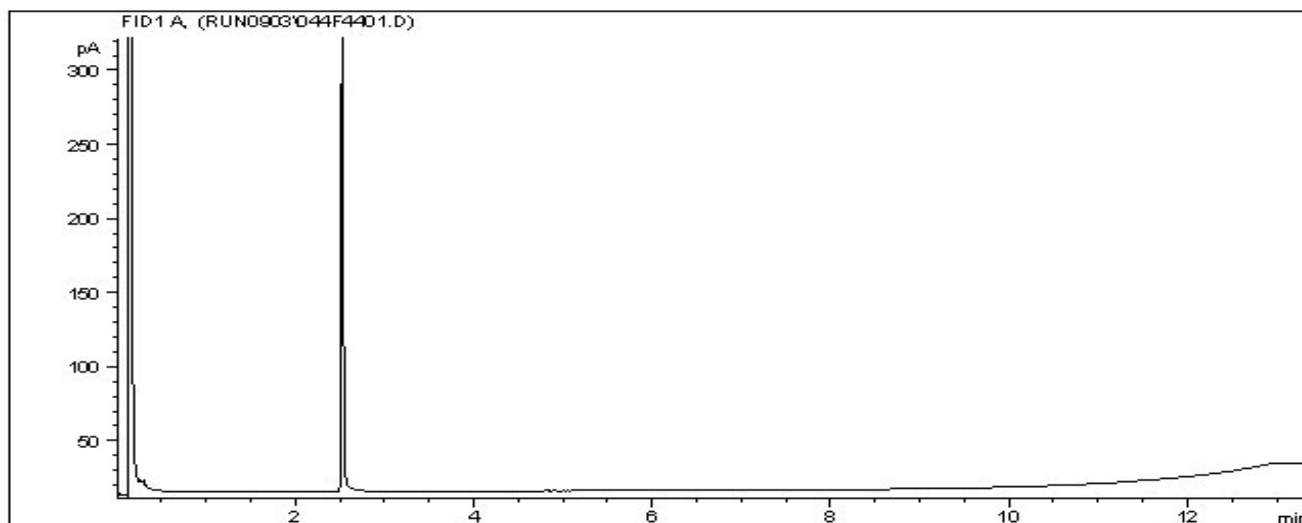
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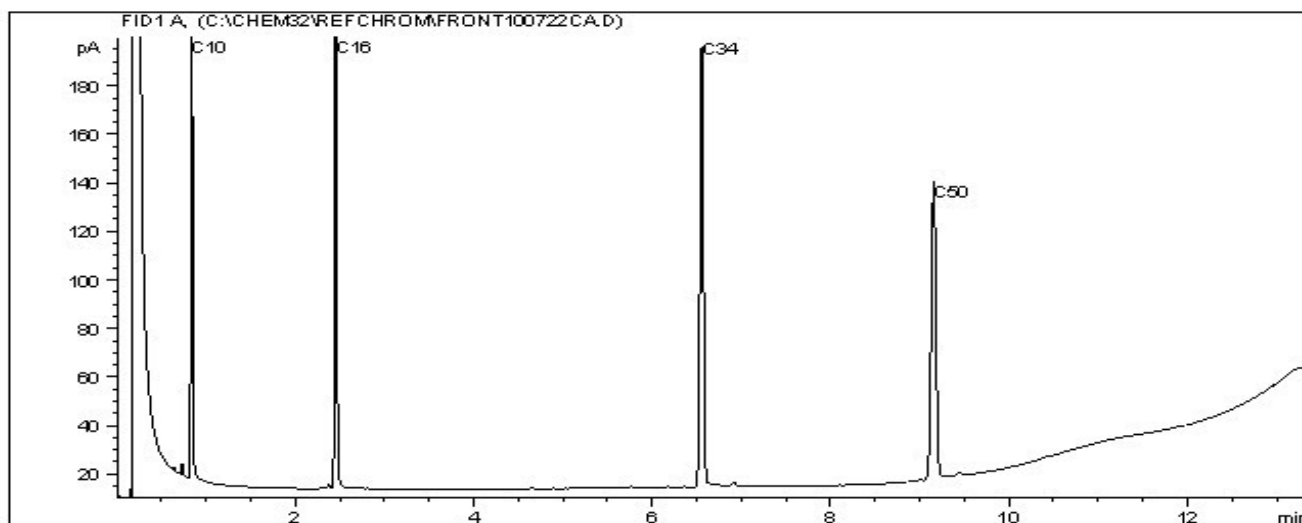
Report Date: 2010/09/28
Maxxam Job #: B079576
Maxxam Sample: W66605

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Client ID: NHDS AIRSTRIIP 1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

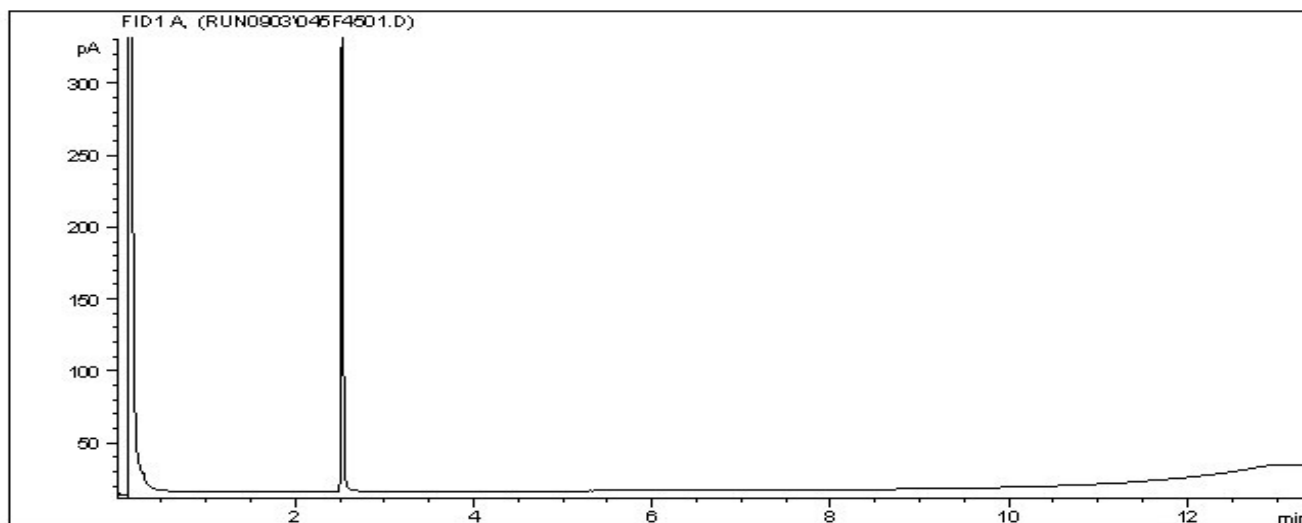
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

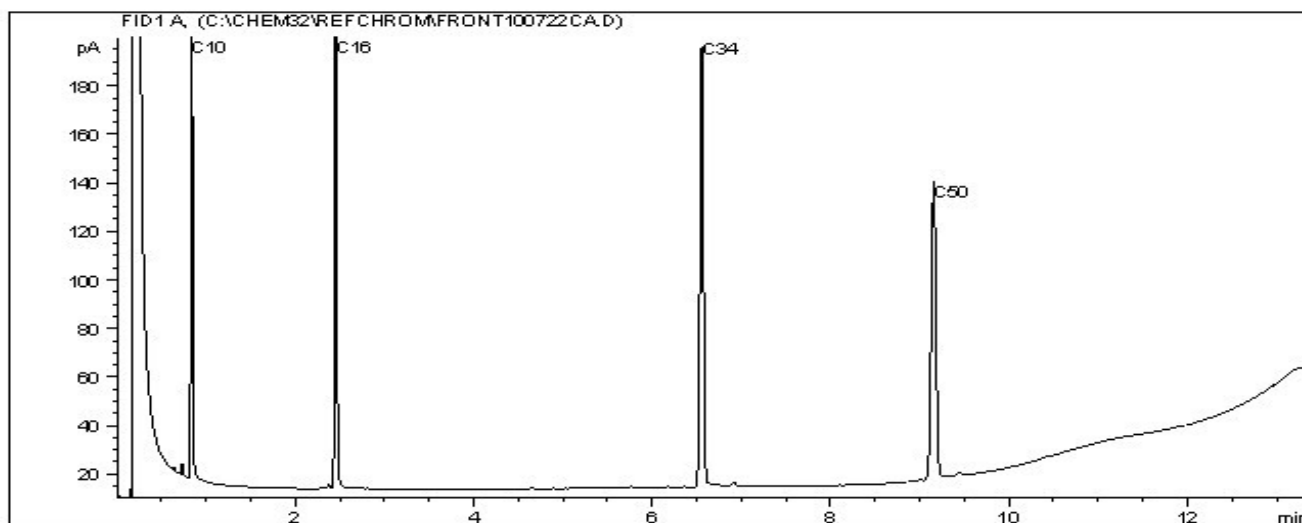
Report Date: 2010/09/28
Maxxam Job #: B079576
Maxxam Sample: W66617

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Client ID: AIRSTRIP BURN BASELINE 1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

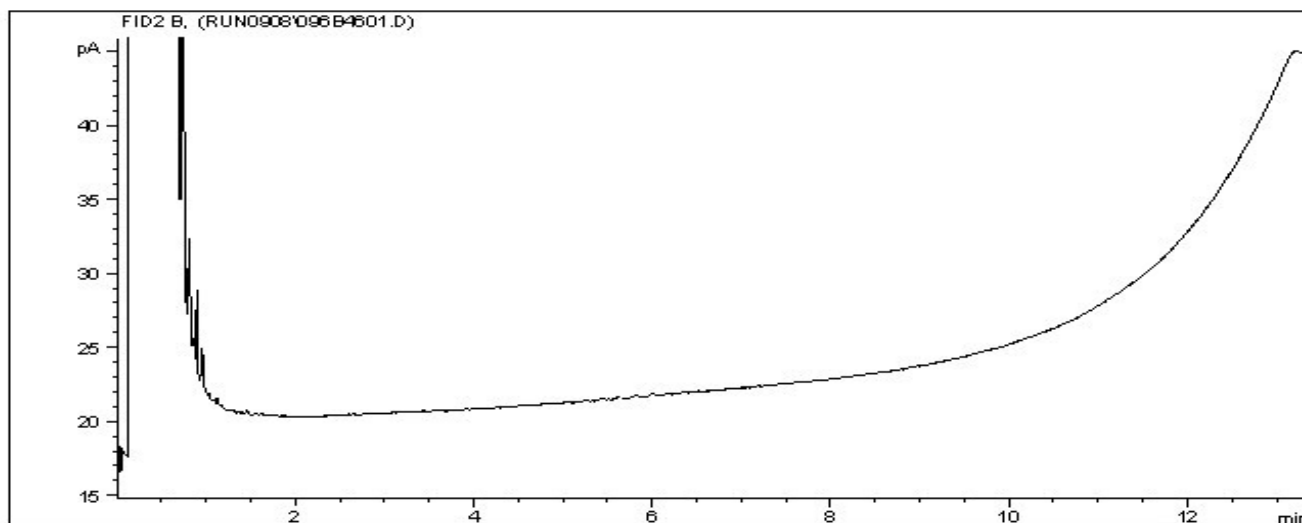
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

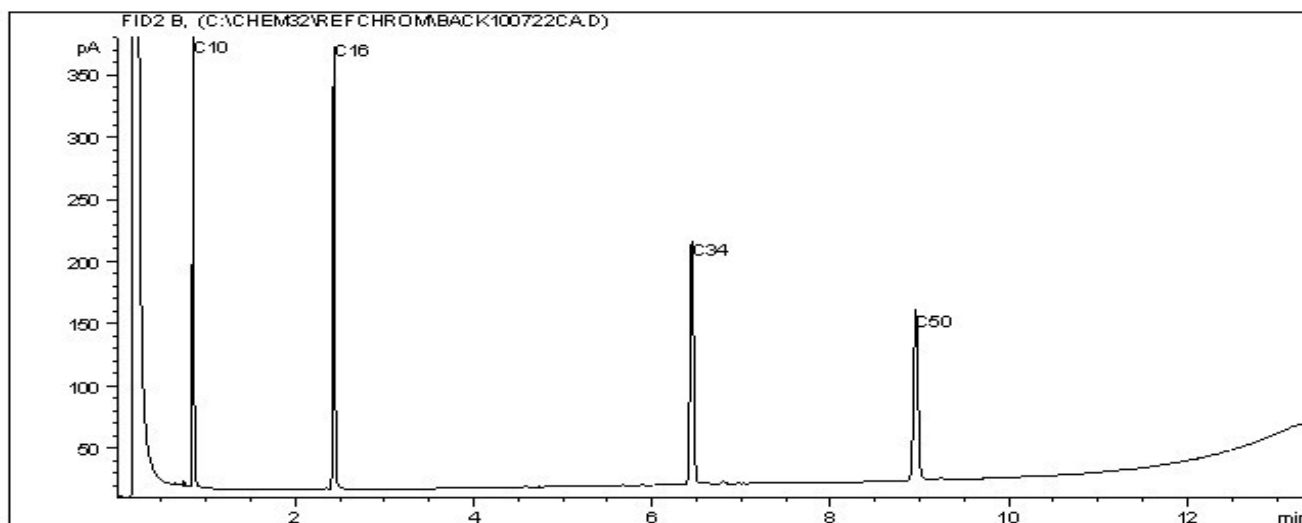
Report Date: 2010/09/28
Maxxam Job #: B079576
Maxxam Sample: W66618

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Client ID: BARREL #8856

CCME Hydrocarbons (F2-F4 in water) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

Petro Laboratories Inc.

1295 Matheson Blvd. East, Mississauga, Ontario, L4W 1R1 Tel: (905) 361-2388 Fax: (905) 361-2411
E-mail: petrolab@gmail.com

Laboratory Report

Maxxam Analytics Inc.

4000-19 St. NE.

Calgary, AB

T2E 6P8

Lab no.: 10934 (Part B)

Date report: Sept 8, 2010

Sample in : Sept 7, 2010

Project No.: B079576

Attention: Lisa McManes

Re: Fuel sample taken on Aug 28, 2010 for testing.

TEST - 2. Alcohol and Glycol content in % wt. by GC/FID method. ASTM D4815 Modified

Parameter	Lab No.	10934
	Sample ID	#8856 (W66618)
Alcohol Content		Results
Methanol		<0.1
Ethanol		<0.1
1-Propanol		<0.1
n-Propanol		<0.1
1-Butanol		<0.1
n-Butanol		<0.1
Glycol Content		
Ethylene Glycol		<0.1
Propylene Glycol		<0.1
Triethylene Glycol		<0.1

Control sample - Standard Alcohol and Glycol

Expected Conc., in % wt. - 0.1 Found Conc. - 0.1 Recovery - 99%

Method detection limit - 0.1%

Test by: Z.H. (Chemist)

Member of ASTM

JS:LN

Approved by: James Szeto
James Szeto, B.Sc.
Chief Chemist

Petro Laboratories Inc.

1295 Matheson Blvd. East, Mississauga, Ontario, L4W 1R1 Tel: (905) 361-2388 Fax: (905) 361-2411

E-mail: petrolab@gmail.com

Laboratory Report

Maxxam Analytics Inc.

4000-19 St. NE.

Calgary, AB

T2E 6P8

Lab no.: 10934 (A)

Date report: Sept 8, 2010

Sample in : Sept 7, 2010

Project No.: B079576

Attention: Lisa McManes

Re: One fuel sample taken on August 28, 2010 for testing.

TEST - 1. Chlorine Content, in mg/l or ppm by ASTM D808, bomb method	
Lab No.	10934 - 1
Sample ID	#8856 (W66618)
Results	85

Method detection limit - 1 mg/l

Control sample - CONOCO Conostain chlorine standard

Expected Conc., mg/l - 5, Found Conc. - 4, Recovery - 94 %

Expected Conc. - mg/l - 95 , Found Conc. - 94, Recovery - 95%

Test by: A.C. (Chemist)

Member of ASTM

JS:LN

Approved by: James Szeto
James Szeto, B.Sc.
Chief Chemist

Your Project #: B079576
Your C.O.C. #: SUB

Attention: Lisa McManes

Maxxam Analytics
2021-41st Ave NE
Calgary, AB
T2E 6P2

Report Date: 2010/09/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B0C2652

Received: 2010/09/04, 09:35

Sample Matrix: LIQUID

Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Total Metals Analysis by ICP	1	2010/09/22	2010/09/28	CAM SOP-00408	EPA 6010
Polychlorinated Biphenyl (PCB) ¶	1	2010/09/14	2010/09/15	CAM SOP-00328	EPA 8082 modified

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MATHURA THIRUKKUMARAN, CS Rep
Email: mathura.Thirukkumaran@maxxamanalytics.com
Phone# (905) 817-5700

=====

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Total cover pages: 1

Maxxam Job #: B0C2652
Report Date: 2010/09/28

Maxxam Analytics
Client Project #: B079576

ELEMENTS BY ATOMIC SPECTROSCOPY (LIQUID)

Maxxam ID		HB5053		
Sampling Date		2010/08/28		
COC Number		SUB		
	Units	BARREL #8856	RDL	QC Batch

Metals				
Total Cadmium (Cd)	mg/L	<0.05	0.05	2280416
Total Chromium (Cr)	mg/L	<0.1	0.1	2280416
Total Lead (Pb)	mg/L	0.5	0.5	2280416

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B0C2652
Report Date: 2010/09/28

Maxxam Analytics
Client Project #: B079576

POLYCHLORINATED BIPHENYLS BY GC-ECD (LIQUID)

Maxxam ID		HB5053		
Sampling Date		2010/08/28		
COC Number		SUB		
	Units	BARREL #8856	RDL	QC Batch

PCBs				
Aroclor 1016	ug/g	<1	1	2265218
Aroclor 1221	ug/g	<1	1	2265218
Aroclor 1232	ug/g	<1	1	2265218
Aroclor 1242	ug/g	<1	1	2265218
Aroclor 1248	ug/g	<1	1	2265218
Aroclor 1254	ug/g	<1	1	2265218
Aroclor 1260	ug/g	<1	1	2265218
Aroclor 1268	ug/g	<1	1	2265218
Total PCB	ug/g	<1	1	2265218
Surrogate Recovery (%)				
2,4,5,6-Tetrachloro-m-xylene	%	101	N/A	2265218
Decachlorobiphenyl	%	101	N/A	2265218
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: B0C2652
Report Date: 2010/09/28

Maxxam Analytics
Client Project #: B079576

Package 1	7.0°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample HB5053-01: Metals Analysis: Sample diluted due to matrix interference. RLs were adjusted accordingly.

POLYCHLORINATED BIPHENYLS BY GC-ECD (LIQUID)

Polychlorinated Biphenyl (PCB): 98% recovery of a 50 ppm SRM of PCB in oil indicates a potential low bias of 2% in the reported results.

Results relate only to the items tested.

Maxxam Analytics
Attention: Lisa McManes
Client Project #: B079576
P.O. #:
Project name:

Quality Assurance Report

Maxxam Job Number: MB0C2652

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2265218 ART	Matrix Spike [HB5053-01]	2,4,5,6-Tetrachloro-m-xylene	2010/09/15		95	%	30 - 130
		Decachlorobiphenyl	2010/09/15		91	%	30 - 130
		Aroclor 1260	2010/09/15		92	%	75 - 125
		Total PCB	2010/09/15		92	%	30 - 130
	QC Standard	2,4,5,6-Tetrachloro-m-xylene	2010/09/15		112	%	30 - 130
		Decachlorobiphenyl	2010/09/15		94	%	30 - 130
		Aroclor 1254	2010/09/15		98	%	N/A
		Total PCB	2010/09/15		98	%	N/A
	Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2010/09/15		120	%	30 - 130
		Decachlorobiphenyl	2010/09/15		96	%	30 - 130
		Aroclor 1260	2010/09/15		100	%	75 - 125
	RPD	Aroclor 1260	2010/09/15	0.6		%	50
	Spiked Blank	Total PCB	2010/09/15		100	%	30 - 130
	RPD	Total PCB	2010/09/15	0.6		%	50
	Method Blank	2,4,5,6-Tetrachloro-m-xylene	2010/09/15		107	%	30 - 130
		Decachlorobiphenyl	2010/09/15		89	%	30 - 130
		Aroclor 1016	2010/09/15	<1		ug/g	
		Aroclor 1221	2010/09/15	<1		ug/g	
		Aroclor 1232	2010/09/15	<1		ug/g	
		Aroclor 1242	2010/09/15	<1		ug/g	
		Aroclor 1248	2010/09/15	<1		ug/g	
		Aroclor 1254	2010/09/15	<1		ug/g	
		Aroclor 1260	2010/09/15	<1		ug/g	
		Aroclor 1268	2010/09/15	<1		ug/g	
		Total PCB	2010/09/15	<1		ug/g	
2280416 JOH	Spiked Blank	Total Cadmium (Cd)	2010/09/28		96	%	85 - 115
		Total Chromium (Cr)	2010/09/28		104	%	85 - 115
		Total Lead (Pb)	2010/09/28		95	%	85 - 115
	Method Blank	Total Cadmium (Cd)	2010/09/28	<0.005		mg/L	
		Total Chromium (Cr)	2010/09/28	<0.01		mg/L	
		Total Lead (Pb)	2010/09/28	<0.05		mg/L	

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

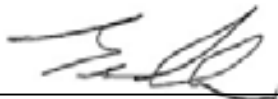
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

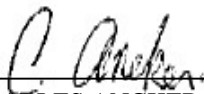
Validation Signature Page

Maxxam Job #: B0C2652

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



BRAD NEWMAN, Scientific Specialist



CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

=====

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Your Project #: 340962, SAWMILL BAY, GBL
Site: GREAT BEAR LAKE
Your C.O.C. #: 103669

Attention: CHARLES F. GRAVELLE
SENE CONSULTANTS LIMITED
121 GRANTON DRIVE, UNIT 12
RICHMOND HILL, ON
CANADA L4B 3N4

Report Date: 2010/09/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B081080

Received: 2010/09/06, 9:45

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	1	2010/09/10	2010/09/10	AB SOP-00042	EPA 200.7
Hexavalent Chromium	1	2010/09/08	2010/09/08	CAL SOP-00056	SM 3500-Cr B
Elements by ICPMS - Soils	1	2010/09/10	2010/09/12	AB SOP-00043	EPA 200.8
Moisture	5	N/A	2010/09/07	CAL SOP-00023	McKeague MSSMA 2.411
Polychlorinated Biphenyls	3	2010/09/07	2010/09/09	CAL SOP-00149	EPA 3550B, EPA 8082A
Polychlorinated Biphenyls	1	2010/09/07	2010/09/10	CAL SOP-00149	EPA 3550B, EPA 8082A

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LISA MCMANES, Sample Reception Supervisor
Email: lisa.mcmanes@maxxamanalytics.com
Phone# (403) 291-3077

=====

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Total cover pages: 1

Maxxam Job #: B081080
Report Date: 2010/09/13

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		W76142		
Sampling Date		2010/09/03		
COC#		103669		
	Units	METAL STOCKPILE NEAR SA-DA-23	RDL	QC Batch
Elements				
Soluble (Hot water) Boron (B)	mg/kg	<0.1	0.1	4250621
Hex. Chromium (Cr 6+)	mg/kg	<1.5 ⁽¹⁾	1.5	4243385
Total Antimony (Sb)	mg/kg	<1	1	4253227
Total Arsenic (As)	mg/kg	2	1	4253227
Total Barium (Ba)	mg/kg	67	10	4253227
Total Beryllium (Be)	mg/kg	<0.4	0.4	4253227
Total Cadmium (Cd)	mg/kg	<0.1	0.1	4253227
Total Chromium (Cr)	mg/kg	11	1	4253227
Total Cobalt (Co)	mg/kg	5	1	4253227
Total Copper (Cu)	mg/kg	7	5	4253227
Total Lead (Pb)	mg/kg	6	1	4253227
Total Mercury (Hg)	mg/kg	<0.05	0.05	4253227
Total Molybdenum (Mo)	mg/kg	<0.4	0.4	4253227
Total Nickel (Ni)	mg/kg	6	1	4253227
Total Selenium (Se)	mg/kg	<0.5	0.5	4253227
Total Silver (Ag)	mg/kg	<1	1	4253227
Total Thallium (Tl)	mg/kg	<0.3	0.3	4253227
Total Tin (Sn)	mg/kg	<1	1	4253227
Total Uranium (U)	mg/kg	<1	1	4253227
Total Vanadium (V)	mg/kg	32	1	4253227
Total Zinc (Zn)	mg/kg	67	10	4253227

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		W76138	W76139	W76140	W76141	W76142		
Sampling Date		2010/09/04	2010/09/04	2010/09/04	2010/09/05	2010/09/03		
COC#		103669	103669	103669	103669	103669		
	Units	TRANSFORMER LOCATION 1	TRANSFORMER LOCATION 2	TRANSFORMER LOCATION 3	TRANSFORMER LOCATION 4	METAL STOCKPILE NEAR SA-DA-23	RDL	QC Batch
Physical Properties								
Moisture	%	14	11	7.7	23	6.1	0.3	4240970

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference

Maxxam Job #: B081080
Report Date: 2010/09/13

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		W76138	W76138		W76139		W76140	W76141		
Sampling Date		2010/09/04	2010/09/04		2010/09/04		2010/09/04	2010/09/05		
COC#		103669	103669		103669		103669	103669		
	Units	TRANSFORMER LOCATION 1	TRANSFORMER LOCATION 1 Lab-Dup	RDL	TRANSFORMER LOCATION 2	RDL	TRANSFORMER LOCATION 3	TRANSFORMER LOCATION 4	RDL	QC Batch
Polychlorinated Biphenyls										
Aroclor 1016	mg/kg	<0.10	<0.10	0.10	<0.010	0.010	<0.010	<0.010	0.010	4244364
Aroclor 1221	mg/kg	<0.10	<0.10	0.10	<0.010	0.010	<0.010	<0.010	0.010	4244364
Aroclor 1232	mg/kg	<0.10	<0.10	0.10	<0.010	0.010	<0.010	<0.010	0.010	4244364
Aroclor 1242	mg/kg	<0.10	<0.10	0.10	<0.010	0.010	<0.010	<0.010	0.010	4244364
Aroclor 1248	mg/kg	<0.10	<0.10	0.10	<0.010	0.010	<0.010	<0.010	0.010	4244364
Aroclor 1254	mg/kg	<0.10	<0.10	0.10	<0.010	0.010	<0.010	<0.010	0.010	4244364
Aroclor 1260	mg/kg	<0.10 ⁽¹⁾	<0.10	0.10	0.60 ⁽²⁾	0.10	<0.010	<0.010	0.010	4244364
Aroclor 1262	mg/kg	<0.10	<0.10	0.10	<0.010	0.010	<0.010	<0.010	0.010	4244364
Aroclor 1268	mg/kg	<0.10	<0.10	0.10	<0.010	0.010	<0.010	<0.010	0.010	4244364
Total Aroclors	mg/kg	<0.10	<0.10	0.10	0.60 ⁽²⁾	0.10	<0.010	<0.010	0.010	4244364
Surrogate Recovery (%)										
NONACHLOROBIPHENYL (sur.)	%	30	35		85		64	73		4244364

RDL = Reportable Detection Limit

(1) - Matrix Spike recovery non calculable due to matrix interference. Original sample diluted to remove interference.

(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B081080
Report Date: 2010/09/13

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

Package 1	12.3°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL) Comments

Sample W76138-01 Polychlorinated Biphenyls: Detection limits raised due to matrix interference

Maxxam Job #: B081080
Report Date: 2010/09/13

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4240970	Moisture	2010/09/07							5.3	20		
4243385	Hex. Chromium (Cr 6+)	2010/09/08	100	75 - 125	97	90 - 110	<0.15	mg/kg	NC	35		
4244364	Aroclor 1260	2010/09/09	NC	30 - 130	98	30 - 130	<0.010	mg/kg	NC	50		
4244364	NONACHLOROBIPHENYL (sur.)	2010/09/09			78	30 - 130	73	%				
4244364	Aroclor 1016	2010/09/09					<0.010	mg/kg	NC	50		
4244364	Aroclor 1221	2010/09/09					<0.010	mg/kg	NC	50		
4244364	Aroclor 1232	2010/09/09					<0.010	mg/kg	NC	50		
4244364	Aroclor 1242	2010/09/09					<0.010	mg/kg	NC	50		
4244364	Aroclor 1248	2010/09/09					<0.010	mg/kg	NC	50		
4244364	Aroclor 1254	2010/09/09					<0.010	mg/kg	NC	50		
4244364	Aroclor 1262	2010/09/09					<0.010	mg/kg	NC	50		
4244364	Aroclor 1268	2010/09/09					<0.010	mg/kg	NC	50		
4244364	Total Aroclors	2010/09/09					<0.010	mg/kg	NC	50		
4250621	Soluble (Hot water) Boron (B)	2010/09/10	104	75 - 125	109	80 - 120	<0.1	mg/kg	NC	35		
4253227	Total Arsenic (As)	2010/09/12	94	75 - 125	96	75 - 125	<1	mg/kg	NC	35	95	50 - 150
4253227	Total Barium (Ba)	2010/09/12	NC	75 - 125	101	75 - 125	<10	mg/kg	23.1	35	103	69 - 131
4253227	Total Beryllium (Be)	2010/09/12	76	75 - 125	95	75 - 125	<0.4	mg/kg	NC	35		
4253227	Total Cadmium (Cd)	2010/09/12	94	75 - 125	98	75 - 125	<0.1	mg/kg	NC	35		
4253227	Total Chromium (Cr)	2010/09/12	87	75 - 125	102	75 - 125	<1	mg/kg	28.5	35	104	41 - 159
4253227	Total Cobalt (Co)	2010/09/12	98	75 - 125	101	75 - 125	<1	mg/kg	0.8	35	99	75 - 125
4253227	Total Copper (Cu)	2010/09/12	85	75 - 125	101	75 - 125	<5	mg/kg	NC	35	87	72 - 127
4253227	Total Lead (Pb)	2010/09/12	92	75 - 125	109	75 - 125	<1	mg/kg	14.2	35	92	54 - 146
4253227	Total Mercury (Hg)	2010/09/12	90	75 - 125	100	80 - 120	<0.05	mg/kg	NC	35	94	75 - 125
4253227	Total Molybdenum (Mo)	2010/09/12	109	75 - 125	107	75 - 125	<0.4	mg/kg	NC	35		
4253227	Total Nickel (Ni)	2010/09/12	85	75 - 125	100	75 - 125	<1	mg/kg	11.8	35	99	61 - 139
4253227	Total Selenium (Se)	2010/09/12	82	75 - 125	89	75 - 125	<0.5	mg/kg	NC	35		
4253227	Total Thallium (Tl)	2010/09/12	82	75 - 125	100	75 - 125	<0.3	mg/kg	NC	35		
4253227	Total Tin (Sn)	2010/09/12	109	75 - 125	110	75 - 125	<1	mg/kg	NC	35		
4253227	Total Uranium (U)	2010/09/12	91	75 - 125	108	75 - 125	<1	mg/kg	NC	35		
4253227	Total Vanadium (V)	2010/09/12	101	75 - 125	104	75 - 125	<1	mg/kg	27.8	35	113	50 - 150
4253227	Total Zinc (Zn)	2010/09/12	NC	75 - 125	106	75 - 125	<10	mg/kg	23.8	35	88	72 - 128

Maxxam Job #: B081080
Report Date: 2010/09/13

SENE CONSULTANTS LIMITED
Client Project #: 340962, SAWMILL BAY, GBL
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4253227	Total Antimony (Sb)	2010/09/12			115	75 - 125	<1	mg/kg	NC	35		
4253227	Total Silver (Ag)	2010/09/12			105	75 - 125	<1	mg/kg	NC	35		

N/A = Not Applicable

RPD = Relative Percent Difference

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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.

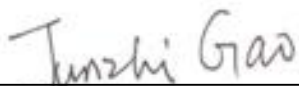
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

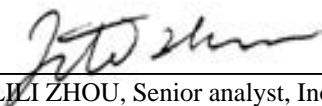
Validation Signature Page

Maxxam Job #: B081080

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



JANET GAO, Senior Analyst, Organics Department



LILI ZHOU, Senior analyst, Inorganic department.



ORLA JORGENSEN, Organics Supervisor



RON VENZI, Scientific Specialist

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your Project #: GBL SITES/ 340962
Site: GREAT BEAR LAKE
Your C.O.C. #: A019641

Attention: CHARLES F. GRAVELLE
SENE CONSULTANTS LIMITED
121 GRANTON DRIVE, UNIT 12
RICHMOND HILL, ON
CANADA L4B 3N4

Report Date: 2010/09/30

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B087946
Received: 2010/09/17, 8:00

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	4	2010/09/23	2010/09/23	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	4	2010/09/18	2010/09/20	CAL SOP-00190	EPA 8260C/CCME
Hexavalent Chromium	4	2010/09/20	2010/09/20	CAL SOP-00056	SM 3500-Cr B
CCME Hydrocarbons (F2-F4 in soil)	1	2010/09/18	2010/09/19	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in soil)	3	2010/09/18	2010/09/20	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
Elements by ICPMS - Soils	4	2010/09/22	2010/09/23	AB SOP-00043	EPA 200.8
Moisture	4	N/A	2010/09/19	CAL SOP-00023	McKeague MSSMA 2.411
Polychlorinated Biphenyls	3	2010/09/18	2010/09/21	CAL SOP-00149	EPA 3550B, EPA 8082A
Polychlorinated Biphenyls	1	2010/09/18	2010/09/22	CAL SOP-00149	EPA 3550B, EPA 8082A

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LISA MCMANES, Sample Reception Supervisor
Email: lisa.mcmanes@maxxamanalytics.com
Phone# (403) 291-3077

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B087946
Report Date: 2010/09/30

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		X05386	X05386	X05387	X05388	X05388	X05389		
Sampling Date		2010/09/10	2010/09/10	2010/09/10	2010/09/08	2010/09/08	2010/09/08		
COC#		A019641	A019641	A019641	A019641	A019641	A019641		
	Units	CL-NHDS-2	CL-NHDS-2 Lab-Dup	EB-NHDS-1 AIRSTRIP	SB-HDS-1	SB-HDS-1 Lab-Dup	SB-NHDS-3	RDL	QC Batch
Physical Properties									
Moisture	%	13		3.3	0.5		4.6	0.3	4272079
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	<10		<10	10	4271912
F3 (C16-C34 Hydrocarbons)	mg/kg	11	14	16	580		<10	10	4271912
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	85		<10	10	4271912
Reached Baseline at C50	mg/kg	YES	YES	YES	YES		YES		4271912
Surrogate Recovery (%)									
O-TERPHENYL (sur.)	%	80	77	91	84		83		4271912
Volatiles									
Benzene	mg/kg	<0.0050		<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4272082
Toluene	mg/kg	<0.020		<0.020	<0.020	<0.020	<0.020	0.020	4272082
Ethylbenzene	mg/kg	0.012		<0.010	<0.010	<0.010	<0.010	0.010	4272082
Xylenes (Total)	mg/kg	0.069		<0.040	<0.040	<0.040	<0.040	0.040	4272082
m & p-Xylene	mg/kg	0.042		<0.040	<0.040	<0.040	<0.040	0.040	4272082
o-Xylene	mg/kg	0.027		<0.020	<0.020	<0.020	<0.020	0.020	4272082
F1 (C6-C10) - BTEX	mg/kg	<12		<12	<12	<12	<12	12	4272082
(C6-C10)	mg/kg	<12		<12	<12	<12	<12	12	4272082
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	98		96	93	95	95		4272082
D10-ETHYLBENZENE (sur.)	%	83		85	86	88	89		4272082
D4-1,2-DICHLOROETHANE (sur.)	%	86		83	86	88	87		4272082
D8-TOLUENE (sur.)	%	105		105	106	108	105		4272082

RDL = Reportable Detection Limit

Maxxam Job #: B087946
Report Date: 2010/09/30

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X05386	X05387	X05388		X05389		
Sampling Date		2010/09/10	2010/09/10	2010/09/08		2010/09/08		
COC#		A019641	A019641	A019641		A019641		
	Units	CL-NHDS-2	EB-NHDS-1 AIRSTRIP	SB-HDS-1	RDL	SB-NHDS-3	RDL	QC Batch
Elements								
Soluble (Hot water) Boron (B)	mg/kg	0.9	0.2	<0.1	0.1	<0.1	0.1	4285819
Hex. Chromium (Cr 6+)	mg/kg	<1.5 ⁽¹⁾	<1.5 ⁽¹⁾	<1.5 ⁽¹⁾	1.5	<0.15	0.15	4274499
Total Antimony (Sb)	mg/kg	<1	<1	<1	1	<1	1	4281726
Total Arsenic (As)	mg/kg	9	2	1	1	2	1	4281726
Total Barium (Ba)	mg/kg	98	53	69	10	19	10	4281726
Total Beryllium (Be)	mg/kg	0.4	<0.4	<0.4	0.4	<0.4	0.4	4281726
Total Cadmium (Cd)	mg/kg	0.3	0.2	0.2	0.1	0.2	0.1	4281726
Total Chromium (Cr)	mg/kg	25	20	5	1	9	1	4281726
Total Cobalt (Co)	mg/kg	11	8	3	1	4	1	4281726
Total Copper (Cu)	mg/kg	100	13	<5	5	5	5	4281726
Total Lead (Pb)	mg/kg	36	10	13	1	6	1	4281726
Total Mercury (Hg)	mg/kg	0.31	0.10	<0.05	0.05	<0.05	0.05	4281726
Total Molybdenum (Mo)	mg/kg	<0.4	<0.4	<0.4	0.4	<0.4	0.4	4281726
Total Nickel (Ni)	mg/kg	21	11	3	1	5	1	4281726
Total Selenium (Se)	mg/kg	<0.5	<0.5	<0.5	0.5	<0.5	0.5	4281726
Total Silver (Ag)	mg/kg	9	4	<1	1	<1	1	4281726
Total Thallium (Tl)	mg/kg	<0.3	<0.3	<0.3	0.3	<0.3	0.3	4281726
Total Tin (Sn)	mg/kg	3	<1	<1	1	<1	1	4281726
Total Uranium (U)	mg/kg	6	<1	<1	1	<1	1	4281726
Total Vanadium (V)	mg/kg	39	42	13	1	22	1	4281726
Total Zinc (Zn)	mg/kg	160	97	46	10	37	10	4281726

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference

Maxxam Job #: B087946
Report Date: 2010/09/30

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		X05386	X05386	X05387	X05388	X05389		
Sampling Date		2010/09/10	2010/09/10	2010/09/10	2010/09/08	2010/09/08		
COC#		A019641	A019641	A019641	A019641	A019641		
	Units	CL-NHDS-2	CL-NHDS-2 Lab-Dup	EB-NHDS-1 AIRSTRIP	SB-HDS-1	SB-NHDS-3	RDL	QC Batch
Polychlorinated Biphenyls								
Aroclor 1016	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Aroclor 1221	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Aroclor 1232	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Aroclor 1242	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Aroclor 1248	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Aroclor 1254	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Aroclor 1260	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Aroclor 1262	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Aroclor 1268	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Total Aroclors	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4276160
Surrogate Recovery (%)								
NONACHLOROBIPHENYL (sur.)	%	81	80	41	57	83		4276160

RDL = Reportable Detection Limit

Maxxam Job #: B087946
Report Date: 2010/09/30

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

Package 1	8.7°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Maxxam Job #: B087946
Report Date: 2010/09/30

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4271912	O-TERPHENYL (sur.)	2010/09/19	83	50 - 130	84	50 - 130	87	%				
4271912	F2 (C10-C16 Hydrocarbons)	2010/09/19	76	50 - 130	84	80 - 120	<10	mg/kg	NC	50		
4271912	F3 (C16-C34 Hydrocarbons)	2010/09/19	79	50 - 130	87	80 - 120	<10	mg/kg	NC	50		
4271912	F4 (C34-C50 Hydrocarbons)	2010/09/19	80	50 - 130	81	80 - 120	<10	mg/kg	NC	50		
4272079	Moisture	2010/09/19							2.4	20		
4272082	4-BROMOFLUOROBENZENE (sur.)	2010/09/20	97	60 - 140	94	60 - 140	93	%				
4272082	D10-ETHYLBENZENE (sur.)	2010/09/20	86	30 - 130	85	30 - 130	84	%				
4272082	D4-1,2-DICHLOROETHANE (sur.)	2010/09/20	88	60 - 140	86	60 - 140	88	%				
4272082	D8-TOLUENE (sur.)	2010/09/20	99	60 - 140	103	60 - 140	106	%				
4272082	Benzene	2010/09/21	96	60 - 140	90	60 - 140	<0.0050	mg/kg	NC	50		
4272082	Toluene	2010/09/21	95	60 - 140	89	60 - 140	<0.020	mg/kg	NC	50		
4272082	Ethylbenzene	2010/09/21	96	60 - 140	93	60 - 140	<0.010	mg/kg	NC	50		
4272082	m & p-Xylene	2010/09/21	99	60 - 140	95	60 - 140	<0.040	mg/kg	NC	50		
4272082	o-Xylene	2010/09/21	97	60 - 140	90	60 - 140	<0.020	mg/kg	NC	50		
4272082	(C6-C10)	2010/09/21	82	60 - 140	81	60 - 140	<12	mg/kg	NC	50		
4272082	Xylenes (Total)	2010/09/21					<0.040	mg/kg	NC	50		
4272082	F1 (C6-C10) - BTEX	2010/09/21					<12	mg/kg	NC	50		
4274499	Hex. Chromium (Cr 6+)	2010/09/20	82	75 - 125	96	90 - 110	<0.15	mg/kg	NC	35		
4276160	NONACHLOROBIPHENYL (sur.)	2010/09/21	83	30 - 130	72	30 - 130	74	%				
4276160	Aroclor 1260	2010/09/21	123	30 - 130	121	30 - 130	<0.010	mg/kg	NC	50		
4276160	Aroclor 1016	2010/09/21					<0.010	mg/kg	NC	50		
4276160	Aroclor 1221	2010/09/21					<0.010	mg/kg	NC	50		
4276160	Aroclor 1232	2010/09/21					<0.010	mg/kg	NC	50		
4276160	Aroclor 1242	2010/09/21					<0.010	mg/kg	NC	50		
4276160	Aroclor 1248	2010/09/21					<0.010	mg/kg	NC	50		
4276160	Aroclor 1254	2010/09/21					<0.010	mg/kg	NC	50		
4276160	Aroclor 1262	2010/09/21					<0.010	mg/kg	NC	50		
4276160	Aroclor 1268	2010/09/21					<0.010	mg/kg	NC	50		
4276160	Total Aroclors	2010/09/21					<0.010	mg/kg	NC	50		
4281726	Total Arsenic (As)	2010/09/23	89	75 - 125	93	81 - 103	<1	mg/kg	1.4	35	99	50 - 150
4281726	Total Barium (Ba)	2010/09/23	NC	75 - 125	91	75 - 125	<10	mg/kg	1.6	35	118	69 - 131
4281726	Total Beryllium (Be)	2010/09/23	79	75 - 125	93	75 - 116	<0.4	mg/kg	NC	35		
4281726	Total Cadmium (Cd)	2010/09/23	94	75 - 125	95	75 - 125	<0.1	mg/kg	NC	35		
4281726	Total Chromium (Cr)	2010/09/23	96	75 - 125	101	75 - 125	<1	mg/kg	1.8	35	102	41 - 159
4281726	Total Cobalt (Co)	2010/09/23	99	75 - 125	105	75 - 125	<1	mg/kg	0.4	35	102	75 - 125
4281726	Total Copper (Cu)	2010/09/23	92	75 - 125	100	75 - 125	<5	mg/kg	NC	35	95	72 - 127
4281726	Total Lead (Pb)	2010/09/23	100	75 - 125	101	85 - 112	<1	mg/kg	2.3	35	110	54 - 146
4281726	Total Mercury (Hg)	2010/09/23	95	75 - 125	100	75 - 125	<0.05	mg/kg	NC	35	94	75 - 125
4281726	Total Molybdenum (Mo)	2010/09/23	96	75 - 125	99	75 - 125	<0.4	mg/kg	NC	35		
4281726	Total Nickel (Ni)	2010/09/23	94	75 - 125	103	75 - 125	<1	mg/kg	0.9	35	106	61 - 139

Maxxam Job #: B087946
Report Date: 2010/09/30

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4281726	Total Selenium (Se)	2010/09/23	83	75 - 125	85	75 - 125	<0.5	mg/kg	NC	35		
4281726	Total Thallium (Tl)	2010/09/23	105	75 - 125	104	75 - 125	<0.3	mg/kg	NC	35		
4281726	Total Tin (Sn)	2010/09/23	85	75 - 125	95	75 - 125	<1	mg/kg	NC	35		
4281726	Total Uranium (U)	2010/09/23	77	75 - 125	106	75 - 125	<1	mg/kg	NC	35		
4281726	Total Vanadium (V)	2010/09/23	NC	75 - 125	103	75 - 125	<1	mg/kg	3.3	35	105	50 - 150
4281726	Total Zinc (Zn)	2010/09/23	NC	75 - 125	94	75 - 125	<10	mg/kg	7.2	35	93	72 - 128
4281726	Total Antimony (Sb)	2010/09/23			100	75 - 125	<1	mg/kg	NC	35		
4281726	Total Silver (Ag)	2010/09/23			105	75 - 125	<1	mg/kg	NC	35		
4285819	Soluble (Hot water) Boron (B)	2010/09/23	100	75 - 125	105	80 - 120	<0.1	mg/kg	NC	35		

N/A = Not Applicable

RPD = Relative Percent Difference

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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.

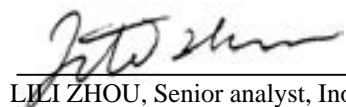
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B087946

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



LILI ZHOU, Senior analyst, Inorganic department.



ORLA JORGENSEN, Organics Supervisor

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Company: **DCS**
 Contact: **Charles Gravelle**
 Address: **131 Granton Drive Unit 111**
Richmond Hill ON L4B 3N4
 Contact Tel: **905 882 5884**

Report To: **Same as Invoice**
 Report Distribution (E-Mail):
cgravelle@dcshon
jmauchan

REGULATORY GUIDELINES:
☐ AT1
☒ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 90 days unless otherwise specified.

Project # / Name: **604 Sikes / 340962**
 Site Location: **Great Bear Lake**
 Guide # / Date: **DCS 2010 Arctic Sikes**
 Sampled By: **JM, RD**

SERVICE REQUESTED:
☐ RUSH (Contact lab to reserve)
☒ REGULAR (5 to 7 Days)

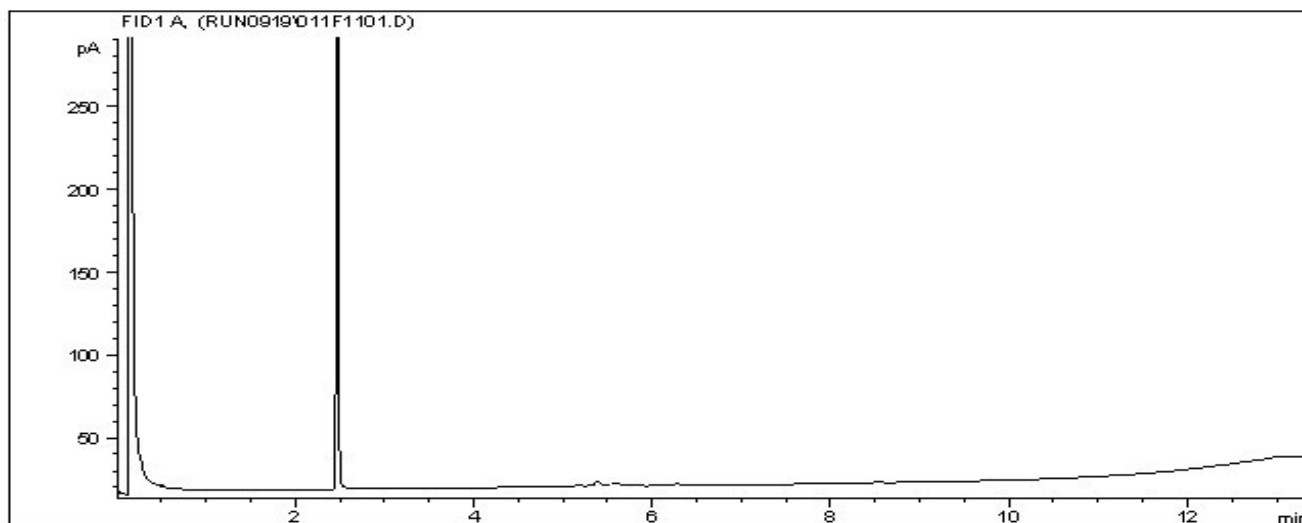
Sample ID	Depth (m)	Matrix (SW / Soil)	Date/Time Sampled (YYMMDD HH:MM)	SOIL				WATER				Other Analysis	# of Containers Submitted
				BTEX P1-P4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity &	Assessment ICP Metals	Basic Class II Landfill	Regulated Metals (Total / Dissolved)	Mercury (Total / Dissolved)		
1	CL-NHDS-2	surface	2010 10 Sep	✓	✓	✓	✓	✓	✓	✓	✓		2
2	EB-NHDS-1 Airship	"	2010 10 Sep	✓	✓	✓	✓	✓	✓	✓	✓		2
3	SB-NHDS-1	"	2010 Sep 8	✓	✓	✓	✓	✓	✓	✓	✓		2
4	SB-NHDS-3	"	2010 Sep 8	✓	✓	✓	✓	✓	✓	✓	✓		2
5													
6													
7													
8													
9													
10													
11													
12													

Please indicate Filtered, Preserved or Both (F, P, FP)
 Requested By (Signature/Print): **JASON MAUCHAN** Date (YYMMDD): **2010 sep 16**
 Retested By (Signature/Print): _____ Date (YYMMDD): _____
 Special Instructions: **cooler 10: 340962-#3**
 Received By: _____ Date: **SEP 18 2010** Time: **0900**
 Maximum Job #: **3087946**
 Custody Seal: _____ Temperature: _____
 Lab Comments: **0900 10:00 AM**

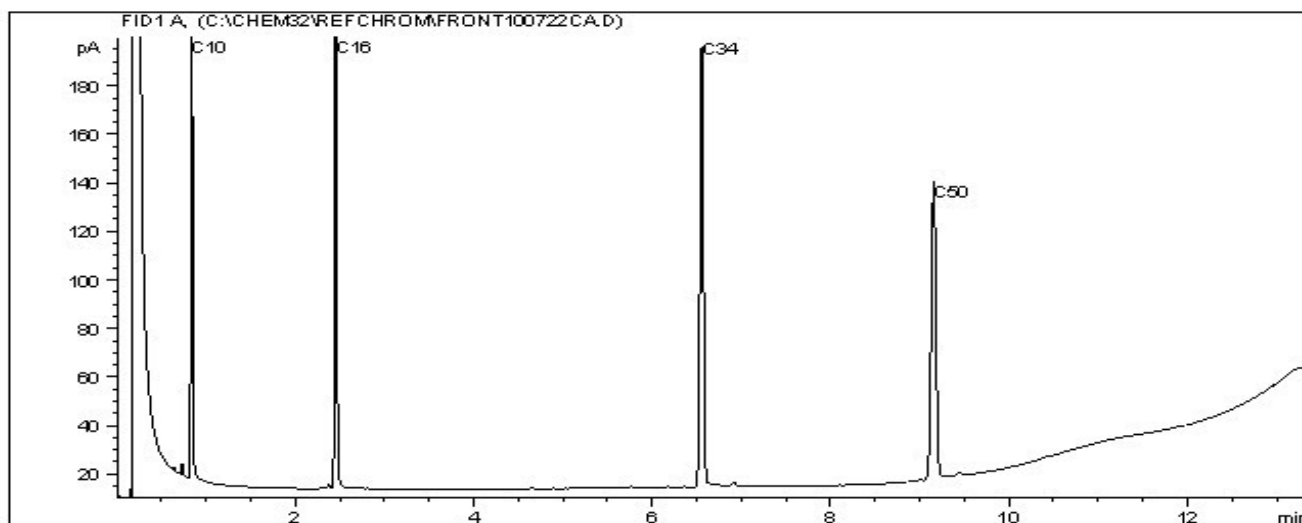
Report Date: 2010/09/30
Maxxam Job #: B087946
Maxxam Sample: X05386

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Client ID: CL-NHDS-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

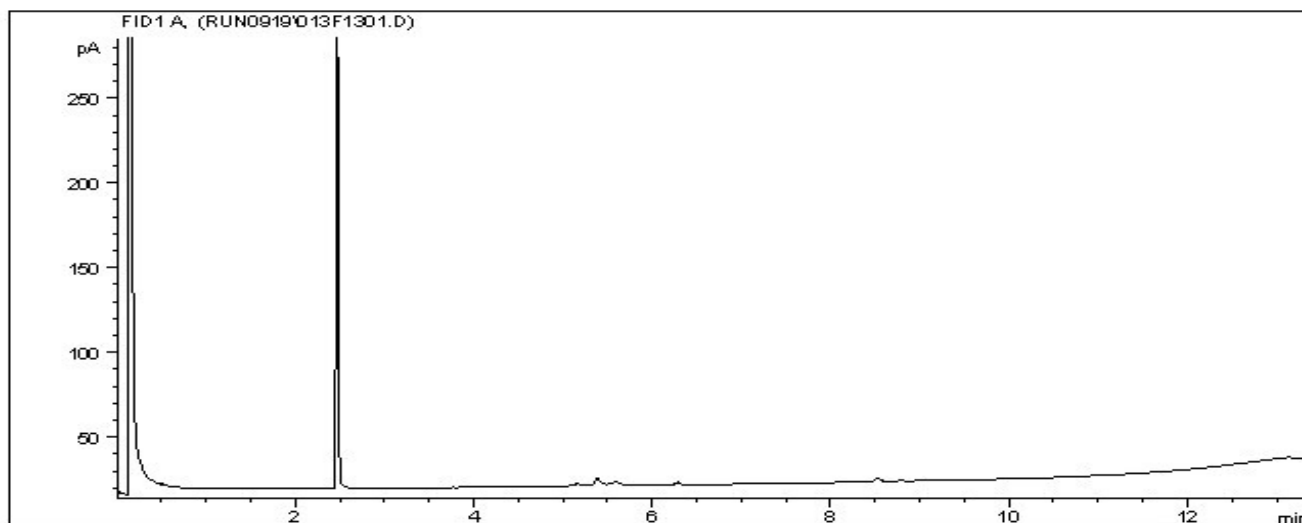
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

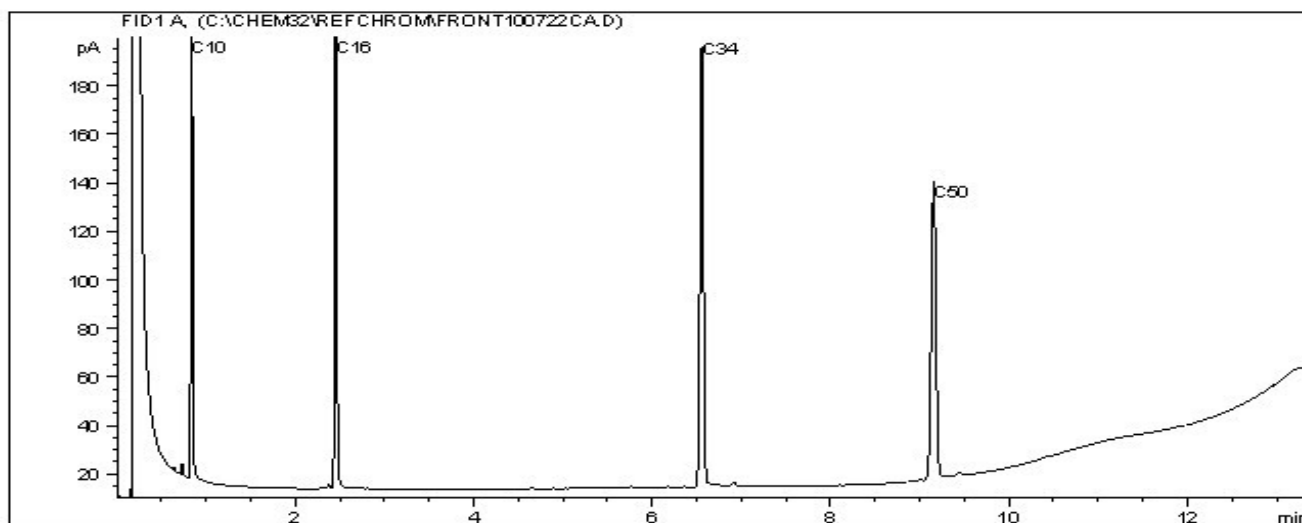
Report Date: 2010/09/30
Maxxam Job #: B087946
Maxxam Sample: X05386

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Client ID: CL-NHDS-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

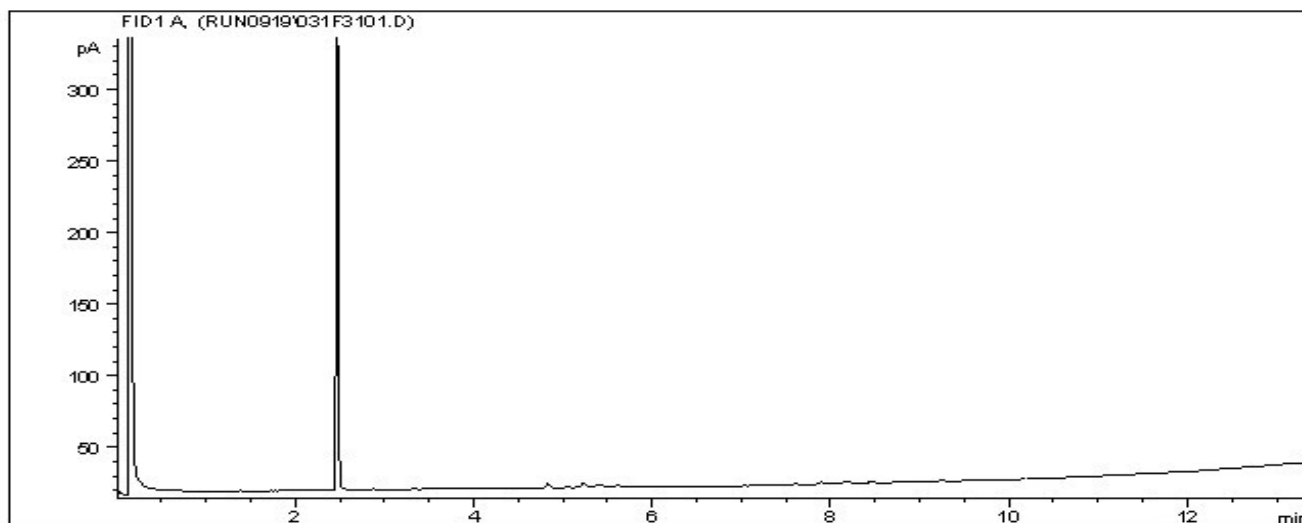
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

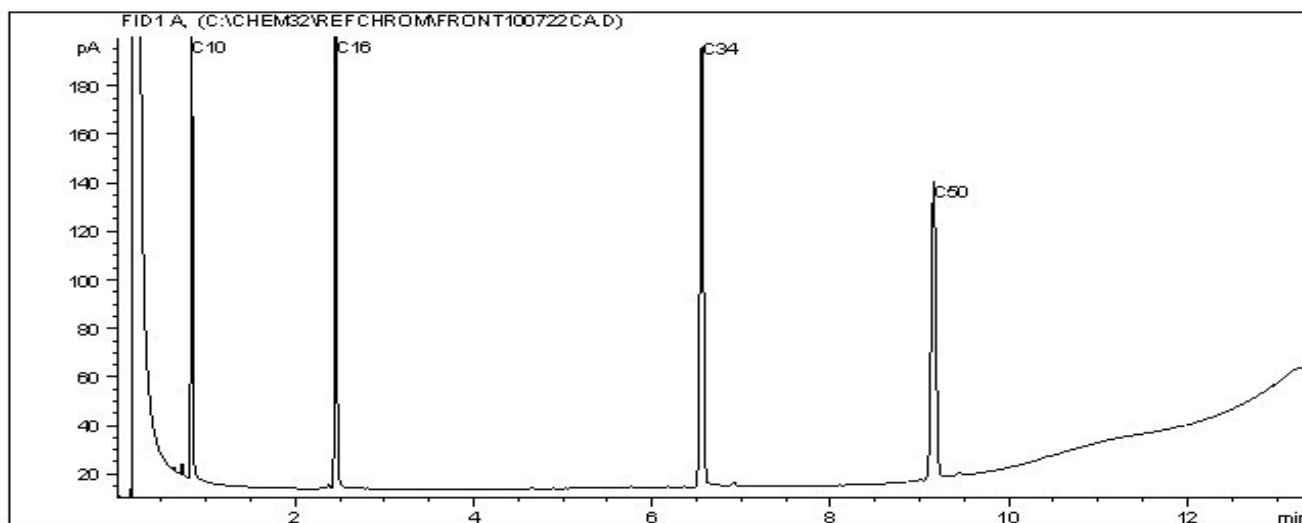
Report Date: 2010/09/30
Maxxam Job #: B087946
Maxxam Sample: X05387

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Client ID: EB-NHDS-1 AIRSTRIP

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

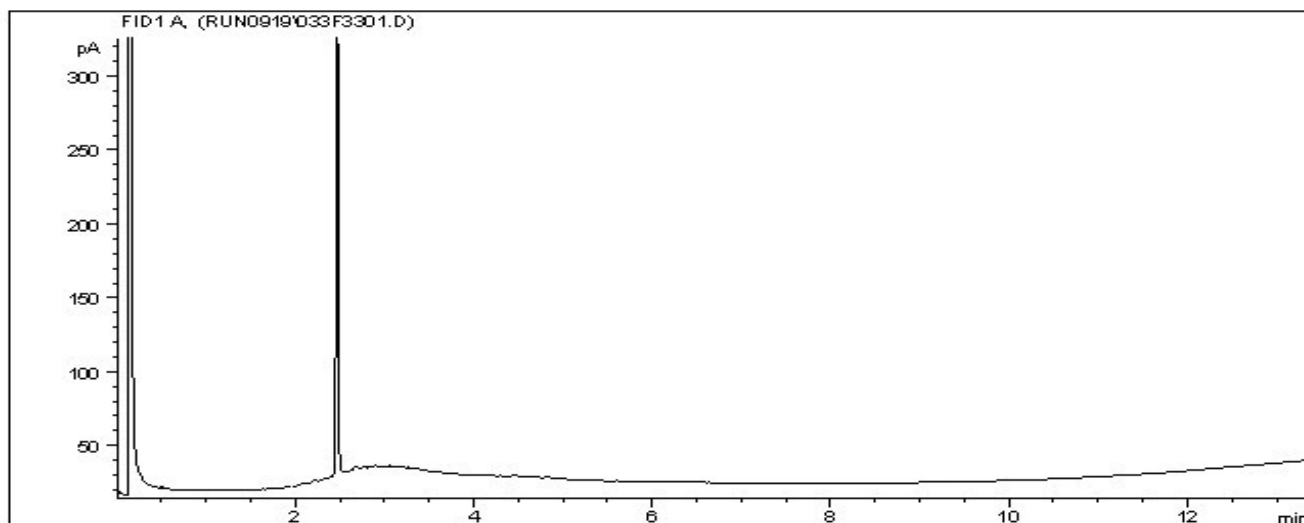
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

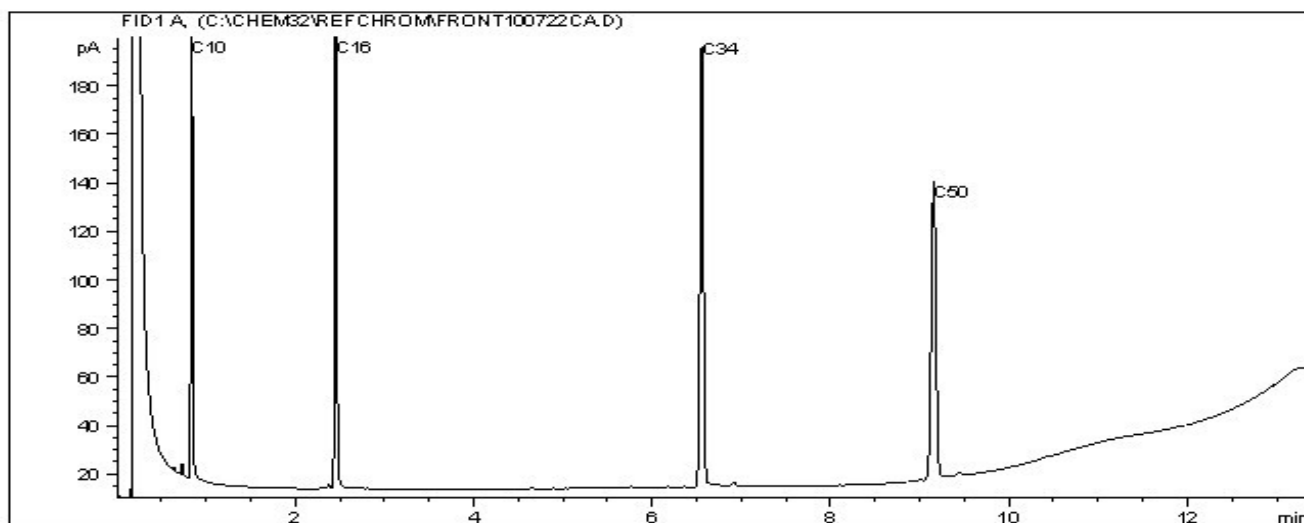
Report Date: 2010/09/30
Maxxam Job #: B087946
Maxxam Sample: X05388

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Client ID: SB-HDS-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

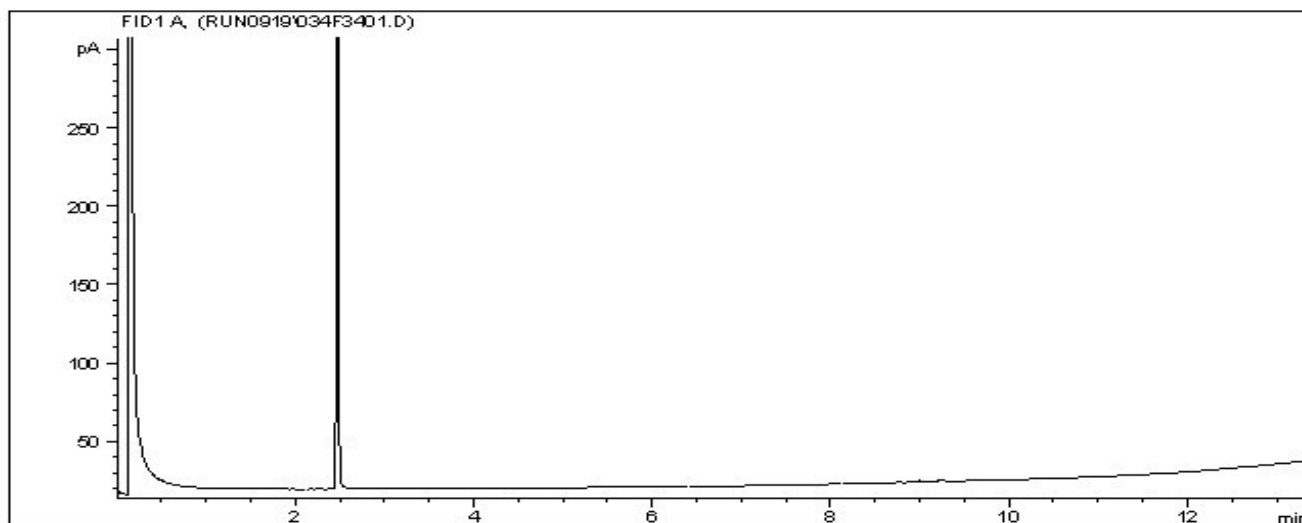
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

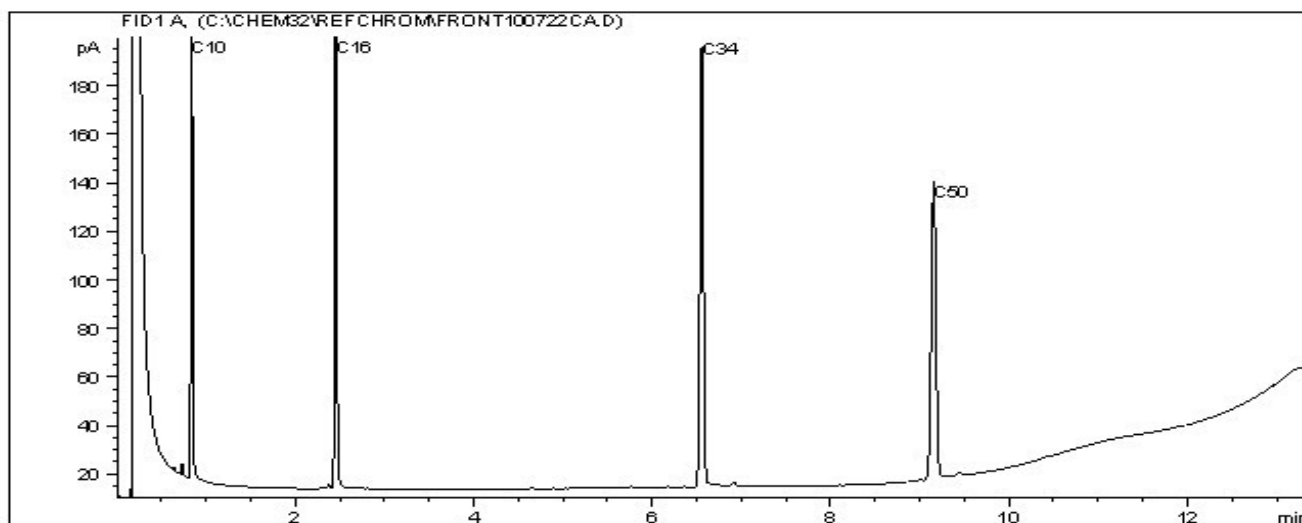
Report Date: 2010/09/30
Maxxam Job #: B087946
Maxxam Sample: X05389

SENE CONSULTANTS LIMITED
Client Project #: GBL SITES/ 340962
Site Reference: GREAT BEAR LAKE
Client ID: SB-NHDS-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

Your Project #: 340962/ GBL SITES
Site: CONTACT LAKE, EL BONANZA
Your C.O.C. #: A019504

Attention: CHARLES F. GRAVELLE
SENE CONSULTANTS LIMITED
121 GRANTON DRIVE, UNIT 12
RICHMOND HILL, ON
CANADA L4B 3N4

Report Date: 2010/10/01

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B091656
Received: 2010/09/24, 10:40

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	6	2010/09/30	2010/09/30	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	6	2010/09/25	2010/09/29	CAL SOP-00190	EPA 8260C/CCME
Hexavalent Chromium	6	2010/09/27	2010/09/27	CAL SOP-00056	SM 3500-Cr B
CCME Hydrocarbons (F2-F4 in soil)	6	2010/09/26	2010/09/28	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
Elements by ICPMS - Soils	5	2010/09/27	2010/09/29	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	1	2010/09/27	2010/10/01	AB SOP-00043	EPA 200.8
Moisture	6	N/A	2010/09/27	CAL SOP-00023	McKeague MSSMA 2.411
Polychlorinated Biphenyls	6	2010/09/29	2010/09/29	CAL SOP-00149	EPA 3550B, EPA 8082A

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LISA MCMANES, Sample Reception Supervisor
Email: lisa.mcmanes@maxxamanalytics.com
Phone# (403) 291-3077

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B091656
Report Date: 2010/10/01

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		X21740	X21740	X21741		
COC#		A019504	A019504	A019504		
	Units	EB-NHDS-1	EB-NHDS-1 Lab-Dup	EB-NHDS-2	RDL	QC Batch
Physical Properties						
Moisture	%	14		1.9	0.3	4293111
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	10	4292845
F3 (C16-C34 Hydrocarbons)	mg/kg	23	24	<10	10	4292845
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	10	4292845
Reached Baseline at C50	mg/kg	YES	YES	YES		4292845
Surrogate Recovery (%)						
O-TERPHENYL (sur.)	%	70	96	71		4292845
Volatiles						
Benzene	mg/kg	0.015		0.013	0.0050	4291169
Toluene	mg/kg	0.18		0.18	0.020	4291169
Ethylbenzene	mg/kg	0.018		0.016	0.010	4291169
Xylenes (Total)	mg/kg	0.096		0.069	0.040	4291169
m & p-Xylene	mg/kg	0.071		0.047	0.040	4291169
o-Xylene	mg/kg	0.025		0.022	0.020	4291169
F1 (C6-C10) - BTEX	mg/kg	<12		<12	12	4291169
(C6-C10)	mg/kg	<12		<12	12	4291169
Surrogate Recovery (%)						
4-BROMOFLUOROBENZENE (sur.)	%	109		109		4291169
D10-ETHYLBENZENE (sur.)	%	75		77		4291169
D4-1,2-DICHLOROETHANE (sur.)	%	77		77		4291169
D8-TOLUENE (sur.)	%	90		91		4291169

RDL = Reportable Detection Limit

Maxxam Job #: B091656
Report Date: 2010/10/01

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		X21742			X21743	X21743	X21769	X21769		
COC#		A019504			A019504	A019504	A019504	A019504		
	Units	CL-NHDS-EA	RDL	QC Batch	CL-HDS-1	CL-HDS-1 Lab-Dup	CL-NHDS-2	CL-NHDS-2 Lab-Dup	RDL	QC Batch
Physical Properties										
Moisture	%	74	0.3	4293111	12	10	15		0.3	4292911
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/kg	<40 ⁽¹⁾	40	4292845	<10		<10		10	4292845
F3 (C16-C34 Hydrocarbons)	mg/kg	110 ⁽¹⁾	40	4292845	720		250		10	4292845
F4 (C34-C50 Hydrocarbons)	mg/kg	<40 ⁽¹⁾	40	4292845	290		140		10	4292845
Reached Baseline at C50	mg/kg	YES		4292845	YES		YES			4292845
Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	73		4292845	74		88			4292845
Volatiles										
Benzene	mg/kg	0.055	0.053	4291169	<0.0050		<0.0050	<0.0050	0.0050	4291169
Toluene	mg/kg	0.68	0.21	4291169	<0.020		<0.020	<0.020	0.020	4291169
Ethylbenzene	mg/kg	<0.11	0.11	4291169	<0.010		<0.010	<0.010	0.010	4291169
Xylenes (Total)	mg/kg	<0.42	0.42	4291169	<0.040		<0.040	<0.040	0.040	4291169
m & p-Xylene	mg/kg	<0.42	0.42	4291169	<0.040		<0.040	<0.040	0.040	4291169
o-Xylene	mg/kg	<0.21	0.21	4291169	<0.020		<0.020	<0.020	0.020	4291169
F1 (C6-C10) - BTEX	mg/kg	<130	130	4291169	<12		<12	<12	12	4291169
(C6-C10)	mg/kg	<130	130	4291169	<12		<12	<12	12	4291169
Surrogate Recovery (%)										
4-BROMOFLUOROBENZENE (sur.)	%	109		4291169	110		109	108		4291169
D10-ETHYLBENZENE (sur.)	%	58		4291169	71		71	74		4291169
D4-1,2-DICHLOROETHANE (sur.)	%	76		4291169	78		78	79		4291169
D8-TOLUENE (sur.)	%	88		4291169	91		91	90		4291169

RDL = Reportable Detection Limit

(1) - Detection limits raised due to high moisture content. Sample contained >50 wt% moisture.

Maxxam Job #: B091656
Report Date: 2010/10/01

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		X21770		
COC#		A019504		
	Units	EB-HDS-1	RDL	QC Batch
Physical Properties				
Moisture	%	9.5	0.3	4292911
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	4292845
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	10	4292845
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	10	4292845
Reached Baseline at C50		YES		4292845
Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	88		4292845
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	4291169
Toluene	mg/kg	<0.020	0.020	4291169
Ethylbenzene	mg/kg	<0.010	0.010	4291169
Xylenes (Total)	mg/kg	<0.040	0.040	4291169
m & p-Xylene	mg/kg	<0.040	0.040	4291169
o-Xylene	mg/kg	<0.020	0.020	4291169
F1 (C6-C10) - BTEX	mg/kg	<12	12	4291169
(C6-C10)	mg/kg	<12	12	4291169
Surrogate Recovery (%)				
4-BROMOFLUOROBENZENE (sur.)	%	113		4291169
D10-ETHYLBENZENE (sur.)	%	78		4291169
D4-1,2-DICHLOROETHANE (sur.)	%	79		4291169
D8-TOLUENE (sur.)	%	92		4291169

RDL = Reportable Detection Limit

Maxxam Job #: B091656
Report Date: 2010/10/01

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X21740		X21741		X21742		X21743		X21769		X21770		
COC#		A019504		A019504		A019504		A019504		A019504		A019504		
	Units	EB-NHDS-1	RDL	EB-NHDS-2	RDL	CL-NHDS-EA	RDL	CL-HDS-1	RDL	CL-NHDS-2	RDL	EB-HDS-1	RDL	QC Batch
Elements														
Soluble (Hot water) Boron (B)	mg/kg	0.7	0.1	<0.1	0.1	0.6	0.4	0.5	0.1	1.0	0.1	0.3	0.1	4301901
Hex. Chromium (Cr 6+)	mg/kg	0.72 ⁽¹⁾	0.30	<0.15	0.15	<1.5 ⁽¹⁾	1.5	<0.15	0.15	<0.15	0.15	<0.15	0.15	4293865
Total Antimony (Sb)	mg/kg	<1	1	<1	1	<4	4	57 ⁽²⁾	20	6	1	<1	1	4294150
Total Arsenic (As)	mg/kg	3	1	2	1	<4	4	7200 ⁽²⁾	20	390 ⁽²⁾	4	2	1	4294150
Total Barium (Ba)	mg/kg	69	10	20	10	79	40	130	10	220	10	38	10	4294150
Total Beryllium (Be)	mg/kg	0.5	0.4	<0.4	0.4	<2	2	0.7	0.4	0.6	0.4	0.5	0.4	4294150
Total Cadmium (Cd)	mg/kg	<0.1	0.1	0.1	0.1	<0.4	0.4	1.0	0.1	0.7	0.1	<0.1	0.1	4294150
Total Chromium (Cr)	mg/kg	28	1	20	1	5	4	32	1	25	1	19	1	4294150
Total Cobalt (Co)	mg/kg	9	1	7	1	<4	4	1700 ⁽²⁾	20	150	1	7	1	4294150
Total Copper (Cu)	mg/kg	21	5	22	5	36	20	3600 ⁽²⁾	20	1200 ⁽²⁾	20	28	5	4294150
Total Lead (Pb)	mg/kg	9	1	6	1	13	4	350 ⁽²⁾	20	120	1	9	1	4294150
Total Mercury (Hg)	mg/kg	<0.05	0.05	<0.05	0.05	<0.2	0.2	48 ⁽²⁾	1	1.9	0.05	0.07	0.05	4294150
Total Molybdenum (Mo)	mg/kg	<0.4	0.4	<0.4	0.4	<2	2	11	0.4	2.2	0.4	<0.4	0.4	4294150
Total Nickel (Ni)	mg/kg	16	1	11	1	4	4	2800 ⁽²⁾	20	120	1	11	1	4294150
Total Selenium (Se)	mg/kg	<0.5	0.5	<0.5	0.5	<2	2	<0.5	0.5	<0.5	0.5	<0.5	0.5	4294150
Total Silver (Ag)	mg/kg	<1	1	<1	1	<4	4	94	1	54 ⁽²⁾	4	<1	1	4294150
Total Thallium (Tl)	mg/kg	<0.3	0.3	<0.3	0.3	<1	1	<0.3	0.3	<0.3	0.3	<0.3	0.3	4294150
Total Tin (Sn)	mg/kg	1	1	<1	1	17	4	8	1	14	1	<1	1	4294150
Total Uranium (U)	mg/kg	1	1	<1	1	<4	4	970 ⁽²⁾	20	39	1	<1	1	4294150
Total Vanadium (V)	mg/kg	44	1	39	1	8	4	62	1	39	1	37	1	4294150
Total Zinc (Zn)	mg/kg	65	10	77	10	77	40	550 ⁽²⁾	200	240	10	64	10	4294150

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference

(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B091656
Report Date: 2010/10/01

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Sampler Initials: JM

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		X21740	X21741		X21742		X21743	X21769	X21769	X21770		
COC#		A019504	A019504		A019504		A019504	A019504	A019504	A019504		
	Units	EB-NHDS-1	EB-NHDS-2	RDL	CL-NHDS-EA	RDL	CL-HDS-1	CL-NHDS-2	CL-NHDS-2 Lab-Dup	EB-HDS-1	RDL	QC Batch
Polychlorinated Biphenyls												
Aroclor 1016	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	<0.010	<0.010	<0.010	<0.010	0.010	4298025
Aroclor 1221	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	<0.010	<0.010	<0.010	<0.010	0.010	4298025
Aroclor 1232	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	<0.010	<0.010	<0.010	<0.010	0.010	4298025
Aroclor 1242	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	<0.010	<0.010	<0.010	<0.010	0.010	4298025
Aroclor 1248	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	<0.010	<0.010	<0.010	<0.010	0.010	4298025
Aroclor 1254	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	<0.010	<0.010	<0.010	<0.010	0.010	4298025
Aroclor 1260	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	0.019	0.014	0.010	<0.010	0.010	4298025
Aroclor 1262	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	<0.010	<0.010	<0.010	<0.010	0.010	4298025
Aroclor 1268	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	<0.010	<0.010	<0.010	<0.010	0.010	4298025
Total Aroclors	mg/kg	<0.010	<0.010	0.010	<0.078	0.078	0.019	0.014	0.010	<0.010	0.010	4298025
Surrogate Recovery (%)												
NONACHLOROBIPHENYL (sur.)	%	106	100		98		59	71	67	86		4298025

RDL = Reportable Detection Limit

Maxxam Job #: B091656
Report Date: 2010/10/01

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Sampler Initials: JM

Package 1	5.3°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

AT1 BTEX AND F1-F4 IN SOIL (SOIL) Comments

Sample X21742-01 BTEX/F1 by HS GC/MS (MeOH extract): Detection limits raised due to high moisture content, sample dry weight <50% w/v.

REGULATED METALS (CCME/AT1) Comments

Sample X21742-01 Boron (Hot Water Soluble): Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample X21742-01 Elements by ICPMS - Soils: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL) Comments

Sample X21742-01 Polychlorinated Biphenyls: Detection limits raised due to matrix interference.

Maxxam Job #: B091656
Report Date: 2010/10/01

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4291169	4-BROMOFLUOROBENZENE (sur.)	2010/09/29	116	60 - 140	122	60 - 140	109	%				
4291169	D10-ETHYLBENZENE (sur.)	2010/09/29	76	30 - 130	94	30 - 130	72	%				
4291169	D4-1,2-DICHLOROETHANE (sur.)	2010/09/29	82	60 - 140	87	60 - 140	76	%				
4291169	D8-TOLUENE (sur.)	2010/09/29	93	60 - 140	85	60 - 140	92	%				
4291169	Benzene	2010/09/29	71	60 - 140	79	60 - 140	<0.0050	mg/kg	NC	50		
4291169	Toluene	2010/09/29	77	60 - 140	89	60 - 140	<0.020	mg/kg	NC	50		
4291169	Ethylbenzene	2010/09/29	92	60 - 140	104	60 - 140	<0.010	mg/kg	NC	50		
4291169	m & p-Xylene	2010/09/29	108	60 - 140	122	60 - 140	<0.040	mg/kg	NC	50		
4291169	o-Xylene	2010/09/29	100	60 - 140	113	60 - 140	<0.020	mg/kg	NC	50		
4291169	(C6-C10)	2010/09/29	85	60 - 140	84	60 - 140	<12	mg/kg	NC	50		
4291169	Xylenes (Total)	2010/09/29					<0.040	mg/kg	NC	50		
4291169	F1 (C6-C10) - BTEX	2010/09/29					<12	mg/kg	NC	50		
4292845	O-TERPHENYL (sur.)	2010/09/28	95	50 - 130	81	50 - 130	78	%				
4292845	F2 (C10-C16 Hydrocarbons)	2010/09/28	99	50 - 130	93	80 - 120	<10	mg/kg	NC	50		
4292845	F3 (C16-C34 Hydrocarbons)	2010/09/28	91	50 - 130	84	80 - 120	<10	mg/kg	NC	50		
4292845	F4 (C34-C50 Hydrocarbons)	2010/09/28	99	50 - 130	89	80 - 120	<10	mg/kg	NC	50		
4292911	Moisture	2010/09/27							19.6	20		
4293111	Moisture	2010/09/27							4.9	20		
4293865	Hex. Chromium (Cr 6+)	2010/09/27			98	90 - 110	<0.15	mg/kg	NC	35		
4294150	Total Antimony (Sb)	2010/09/29	103	75 - 125	115	75 - 125	<1	mg/kg	NC	35		
4294150	Total Arsenic (As)	2010/09/29	97	75 - 125	96	75 - 125	<1	mg/kg	0.5	35	88	50 - 150
4294150	Total Barium (Ba)	2010/09/29	NC	75 - 125	99	75 - 125	<10	mg/kg	1.0	35	106	69 - 131
4294150	Total Beryllium (Be)	2010/09/29	78	75 - 125	99	75 - 125	<0.4	mg/kg	NC	35		
4294150	Total Cadmium (Cd)	2010/09/29	100	75 - 125	97	75 - 125	<0.1	mg/kg	NC	35		
4294150	Total Chromium (Cr)	2010/09/29	NC	75 - 125	98	75 - 125	<1	mg/kg	0.9	35	100	41 - 159
4294150	Total Cobalt (Co)	2010/09/29	101	75 - 125	102	75 - 125	<1	mg/kg	0.04	35	99	75 - 125
4294150	Total Copper (Cu)	2010/09/29	88	75 - 125	100	75 - 125	<5	mg/kg	NC	35	92	72 - 127
4294150	Total Lead (Pb)	2010/09/29	101	75 - 125	106	75 - 125	<1	mg/kg	0.6	35	97	54 - 146
4294150	Total Mercury (Hg)	2010/09/29	95	75 - 125	95	80 - 120	<0.05	mg/kg	NC	35	75	75 - 125
4294150	Total Molybdenum (Mo)	2010/09/29	119	75 - 125	106	75 - 125	<0.4	mg/kg	6.0	35		
4294150	Total Nickel (Ni)	2010/09/29	NC	75 - 125	100	75 - 125	<1	mg/kg	0.1	35	103	61 - 139
4294150	Total Selenium (Se)	2010/09/29	88	75 - 125	88	75 - 125	<0.5	mg/kg	NC	35		
4294150	Total Thallium (Tl)	2010/09/29	75	75 - 125	97	75 - 125	<0.3	mg/kg	NC	35		
4294150	Total Tin (Sn)	2010/09/29	116	75 - 125	105	75 - 125	<1	mg/kg	NC	35		
4294150	Total Uranium (U)	2010/09/29	84	75 - 125	106	75 - 125	<1	mg/kg	NC	35		
4294150	Total Vanadium (V)	2010/09/29	116	75 - 125	100	75 - 125	<1	mg/kg	0.6	35	108	50 - 150
4294150	Total Zinc (Zn)	2010/09/29	NC	75 - 125	103	75 - 125	<10	mg/kg	8.9	35	99	72 - 128
4294150	Total Silver (Ag)	2010/09/29			103	75 - 125	<1	mg/kg	NC	35		
4298025	NONACHLOROBIPHENYL (sur.)	2010/09/29	78	30 - 130	90	30 - 130	85	%				
4298025	Aroclor 1260	2010/09/29	100	30 - 130	112	30 - 130	<0.010	mg/kg	NC	50		

Maxxam Job #: B091656
Report Date: 2010/10/01

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4298025	Aroclor 1016	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1221	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1232	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1242	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1248	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1254	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1262	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1268	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Total Aroclors	2010/09/29					<0.010	mg/kg	NC	50		
4301901	Soluble (Hot water) Boron (B)	2010/09/30	102	75 - 125	96	80 - 120	<0.1	mg/kg	5.6	35		

N/A = Not Applicable

RPD = Relative Percent Difference

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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.

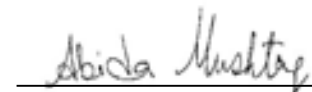
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B091656

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



ABIDA MUSHTAQ, Analyst II



JENNIFER LO, Senior Analyst, Organics Department



LUBA SHYMUSHOVSKA, Senior Analyst, Organic Department



ORLA JORGENSEN, Organics Supervisor

Validation Signature Page

Maxxam Job #: B091656

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



RON VENZI, Scientific Specialist

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Company: **DCS**
 Contact: **Charles Gravelle**
 Address: **121 Granite Drive, Richmond Hill, ON**
 Contact No: **905 883 5184**

Report To: **Same as Invoice**
 Report Distribution (E-Mail): **caravelle@maxxam.com**

REGULATORY GUIDELINES:
☐ AT1
☒ COME
☐ Regulated Drinking Water
☐ Other:

All samples are subject to laboratory fees. After sample receipt, unless specified otherwise.

PO #:
 Project # / Name: **34942 / GBL SITS**
 Site Location: **CONCRETE EL BOAZAR**
 Quote #: **DCS 2010 AICHE SITS**
 Sampled By: **JM**

SERVICE REQUESTED:
☐ RUSH (Contact lab to reserve)
☒ REGULAR (5 to 7 Days)

Sample ID	Depth (unit)	Matrix (oil / soil / fuel)	Date/Time Sampled (YYYYMMDD HHMM)
1 EB-NHDS-1		S	
2 EB-NHDS-2			
3 EB-NHDS-3			
4 CL-NHDS-EA			
5 CL-HDS-1			
6 CL-NHDS-2			
7 EB-HDS-1			
8			
9			
10			
11			
12			

SOIL				WATER				Other Analysis			
BTEX P1-P4	✓	✓	✓	BTEX P1-P4	✓	✓	✓				
Sieve (75 micron)	✓	✓	✓	TOC	✓	✓	✓				
Regulated Metals (CCME / AT1)	✓	✓	✓	DOC	✓	✓	✓				
Salinity 4	✓	✓	✓	Regulated Metals (CCME / AT1)	✓	✓	✓				
Assessment ICP Metals	✓	✓	✓	Total Dissolved	✓	✓	✓				
Basic Class II Landfill	✓	✓	✓	Mercury Total / Dissolved	✓	✓	✓				
See notes for package specifics											

Please indicate Filtered, Preserved or Both (F, P, F/P)

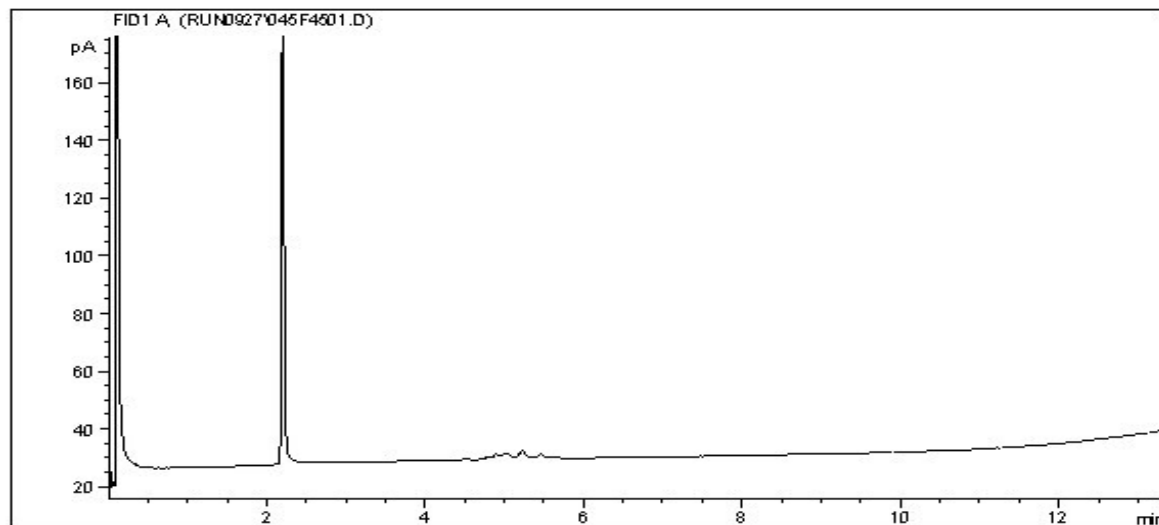
Relinquished By (Signature/Print): **JOHN MAXXAM** Date (YYYYMMDD): **2010 Sep 23** Time (HH:MM): **1600**
 Relinquished By (Signature/Print): _____ Date (YYYYMMDD): _____ Time (HH:MM): _____
 Special Instructions: **COOKER ID: 340462-44**
 # of Jars Used & Not Submitted: _____

Received By: _____ Date: **SEP 25 2010** Time: **09:00**
 Maximum Job #: **B091650**
 Comments: **3,377**
 Lab Comments: **3,377**

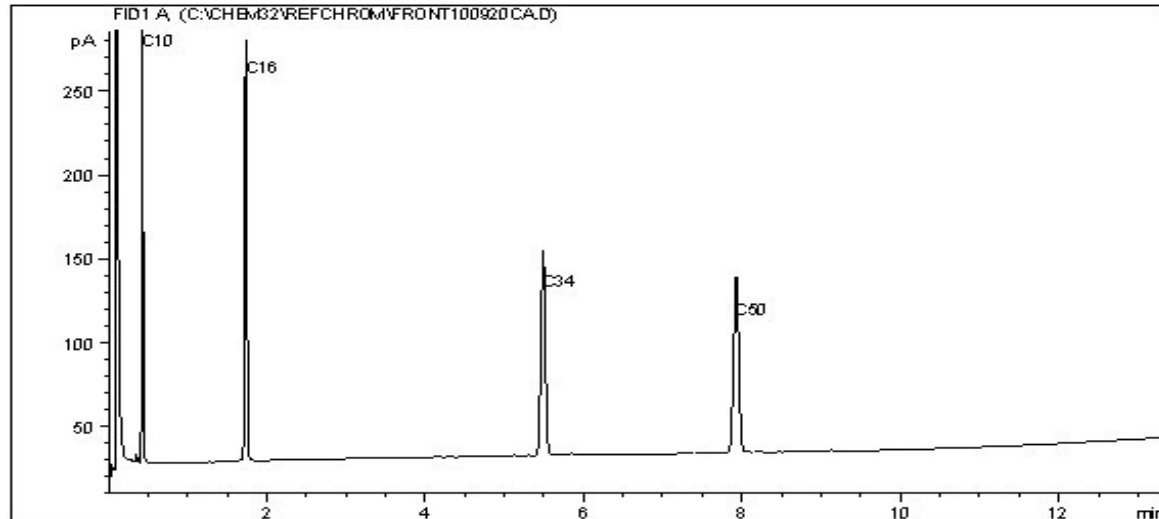
Report Date: 2010/10/01
Maxxam Job #: B091656
Maxxam Sample: X21740

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Client ID: EB-NHDS-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

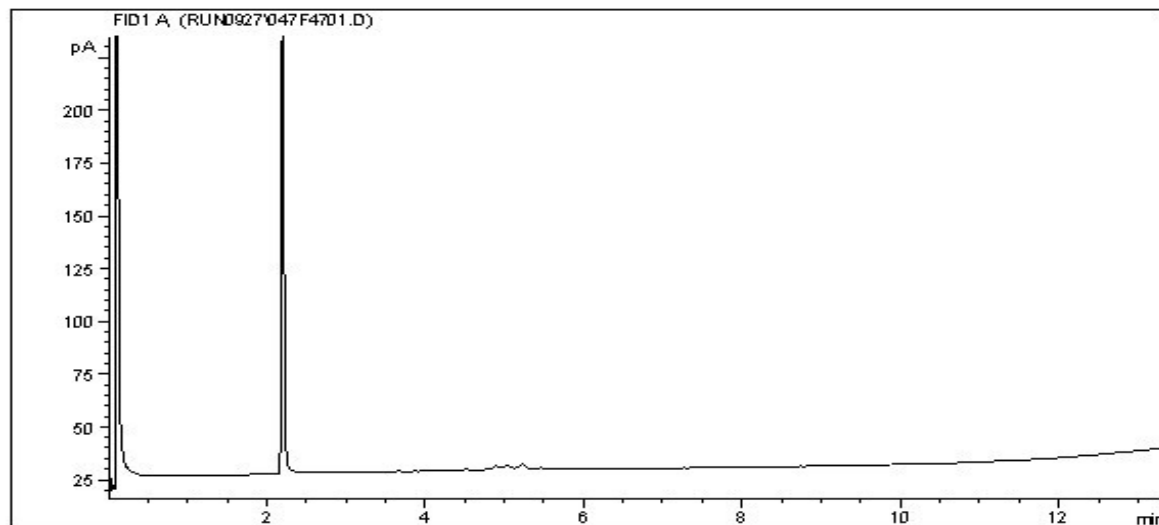
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

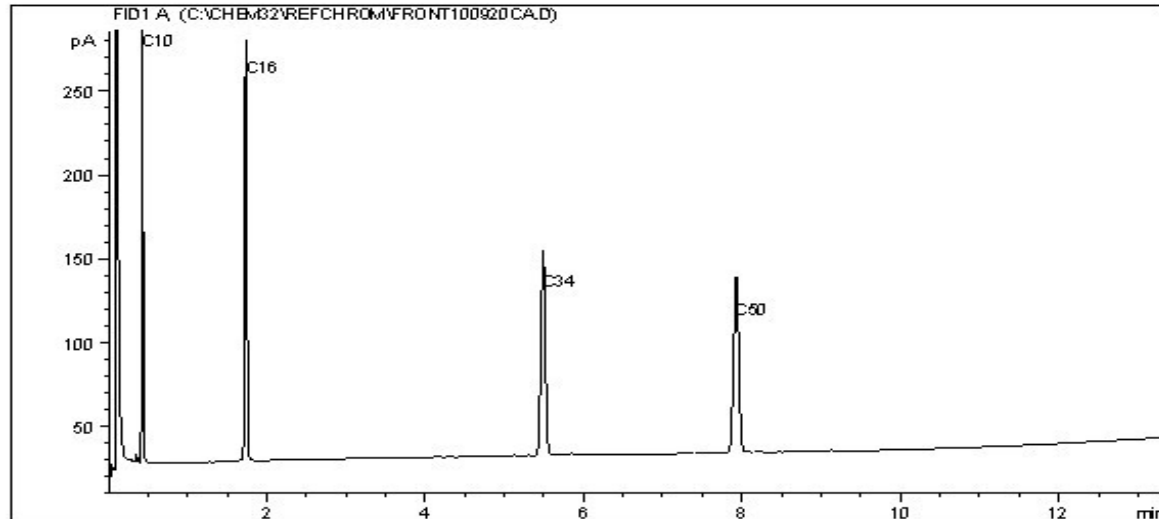
Report Date: 2010/10/01
Maxxam Job #: B091656
Maxxam Sample: X21740

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Client ID: EB-NHDS-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

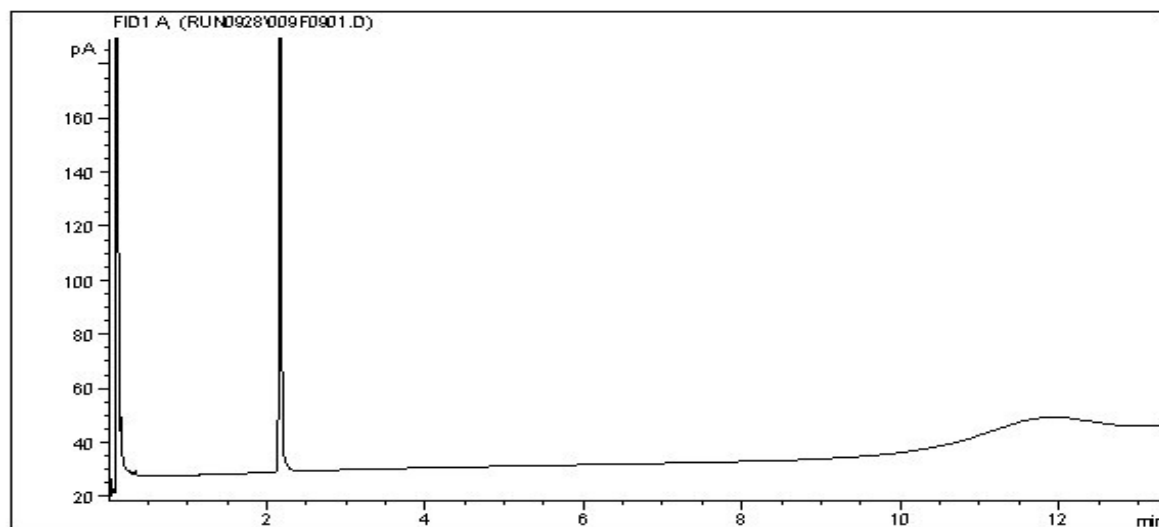
Page 1 of 1

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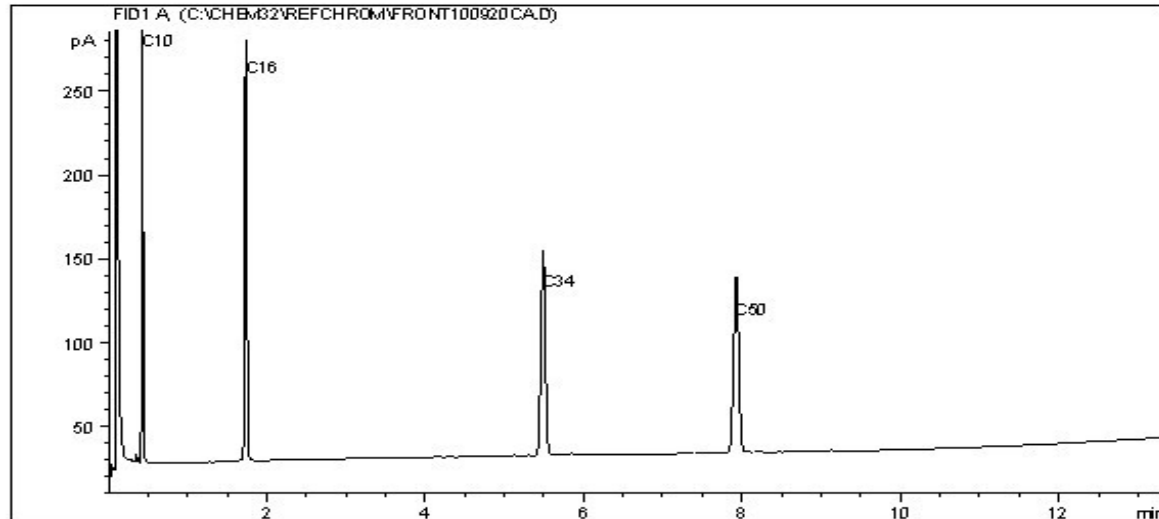
Report Date: 2010/10/01
Maxxam Job #: B091656
Maxxam Sample: X21741

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Client ID: EB-NHDS-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

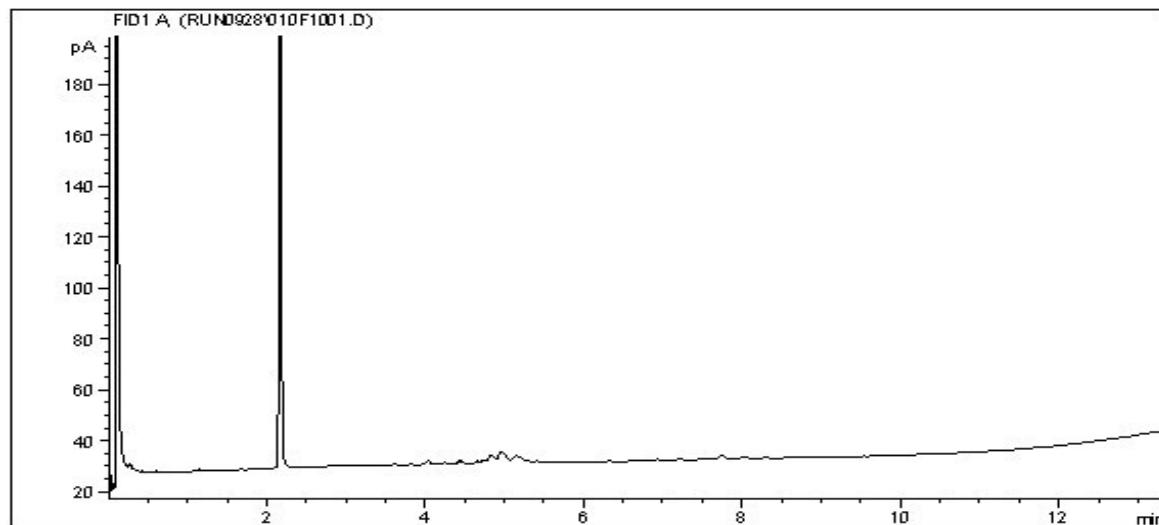
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

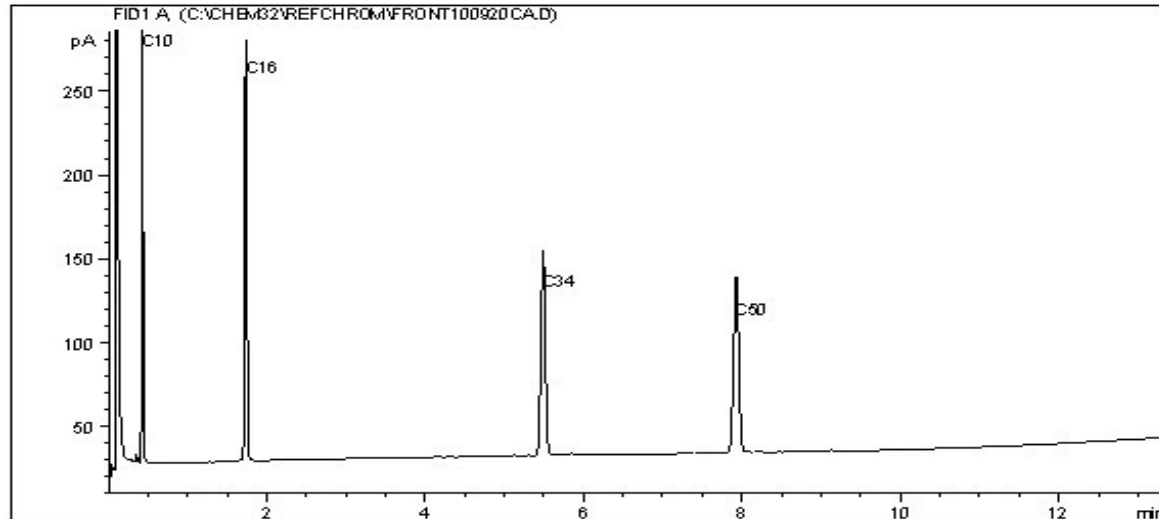
Report Date: 2010/10/01
Maxxam Job #: B091656
Maxxam Sample: X21742

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Client ID: CL-NHDS-EA

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

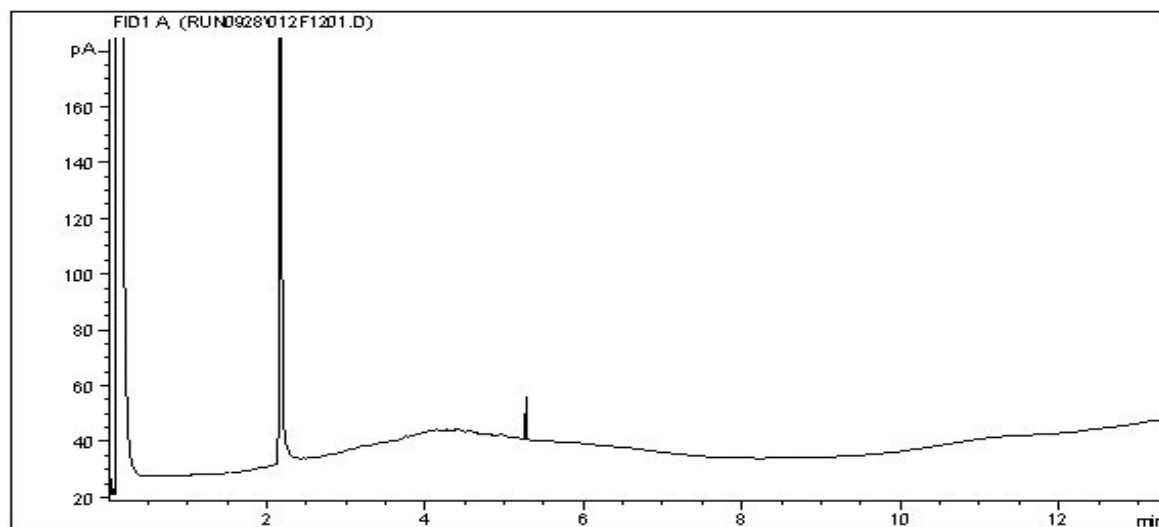
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

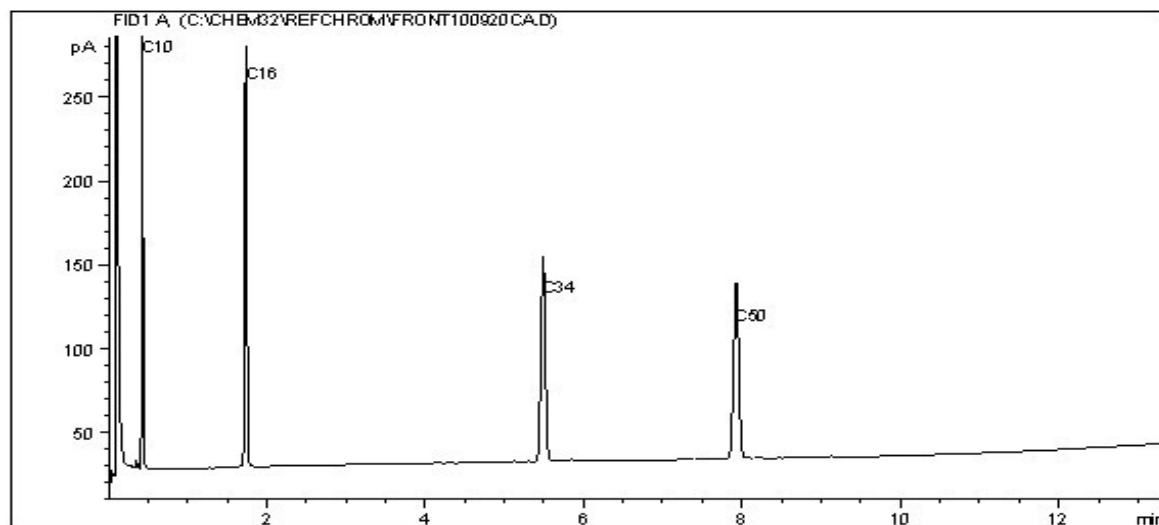
Report Date: 2010/10/01
Maxxam Job #: B091656
Maxxam Sample: X21743

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Client ID: CL-HDS-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

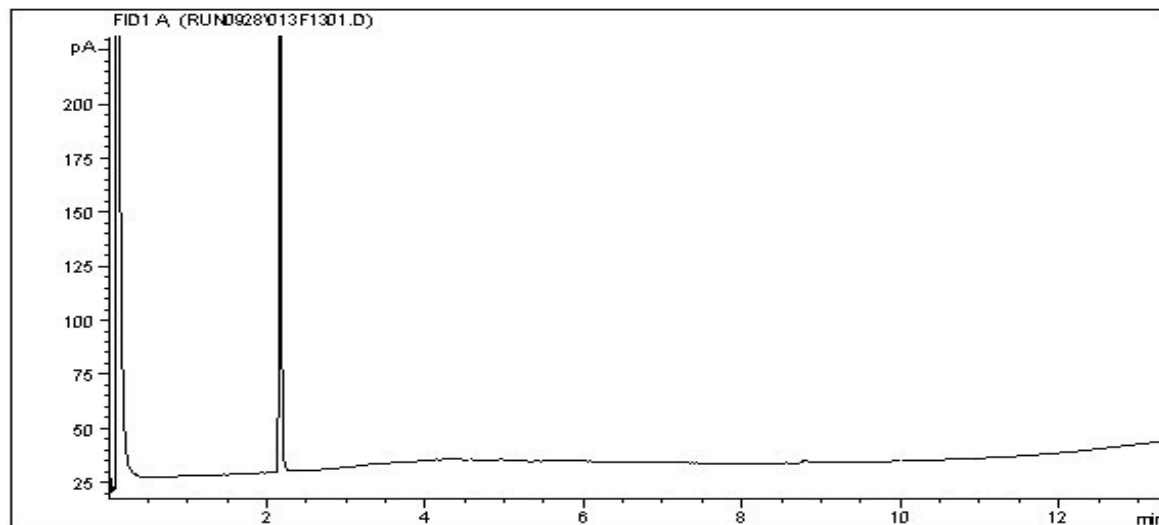
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

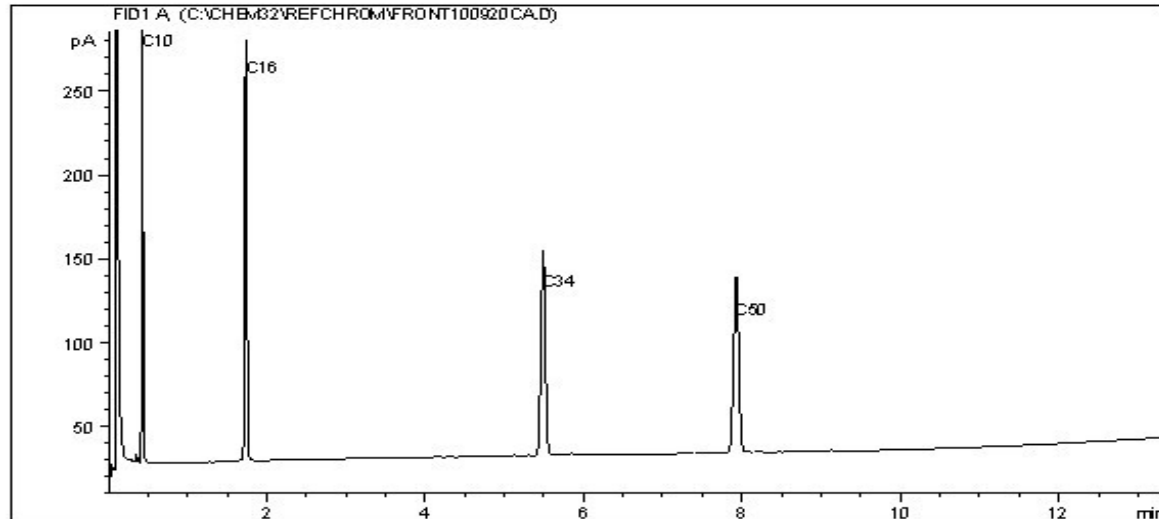
Report Date: 2010/10/01
Maxxam Job #: B091656
Maxxam Sample: X21769

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Client ID: CL-NHDS-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

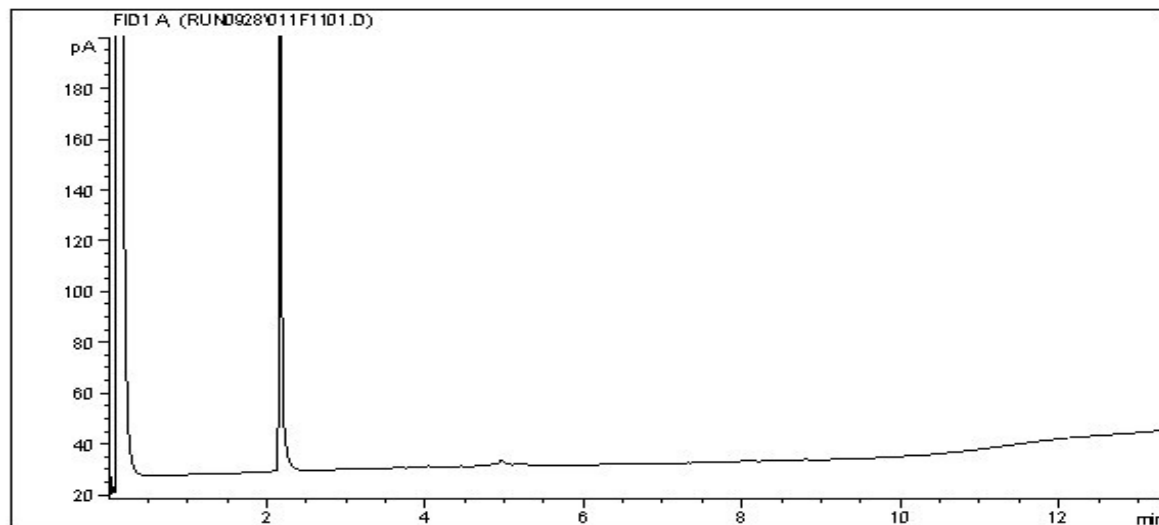
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

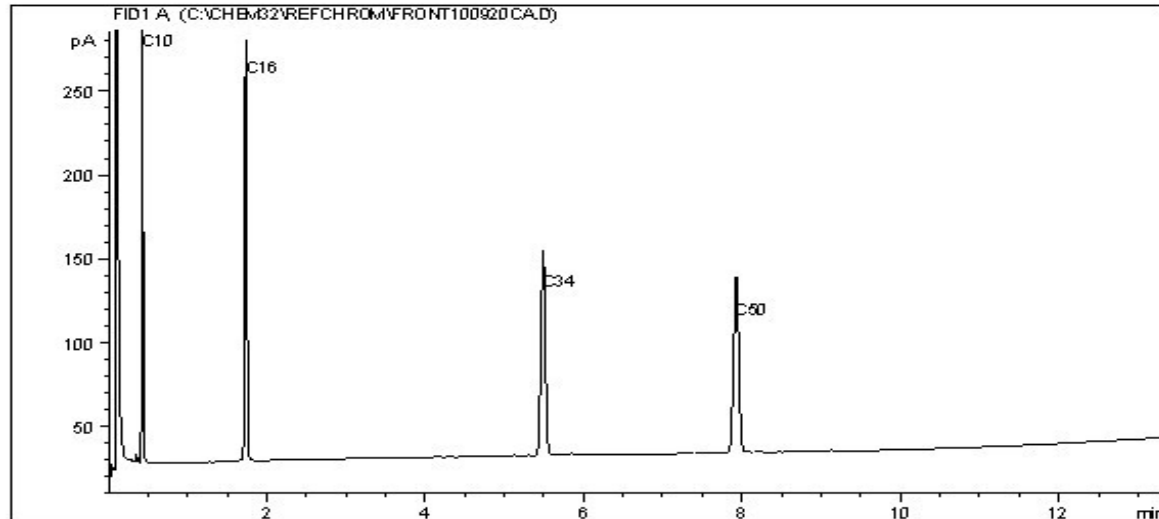
Report Date: 2010/10/01
Maxxam Job #: B091656
Maxxam Sample: X21770

SENE CONSULTANTS LIMITED
Client Project #: 340962/ GBL SITES
Site Reference: CONTACT LAKE, EL BONANZA
Client ID: EB-HDS-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

Your Project #: 340962 / GBL SITES
Site: GREAT BEAR LAKE
Your C.O.C. #: A019550

Attention: CHARLES F. GRAVELLE
SENE CONSULTANTS LIMITED
121 GRANTON DRIVE, UNIT 12
RICHMOND HILL, ON
CANADA L4B 3N4

Report Date: 2010/10/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B095592
Received: 2010/10/04, 15:30

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	7	2010/10/08	2010/10/09	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	7	2010/10/06	2010/10/09	CAL SOP-00190	EPA 8260C/CCME
BTEX/F1 by HS GC/MS (MeOH extract)	1	2010/10/06	2010/10/10	CAL SOP-00190	EPA 8260C/CCME
Hexavalent Chromium	7	2010/10/07	2010/10/07	CAL SOP-00056	SM 3500-Cr B
CCME Hydrocarbons (F2-F4 in soil)	5	2010/10/06	2010/10/08	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in soil)	3	2010/10/06	2010/10/09	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
CCME Hydrocarbons (F4G in soil)	4	2010/10/06	2010/10/12	CAL SOP-00086 AB WI-00016	CCME PHC-CWS
Elements by ICPMS - Soils	4	2010/10/07	2010/10/08	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	3	2010/10/07	2010/10/09	AB SOP-00043	EPA 200.8
Moisture	8	N/A	2010/10/06	CAL SOP-00023	McKeague MSSMA 2.411
Polychlorinated Biphenyls	1	2010/10/12	2010/10/13	CAL SOP-00149	EPA 3550B, EPA 8082A

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS	1	N/A	2010/10/09	CAL SOP-00190	EPA 8260 C / CCME
BTEX/F1 in Water by HS GC/MS	2	N/A	2010/10/10	CAL SOP-00190	EPA 8260 C / CCME
CCME Hydrocarbons (F2-F4 in water)	2	2010/10/08	2010/10/08	CAL SOP-00086 AB WI-00017	EPA3510C/CCME PHCCWS
CCME Hydrocarbons (F2-F4 in water)	1	2010/10/08	2010/10/09	CAL SOP-00086 AB WI-00017	EPA3510C/CCME PHCCWS

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

-2-

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LISA MCMANES, Sample Reception Supervisor
Email: LMcManes@maxxam.ca
Phone# (403) 291-3077

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		X46228	X46228	X46229	X46230	X46231		
Sampling Date		2010/09/29	2010/09/29	2010/09/29	2010/09/24	2010/09/24		
COC#		A019550	A019550	A019550	A019550	A019550		
	Units	B2-NHDS-1	B2-NHDS-1 Lab-Dup	B2-NHDS-2	EB-NHDS-3	EB-NHDS-4	RDL	QC Batch
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	<10	<10	10	4323955
F3 (C16-C34 Hydrocarbons)	mg/kg	400	400	960	<10	210	10	4323955
F4 (C34-C50 Hydrocarbons)	mg/kg	260	260	610	<10	69	10	4323955
Reached Baseline at C50	mg/kg	NO	NO	NO	YES	YES		4323955
OIL & GREASE								
F4SG (Heavy Hydrocarbons-Grav.)	mg/kg	940	840	3200			500	4323965
Surrogate Recovery (%)								
O-TERPHENYL (sur.)	%	97	97	91	93	93		4323955
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	4320216
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	4320216
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	4320216
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	4320216
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	4320216
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	4320216
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	<12	12	4320216
(C6-C10)	mg/kg	<12	<12	<12	<12	<12	12	4320216
Surrogate Recovery (%)								
4-BROMOFLUOROBENZENE (sur.)	%	96	101	97	96	110		4320216
D10-ETHYLBENZENE (sur.)	%	98	97	95	96	95		4320216
D4-1,2-DICHLOROETHANE (sur.)	%	84	98	102	86	124		4320216
D8-TOLUENE (sur.)	%	104	94	98	98	118		4320216

RDL = Reportable Detection Limit

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		X46232		X46233	X46234			X46246		
Sampling Date		2010/09/24		2010/09/27	2010/09/27			2010/09/29		
COC#		A019550		A019550	A019550			A019550		
	Units	EB-NHDS-5	RDL	EB-NHDS-6	EB-NHDS-7	RDL	QC Batch	EB-B	RDL	QC Batch
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/kg	<20 ⁽¹⁾	20	<10	<10	10	4323955	<200 ⁽²⁾	200	4325949
F3 (C16-C34 Hydrocarbons)	mg/kg	620 ⁽³⁾	20	<10	<10	10	4323955	59000 ⁽²⁾	200	4325949
F4 (C34-C50 Hydrocarbons)	mg/kg	220 ⁽⁴⁾	20	<10	<10	10	4323955	320000 ⁽²⁾	200	4325949
Reached Baseline at C50	mg/kg	NO		YES	YES		4323955	NO		4325949
OIL & GREASE										
F4SG (Heavy Hydrocarbons-Grav.)	mg/kg	1200 ⁽⁵⁾	1000				4323965	840000 ⁽²⁾	8000	4326097
Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	97		93	94		4323955	75		4325949
Volatiles										
Benzene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	4320216	<0.10	0.10	4328152
Toluene	mg/kg	<0.020	0.020	<0.020	<0.020	0.020	4320216	0.45	0.40	4328152
Ethylbenzene	mg/kg	<0.010	0.010	<0.010	<0.010	0.010	4320216	0.26	0.20	4328152
Xylenes (Total)	mg/kg	<0.040	0.040	<0.040	<0.040	0.040	4320216	1.7	0.80	4328152
m & p-Xylene	mg/kg	<0.040	0.040	<0.040	<0.040	0.040	4320216	1.0	0.80	4328152
o-Xylene	mg/kg	<0.020	0.020	<0.020	<0.020	0.020	4320216	0.64	0.40	4328152
F1 (C6-C10) - BTEX	mg/kg	<12	12	<12	<12	12	4320216	<240	240	4328152
(C6-C10)	mg/kg	<12	12	<12	<12	12	4320216	<240	240	4328152
Surrogate Recovery (%)										
4-BROMOFLUOROBENZENE (sur.)	%	113		85	94		4320216	89		4328152
D10-ETHYLBENZENE (sur.)	%	71		104	103		4320216	94		4328152
D4-1,2-DICHLOROETHANE (sur.)	%	115		106	99		4320216	88		4328152
D8-TOLUENE (sur.)	%	117		105	100		4320216	100		4328152

RDL = Reportable Detection Limit

- (1) - Detection limits raised due to high moisture content.sample contains >50wt% moisture.
- (2) - Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly
- (3) - Detection limits raised due to high moisture content.sample contains >50 wt% moisture.
- (4) - Detection limits raised due to high moisture content.sample contains >50 wt % moisture.
- (5) - Detection limits raised due to high moisture content, sample contained > 50 wt % moisture

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		X46245		X46247		X51379		
Sampling Date		2010/09/29		2010/09/29		2010/09/29		
COC#		A019550		A019550		A019550		
	Units	EB-A	RDL	EB-C (WATER PHASE)	RDL	EB-C (OIL PHASE)	RDL	QC Batch
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/L	1600 ⁽¹⁾	10	3600 ⁽²⁾	3	380000 ⁽¹⁾	10	4323686
F3 (C16-C34 Hydrocarbons)	mg/L	380000 ⁽¹⁾	10	2600 ⁽²⁾	3	300000 ⁽¹⁾	10	4323686
F4 (C34-C50 Hydrocarbons)	mg/L	270000 ⁽¹⁾	10	5 ⁽²⁾	3	300 ⁽¹⁾	10	4323686
Reached Baseline at C50	mg/L	NO		YES		YES		4323686
Surrogate Recovery (%)								
O-TERPHENYL (sur.)	%			122				4323686
Volatiles								
Benzene	ug/L	<400	400	<4	4	<400	400	4326298
Toluene	ug/L	12000	400	<4	4	<400	400	4326298
Ethylbenzene	ug/L	<400	400	<4	4	<400	400	4326298
o-Xylene	ug/L	<400	400	<4	4	<400	400	4326298
m & p-Xylene	ug/L	810	800	<8	8	<800	800	4326298
Xylenes (Total)	ug/L	810	800	<8	8	<800	800	4326298
F1 (C6-C10) - BTEX	ug/L	160000	100000	39000	1000	270000	100000	4326298
(C6-C10)	ug/L	170000	100000	39000	1000	270000	100000	4326298
Surrogate Recovery (%)								
4-BROMOFLUOROBENZENE (sur.)	%	86		102		81		4326298
D4-1,2-DICHLOROETHANE (sur.)	%	115		103		117		4326298
D8-TOLUENE (sur.)	%	118		99		121		4326298

RDL = Reportable Detection Limit

(1) - Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X46228		X46229		X46230		
Sampling Date		2010/09/29		2010/09/29		2010/09/24		
COC#		A019550		A019550		A019550		
	Units	B2-NHDS-1	RDL	B2-NHDS-2	RDL	EB-NHDS-3	RDL	QC Batch
Elements								
Soluble (Hot water) Boron (B)	mg/kg	0.2	0.1	0.1	0.1	<0.1	0.1	4327556
Hex. Chromium (Cr 6+)	mg/kg	<3.0 ⁽¹⁾	3.0	<1.5 ⁽¹⁾	1.5	<0.15	0.15	4320614
Total Antimony (Sb)	mg/kg	<1	1	<1	1	<1	1	4323898
Total Arsenic (As)	mg/kg	1	1	1	1	2	1	4323898
Total Barium (Ba)	mg/kg	150	10	50	10	22	10	4323898
Total Beryllium (Be)	mg/kg	<0.4	0.4	<0.4	0.4	<0.4	0.4	4323898
Total Cadmium (Cd)	mg/kg	0.5	0.1	0.1	0.1	0.2	0.1	4323898
Total Chromium (Cr)	mg/kg	14	1	13	1	16	1	4323898
Total Cobalt (Co)	mg/kg	7	1	4	1	6	1	4323898
Total Copper (Cu)	mg/kg	10	5	7	5	16	5	4323898
Total Lead (Pb)	mg/kg	38	1	16	1	11	1	4323898
Total Mercury (Hg)	mg/kg	<0.05	0.05	<0.05	0.05	<0.05	0.05	4323898
Total Molybdenum (Mo)	mg/kg	<0.4	0.4	<0.4	0.4	<0.4	0.4	4323898
Total Nickel (Ni)	mg/kg	9	1	7	1	9	1	4323898
Total Selenium (Se)	mg/kg	<0.5	0.5	<0.5	0.5	<0.5	0.5	4323898
Total Silver (Ag)	mg/kg	<1	1	<1	1	<1	1	4323898
Total Thallium (Tl)	mg/kg	<0.3	0.3	<0.3	0.3	<0.3	0.3	4323898
Total Tin (Sn)	mg/kg	14	1	8	1	2	1	4323898
Total Uranium (U)	mg/kg	<1	1	<1	1	<1	1	4323898
Total Vanadium (V)	mg/kg	35	1	34	1	33	1	4323898
Total Zinc (Zn)	mg/kg	920 ⁽²⁾	50	79	10	120	10	4323898

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference

(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X46231		X46232		X46233		X46234		
Sampling Date		2010/09/24		2010/09/24		2010/09/27		2010/09/27		
COC#		A019550		A019550		A019550		A019550		
	Units	EB-NHDS-4	RDL	EB-NHDS-5	RDL	EB-NHDS-6	RDL	EB-NHDS-7	RDL	QC Batch
Elements										
Soluble (Hot water) Boron (B)	mg/kg	<0.1	0.1	0.4 ⁽¹⁾	0.3	<0.1	0.1	<0.1	0.1	4327556
Hex. Chromium (Cr 6+)	mg/kg	<0.30 ⁽²⁾	0.30	<3.0 ⁽²⁾	3.0	<0.15	0.15	<1.5 ⁽²⁾	1.5	4320614
Total Antimony (Sb)	mg/kg	<1	1	2	1	<1	1	<1	1	4324149
Total Arsenic (As)	mg/kg	2	1	6	1	3	1	2	1	4324149
Total Barium (Ba)	mg/kg	52	10	190	10	29	10	86	10	4324149
Total Beryllium (Be)	mg/kg	<0.4	0.4	<0.4	0.4	0.5	0.4	0.6	0.4	4324149
Total Cadmium (Cd)	mg/kg	0.6	0.1	1.5	0.1	0.3	0.1	0.3	0.1	4324149
Total Chromium (Cr)	mg/kg	18	1	15	1	14	1	19	1	4324149
Total Cobalt (Co)	mg/kg	6	1	5	1	7	1	7	1	4324149
Total Copper (Cu)	mg/kg	6	5	57	5	21	5	15	5	4324149
Total Lead (Pb)	mg/kg	15	1	340 ⁽³⁾	4	10	1	10	1	4324149
Total Mercury (Hg)	mg/kg	<0.05	0.05	0.20	0.05	<0.05	0.05	<0.05	0.05	4324149
Total Molybdenum (Mo)	mg/kg	<0.4	0.4	0.7	0.4	<0.4	0.4	<0.4	0.4	4324149
Total Nickel (Ni)	mg/kg	9	1	8	1	11	1	11	1	4324149
Total Selenium (Se)	mg/kg	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	4324149
Total Silver (Ag)	mg/kg	<1	1	13	1	<1	1	6	1	4324149
Total Thallium (Tl)	mg/kg	<0.3	0.3	<0.3	0.3	<0.3	0.3	<0.3	0.3	4324149
Total Tin (Sn)	mg/kg	<1	1	4	1	<1	1	2	1	4324149
Total Uranium (U)	mg/kg	<1	1	3	1	1	1	1	1	4324149
Total Vanadium (V)	mg/kg	43	1	17	1	23	1	39	1	4324149
Total Zinc (Zn)	mg/kg	350 ⁽³⁾	20	720 ⁽³⁾	40	78	10	92	10	4324149

RDL = Reportable Detection Limit

(1) - Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

(2) - Detection limits raised due to matrix interference

(3) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		X46228	X46228	X46229	X46230	X46231	X46232	X46233	X46234	X46235		
Sampling Date		2010/09/29	2010/09/29	2010/09/29	2010/09/24	2010/09/24	2010/09/24	2010/09/27	2010/09/27	2010/09/27		
COC#		A019550	A019550	A019550	A019550	A019550	A019550	A019550	A019550	A019550		
	Units	B2-NHDS-1	B2-NHDS-1 Lab-Dup	B2-NHDS-2	EB-NHDS-3	EB-NHDS-4	EB-NHDS-5	EB-NHDS-6	EB-NHDS-7	EB-TRANS	RDL	QC Batch
Physical Properties												
Moisture	%	14	12	14	5.8	4.6	57	3.9	5.1	13	0.3	4319858

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		X46235	X46235		
Sampling Date		2010/09/27	2010/09/27		
COC#		A019550	A019550		
	Units	EB-TRANS	EB-TRANS Lab-Dup	RDL	QC Batch
Polychlorinated Biphenyls					
Aroclor 1016	mg/kg	<0.10	<0.10	0.10	4328571
Aroclor 1221	mg/kg	<0.10	<0.10	0.10	4328571
Aroclor 1232	mg/kg	<0.10	<0.10	0.10	4328571
Aroclor 1242	mg/kg	<0.10	<0.10	0.10	4328571
Aroclor 1248	mg/kg	<0.10	<0.10	0.10	4328571
Aroclor 1254	mg/kg	<0.10	<0.10	0.10	4328571
Aroclor 1260	mg/kg	0.44	0.43	0.10	4328571
Aroclor 1262	mg/kg	<0.10	<0.10	0.10	4328571
Aroclor 1268	mg/kg	<0.10	<0.10	0.10	4328571
Total Aroclors	mg/kg	0.44	0.43	0.10	4328571
Surrogate Recovery (%)					
NONACHLOROBIPHENYL (sur.)	%	101	97		4328571

RDL = Reportable Detection Limit

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

Package 1	11.0°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

PCB and Metals Cr, Cd & Pb results are attached to this report file. Subcontracting job number from Mississauga is B0E2418.
Total Chlorine results are attached to this report file. Subcontracting job number from Petro Laboratories Inc. #11107 - 1 to 4.

AT1 BTEX AND F1-F4 IN SOIL (SOIL) Comments

Sample X46246-01 BTEX/F1 by HS GC/MS (MeOH extract): Detection limits raised due to matrix interference.

AT1 BTEX AND F1-F4 IN WATER (WATER) Comments

Sample X46245-01 BTEX/F1 in Water by HS GC/MS: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample X46247-01 BTEX/F1 in Water by HS GC/MS: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample X51379-01 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to insufficient sample volume.

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL) Comments

Sample X46235-01 Polychlorinated Biphenyls: Detection limits raised due to dilution to bring analyte within the calibrated range.
Matrix spike non calculable due to high concentration of original analyte.

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4319858	Moisture	2010/10/06							10.1	20		
4320216	4-BROMOFLUOROBENZENE (sur.)	2010/10/09	93	60 - 140	93	60 - 140	96	%				
4320216	D10-ETHYLBENZENE (sur.)	2010/10/09	97	30 - 130	97	30 - 130	102	%				
4320216	D4-1,2-DICHLOROETHANE (sur.)	2010/10/09	95	60 - 140	81	60 - 140	91	%				
4320216	D8-TOLUENE (sur.)	2010/10/09	98	60 - 140	102	60 - 140	97	%				
4320216	Benzene	2010/10/09	97	60 - 140	71	60 - 140	<0.0050	mg/kg	NC	50		
4320216	Toluene	2010/10/09	102	60 - 140	96	60 - 140	<0.020	mg/kg	NC	50		
4320216	Ethylbenzene	2010/10/09	100	60 - 140	93	60 - 140	<0.010	mg/kg	NC	50		
4320216	m & p-Xylene	2010/10/09	102	60 - 140	92	60 - 140	<0.040	mg/kg	NC	50		
4320216	o-Xylene	2010/10/09	95	60 - 140	92	60 - 140	<0.020	mg/kg	NC	50		
4320216	(C6-C10)	2010/10/09	104	60 - 140	96	60 - 140	<12	mg/kg	NC	50		
4320216	Xylenes (Total)	2010/10/09					<0.040	mg/kg	NC	50		
4320216	F1 (C6-C10) - BTEX	2010/10/09					<12	mg/kg	NC	50		
4320614	Hex. Chromium (Cr 6+)	2010/10/07	97	75 - 125	102	90 - 110	<0.15	mg/kg	NC	35		
4323686	O-TERPHENYL (sur.)	2010/10/08	97	70 - 130	98	70 - 130	95	%				
4323686	F2 (C10-C16 Hydrocarbons)	2010/10/08	99	70 - 130	99	70 - 130	<0.1	mg/L	NC	40		
4323686	F3 (C16-C34 Hydrocarbons)	2010/10/08	101	70 - 130	95	70 - 130	<0.1	mg/L	NC	40		
4323686	F4 (C34-C50 Hydrocarbons)	2010/10/08	98	70 - 130	103	70 - 130	<0.1	mg/L	NC	40		
4323898	Total Antimony (Sb)	2010/10/09	103	75 - 125	109	75 - 125	<1	mg/kg	NC	35		
4323898	Total Arsenic (As)	2010/10/09	89	75 - 125	93	75 - 125	<1	mg/kg	2.1	35	91	50 - 150
4323898	Total Barium (Ba)	2010/10/09	NC	75 - 125	103	75 - 125	<10	mg/kg	1	35	106	69 - 131
4323898	Total Cadmium (Cd)	2010/10/09	97	75 - 125	94	75 - 125	<0.1	mg/kg	NC	35		
4323898	Total Chromium (Cr)	2010/10/09	97	75 - 125	100	75 - 125	<1	mg/kg	0.2	35	107	41 - 159
4323898	Total Cobalt (Co)	2010/10/09	104	75 - 125	101	75 - 125	<1	mg/kg	2.0	35	103	75 - 125
4323898	Total Copper (Cu)	2010/10/09	91	75 - 125	104	75 - 125	<5	mg/kg	NC	35	95	72 - 127
4323898	Total Lead (Pb)	2010/10/09	76	75 - 125	101	75 - 125	<1	mg/kg	1.8	35	92	54 - 146
4323898	Total Mercury (Hg)	2010/10/09	86	75 - 125	93	80 - 120	<0.05	mg/kg	NC	35	95	75 - 125
4323898	Total Molybdenum (Mo)	2010/10/09	112	75 - 125	104	75 - 125	<0.4	mg/kg	NC	35		
4323898	Total Nickel (Ni)	2010/10/09	NC	75 - 125	101	75 - 125	<1	mg/kg	0.5	35	103	61 - 139
4323898	Total Selenium (Se)	2010/10/09	84	75 - 125	84	75 - 125	<0.5	mg/kg	NC	35		
4323898	Total Thallium (Tl)	2010/10/09	83	75 - 125	95	75 - 125	<0.3	mg/kg	NC	35		
4323898	Total Tin (Sn)	2010/10/09	112	75 - 125	100	75 - 125	<1	mg/kg	NC	35		
4323898	Total Uranium (U)	2010/10/09	79	75 - 125	103	75 - 125	<1	mg/kg	NC	35		
4323898	Total Vanadium (V)	2010/10/09	NC	75 - 125	104	75 - 125	<1	mg/kg	0.3	35	117	50 - 150
4323898	Total Zinc (Zn)	2010/10/09	NC	75 - 125	109	75 - 125	<10	mg/kg	5.3	35	92	72 - 128
4323898	Total Beryllium (Be)	2010/10/09			105	75 - 125	<0.4	mg/kg	NC	35		
4323898	Total Silver (Ag)	2010/10/09			104	75 - 125	<1	mg/kg	NC	35		
4323955	O-TERPHENYL (sur.)	2010/10/08	92	50 - 130	89	50 - 130	93	%				
4323955	F2 (C10-C16 Hydrocarbons)	2010/10/08	88	50 - 130	100	80 - 120	<10	mg/kg	NC	50		
4323955	F3 (C16-C34 Hydrocarbons)	2010/10/08	NC	50 - 130	90	80 - 120	<10	mg/kg	0.6	50		

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4323955	F4 (C34-C50 Hydrocarbons)	2010/10/08	NC	50 - 130	99	80 - 120	<10	mg/kg	0.6	50		
4323965	F4SG (Heavy Hydrocarbons-Grav.)	2010/10/12			82	N/A	<500	mg/kg	NC	50		
4324149	Total Antimony (Sb)	2010/10/08	81	75 - 125	102	75 - 125	<1	mg/kg	NC	35		
4324149	Total Arsenic (As)	2010/10/08	90	75 - 125	94	81 - 103	<1	mg/kg	9.5	35	92	50 - 150
4324149	Total Barium (Ba)	2010/10/08	NC	75 - 125	97	75 - 125	<10	mg/kg	1.3	35	115	69 - 131
4324149	Total Beryllium (Be)	2010/10/08	109	75 - 125	116	75 - 116	<0.4	mg/kg	NC	35		
4324149	Total Cadmium (Cd)	2010/10/08	93	75 - 125	96	75 - 125	<0.1	mg/kg	0.05	35		
4324149	Total Chromium (Cr)	2010/10/08	106	75 - 125	106	75 - 125	<1	mg/kg	7.9	35	103	41 - 159
4324149	Total Cobalt (Co)	2010/10/08	100	75 - 125	108	75 - 125	<1	mg/kg	4.1	35	104	75 - 125
4324149	Total Copper (Cu)	2010/10/08	88	75 - 125	100	75 - 125	<5	mg/kg	NC	35	96	72 - 127
4324149	Total Lead (Pb)	2010/10/08	94	75 - 125	105	85 - 112	<1	mg/kg	0.7	35	103	54 - 146
4324149	Total Mercury (Hg)	2010/10/08	90	75 - 125	96	75 - 125	<0.05	mg/kg	NC	35	121	75 - 125
4324149	Total Molybdenum (Mo)	2010/10/08	97	75 - 125	101	75 - 125	<0.4	mg/kg	NC	35		
4324149	Total Nickel (Ni)	2010/10/08	NC	75 - 125	102	75 - 125	<1	mg/kg	6.4	35	108	61 - 139
4324149	Total Selenium (Se)	2010/10/08	83	75 - 125	88	75 - 125	<0.5	mg/kg	NC	35		
4324149	Total Thallium (Tl)	2010/10/08	97	75 - 125	101	75 - 125	<0.3	mg/kg	NC	35		
4324149	Total Tin (Sn)	2010/10/08	88	75 - 125	95	75 - 125	<1	mg/kg	NC	35		
4324149	Total Uranium (U)	2010/10/08	98	75 - 125	95	75 - 125	<1	mg/kg	NC	35		
4324149	Total Vanadium (V)	2010/10/08	NC	75 - 125	113	75 - 125	<1	mg/kg	2.9	35	111	50 - 150
4324149	Total Zinc (Zn)	2010/10/08	NC	75 - 125	96	75 - 125	<10	mg/kg	6.7	35	102	72 - 128
4324149	Total Silver (Ag)	2010/10/08			100	75 - 125	<1	mg/kg	NC	35		
4325949	O-TERPHENYL (sur.)	2010/10/09	88	50 - 130	89	50 - 130	86	%				
4325949	F2 (C10-C16 Hydrocarbons)	2010/10/09	91	50 - 130	87	80 - 120	<10	mg/kg	NC	50		
4325949	F3 (C16-C34 Hydrocarbons)	2010/10/09	90	50 - 130	86	80 - 120	<10	mg/kg	NC	50		
4325949	F4 (C34-C50 Hydrocarbons)	2010/10/09	90	50 - 130	87	80 - 120	<10	mg/kg	NC	50		
4326097	F4SG (Heavy Hydrocarbons-Grav.)	2010/10/12			105	N/A	<500	mg/kg				
4326298	4-BROMOFLUOROBENZENE (sur.)	2010/10/09	99	70 - 130	101	70 - 130	88	%				
4326298	D4-1,2-DICHLOROETHANE (sur.)	2010/10/09	107	70 - 130	105	70 - 130	104	%				
4326298	D8-TOLUENE (sur.)	2010/10/09	103	70 - 130	99	70 - 130	102	%				
4326298	Benzene	2010/10/09	113	70 - 130	110	70 - 130	<0.4	ug/L	NC	40		
4326298	Toluene	2010/10/09	107	70 - 130	104	70 - 130	<0.4	ug/L	NC	40		
4326298	Ethylbenzene	2010/10/09	103	70 - 130	100	70 - 130	<0.4	ug/L	NC	40		
4326298	o-Xylene	2010/10/09	103	70 - 130	101	70 - 130	<0.4	ug/L	NC	40		
4326298	m & p-Xylene	2010/10/09	103	70 - 130	100	70 - 130	<0.8	ug/L	NC	40		
4326298	(C6-C10)	2010/10/09			87	70 - 130	<100	ug/L	NC	40		
4326298	Xylenes (Total)	2010/10/09					<0.8	ug/L	NC	40		
4326298	F1 (C6-C10) - BTEX	2010/10/09					<100	ug/L	NC	40		
4327556	Soluble (Hot water) Boron (B)	2010/10/09	100	75 - 125	99	80 - 120	<0.1	mg/kg	NC	35		
4328152	4-BROMOFLUOROBENZENE (sur.)	2010/10/10	102	60 - 140	100	60 - 140	82	%				
4328152	D10-ETHYLBENZENE (sur.)	2010/10/10	88	30 - 130	94	30 - 130	92	%				

Maxxam Job #: B095592
Report Date: 2010/10/13

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4328152	D4-1,2-DICHLOROETHANE (sur.)	2010/10/10	90	60 - 140	89	60 - 140	88	%				
4328152	D8-TOLUENE (sur.)	2010/10/10	92	60 - 140	98	60 - 140	96	%				
4328152	Benzene	2010/10/10	78	60 - 140	78	60 - 140	<0.0050	mg/kg	NC	50		
4328152	Toluene	2010/10/10	83	60 - 140	81	60 - 140	<0.020	mg/kg	NC	50		
4328152	Ethylbenzene	2010/10/10	92	60 - 140	89	60 - 140	<0.010	mg/kg	NC	50		
4328152	m & p-Xylene	2010/10/10	99	60 - 140	96	60 - 140	<0.040	mg/kg	NC	50		
4328152	o-Xylene	2010/10/10	94	60 - 140	91	60 - 140	<0.020	mg/kg	NC	50		
4328152	(C6-C10)	2010/10/10	72	60 - 140	101	60 - 140	<12	mg/kg	NC	50		
4328152	Xylenes (Total)	2010/10/10					<0.040	mg/kg	NC	50		
4328152	F1 (C6-C10) - BTEX	2010/10/10					<12	mg/kg	NC	50		
4328571	NONACHLOROBIPHENYL (sur.)	2010/10/13	116	30 - 130	110	30 - 130	104	%				
4328571	Aroclor 1260	2010/10/13	NC	30 - 130	115	30 - 130	<0.010	mg/kg	NC	50		
4328571	Aroclor 1016	2010/10/13					<0.010	mg/kg	NC	50		
4328571	Aroclor 1221	2010/10/13					<0.010	mg/kg	NC	50		
4328571	Aroclor 1232	2010/10/13					<0.010	mg/kg	NC	50		
4328571	Aroclor 1242	2010/10/13					<0.010	mg/kg	NC	50		
4328571	Aroclor 1248	2010/10/13					<0.010	mg/kg	NC	50		
4328571	Aroclor 1254	2010/10/13					<0.010	mg/kg	NC	50		
4328571	Aroclor 1262	2010/10/13					<0.010	mg/kg	NC	50		
4328571	Aroclor 1268	2010/10/13					<0.010	mg/kg	NC	50		
4328571	Total Aroclors	2010/10/13					<0.010	mg/kg	NC	50		

N/A = Not Applicable

RPD = Relative Percent Difference

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B095592

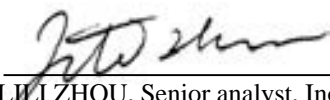
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



JENNIFER LO, Senior Analyst, Organics Department



LUBA SHYMUSHOVSKA, Senior Analyst, Organic Department



LILI ZHOU, Senior analyst, Inorganic department.



ORLA JORGENSEN, Organics Supervisor

Validation Signature Page

Maxxam Job #: B095592

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).


VERONICA FALK, Scientific Specialist

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Company:	Invoice To:	Report To:	REGULATORY GUIDELINES:
DCS	DCS	Same as Invoice	<input type="checkbox"/> A11
Contact:	Charles Gravelle	Charles Gravelle	<input checked="" type="checkbox"/> CCMC
Address:	121 Givens Dr Unit II, Richmond Hill		<input type="checkbox"/> Regulated Drinking Water
	ONTARIO		<input type="checkbox"/> Other
Contact #:	905 882 5484		

Project # / Name:	340962 / GBL Site
Site Location:	Great Bear Lake
Quota #:	DCS 2010 Arch Site
Sampled By:	JM KH
SERVICE REQUESTED:	<input type="checkbox"/> RUSH (Contact lab to reserve) <input checked="" type="checkbox"/> REGULAR (5 to 7 Days)

Sample ID	Depth (m)	Matrix (S/W / B / Sed)	Date/Time Sampled (YYYYMMDD HH:MM)	SOIL	WATER	Other Analysis	# of Containers Submitted
1 BZ- NHDS-1		S	2010 Sep 24	✓	✓	PCBs	✓
2 BZ- NHDS-2		S	2010 Sep 24	✓	✓	PCBs	✓
3 EB- NHDS-3		S	2010 Sep 24	✓	✓	PCBs	✓
4 EB- NHDS-4		S	2010 Sep 24	✓	✓	PCBs	✓
5 EB- NHDS-5		S	2010 Sep 24	✓	✓	PCBs	✓
6 EB- NHDS-6		S	2010 Sep 27	✓	✓	PCBs	✓
7 EB- NHDS-7		S	2010 Sep 27	✓	✓	PCBs	✓
8 EB- Trans		S	2010 Sep 27	✓	✓	PCBs	✓
9 EB- A	Barrel	W	2010 Sep 24	✓	✓	PCBs	✓
10 EB- B	Barrel	W	2010 Sep 24	✓	✓	PCBs	✓
11 EB- C	Barrel	W	2010 Sep 24	✓	✓	PCBs	✓
12							

Please Indicate Filtered, Preserved or Both (F, P, F/P)

Relinquished By (Signature/Print):	Date (YYYYMMDD):	Time (24 Hr):
Relinquished By (Signature/Print):	Date (YYYYMMDD):	Time (24 Hr):
Special Instructions:	Cooler 10: 340962-#5	

Received By: MANM... Date: OCT 05 2010 Time: 15:30

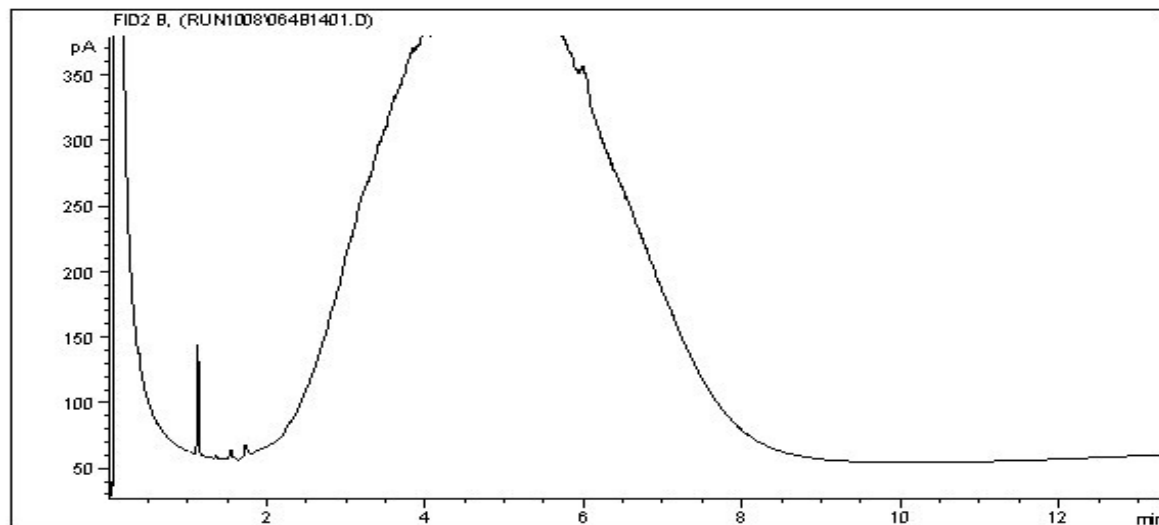
Lab Comments: ARRIVED AT DEPOSIT

Cooler Temp: 6.7.6

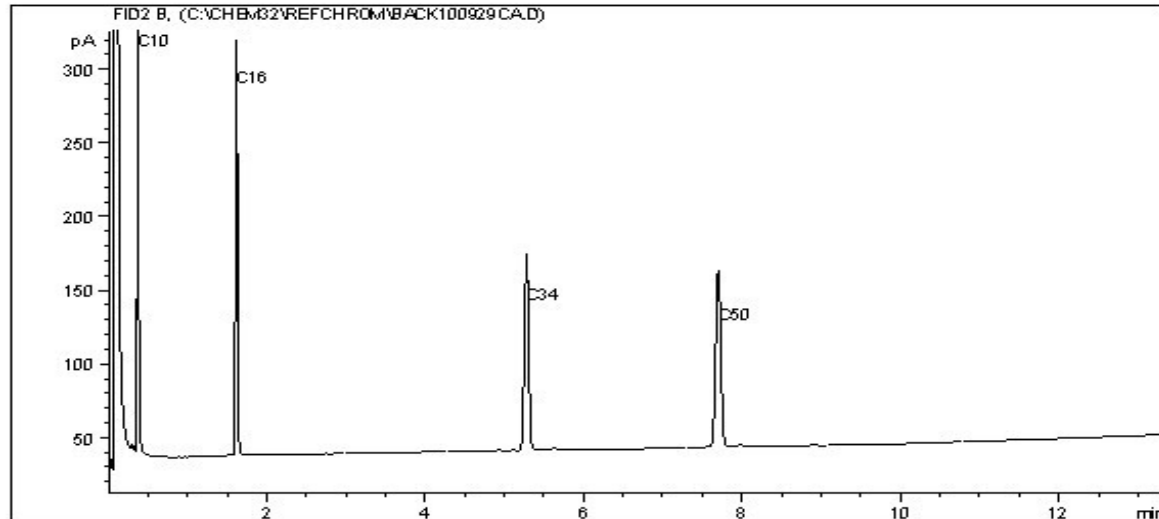
Report Date: 2010/10/13
Maxxam Job #: B095592
Maxxam Sample: X46245

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Client ID: EB-A

CCME Hydrocarbons (F2-F4 in water) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

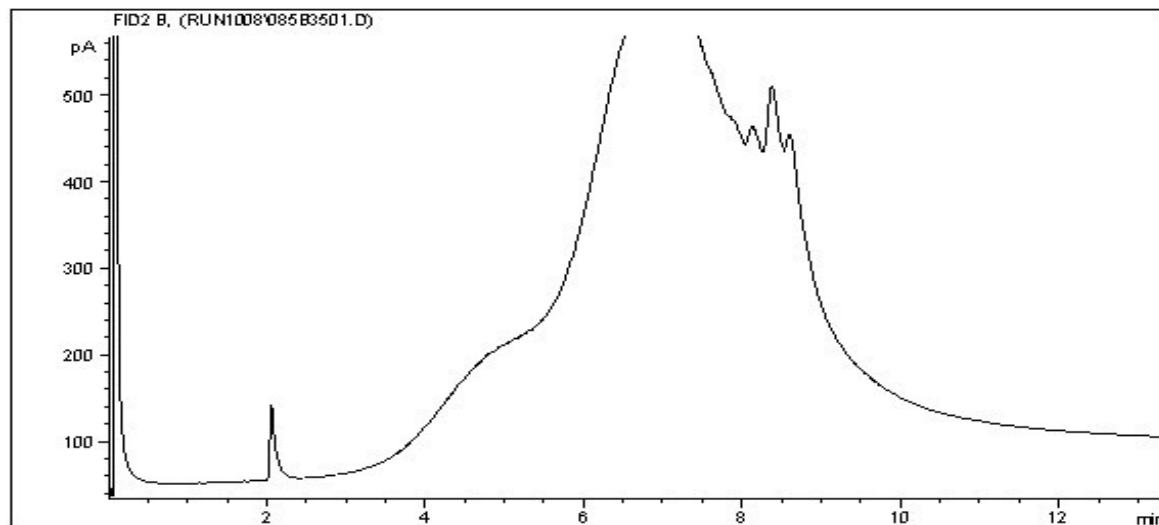
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

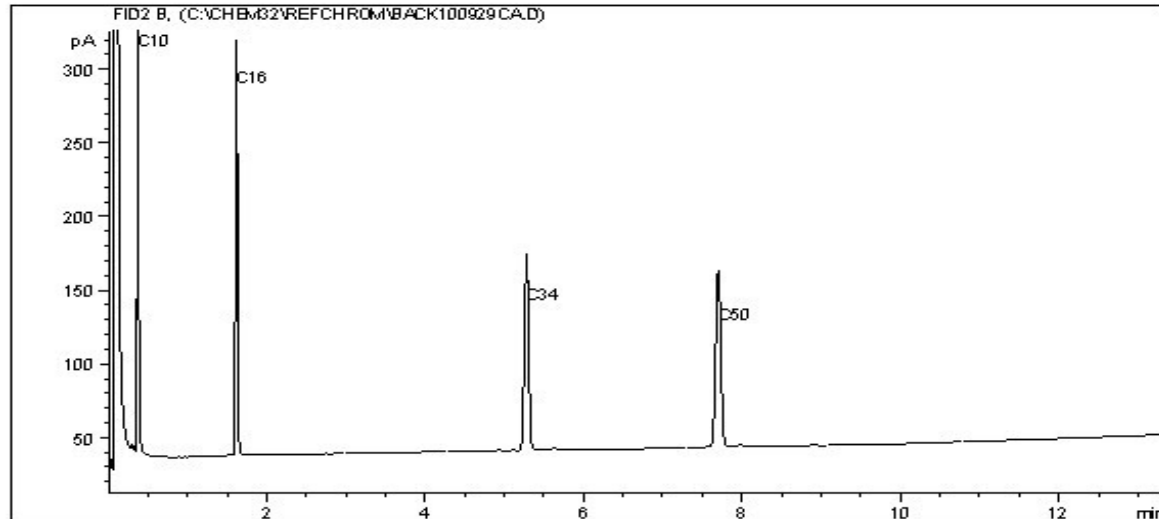
Report Date: 2010/10/13
Maxxam Job #: B095592
Maxxam Sample: X46246

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Client ID: EB-B

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

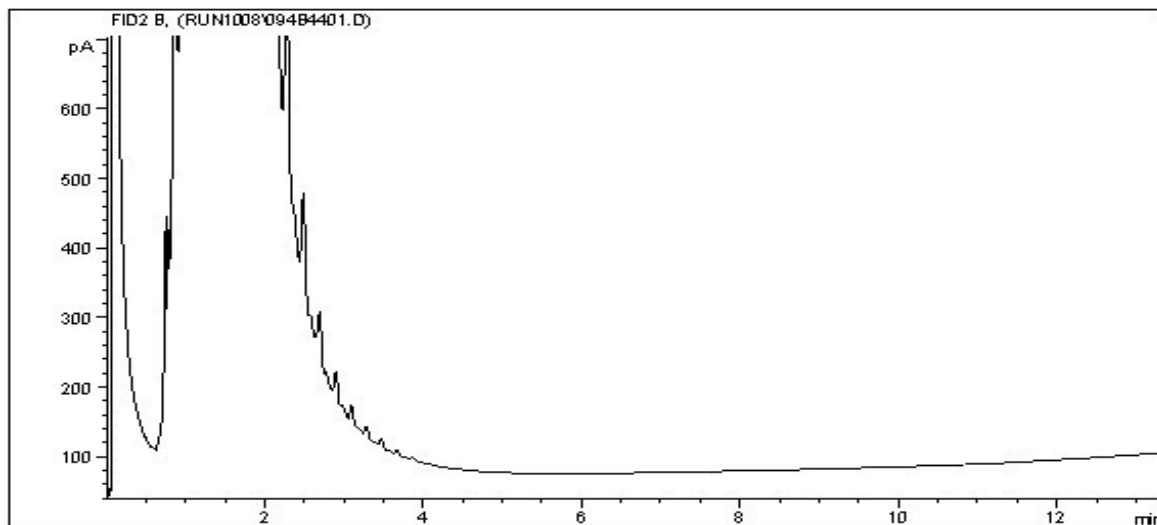
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

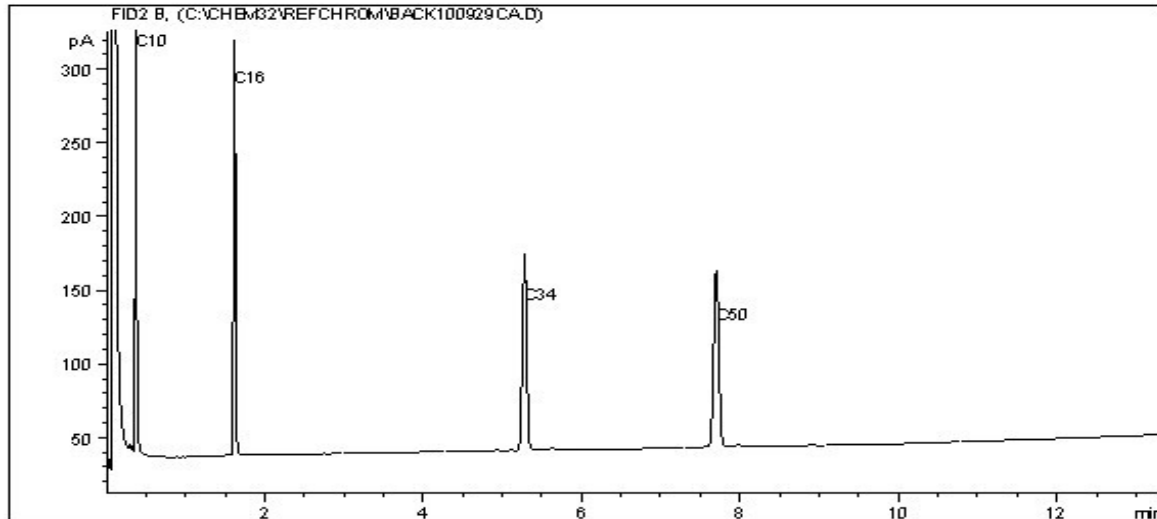
Report Date: 2010/10/13
Maxxam Job #: B095592
Maxxam Sample: X46247

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Client ID: EB-C (WATER PHASE)

CCME Hydrocarbons (F2-F4 in water) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

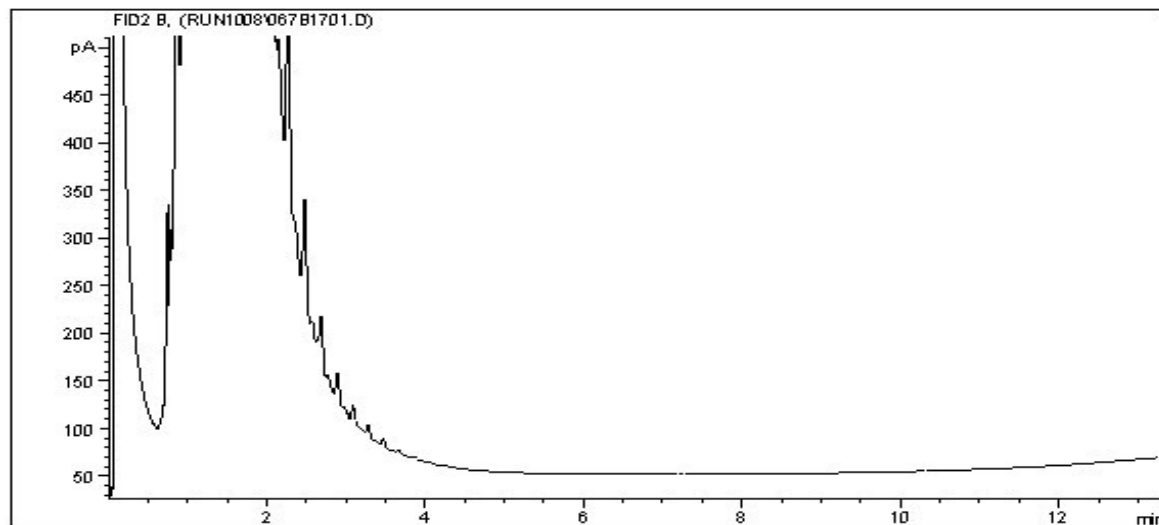
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.

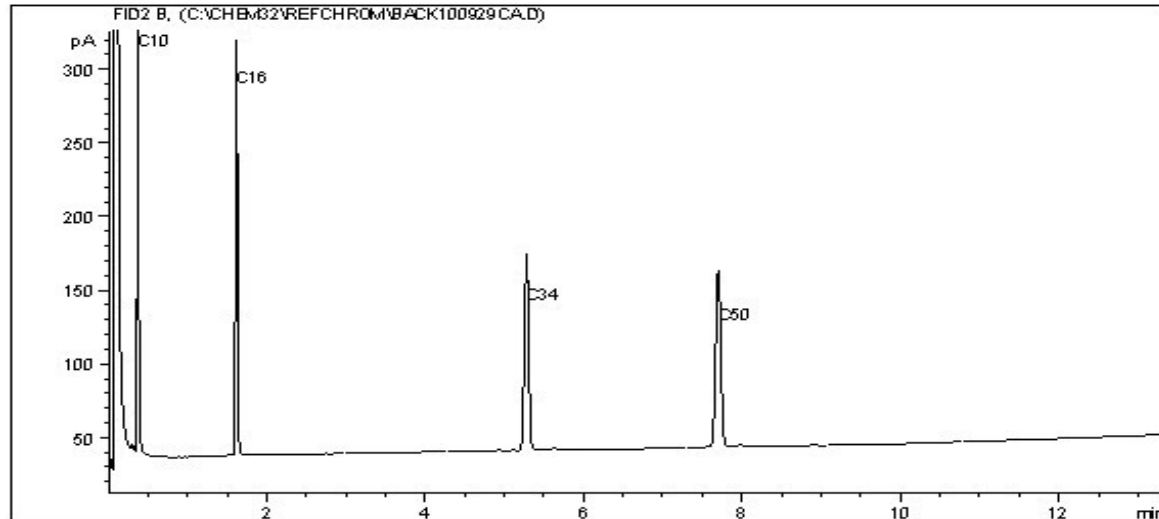
Report Date: 2010/10/13
Maxxam Job #: B095592
Maxxam Sample: X51379

SENE CONSULTANTS LIMITED
Client Project #: 340962 / GBL SITES
Site Reference: GREAT BEAR LAKE
Client ID: EB-C (OIL PHASE)

CCME Hydrocarbons (F2-F4 in water) Chromatogram



Carbon Range Distribution - Reference Chromatogram



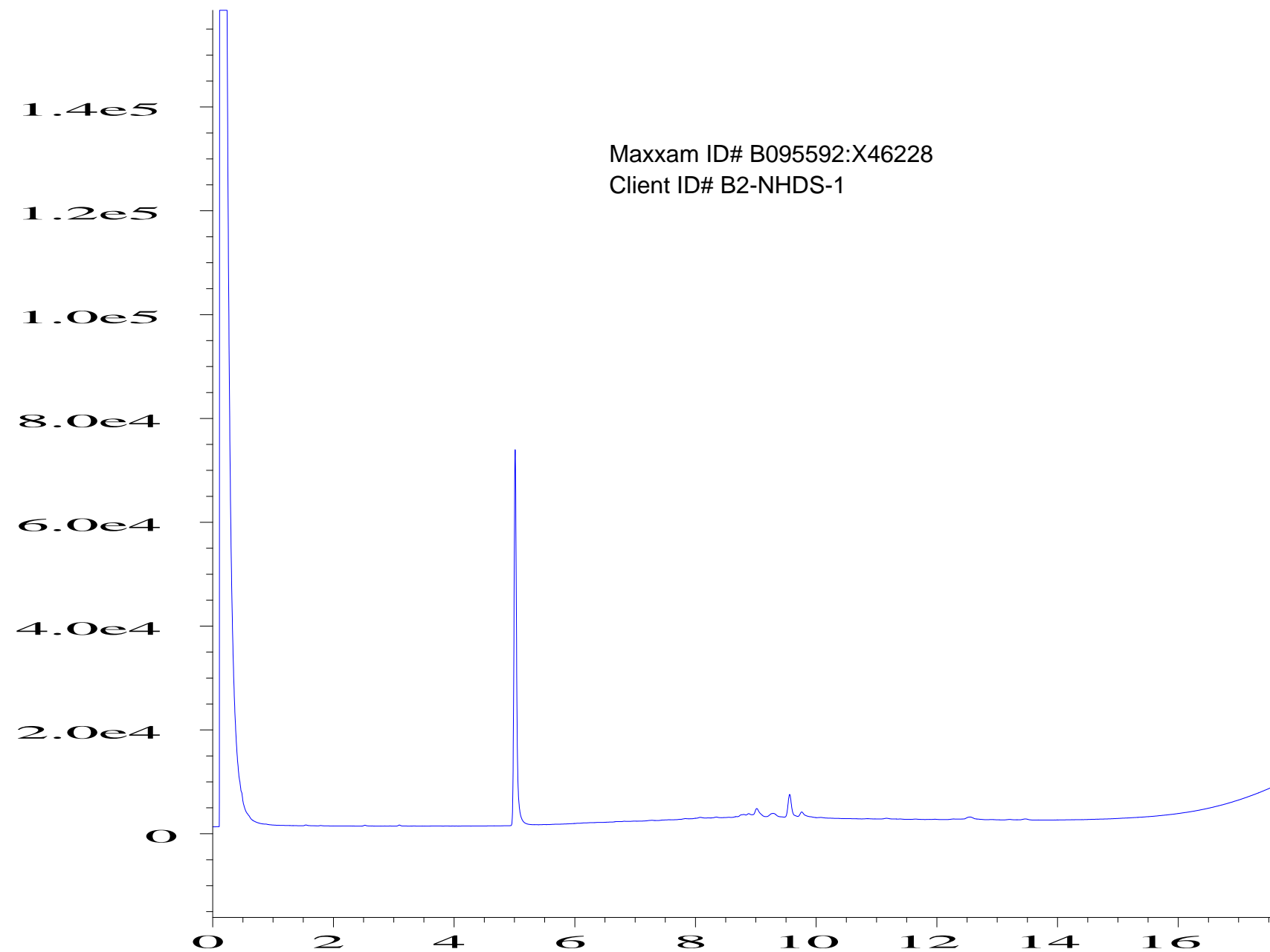
TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: C4 - C12
Varsol: C8 - C12
Kerosene: C7 - C16

Diesel: C8 - C22
Lubricating Oils: C20 - C40
Crude Oils: C3 - C60+

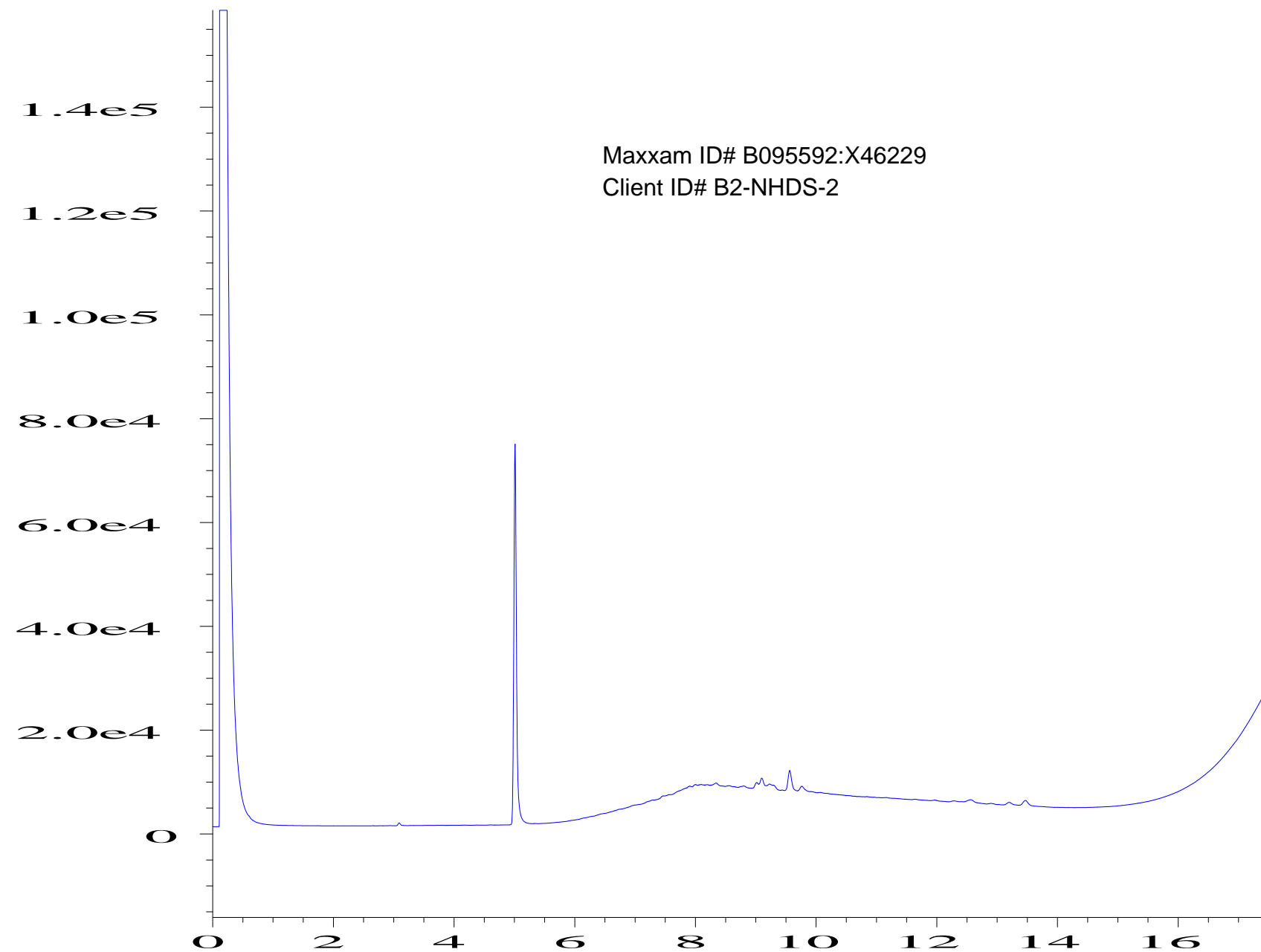
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required to please contact the laboratory.



Data File Name : O:\USERS\HPCHEM8\HPCHEM\1\DATA\RUN1008\061R0201.D
Operator : GC C 5 FID
Instrument : ANALYZER1
Sample Name : 4323955:X46228
Run Time Bar Code :
Acquired on : 08 Oct 10 08:14 PM
Report Created on: 12 Oct 10 02:05 PM

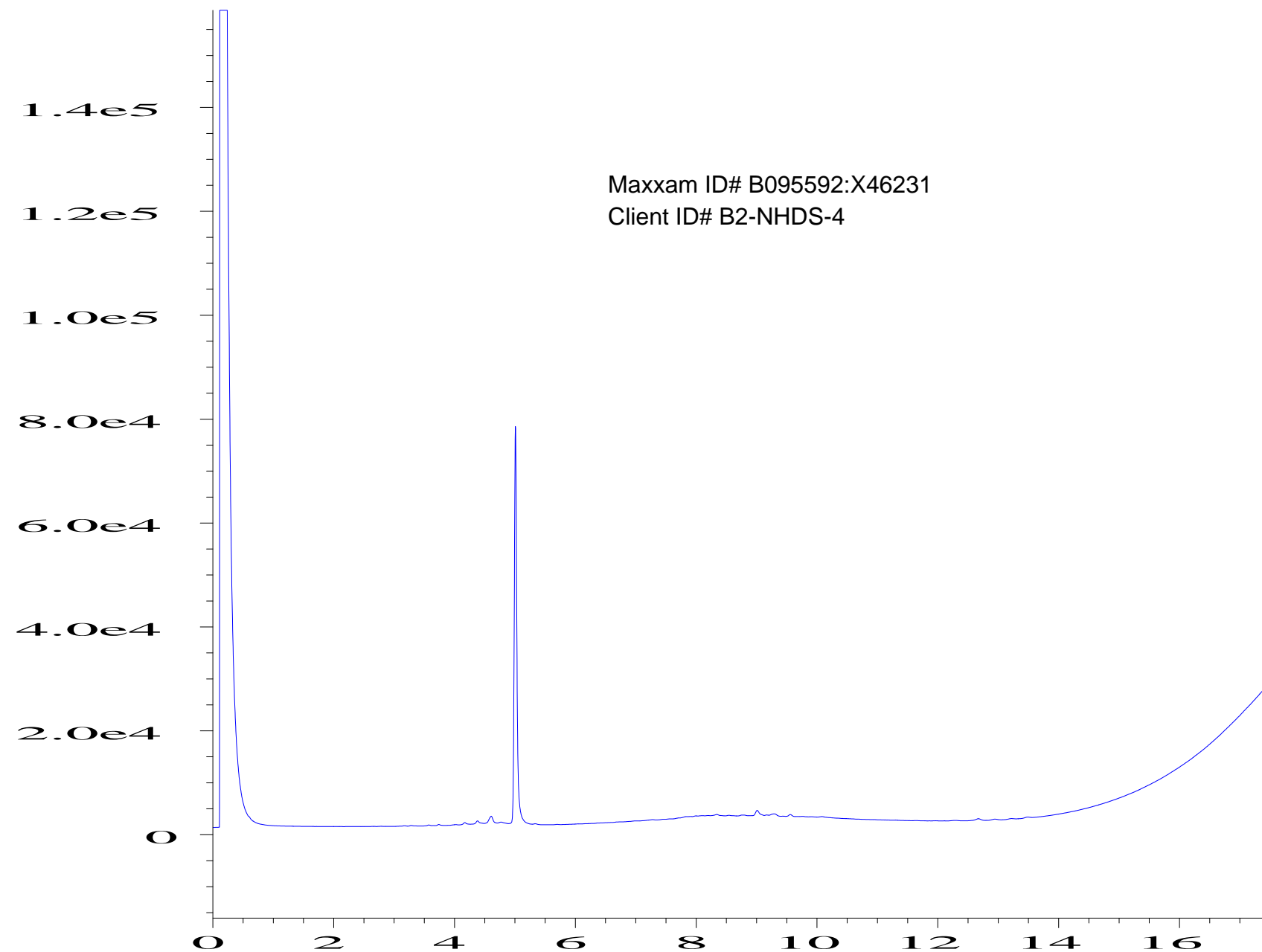
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Vial Number : 61
Injection Number : 1
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Instrument Method: RUN1008F.MTH
Analysis Method : CCM1009F.MTH



Maxxam ID# B095592:X46229
Client ID# B2-NHDS-2

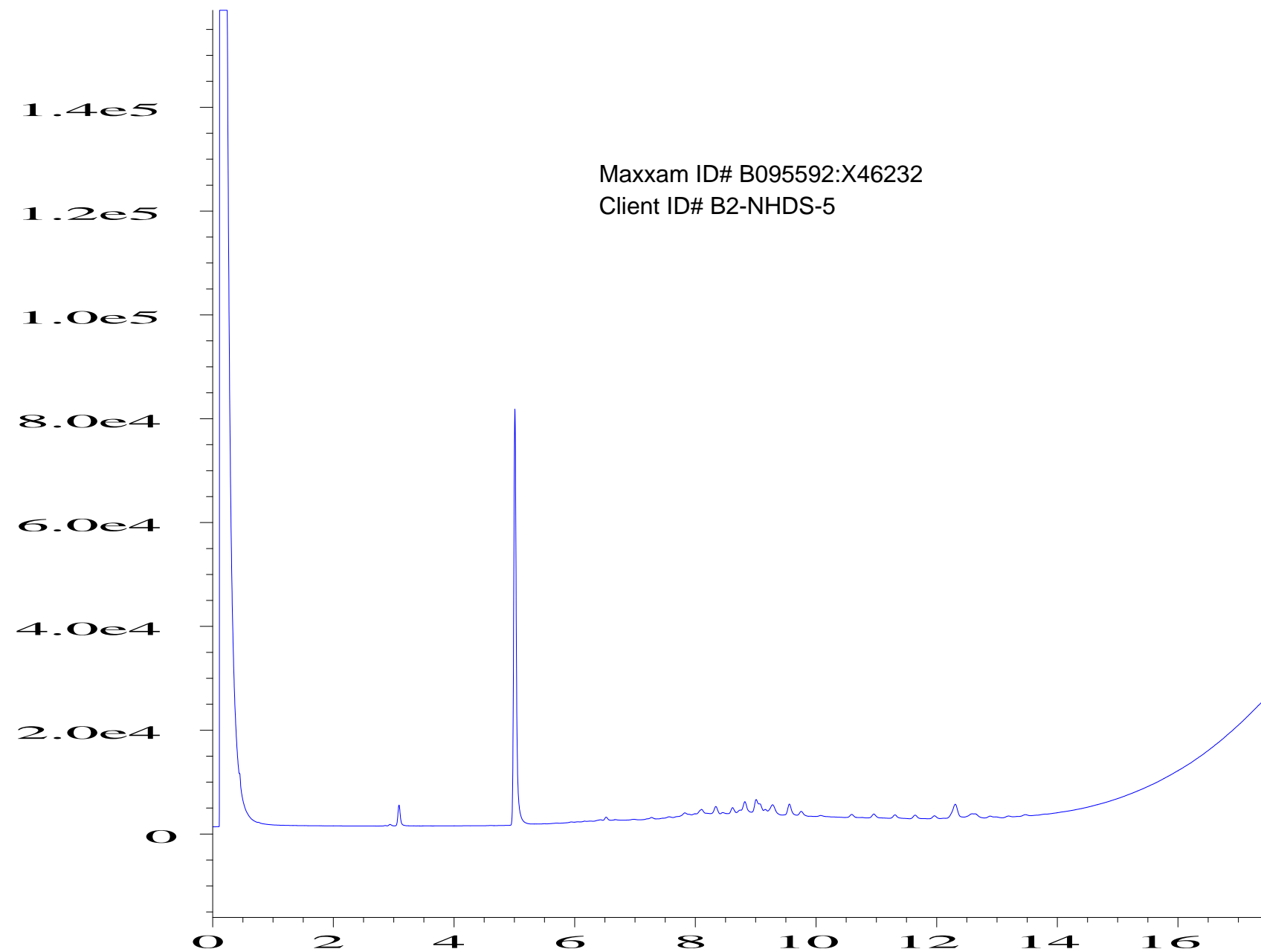
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Operator : GC C 5 FID
Instrument : ANALYZER1
Sample Name : 4323955:X46229
Run Time Bar Code :
Acquired on : 08 Oct 10 10:16 PM
Report Created on: 12 Oct 10 02:08 PM

Page Number : 1
Vial Number : 65
Injection Number : 1
Sequence Line : 2
Instrument Method: RUN1008F.MTH
Analysis Method : CCM1009F.MTH



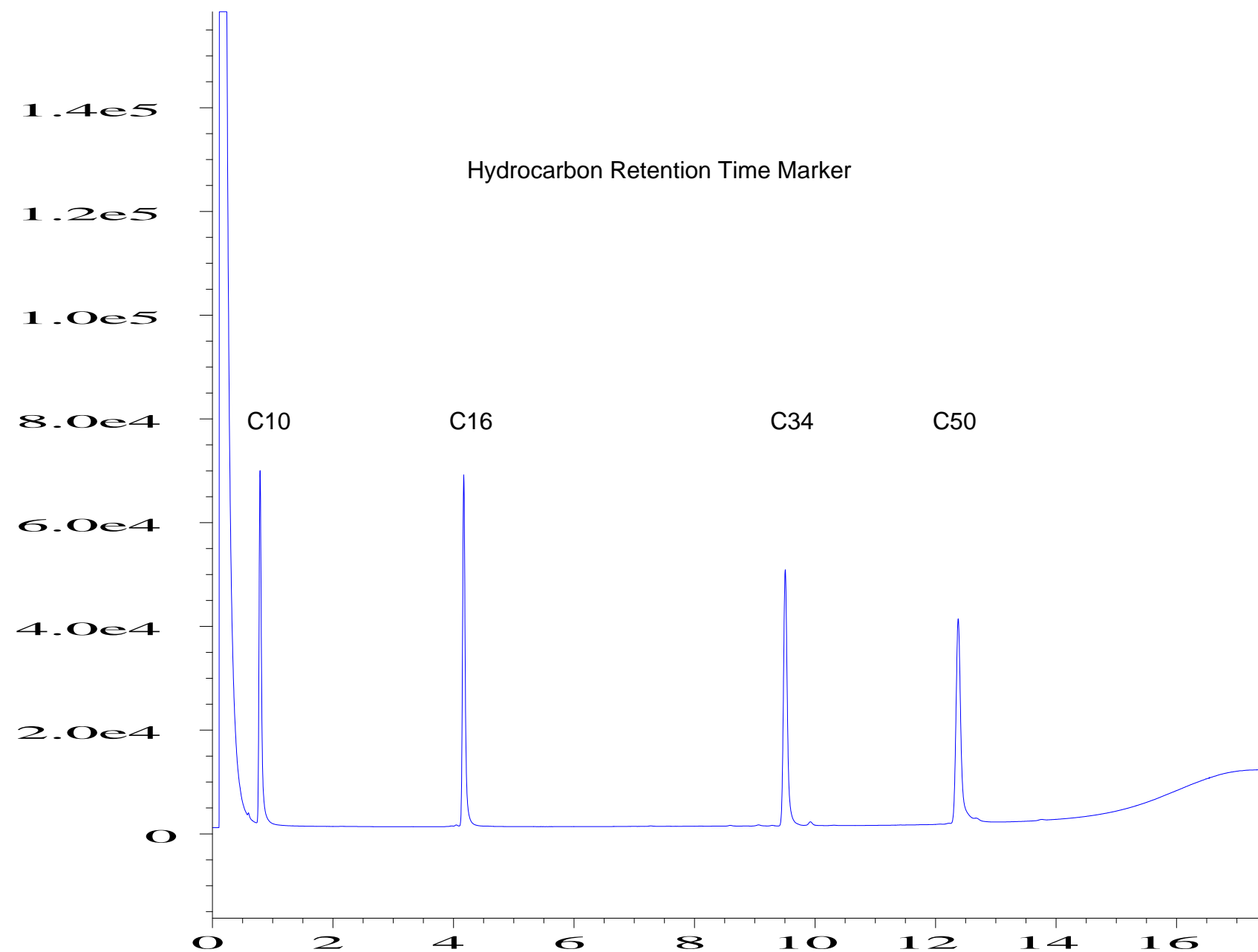
Data File Name : O:\USERS\HPCHEM8\HPCHEM\1\DATA\RUN1008\067R0201.D
Operator : GC C 5 FID
Instrument : ANALYZER1
Sample Name : 4323955:X46231
Run Time Bar Code :
Acquired on : 08 Oct 10 11:17 PM
Report Created on: 12 Oct 10 02:06 PM

Page Number : 1
Vial Number : 67
Injection Number : 1
Sequence Line : 2
Instrument Method: RUN1008F.MTH
Analysis Method : CCM1009F.MTH



Maxxam ID# B095592:X46232
Client ID# B2-NHDS-5

Data File Name	: O:\USERS\HPCHEM8\HPCHEM\1\DATA\RUN1008\068R0201.D
Operator	: GC C 5 FID
Instrument	: ANALYZER1
Sample Name	: 4323955:X46232
Run Time Bar Code	:
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Report Created on	: 12 Oct 10 02:06 PM
Page Number	: 1
Vial Number	: 68
Injection Number	: 1
Sequence Line	: 2
Instrument Method	: RUN1008F.MTH
Analysis Method	: CCM1009F.MTH



Data File Name : O:\USERS\HPCHEM8\HPCHEM\1\DATA\RUN1008\056R0201.D
Operator : GC C 5 FID
Instrument : ANALYZER1
Sample Name : RT-2010-9
Run Time Bar Code :
Acquired on : 08 Oct 10 05:42 PM
Report Created on: 12 Oct 10 02:06 PM

Page Number : 1
Vial Number : 56
Injection Number : 1
Sequence Line : 2
Instrument Method: RUN1008F.MTH
Analysis Method : CCM1009F.MTH

The chromatograms are provided for information purposes only. Any conclusion drawn by the data user from these chromatograms is their sole responsibility. Maxxam can assume no liability for any such 3rd party interpretations and is responsible only for the quality of the quantitative data provided.

Your Project #: B095592

Your C.O.C. #: SUB

Attention: Lisa McManes

Maxxam Analytics
2021-41st Ave NE
Calgary, AB
T2E 6P2

Report Date: 2010/10/13
CERTIFICATE OF ANALYSIS
MAXXAM JOB #: B0E2418
Received: 2010/10/08, 10:03

Sample Matrix: OIL

Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Total Metals Analysis by Axial ICP	2	2010/10/12	2010/10/13	CAM SOP-00408	EPA 6010C
Metals by ICP Ø	1	2010/10/12	2010/10/13	SLA SOP-00114	ASTM D4951/D5185
Polychlorinated Biphenyl (PCB) Ø	1	2010/10/08	2010/10/08	CAM SOP-00328	EPA 8082 modified
Polychlorinated Biphenyl (PCB) Ø	2	2010/10/08	2010/10/09	CAM SOP-00328	EPA 8082 modified

Sample Matrix: Water

Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Total Metals Analysis by Axial ICP	1	2010/10/12	2010/10/13	CAM SOP-00408	EPA 6010C
Polychlorinated Biphenyl in Liquids Ø	1	2010/10/08	2010/10/09	CAM SOP-00307	EPA 8081 modified

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Maxxam Sladeview Petrochemical

(2) Sample(s) analyzed using methodologies that have not been subjected to Maxxam's standard validation process for the submitted matrix and is not an Accredited method. Analysis performed with client consent, however results should be viewed with discretion

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MATHURA THIRUKKUMARAN, CS Rep

Email: MThirukkumaran@maxxam.ca

Phone# (905) 817-5700

=====

Your Project #: B095592

Your C.O.C. #: SUB

Attention: Lisa McManes

Maxxam Analytics
2021-41st Ave NE
Calgary, AB
T2E 6P2

Report Date: 2010/10/13**CERTIFICATE OF ANALYSIS**

-2-

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

Page 2 of 11

Maxxam Job #: B0E2418
Report Date: 2010/10/13

Maxxam Analytics
Client Project #: B095592

RESULTS OF ANALYSES OF OIL

Maxxam ID		HL2128		
Sampling Date		2010/09/29		
COC Number		SUB		
	Units	X51379-02R \\ EB-C (OIL PHASE)	RDL	QC Batch

Metals				
Cadmium (Cd)	ug/g	<1	1	2294342
Chromium (Cr)	ug/g	<1	1	2294342
Lead (Pb)	ug/g	3	1	2294342

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B0E2418
Report Date: 2010/10/13

Maxxam Analytics
Client Project #: B095592

ELEMENTS BY ATOMIC SPECTROSCOPY (OIL)

Maxxam ID		HL2125	HL2126		
Sampling Date		2010/09/29	2010/09/29		
COC Number		SUB	SUB		
	Units	X46245-02R \\EB-A	X46246-02R \\EB-B	RDL	QC Batch

Metals					
Total Cadmium (Cd)	mg/L	0.05	<0.02	0.02	2294749
Total Chromium (Cr)	mg/L	<0.05	<0.05	0.05	2294749
Total Lead (Pb)	mg/L	0.1	0.3	0.1	2294749

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B0E2418
Report Date: 2010/10/13

Maxxam Analytics
Client Project #: B095592

POLYCHLORINATED BIPHENYLS BY GC-ECD (OIL)

Maxxam ID		HL2125	HL2126	HL2128		
Sampling Date		2010/09/29	2010/09/29	2010/09/29		
COC Number		SUB	SUB	SUB		
	Units	X46245-02R \\ EB-A	X46246-02R \\ EB-B	X51379-02R \\ EB-C (OIL PHASE)	RDL	QC Batch

PCBs						
Aroclor 1016	ug/g	<1	<1	<1	1	2292971
Aroclor 1221	ug/g	<1	<1	<1	1	2292971
Aroclor 1232	ug/g	<1	<1	<1	1	2292971
Aroclor 1242	ug/g	<1	<1	<1	1	2292971
Aroclor 1248	ug/g	<1	<1	<1	1	2292971
Aroclor 1254	ug/g	<1	<1	<1	1	2292971
Aroclor 1260	ug/g	<1	<1	<1	1	2292971
Aroclor 1268	ug/g	<1	<1	<1	1	2292971
Total PCB	ug/g	<1	<1	<1	1	2292971
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	118	108	106	N/A	2292971
Decachlorobiphenyl	%	85	82	91	N/A	2292971

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B0E2418
Report Date: 2010/10/13

Maxxam Analytics
Client Project #: B095592

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HL2127		
Sampling Date		2010/09/29		
COC Number		SUB		
	Units	X46247-02R \\ EB-C (WATER PHASE)	RDL	QC Batch

Metals				
Total Cadmium (Cd)	mg/L	0.30	0.02	2294749
Total Chromium (Cr)	mg/L	<0.05	0.05	2294749
Total Lead (Pb)	mg/L	<0.1	0.1	2294749
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: B0E2418
Report Date: 2010/10/13

Maxxam Analytics
Client Project #: B095592

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		HL2127		
Sampling Date		2010/09/29		
COC Number		SUB		
	Units	X46247-02R \\ EB-C (WATER PHASE)	RDL	QC Batch

PCBs				
Aroclor 1016	ug/L	<1	1	2293029
Aroclor 1221	ug/L	<1	1	2293029
Aroclor 1232	ug/L	<1	1	2293029
Aroclor 1242	ug/L	<1	1	2293029
Aroclor 1248	ug/L	<1	1	2293029
Aroclor 1254	ug/L	<1	1	2293029
Aroclor 1260	ug/L	<1	1	2293029
Aroclor 1262	ug/L	<1	1	2293029
Aroclor 1268	ug/L	<1	1	2293029
Total PCB	ug/L	<1	1	2293029
Surrogate Recovery (%)				
2,4,5,6-Tetrachloro-m-xylene	%	95	N/A	2293029
Decachlorobiphenyl	%	91	N/A	2293029
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: B0E2418
Report Date: 2010/10/13

Maxxam Analytics
Client Project #: B095592

Package 1	2.7°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample HL2125-01: Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample HL2126-01: Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample HL2127-01: PCB Analysis: Due to limited amount of sample available for analysis, a smaller than usual portion of the sample was used. Detection limits were adjusted accordingly.

Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

POLYCHLORINATED BIPHENYLS BY GC-ECD (OIL)

Polychlorinated Biphenyl (PCB): Spike duplicate was not calculated (NC), due to spiking error.

Results relate only to the items tested.

Maxxam Analytics
Attention: Lisa McManes
Client Project #: B095592
P.O. #:
Project name:

Quality Assurance Report

Maxxam Job Number: MB0E2418

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2292971 ART	Matrix Spike [HL2125-01]	2,4,5,6-Tetrachloro-m-xylene	2010/10/08		112	%	30 - 130
		Decachlorobiphenyl	2010/10/08		97	%	30 - 130
		Aroclor 1260	2010/10/08		101	%	75 - 125
		Total PCB	2010/10/08		101	%	30 - 130
	QC Standard	2,4,5,6-Tetrachloro-m-xylene	2010/10/08		101	%	30 - 130
		Decachlorobiphenyl	2010/10/08		87	%	30 - 130
		Aroclor 1254	2010/10/08		104	%	N/A
		Total PCB	2010/10/08		104	%	N/A
	Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2010/10/13		117	%	30 - 130
		Decachlorobiphenyl	2010/10/13		103	%	30 - 130
		Aroclor 1260	2010/10/13		109	%	75 - 125
	RPD	Aroclor 1260	2010/10/13	NC		%	50
	Spiked Blank	Total PCB	2010/10/13		109	%	30 - 130
	RPD	Total PCB	2010/10/13	NC		%	50
	Method Blank	2,4,5,6-Tetrachloro-m-xylene	2010/10/08		101	%	30 - 130
		Decachlorobiphenyl	2010/10/08		89	%	30 - 130
		Aroclor 1016	2010/10/08	<1		ug/g	
		Aroclor 1221	2010/10/08	<1		ug/g	
		Aroclor 1232	2010/10/08	<1		ug/g	
		Aroclor 1242	2010/10/08	<1		ug/g	
		Aroclor 1248	2010/10/08	<1		ug/g	
		Aroclor 1254	2010/10/08	<1		ug/g	
		Aroclor 1260	2010/10/08	<1		ug/g	
		Aroclor 1268	2010/10/08	<1		ug/g	
		Total PCB	2010/10/08	<1		ug/g	
2293029 FMA	Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2010/10/09		59	%	30 - 150
		Decachlorobiphenyl	2010/10/09		86	%	29 - 139
		Aroclor 1260	2010/10/09		93	%	30 - 130
	RPD	Aroclor 1260	2010/10/09	8.6		%	40
	Spiked Blank	Total PCB	2010/10/09		93	%	30 - 130
	RPD	Total PCB	2010/10/09	8.6		%	40
	Method Blank	2,4,5,6-Tetrachloro-m-xylene	2010/10/09		61	%	30 - 150
		Decachlorobiphenyl	2010/10/09		83	%	29 - 139
		Aroclor 1016	2010/10/09	<0.05		ug/L	
		Aroclor 1221	2010/10/09	<0.05		ug/L	
		Aroclor 1232	2010/10/09	<0.05		ug/L	
		Aroclor 1242	2010/10/09	<0.05		ug/L	
		Aroclor 1248	2010/10/09	<0.05		ug/L	
		Aroclor 1254	2010/10/09	<0.05		ug/L	
		Aroclor 1260	2010/10/09	<0.05		ug/L	
		Aroclor 1262	2010/10/09	<0.05		ug/L	
		Aroclor 1268	2010/10/09	<0.05		ug/L	
		Total PCB	2010/10/09	<0.05		ug/L	
2294749 SUK	Spiked Blank	Total Cadmium (Cd)	2010/10/12		101	%	85 - 115
		Total Chromium (Cr)	2010/10/12		99	%	85 - 115
		Total Lead (Pb)	2010/10/12		100	%	85 - 115
	Method Blank	Total Cadmium (Cd)	2010/10/12	<0.002		mg/L	
		Total Chromium (Cr)	2010/10/12	<0.005		mg/L	
		Total Lead (Pb)	2010/10/12	<0.01		mg/L	
	RPD	Total Cadmium (Cd)	2010/10/12	1.8		%	25
		Total Chromium (Cr)	2010/10/12	2.8		%	25
		Total Lead (Pb)	2010/10/12	1.2		%	25

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.

Maxxam Analytics
Attention: Lisa McManes
Client Project #: B095592
P.O. #:
Project name:


Quality Assurance Report (Continued)

Maxxam Job Number: MB0E2418

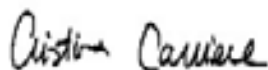
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the 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 (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page**Maxxam Job #: B0E2418**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst



CRISTINA CARRIERE, Scientific Services



GRACE SISON, Technical and Customer Service Coordinator

=====

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Petro Laboratories Inc.

1295 Matheson Blvd. East, Mississauga, Ontario, L4W 1R1 Tel: (905) 361-2388 Fax: (905) 361-2411

E-mail: petrolab@gmail.com

Laboratory Report

Maxxam Analytics Inc.

4000-19 St. NE.

Calgary, AB

T2E 6P8

Lab no.: 11107 - 1 to 4

Date report: Oct 13, 2010

Sample in : Oct 8, 2010

Project No.: B095592

Attention: Lisa McManes

Re: Oil samples taken on Sept 29, 2010 for testing.

TEST - 1. Chlorine Content, in mg/l or ppm by ASTM D808, bomb method

Lab No. 11107 -	Sample ID	Results
-1	EB-A (X45245) Oil	48
-2	EB-B (X46246) Oil	66
-3	EB-C (X46247) Water phase	3
-4	EB-C (X51379) Oil phase	42

Method detection limit - 1 mg/l

Control sample - CONOCO Conostain chlorine standard

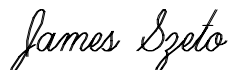
Expected Conc., mg/l - 5, Found Conc. - 4, Recovery - 94 %

Expected Conc, mg/l - 95 Found Conc. - 94 Recovery - 95%

Test by: A.C. (Chemist)

Member of ASTM

JS:LN

Approved by: 
James Szeto, B.Sc.
Chief Chemist

Your Project #: CONTACT LAKE
Site: GREAT BEAR LAKE
Your C.O.C. #: A019553, A019558

Attention: JASON MAUCHAN
SENE CONSULTANTS LIMITED
121 GRANTON DRIVE, UNIT 12
RICHMOND HILL, ON
CANADA L4B 3N4

Report Date: 2010/10/04

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B091697

Received: 2010/09/24, 10:40

Sample Matrix: Soil
Samples Received: 14

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	7	2010/09/30	2010/10/01	AB SOP-00042	EPA 200.7
Boron (Hot Water Soluble)	7	2010/10/01	2010/10/01	AB SOP-00042	EPA 200.7
Hexavalent Chromium	14	2010/09/27	2010/09/27	CAL SOP-00056	SM 3500-Cr B
Elements by ICPMS - Soils	1	2010/09/29	2010/09/29	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	13	2010/10/01	2010/10/02	AB SOP-00043	EPA 200.8
Moisture	9	N/A	2010/09/26	CAL SOP-00023	McKeague MSSMA 2.411
Moisture	5	N/A	2010/09/27	CAL SOP-00023	McKeague MSSMA 2.411
Benzo[a]pyrene Equivalency	14	N/A	2010/10/01	AB SOP-00003	EPA 8270D
Polycyclic Aromatic Hydrocarbons in soil	8	2010/09/28	2010/09/28	AB SOP-00003	EPA 3540C/8270D
				AB WI-00016	
Polycyclic Aromatic Hydrocarbons in soil	5	2010/09/28	2010/09/29	AB SOP-00003	EPA 3540C/8270D
				AB WI-00016	
Polycyclic Aromatic Hydrocarbons in soil	1	2010/09/28	2010/09/30	AB SOP-00003	EPA 3540C/8270D
				AB WI-00016	
Polychlorinated Biphenyls	1	2010/09/29	2010/09/30	CAL SOP-00149	EPA 3550B, EPA 8082A

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LISA MCMANES, Sample Reception Supervisor
Email: lisa.mcmanes@maxxamanalytics.com
Phone# (403) 291-3077

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X22120			X22132		X22133		X22134		X22135	X22135		
Sampling Date		2010/09/19			2010/09/19		2010/09/19		2010/09/19		2010/09/19	2010/09/19		
COC#		A019553			A019553		A019553		A019553		A019553	A019553		
	Units	CL-C1A	RDL	QC Batch	CL-C2A	RDL	CL-C3A	RDL	CL-C4A	RDL	CL-C6A	CL-C6A Lab-Dup	RDL	QC Batch
Elements														
Soluble (Hot water) Boron (B)	mg/kg	6.1	0.1	4304855	13	0.1	4.8	0.1	11	0.1	0.6		0.1	4304855
Hex. Chromium (Cr 6+)	mg/kg	0.93 ⁽¹⁾	0.75	4293865	0.20	0.15	1.0	0.15	<0.15	0.15	<0.30 ⁽²⁾	<0.30	0.30	4293865
Total Antimony (Sb)	mg/kg	24	1	4300451	<1	1	5	1	29 ⁽³⁾	5	3		1	4306445
Total Arsenic (As)	mg/kg	330 ⁽³⁾	4	4300451	6	1	64	1	19	1	9		1	4306445
Total Barium (Ba)	mg/kg	1000	10	4300451	270	10	450	10	490	10	230		10	4306445
Total Beryllium (Be)	mg/kg	<0.4	0.4	4300451	0.8	0.4	0.7	0.4	0.8	0.4	0.8		0.4	4306445
Total Cadmium (Cd)	mg/kg	3.9	0.1	4300451	1.2	0.1	2.6	0.1	0.7	0.1	0.3		0.1	4306445
Total Chromium (Cr)	mg/kg	74	1	4300451	29	1	39	1	34	1	45		1	4306445
Total Cobalt (Co)	mg/kg	68	1	4300451	10	1	25	1	25	1	16		1	4306445
Total Copper (Cu)	mg/kg	8000 ⁽³⁾	200	4300451	45	5	430 ⁽³⁾	50	140	5	49		5	4306445
Total Lead (Pb)	mg/kg	730 ⁽³⁾	4	4300451	28	1	170	1	67	1	61		1	4306445
Total Mercury (Hg)	mg/kg	19 ⁽³⁾	0.2	4300451	0.57	0.05	21 ⁽³⁾	0.5	0.51	0.05	0.10		0.05	4306445
Total Molybdenum (Mo)	mg/kg	1.4	0.4	4300451	1.1	0.4	2.6	0.4	1.1	0.4	0.7		0.4	4306445
Total Nickel (Ni)	mg/kg	110	1	4300451	19	1	45	1	28	1	29		1	4306445
Total Selenium (Se)	mg/kg	<0.5	0.5	4300451	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5		0.5	4306445
Total Silver (Ag)	mg/kg	<1	1	4300451	4	1	39 ⁽³⁾	10	29 ⁽³⁾	5	4		1	4306445
Total Thallium (Tl)	mg/kg	<0.3	0.3	4300451	<0.3	0.3	<0.3	0.3	<0.3	0.3	<0.3		0.3	4306445
Total Tin (Sn)	mg/kg	87	1	4300451	18	1	120	1	19	1	34		1	4306445
Total Uranium (U)	mg/kg	160	1	4300451	5	1	39	1	13	1	2		1	4306445
Total Vanadium (V)	mg/kg	35	1	4300451	47	1	36	1	41	1	60		1	4306445
Total Zinc (Zn)	mg/kg	6500 ⁽³⁾	400	4300451	150	10	1200 ⁽³⁾	100	760 ⁽³⁾	50	310 ⁽³⁾		20	4306445

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference

(2) - Matrix Spike recovery non calculable due to matrix interference. Detection limits raised due to matrix interference. Original sample diluted to remove interference.

(3) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X22136		X22137			X22138			X22139		
Sampling Date		2010/09/19		2010/09/19			2010/09/19			2010/09/19		
COC#		A019553		A019553			A019553			A019553		
	Units	CL-C11A	RDL	CL-C13A	RDL	QC Batch	CL-C14A	RDL	QC Batch	CL-DSA	RDL	QC Batch
Elements												
Soluble (Hot water) Boron (B)	mg/kg	3.5	0.1	5.2	0.3	4304855	0.6	0.1	4305270	0.7	0.1	4306459
Hex. Chromium (Cr 6+)	mg/kg	0.37	0.15	<1.5 ⁽¹⁾	1.5	4293865	1.5	0.15	4293865	<1.5 ⁽¹⁾	1.5	4293865
Total Antimony (Sb)	mg/kg	4	1	<1	1	4306445	<1	1	4306445	6	1	4306445
Total Arsenic (As)	mg/kg	19	1	10	1	4306445	4	1	4306445	220	1	4306445
Total Barium (Ba)	mg/kg	870	10	3000	10	4306445	170	10	4306445	390	10	4306445
Total Beryllium (Be)	mg/kg	0.6	0.4	<0.4	0.4	4306445	0.7	0.4	4306445	0.7	0.4	4306445
Total Cadmium (Cd)	mg/kg	8.3	0.1	1.0	0.1	4306445	<0.1	0.1	4306445	1.4	0.1	4306445
Total Chromium (Cr)	mg/kg	62	1	4	1	4306445	22	1	4306445	25	1	4306445
Total Cobalt (Co)	mg/kg	12	1	8	1	4306445	9	1	4306445	89	1	4306445
Total Copper (Cu)	mg/kg	70	5	220	5	4306445	54	5	4306445	970 ⁽²⁾	50	4306445
Total Lead (Pb)	mg/kg	500 ⁽²⁾	4	55	1	4306445	38	1	4306445	180	1	4306445
Total Mercury (Hg)	mg/kg	0.12	0.05	0.06	0.05	4306445	<0.05	0.05	4306445	5.3	0.05	4306445
Total Molybdenum (Mo)	mg/kg	0.7	0.4	1.0	0.4	4306445	<0.4	0.4	4306445	1.2	0.4	4306445
Total Nickel (Ni)	mg/kg	17	1	10	1	4306445	14	1	4306445	130	1	4306445
Total Selenium (Se)	mg/kg	<0.5	0.5	<0.5	0.5	4306445	<0.5	0.5	4306445	<0.5	0.5	4306445
Total Silver (Ag)	mg/kg	3	1	10	1	4306445	1	1	4306445	63 ⁽²⁾	10	4306445
Total Thallium (Tl)	mg/kg	<0.3	0.3	<0.3	0.3	4306445	<0.3	0.3	4306445	<0.3	0.3	4306445
Total Tin (Sn)	mg/kg	33	1	4	1	4306445	3	1	4306445	14	1	4306445
Total Uranium (U)	mg/kg	4	1	20	1	4306445	2	1	4306445	140	1	4306445
Total Vanadium (V)	mg/kg	32	1	5	1	4306445	34	1	4306445	39	1	4306445
Total Zinc (Zn)	mg/kg	11000 ⁽²⁾	1000	1400 ⁽²⁾	100	4306445	200	10	4306445	1300 ⁽²⁾	100	4306445

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference

(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X22140	X22141		X22142		X22143		X22144		
Sampling Date		2010/09/19	2010/09/19		2010/09/19		2010/09/19		2010/09/19		
COC#		A019553	A019553		A019553		A019558		A019558		
	Units	CL-CSA	CL-DOA	RDL	CL-CFA	RDL	CL-MSA	RDL	CL-CCA	RDL	QC Batch
Elements											
Soluble (Hot water) Boron (B)	mg/kg	5.4	0.3	0.1	1.4	0.1	8.3	0.1	1.5	0.1	4306459
Hex. Chromium (Cr 6+)	mg/kg	0.17	<0.15	0.15	<0.15	0.15	<0.15	0.15	0.58 ⁽¹⁾	0.30	4293865
Total Antimony (Sb)	mg/kg	6	8	1	4	1	13	1	4	1	4306445
Total Arsenic (As)	mg/kg	230	160	1	79	1	48	1	8	1	4306445
Total Barium (Ba)	mg/kg	470	290	10	840	10	370	10	250	10	4306445
Total Beryllium (Be)	mg/kg	0.7	0.6	0.4	1.4	0.4	0.6	0.4	1.4	0.4	4306445
Total Cadmium (Cd)	mg/kg	1.3	3.4	0.1	1.3	0.1	0.7	0.1	1.3	0.1	4306445
Total Chromium (Cr)	mg/kg	39	30	1	35	1	51	1	38	1	4306445
Total Cobalt (Co)	mg/kg	74	69	1	28	1	23	1	13	1	4306445
Total Copper (Cu)	mg/kg	720 ⁽²⁾	1400 ⁽²⁾	50	270 ⁽²⁾	30	250	5	66	5	4306445
Total Lead (Pb)	mg/kg	1900 ⁽²⁾	370 ⁽²⁾	10	520 ⁽²⁾	5	220	1	170	1	4306445
Total Mercury (Hg)	mg/kg	5.2	3.7	0.05	0.33	0.05	0.52	0.05	0.06	0.05	4306445
Total Molybdenum (Mo)	mg/kg	1.2	2.9	0.4	1.7	0.4	4.9	0.4	1.7	0.4	4306445
Total Nickel (Ni)	mg/kg	120	78	1	23	1	49	1	22	1	4306445
Total Selenium (Se)	mg/kg	<0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	0.8	0.5	4306445
Total Silver (Ag)	mg/kg	46 ⁽²⁾	22 ⁽²⁾	10	42 ⁽²⁾	5	22	1	5	1	4306445
Total Thallium (Tl)	mg/kg	<0.3	<0.3	0.3	<0.3	0.3	<0.3	0.3	1.0	0.3	4306445
Total Tin (Sn)	mg/kg	160	34	1	12	1	20	1	9	1	4306445
Total Uranium (U)	mg/kg	160	150	1	24	1	18	1	4	1	4306445
Total Vanadium (V)	mg/kg	58	61	1	73	1	35	1	47	1	4306445
Total Zinc (Zn)	mg/kg	990 ⁽²⁾	1200 ⁽²⁾	100	870 ⁽²⁾	50	330 ⁽²⁾	20	610 ⁽²⁾	40	4306445

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		X22120	X22132	X22133	X22134	X22135	X22136	X22136	X22137	X22138	X22139		
Sampling Date		2010/09/19	2010/09/19	2010/09/19	2010/09/19	2010/09/19	2010/09/19	2010/09/19	2010/09/19	2010/09/19	2010/09/19		
COC#		A019553	A019553	A019553	A019553	A019553	A019553	A019553	A019553	A019553	A019553		
	Units	CL-C1A	CL-C2A	CL-C3A	CL-C4A	CL-C6A	CL-C11A	CL-C11A Lab-Dup	CL-C13A	CL-C14A	CL-DSA	RDL	QC Batch
Physical Properties													
Moisture	%	11	8.0	18	13	0.6	20	23	69	18	26	0.3	4290017

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference

(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		X22140	X22140	X22141	X22142	X22143	X22144		
Sampling Date		2010/09/19	2010/09/19	2010/09/19	2010/09/19	2010/09/19	2010/09/19		
COC#		A019553	A019553	A019553	A019553	A019558	A019558		
	Units	CL-CSA	CL-CSA Lab-Dup	CL-DOA	CL-CFA	CL-MSA	CL-CCA	RDL	QC Batch
Physical Properties									
Moisture	%	12	13	32	15	14	6.8	0.3	4293111

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		X22142		
Sampling Date		2010/09/19		
COC#		A019553		
	Units	CL-CFA	RDL	QC Batch
Polychlorinated Biphenyls				
Aroclor 1016	mg/kg	<0.010	0.010	4298025
Aroclor 1221	mg/kg	<0.010	0.010	4298025
Aroclor 1232	mg/kg	<0.010	0.010	4298025
Aroclor 1242	mg/kg	<0.010	0.010	4298025
Aroclor 1248	mg/kg	<0.010	0.010	4298025
Aroclor 1254	mg/kg	<0.010	0.010	4298025
Aroclor 1260	mg/kg	<0.010	0.010	4298025
Aroclor 1262	mg/kg	<0.010	0.010	4298025
Aroclor 1268	mg/kg	<0.010	0.010	4298025
Total Aroclors	mg/kg	<0.010	0.010	4298025
Surrogate Recovery (%)				
NONACHLOROBIPHENYL (sur.)	%	86		4298025

RDL = Reportable Detection Limit

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		X22120		X22132	X22132		X22133		X22134		X22135		
Sampling Date		2010/09/19		2010/09/19	2010/09/19		2010/09/19		2010/09/19		2010/09/19		
COC#		A019553		A019553	A019553		A019553		A019553		A019553		
	Units	CL-C1A	RDL	CL-C2A	CL-C2A Lab-Dup	RDL	CL-C3A	RDL	CL-C4A	RDL	CL-C6A	RDL	QC Batch
Polycyclic Aromatics													
Acenaphthene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo[a]pyrene equivalency	mg/kg	<0.1	0.1	<0.1		0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	4289496
Acenaphthylene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Acridine	mg/kg	<0.010	0.010	<0.010	<0.010	0.010	<0.010	0.010	<0.010	0.010	<0.010	0.010	4294653
Anthracene	mg/kg	<0.0040	0.0040	<0.0040	<0.0040	0.0040	<0.0040	0.0040	<0.0040	0.0040	<0.0040	0.0040	4294653
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo(b&j)fluoranthene	mg/kg	0.031	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo(g,h,i)perylene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo[e]pyrene	mg/kg	0.026	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Chrysene	mg/kg	0.035	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Fluoranthene	mg/kg	0.049	0.0050	<0.0050	<0.0050	0.0050	0.031	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Fluorene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
2-Methylnaphthalene	mg/kg	0.12	0.0050	<0.0050	0.0053	0.0050	0.044	0.0050	0.011	0.0050	<0.0050	0.0050	4294653
Naphthalene	mg/kg	0.82	0.0050	0.13	0.091	0.0050	0.30	0.0050	0.57	0.0050	0.055	0.0050	4294653
Phenanthrene	mg/kg	0.15	0.0050	<0.0050	<0.0050	0.0050	0.072	0.0050	0.015	0.0050	<0.0050	0.0050	4294653
Perylene	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Pyrene	mg/kg	0.041	0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	4294653
Quinoline	mg/kg	<0.20 ⁽¹⁾	0.20	<0.030 ⁽¹⁾	<0.030 ⁽¹⁾	0.030	<0.10 ⁽¹⁾	0.10	<0.040 ⁽¹⁾	0.040	<0.050 ⁽¹⁾	0.050	4294653
Surrogate Recovery (%)													
D10-ANTHRACENE (sur.)	%	77		71	77		80		32		34		4294653
D12-BENZO(A)PYRENE (sur.)	%	86		24 ⁽²⁾	48		82		2.0 ⁽²⁾		0.00 ⁽³⁾		4294653
D8-ACENAPHTHYLENE (sur.)	%	69		72	73		76		58		63		4294653
TERPHENYL-D14 (sur.)	%	74		70	75		77		34		24 ⁽³⁾		4294653

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference.

(2) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(3) - Surrogate recovery below acceptance criteria due to matrix interference. Reanalysis yields similar results.

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		X22136		X22137		X22138		X22139		X22140		
Sampling Date		2010/09/19		2010/09/19		2010/09/19		2010/09/19		2010/09/19		
COC#		A019553		A019553		A019553		A019553		A019553		
	Units	CL-C11A	RDL	CL-C13A	RDL	CL-C14A	RDL	CL-DSA	RDL	CL-CSA	RDL	QC Batch
Polycyclic Aromatics												
Acenaphthene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	4294653
Benzo[a]pyrene equivalency	mg/kg	0.1	0.1	<0.1	0.1	<0.1	0.1	0.1	0.1	<0.1	0.1	4289496
Acenaphthylene	mg/kg	0.071	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	4294653
Acridine	mg/kg	<0.010	0.010	<0.010	0.010	<0.010	0.010	<0.10	0.10	<0.010	0.010	4294653
Anthracene	mg/kg	0.037	0.0040	<0.0040	0.0040	<0.0040	0.0040	<0.040	0.040	<0.0040	0.0040	4294653
Benzo(a)anthracene	mg/kg	0.048	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	4294653
Benzo(b&j)fluoranthene	mg/kg	0.19	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.21	0.050	<0.0050	0.0050	4294653
Benzo(k)fluoranthene	mg/kg	0.068	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.072	0.050	<0.0050	0.0050	4294653
Benzo(g,h,i)perylene	mg/kg	0.089	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.14	0.050	<0.0050	0.0050	4294653
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	4294653
Benzo(a)pyrene	mg/kg	0.080	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.080	0.050	<0.0050	0.0050	4294653
Benzo[e]pyrene	mg/kg	0.15	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.17	0.050	<0.0050	0.0050	4294653
Chrysene	mg/kg	0.18	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.16	0.050	<0.0050	0.0050	4294653
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	4294653
Fluoranthene	mg/kg	0.29	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.19	0.050	<0.0050	0.0050	4294653
Fluorene	mg/kg	0.064	0.0050	<0.0050	0.0050	0.0069	0.0050	<0.050	0.050	<0.0050	0.0050	4294653
Indeno(1,2,3-cd)pyrene	mg/kg	0.072	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.093	0.050	<0.0050	0.0050	4294653
2-Methylnaphthalene	mg/kg	0.26	0.0050	0.55	0.0050	0.027	0.0050	0.22	0.050	<0.0050	0.0050	4294653
Naphthalene	mg/kg	1.7	0.0050	2.0	0.0050	0.15	0.0050	0.34	0.050	<0.0050	0.0050	4294653
Phenanthrene	mg/kg	0.26	0.0050	<0.0050	0.0050	0.027	0.0050	0.14	0.050	<0.0050	0.0050	4294653
Perylene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	4294653
Pyrene	mg/kg	0.24	0.0050	<0.0050	0.0050	<0.0050	0.0050	0.17	0.050	<0.0050	0.0050	4294653
Quinoline	mg/kg	<0.20 ⁽¹⁾	0.20	<0.010	0.010	<0.10 ⁽¹⁾	0.10	<0.10	0.10	<0.010	0.010	4294653
Surrogate Recovery (%)												
D10-ANTHRACENE (sur.)	%	75		81		77		100		87		4294653
D12-BENZO(A)PYRENE (sur.)	%	92		85		75		90		96		4294653
D8-ACENAPHTHYLENE (sur.)	%	73		77		75		90		76		4294653
TERPHENYL-D14 (sur.)	%	74		81		77		90		84		4294653

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference.

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		X22141		X22142		X22143		X22144		
Sampling Date		2010/09/19		2010/09/19		2010/09/19		2010/09/19		
COC#		A019553		A019553		A019558		A019558		
	Units	CL-DOA	RDL	CL-CFA	RDL	CL-MSA	RDL	CL-CCA	RDL	QC Batch
Polycyclic Aromatics										
Acenaphthene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo[a]pyrene equivalency	mg/kg	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	4289496
Acenaphthylene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	0.0074	0.0050	4294653
Acridine	mg/kg	<0.010	0.010	<0.10	0.10	<0.010	0.010	<0.010	0.010	4294653
Anthracene	mg/kg	<0.0040	0.0040	<0.040	0.040	<0.0040	0.0040	0.0072	0.0040	4294653
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	0.0069	0.0050	4294653
Benzo(b&j)fluoranthene	mg/kg	<0.0050	0.0050	0.17	0.050	<0.0050	0.0050	0.015	0.0050	4294653
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	0.066	0.050	<0.0050	0.0050	0.0051	0.0050	4294653
Benzo(g,h,i)perylene	mg/kg	<0.0050	0.0050	0.087	0.050	<0.0050	0.0050	0.0066	0.0050	4294653
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	<0.0050	0.0050	4294653
Benzo[e]pyrene	mg/kg	<0.0050	0.0050	0.15	0.050	<0.0050	0.0050	0.0086	0.0050	4294653
Chrysene	mg/kg	<0.0050	0.0050	0.11	0.050	<0.0050	0.0050	0.022	0.0050	4294653
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	<0.0050	0.0050	4294653
Fluoranthene	mg/kg	<0.0050	0.0050	0.24	0.050	<0.0050	0.0050	0.029	0.0050	4294653
Fluorene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	0.0093	0.0050	4294653
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	<0.0050	0.0050	4294653
2-Methylnaphthalene	mg/kg	<0.0050	0.0050	<0.050	0.050	0.014	0.0050	0.14	0.0050	4294653
Naphthalene	mg/kg	<0.0050	0.0050	0.098	0.050	0.043	0.0050	0.41	0.0050	4294653
Phenanthrene	mg/kg	<0.0050	0.0050	<0.050	0.050	0.020	0.0050	0.053	0.0050	4294653
Perylene	mg/kg	<0.0050	0.0050	<0.050	0.050	<0.0050	0.0050	<0.0050	0.0050	4294653
Pyrene	mg/kg	<0.0050	0.0050	0.20	0.050	<0.0050	0.0050	0.020	0.0050	4294653
Quinoline	mg/kg	<0.010	0.010	<0.10	0.10	<0.010	0.010	<0.060 ⁽¹⁾	0.060	4294653
Surrogate Recovery (%)										
D10-ANTHRACENE (sur.)	%	0.00 ⁽²⁾		90		69		78		4294653
D12-BENZO(A)PYRENE (sur.)	%	0.00 ⁽²⁾		70		16 ⁽³⁾		67		4294653
D8-ACENAPHTHYLENE (sur.)	%	1.0 ⁽²⁾		80		76		74		4294653
TERPHENYL-D14 (sur.)	%	0.00 ⁽²⁾		80		70		75		4294653

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference.

(2) - Surrogate recovery below acceptance criteria due to matrix interference. Reanalysis yields similar results.

(3) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

Package 1	4.7°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

REGULATED METALS (CCME/AT1) Comments

Sample X22137-01 Boron (Hot Water Soluble): Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

SEMIVOLATILE ORGANICS BY GC-MS (SOIL) Comments

Sample X22139-01 Polycyclic Aromatic Hydrocarbons in soil: Detection limits raised due to matrix interference.

Sample X22142-01 Polycyclic Aromatic Hydrocarbons in soil: Detection limits raised due to matrix interference.

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4290017	Moisture	2010/09/26							15.7	20		
4293111	Moisture	2010/09/27							4.9	20		
4293865	Hex. Chromium (Cr 6+)	2010/09/27			98	90 - 110	<0.15	mg/kg	NC	35		
4294653	D10-ANTHRACENE (sur.)	2010/09/28	72	30 - 130	92	30 - 130	81	%				
4294653	D12-BENZO(A)PYRENE (sur.)	2010/09/28	50	30 - 130	71	30 - 130	90	%				
4294653	D8-ACENAPHTHYLENE (sur.)	2010/09/28	72	30 - 130	72	30 - 130	72	%				
4294653	TERPHENYL-D14 (sur.)	2010/09/28	71	30 - 130	84	30 - 130	78	%				
4294653	Acenaphthene	2010/09/28	75	30 - 130	73	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Acenaphthylene	2010/09/28	72	30 - 130	71	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Acridine	2010/09/28	30	30 - 130	46	30 - 130	<0.010	mg/kg	NC	50		
4294653	Anthracene	2010/09/28	70	30 - 130	55	30 - 130	<0.0040	mg/kg	NC	50		
4294653	Benzo(a)anthracene	2010/09/28	50	30 - 130	60	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Benzo(b&j)fluoranthene	2010/09/28	48	30 - 130	61	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Benzo(k)fluoranthene	2010/09/28	63	30 - 130	69	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Benzo(g,h,i)perylene	2010/09/28	30 ⁽¹⁾	30 - 130	62	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Benzo(c)phenanthrene	2010/09/28	66	30 - 130	68	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Benzo(a)pyrene	2010/09/28	48	30 - 130	71	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Benzo(e)pyrene	2010/09/28	58	30 - 130	65	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Chrysene	2010/09/28	85	30 - 130	91	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Dibenz(a,h)anthracene	2010/09/28	39	30 - 130	69	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Fluoranthene	2010/09/28	68	30 - 130	78	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Fluorene	2010/09/28	72	30 - 130	69	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Indeno(1,2,3-cd)pyrene	2010/09/28	31	30 - 130	61	30 - 130	<0.0050	mg/kg	NC	50		
4294653	2-Methylnaphthalene	2010/09/28	70	30 - 130	66	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Naphthalene	2010/09/28	71	30 - 130	95	30 - 130	<0.0050	mg/kg	37.7	50		
4294653	Phenanthrene	2010/09/28	71	30 - 130	82	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Perylene	2010/09/28	44	30 - 130	60	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Pyrene	2010/09/28	68	30 - 130	80	30 - 130	<0.0050	mg/kg	NC	50		
4294653	Quinoline	2010/09/28	85	30 - 130	75	30 - 130	<0.010	mg/kg	NC ⁽²⁾	50		
4298025	NONACHLOROBIPHENYL (sur.)	2010/09/29	78	30 - 130	90	30 - 130	85	%				
4298025	Aroclor 1260	2010/09/29	100	30 - 130	112	30 - 130	<0.010	mg/kg	NC	50		
4298025	Aroclor 1016	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1221	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1232	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1242	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1248	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1254	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1262	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Aroclor 1268	2010/09/29					<0.010	mg/kg	NC	50		
4298025	Total Aroclors	2010/09/29					<0.010	mg/kg	NC	50		

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4300451	Total Antimony (Sb)	2010/09/29	95	75 - 125	106	75 - 125	<1	mg/kg	NC	35		
4300451	Total Arsenic (As)	2010/09/29	85	75 - 125	98	81 - 103	<1	mg/kg	NC	35	99	50 - 150
4300451	Total Barium (Ba)	2010/09/29	NC	75 - 125	100	75 - 125	<10	mg/kg	12.1	35	108	69 - 131
4300451	Total Beryllium (Be)	2010/09/29	82	75 - 125	98	75 - 116	<0.4	mg/kg	NC	35		
4300451	Total Cadmium (Cd)	2010/09/29	93	75 - 125	99	75 - 125	<0.1	mg/kg	NC	35		
4300451	Total Chromium (Cr)	2010/09/29	89	75 - 125	103	75 - 125	<1	mg/kg	10.8	35	98	41 - 159
4300451	Total Cobalt (Co)	2010/09/29	94	75 - 125	103	75 - 125	<1	mg/kg	19.7	35	99	75 - 125
4300451	Total Copper (Cu)	2010/09/29	NC	75 - 125	102	75 - 125	<5	mg/kg	NC	35	88	72 - 127
4300451	Total Lead (Pb)	2010/09/29	87	75 - 125	106	85 - 112	<1	mg/kg	20.8	35	101	54 - 146
4300451	Total Mercury (Hg)	2010/09/29	85	75 - 125	99	75 - 125	<0.05	mg/kg	NC	35	89	75 - 125
4300451	Total Molybdenum (Mo)	2010/09/29	99	75 - 125	103	75 - 125	<0.4	mg/kg	7.8	35		
4300451	Total Nickel (Ni)	2010/09/29	84	75 - 125	103	75 - 125	<1	mg/kg	22.1	35	103	61 - 139
4300451	Total Selenium (Se)	2010/09/29	86	75 - 125	92	75 - 125	<0.5	mg/kg	NC	35		
4300451	Total Silver (Ag)	2010/09/29	81	75 - 125	109	75 - 125	<1	mg/kg	NC	35		
4300451	Total Thallium (Tl)	2010/09/29	93	75 - 125	105	75 - 125	<0.3	mg/kg	NC	35		
4300451	Total Tin (Sn)	2010/09/29	93	75 - 125	100	75 - 125	<1	mg/kg	NC	35		
4300451	Total Uranium (U)	2010/09/29	101	75 - 125	101	75 - 125	<1	mg/kg	NC	35		
4300451	Total Vanadium (V)	2010/09/29	NC	75 - 125	105	75 - 125	<1	mg/kg	10.6	35	108	50 - 150
4300451	Total Zinc (Zn)	2010/09/29	NC	75 - 125	104	75 - 125	<10	mg/kg	8.7	35	86	72 - 128
4304855	Soluble (Hot water) Boron (B)	2010/10/01	103	75 - 125	103	80 - 120	<0.1	mg/kg	NC	35		
4305270	Soluble (Hot water) Boron (B)	2010/10/01	96	75 - 125	89	80 - 120	<0.1	mg/kg	0.8	35		
4306445	Total Antimony (Sb)	2010/10/02	88	75 - 125	109	75 - 125	<1	mg/kg	NC	35		
4306445	Total Arsenic (As)	2010/10/02	93	75 - 125	98	75 - 125	<1	mg/kg	NC	35	101	50 - 150
4306445	Total Barium (Ba)	2010/10/02	NC	75 - 125	106	75 - 125	<10	mg/kg	17.3	35	105	69 - 131
4306445	Total Beryllium (Be)	2010/10/02	109	75 - 125	81	75 - 125	<0.4	mg/kg	NC	35		
4306445	Total Cadmium (Cd)	2010/10/02	93	75 - 125	94	75 - 125	<0.1	mg/kg	NC	35		
4306445	Total Chromium (Cr)	2010/10/02	103	75 - 125	109	75 - 125	<1	mg/kg	28.4	35	110	41 - 159
4306445	Total Cobalt (Co)	2010/10/02	103	75 - 125	106	75 - 125	<1	mg/kg	21.5	35	107	75 - 125
4306445	Total Copper (Cu)	2010/10/02	89	75 - 125	107	75 - 125	<5	mg/kg	NC	35	90	72 - 127
4306445	Total Lead (Pb)	2010/10/02	84	75 - 125	101	75 - 125	<1	mg/kg	16.9	35	85	54 - 146
4306445	Total Mercury (Hg)	2010/10/02	82	75 - 125	91	80 - 120	<0.05	mg/kg	NC	35	91	75 - 125
4306445	Total Molybdenum (Mo)	2010/10/02	102	75 - 125	109	75 - 125	<0.4	mg/kg	NC	35		
4306445	Total Nickel (Ni)	2010/10/02	97	75 - 125	107	75 - 125	<1	mg/kg	25.8	35	104	61 - 139
4306445	Total Selenium (Se)	2010/10/02	85	75 - 125	85	75 - 125	<0.5	mg/kg	NC	35		
4306445	Total Thallium (Tl)	2010/10/02	85	75 - 125	91	75 - 125	<0.3	mg/kg	NC	35		
4306445	Total Tin (Sn)	2010/10/02	92	75 - 125	100	75 - 125	<1	mg/kg	NC	35		
4306445	Total Uranium (U)	2010/10/02	84	75 - 125	101	75 - 125	<1	mg/kg	NC	35		
4306445	Total Vanadium (V)	2010/10/02	NC	75 - 125	114	75 - 125	<1	mg/kg	30.8	35	125	50 - 150
4306445	Total Zinc (Zn)	2010/10/02	NC	75 - 125	110	75 - 125	<10	mg/kg	29.1	35	82	72 - 128

Maxxam Job #: B091697
Report Date: 2010/10/04

SENE CONSULTANTS LIMITED
Client Project #: CONTACT LAKE
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4306445	Total Silver (Ag)	2010/10/02			98	75 - 125	<1	mg/kg	NC	35		
4306459	Soluble (Hot water) Boron (B)	2010/10/01	99	75 - 125	89	80 - 120	<0.1	mg/kg	NC	35		

N/A = Not Applicable

RPD = Relative Percent Difference

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) - Detection limits raised due to matrix interference.

Validation Signature Page

Maxxam Job #: B091697

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



ORLA JORGENSEN, Organics Supervisor



RON VENZI, Scientific Specialist

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Company: **Maxxam**
 Contact: **Johnnie Black**
 Address: **Yellowknife**
 Contact No: **867 669 9481**

Report To: **Same as Invoice**
 Report Distribution (E-Mail):
 blackeaboriginaleng.com
 francandcsltd.com

REGULATORY GUIDELINES:
☐ ATT
☒ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 90 days after sample receipt, unless specified otherwise.

Project # / Name: **Contact Lake**
 Site Location: **Grout Bear Lake**
 Quote #: **JM**
 Sampled By: **JM**
 SERVICE REQUESTED:
☐ RUSH (Contact lab to reserve)
☒ REGULAR (5 to 7 Days)

All responses are listed for 25 containers only, unless sample received, unless specified otherwise

PO #:

Project # / Name: **Contact Lake**

Site Location: **Great Bear Lake**

Quote #:

Sampled By: **JM**

SERVICE REQUESTED:

☐ RUSH (Contact lab to reserve)

Date Required:

☒ REGULAR (5 to 7 Days)

Date reverse for package analysis				SOIL										WATER										Other Analysis																																																																																																																																																																																																																																																																																																																																																																																																																								
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Received By: **Jason Maxxam** Date: **2010 Sep 23** Time: **1600**
 Received By: **Jason Maxxam** Date: **2010 Sep 23** Time: **1600**
 Special Instructions: **10 ash samples**
 Lab Comments: **Service 09:00**
 Temperature: **7.77**
 Count: **6.78**

PO #:	
Project # / Name:	
Site Location:	
Quote #:	
Sampled By:	
SERVICE REQUESTED:	<input type="checkbox"/> RUSH (Contact lab to reserve) Date Required: _____ <input checked="" type="checkbox"/> REGULAR (5 to 7 Days)

[illegible]

Date (YYYYMMDD) <i>Sept. 24/10.</i> Date (YYYYMMDD)	Time (24:00) Time (24:00)
Name (Print) <i>J. Black</i> Name (Print)	# of Jars Used & Not Submitted
Special Instructions:	

Your Project #: GBL PHASE I REMEDIATION
Site: GREAT BEAR LAKE
Your C.O.C. #: A019552

Attention: JASON MAUCHAN
SENE CONSULTANTS LIMITED
121 GRANTON DRIVE, UNIT 12
RICHMOND HILL, ON
CANADA L4B 3N4

Report Date: 2010/10/12

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B095579
Received: 2010/10/04, 9:10

Sample Matrix: Soil
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	1	2010/10/08	2010/10/08	AB SOP-00042	EPA 200.7
Boron (Hot Water Soluble)	9	2010/10/08	2010/10/09	AB SOP-00042	EPA 200.7
Hexavalent Chromium	10	2010/10/07	2010/10/07	CAL SOP-00056	SM 3500-Cr B
Elements by ICPMS - Soils	10	2010/10/07	2010/10/09	AB SOP-00043	EPA 200.8
Moisture	10	N/A	2010/10/06	CAL SOP-00023	McKeague MSSMA 2.411
Benzo[a]pyrene Equivalency	10	N/A	2010/10/12	AB SOP-00003	EPA 8270D
Polycyclic Aromatic Hydrocarbons in soil	3	2010/10/08	2010/10/08	AB SOP-00003 AB WI-00016	EPA 3540C/8270D
Polycyclic Aromatic Hydrocarbons in soil	1	2010/10/08	2010/10/09	AB SOP-00003 AB WI-00016	EPA 3540C/8270D
Polycyclic Aromatic Hydrocarbons in soil	6	2010/10/08	2010/10/12	AB SOP-00003 AB WI-00016	EPA 3540C/8270D
Polychlorinated Biphenyls	1	2010/10/08	2010/10/08	CAL SOP-00149	EPA 3550B, EPA 8082A

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LISA MCMANES, Sample Reception Supervisor
Email: LMcManes@maxxam.ca
Phone# (403) 291-3077

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B095579
Report Date: 2010/10/12

SENE CONSULTANTS LIMITED
Client Project #: GBL PHASE I REMEDIATION
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X46141			X46147		X46148		X46149		X46150		
Sampling Date		2010/09/27			2010/09/27		2010/09/27		2010/09/27		2010/09/27		
COC#		A019552			A019552		A019552		A019552		A019552		
	Units	EB-ASH-1	RDL	QC Batch	EB-ASH-2	RDL	EB-ASH-3	RDL	EB-ASH-4	RDL	EB-ASH-5	RDL	QC Batch
Elements													
Soluble (Hot water) Boron (B)	mg/kg	41	0.1	4327171	12 ⁽¹⁾	0.1	9.5	0.1	1.6	0.1	0.5	0.1	4327556
Hex. Chromium (Cr 6+)	mg/kg	0.17	0.15	4321460	<0.15	0.15	<0.15	0.15	0.22	0.15	<0.15	0.15	4321460
Total Antimony (Sb)	mg/kg	2	1	4323898	<1	1	<1	1	<1	1	11	1	4323898
Total Arsenic (As)	mg/kg	6	1	4323898	7	1	9	1	2	1	7	1	4323898
Total Barium (Ba)	mg/kg	610	10	4323898	580	10	340	10	160	10	230	10	4323898
Total Beryllium (Be)	mg/kg	0.5	0.4	4323898	0.6	0.4	0.5	0.4	0.5	0.4	0.4	0.4	4323898
Total Cadmium (Cd)	mg/kg	0.6	0.1	4323898	0.3	0.1	0.3	0.1	<0.1	0.1	3.2	0.1	4323898
Total Chromium (Cr)	mg/kg	35	1	4323898	20	1	24	1	29	1	22	1	4323898
Total Cobalt (Co)	mg/kg	10	1	4323898	11	1	8	1	7	1	8	1	4323898
Total Copper (Cu)	mg/kg	160	5	4323898	82	5	61	5	28	5	390 ⁽²⁾	100	4323898
Total Lead (Pb)	mg/kg	120	1	4323898	18	1	75	1	16	1	93	1	4323898
Total Mercury (Hg)	mg/kg	<0.05	0.05	4323898	<0.05	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	4323898
Total Molybdenum (Mo)	mg/kg	4.5	0.4	4323898	1.4	0.4	1.5	0.4	1.0	0.4	1.1	0.4	4323898
Total Nickel (Ni)	mg/kg	83	1	4323898	16	1	18	1	29	1	16	1	4323898
Total Selenium (Se)	mg/kg	<0.5	0.5	4323898	<0.5	0.5	160	0.5	2.9	0.5	<0.5	0.5	4323898
Total Silver (Ag)	mg/kg	<1	1	4323898	<1	1	<1	1	<1	1	1	1	4323898
Total Thallium (Tl)	mg/kg	<0.3	0.3	4323898	<0.3	0.3	<0.3	0.3	<0.3	0.3	<0.3	0.3	4323898
Total Tin (Sn)	mg/kg	260 ⁽²⁾	10	4323898	7	1	45	1	5	1	37	1	4323898
Total Uranium (U)	mg/kg	<1	1	4323898	2	1	6	1	1	1	1	1	4323898
Total Vanadium (V)	mg/kg	180	1	4323898	29	1	51	1	110	1	48	1	4323898
Total Zinc (Zn)	mg/kg	1100 ⁽²⁾	100	4323898	300 ⁽²⁾	20	8900 ⁽²⁾	400	160	10	2500 ⁽²⁾	200	4323898

RDL = Reportable Detection Limit

(1) - Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B095579
Report Date: 2010/10/12

SENE CONSULTANTS LIMITED
Client Project #: GBL PHASE I REMEDIATION
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

REGULATED METALS (CCME/AT1)

Maxxam ID		X46151		X46152		X46153		X46154		X46155		
Sampling Date		2010/09/29		2010/09/29		2010/09/29		2010/09/29		2010/09/29		
COC#		A019552		A019552		A019552		A019552		A019552		
	Units	SB-AA	RDL	SB-CGA	RDL	EB-ASH-4	RDL	B2-ASH-1	RDL	B2-ASH 2	RDL	QC Batch
Elements												
Soluble (Hot water) Boron (B)	mg/kg	1.1	0.1	5.1	0.1	1.4	0.1	8.3	0.1	5.4	0.1	4327556
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	0.87 ⁽¹⁾	0.30	<0.75 ⁽¹⁾	0.75	1.3	0.15	0.24	0.15	4321460
Total Antimony (Sb)	mg/kg	3	1	85 ⁽²⁾	5	5	1	<1	1	<1	1	4323898
Total Arsenic (As)	mg/kg	7	1	6	1	23	1	3	1	4	1	4323898
Total Barium (Ba)	mg/kg	230	10	1000	10	320	10	270	10	370	10	4323898
Total Beryllium (Be)	mg/kg	<0.4	0.4	<0.4	0.4	<0.4	0.4	0.4	0.4	0.5	0.4	4323898
Total Cadmium (Cd)	mg/kg	0.9	0.1	3.2	0.1	0.7	0.1	0.6	0.1	0.2	0.1	4323898
Total Chromium (Cr)	mg/kg	22	1	30	1	25	1	45	1	43	1	4323898
Total Cobalt (Co)	mg/kg	5	1	6	1	5	1	8	1	9	1	4323898
Total Copper (Cu)	mg/kg	22	5	87	5	31	5	41	5	35	5	4323898
Total Lead (Pb)	mg/kg	150	1	410 ⁽²⁾	5	110	1	320 ⁽²⁾	5	26	1	4323898
Total Mercury (Hg)	mg/kg	<0.05	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	4323898
Total Molybdenum (Mo)	mg/kg	0.5	0.4	1.9	0.4	0.6	0.4	0.6	0.4	0.6	0.4	4323898
Total Nickel (Ni)	mg/kg	8	1	14	1	10	1	34	1	25	1	4323898
Total Selenium (Se)	mg/kg	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	4323898
Total Silver (Ag)	mg/kg	<1	1	2	1	6	1	<1	1	<1	1	4323898
Total Thallium (Tl)	mg/kg	<0.3	0.3	<0.3	0.3	<0.3	0.3	<0.3	0.3	<0.3	0.3	4323898
Total Tin (Sn)	mg/kg	19	1	17	1	10	1	120	1	83	1	4323898
Total Uranium (U)	mg/kg	5	1	2	1	2	1	2	1	2	1	4323898
Total Vanadium (V)	mg/kg	40	1	35	1	41	1	43	1	41	1	4323898
Total Zinc (Zn)	mg/kg	320 ⁽²⁾	20	760 ⁽²⁾	50	460 ⁽²⁾	20	760 ⁽²⁾	50	270 ⁽²⁾	20	4323898

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		X46141	X46141	X46147	X46148	X46149		
Sampling Date		2010/09/27	2010/09/27	2010/09/27	2010/09/27	2010/09/27		
COC#		A019552	A019552	A019552	A019552	A019552		
	Units	EB-ASH-1	EB-ASH-1 Lab-Dup	EB-ASH-2	EB-ASH-3	EB-ASH-4	RDL	QC Batch
Physical Properties								
Moisture	%	22	20	23	4.2	<0.3	0.3	4320158

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference

(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B095579
Report Date: 2010/10/12

SENE CONSULTANTS LIMITED
Client Project #: GBL PHASE I REMEDIATION
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		X46150	X46151	X46152	X46153	X46154	X46155		
Sampling Date		2010/09/27	2010/09/29	2010/09/29	2010/09/29	2010/09/29	2010/09/29		
COC#		A019552	A019552	A019552	A019552	A019552	A019552		
	Units	EB-ASH-5	SB-AA	SB-CGA	EB-ASH-4	B2-ASH-1	B2-ASH 2	RDL	QC Batch
Physical Properties									
Moisture	%	21	17	4.3	6.1	19	62	0.3	4320158

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		X46148		
Sampling Date		2010/09/27		
COC#		A019552		
	Units	EB-ASH-3	RDL	QC Batch
Polychlorinated Biphenyls				
Aroclor 1016	mg/kg	<0.021	0.021	4323682
Aroclor 1221	mg/kg	<0.021	0.021	4323682
Aroclor 1232	mg/kg	<0.021	0.021	4323682
Aroclor 1242	mg/kg	<0.021	0.021	4323682
Aroclor 1248	mg/kg	<0.021	0.021	4323682
Aroclor 1254	mg/kg	<0.021	0.021	4323682
Aroclor 1260	mg/kg	<0.021	0.021	4323682
Aroclor 1262	mg/kg	<0.021	0.021	4323682
Aroclor 1268	mg/kg	<0.021	0.021	4323682
Total Aroclors	mg/kg	<0.021	0.021	4323682
Surrogate Recovery (%)				
NONACHLOROBIPHENYL (sur.)	%	77		4323682

RDL = Reportable Detection Limit

Maxxam Job #: B095579
Report Date: 2010/10/12

SENE CONSULTANTS LIMITED
Client Project #: GBL PHASE I REMEDIATION
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		X46141		X46147		X46148		X46149	X46150		X46151		
Sampling Date		2010/09/27		2010/09/27		2010/09/27		2010/09/27	2010/09/27		2010/09/29		
COC#		A019552		A019552		A019552		A019552	A019552		A019552		
	Units	EB-ASH-1	RDL	EB-ASH-2	RDL	EB-ASH-3	RDL	EB-ASH-4	EB-ASH-5	RDL	SB-AA	RDL	QC Batch
Polycyclic Aromatics													
Acenaphthene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Benzo[a]pyrene equivalency	mg/kg	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	0.1	<0.1	0.1	4314528
Acenaphthylene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	0.0064	0.0050	<0.029	0.029	4323946
Acridine	mg/kg	<0.010	0.010	<0.063	0.063	<0.051	0.051	<0.010	<0.010	0.010	<0.059	0.059	4323946
Anthracene	mg/kg	<0.0040	0.0040	<0.025	0.025	<0.020	0.020	<0.0040	0.0096	0.0040	<0.023	0.023	4323946
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Benzo(b&j)fluoranthene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Benzo(g,h,i)perylene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Benzo[e]pyrene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Chrysene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Fluoranthene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	0.017	0.0050	<0.029	0.029	4323946
Fluorene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	0.013	0.0050	<0.029	0.029	4323946
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
2-Methylnaphthalene	mg/kg	0.0081	0.0050	<0.031	0.031	<0.025	0.025	0.0052	0.039	0.0050	<0.029	0.029	4323946
Naphthalene	mg/kg	0.032	0.0050	<0.031	0.031	0.19	0.025	0.041	0.11	0.0050	<0.029	0.029	4323946
Phenanthrene	mg/kg	<0.0050	0.0050	<0.031	0.031	0.033	0.025	<0.0050	0.050	0.0050	<0.029	0.029	4323946
Perylene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	<0.0050	0.0050	<0.029	0.029	4323946
Pyrene	mg/kg	<0.0050	0.0050	<0.031	0.031	<0.025	0.025	<0.0050	0.015	0.0050	<0.029	0.029	4323946
Quinoline	mg/kg	<0.010	0.010	<0.063	0.063	<0.051	0.051	<0.010	<0.010	0.010	<0.059	0.059	4323946
Surrogate Recovery (%)													
D10-ANTHRACENE (sur.)	%	72		117		87		54	86		102		4323946
D12-BENZO(A)PYRENE (sur.)	%	28 ⁽¹⁾		117		12 ⁽¹⁾		1.0 ⁽¹⁾	30		55		4323946
D8-ACENAPHTHYLENE (sur.)	%	91		105		90		88	97		94		4323946
TERPHENYL-D14 (sur.)	%	79		117		85		49	75		101		4323946

RDL = Reportable Detection Limit

(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B095579
Report Date: 2010/10/12

SENE CONSULTANTS LIMITED
Client Project #: GBL PHASE I REMEDIATION
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		X46152		X46153		X46154		X46155		
Sampling Date		2010/09/29		2010/09/29		2010/09/29		2010/09/29		
COC#		A019552		A019552		A019552		A019552		
	Units	SB-CGA	RDL	EB-ASH-4	RDL	B2-ASH-1	RDL	B2-ASH 2	RDL	QC Batch
Polycyclic Aromatics										
Acenaphthene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Benzo[a]pyrene equivalency	mg/kg	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	4314528
Acenaphthylene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Acridine	mg/kg	<0.050	0.050	<0.053	0.053	<0.010	0.010	<0.13	0.13	4323946
Anthracene	mg/kg	<0.020	0.020	<0.021	0.021	<0.0040	0.0040	<0.050	0.050	4323946
Benzo(a)anthracene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Benzo(b&j)fluoranthene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Benzo(k)fluoranthene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Benzo(g,h,i)perylene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Benzo(c)phenanthrene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Benzo(a)pyrene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Benzo[e]pyrene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Chrysene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Dibenz(a,h)anthracene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Fluoranthene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Fluorene	mg/kg	<0.025	0.025	<0.026	0.026	0.0078	0.0050	<0.063	0.063	4323946
Indeno(1,2,3-cd)pyrene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
2-Methylnaphthalene	mg/kg	<0.025	0.025	<0.026	0.026	0.032	0.0050	0.17	0.063	4323946
Naphthalene	mg/kg	0.096	0.025	0.038	0.026	0.23	0.0050	0.79	0.063	4323946
Phenanthrene	mg/kg	<0.025	0.025	<0.026	0.026	0.020	0.0050	0.073	0.063	4323946
Perylene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Pyrene	mg/kg	<0.025	0.025	<0.026	0.026	<0.0050	0.0050	<0.063	0.063	4323946
Quinoline	mg/kg	<0.050	0.050	<0.053	0.053	<0.040 ⁽¹⁾	0.040	<0.13	0.13	4323946
Surrogate Recovery (%)										
D10-ANTHRACENE (sur.)	%	32		89		76		106		4323946
D12-BENZO(A)PYRENE (sur.)	%	0.00 ⁽²⁾		51		25 ⁽²⁾		96		4323946
D8-ACENAPHTHYLENE (sur.)	%	65		88		97		98		4323946
TERPHENYL-D14 (sur.)	%	31		88		72		105		4323946

RDL = Reportable Detection Limit

(1) - Detection limits raised due to matrix interference.

(2) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B095579
Report Date: 2010/10/12

SENE CONSULTANTS LIMITED
Client Project #: GBL PHASE I REMEDIATION
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

Package 1	7.0°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

REGULATED METALS (CCME/AT1) Comments

Sample X46141-01 Boron (Hot Water Soluble): Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL) Comments

Sample X46148-01 Polychlorinated Biphenyls: Detection limits raised due to matrix interference.

SEMIVOLATILE ORGANICS BY GC-MS (SOIL) Comments

Sample X46147-01 Polycyclic Aromatic Hydrocarbons in soil: Detection limits raised due to matrix interference.

Sample X46148-01 Polycyclic Aromatic Hydrocarbons in soil: Detection limits raised due to matrix interference.

Sample X46151-01 Polycyclic Aromatic Hydrocarbons in soil: Detection limits raised due to matrix interference.

Sample X46152-01 Polycyclic Aromatic Hydrocarbons in soil: Detection limits raised due to matrix interference.

Sample X46153-01 Polycyclic Aromatic Hydrocarbons in soil: Detection limits raised due to matrix interference.

Sample X46155-01 Polycyclic Aromatic Hydrocarbons in soil: Detection limits raised due to matrix interference.

Maxxam Job #: B095579
Report Date: 2010/10/12

SENE CONSULTANTS LIMITED
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Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4320158	Moisture	2010/10/06							9.4	20		
4321460	Hex. Chromium (Cr 6+)	2010/10/07	100	75 - 125	101	90 - 110	<0.15	mg/kg	NC	35		
4323682	NONACHLOROBIPHENYL (sur.)	2010/10/08	101	30 - 130	116	30 - 130	115	%				
4323682	Aroclor 1260	2010/10/08	98	30 - 130	105	30 - 130	<0.010	mg/kg	NC	50		
4323682	Aroclor 1016	2010/10/08					<0.010	mg/kg	NC	50		
4323682	Aroclor 1221	2010/10/08					<0.010	mg/kg	NC	50		
4323682	Aroclor 1232	2010/10/08					<0.010	mg/kg	NC	50		
4323682	Aroclor 1242	2010/10/08					<0.010	mg/kg	NC	50		
4323682	Aroclor 1248	2010/10/08					<0.010	mg/kg	NC	50		
4323682	Aroclor 1254	2010/10/08					<0.010	mg/kg	NC	50		
4323682	Aroclor 1262	2010/10/08					<0.010	mg/kg	NC	50		
4323682	Aroclor 1268	2010/10/08					<0.010	mg/kg	NC	50		
4323682	Total Aroclors	2010/10/08					<0.010	mg/kg	NC	50		
4323898	Total Antimony (Sb)	2010/10/09	103	75 - 125	109	75 - 125	<1	mg/kg	NC	35		
4323898	Total Arsenic (As)	2010/10/09	89	75 - 125	93	75 - 125	<1	mg/kg	2.1	35	91	50 - 150
4323898	Total Barium (Ba)	2010/10/09	NC	75 - 125	103	75 - 125	<10	mg/kg	1	35	106	69 - 131
4323898	Total Cadmium (Cd)	2010/10/09	97	75 - 125	94	75 - 125	<0.1	mg/kg	NC	35		
4323898	Total Chromium (Cr)	2010/10/09	97	75 - 125	100	75 - 125	<1	mg/kg	0.2	35	107	41 - 159
4323898	Total Cobalt (Co)	2010/10/09	104	75 - 125	101	75 - 125	<1	mg/kg	2.0	35	103	75 - 125
4323898	Total Copper (Cu)	2010/10/09	91	75 - 125	104	75 - 125	<5	mg/kg	NC	35	95	72 - 127
4323898	Total Lead (Pb)	2010/10/09	76	75 - 125	101	75 - 125	<1	mg/kg	1.8	35	92	54 - 146
4323898	Total Mercury (Hg)	2010/10/09	86	75 - 125	93	80 - 120	<0.05	mg/kg	NC	35	95	75 - 125
4323898	Total Molybdenum (Mo)	2010/10/09	112	75 - 125	104	75 - 125	<0.4	mg/kg	NC	35		
4323898	Total Nickel (Ni)	2010/10/09	NC	75 - 125	101	75 - 125	<1	mg/kg	0.5	35	103	61 - 139
4323898	Total Selenium (Se)	2010/10/09	84	75 - 125	84	75 - 125	<0.5	mg/kg	NC	35		
4323898	Total Thallium (Tl)	2010/10/09	83	75 - 125	95	75 - 125	<0.3	mg/kg	NC	35		
4323898	Total Tin (Sn)	2010/10/09	112	75 - 125	100	75 - 125	<1	mg/kg	NC	35		
4323898	Total Uranium (U)	2010/10/09	79	75 - 125	103	75 - 125	<1	mg/kg	NC	35		
4323898	Total Vanadium (V)	2010/10/09	NC	75 - 125	104	75 - 125	<1	mg/kg	0.3	35	117	50 - 150
4323898	Total Zinc (Zn)	2010/10/09	NC	75 - 125	109	75 - 125	<10	mg/kg	5.3	35	92	72 - 128
4323898	Total Beryllium (Be)	2010/10/09			105	75 - 125	<0.4	mg/kg	NC	35		
4323898	Total Silver (Ag)	2010/10/09			104	75 - 125	<1	mg/kg	NC	35		
4323946	D10-ANTHRACENE (sur.)	2010/10/08	90	30 - 130	101	30 - 130	95	%				
4323946	D12-BENZO(A)PYRENE (sur.)	2010/10/08	56	30 - 130	89	30 - 130	58	%				
4323946	D8-ACENAPHTHYLENE (sur.)	2010/10/08	101	30 - 130	108	30 - 130	102	%				
4323946	TERPHENYL-D14 (sur.)	2010/10/08	82	30 - 130	94	30 - 130	82	%				
4323946	Acenaphthene	2010/10/08	83	30 - 130	81	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Acenaphthylene	2010/10/08	91	30 - 130	90	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Acridine	2010/10/08	49	30 - 130	55	30 - 130	<0.010	mg/kg	NC	50		
4323946	Anthracene	2010/10/08	68	30 - 130	67	30 - 130	<0.0040	mg/kg	NC	50		

Maxxam Job #: B095579
Report Date: 2010/10/12

SENE CONSULTANTS LIMITED
Client Project #: GBL PHASE I REMEDIATION
Site Reference: GREAT BEAR LAKE
Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
4323946	Benzo(a)anthracene	2010/10/08	58	30 - 130	66	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Benzo(b&j)fluoranthene	2010/10/08	57	30 - 130	71	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Benzo(k)fluoranthene	2010/10/08	55	30 - 130	67	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Benzo(g,h,i)perylene	2010/10/08	62	30 - 130	68	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Benzo(c)phenanthrene	2010/10/08	77	30 - 130	83	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Benzo(a)pyrene	2010/10/08	50	30 - 130	69	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Benzo[e]pyrene	2010/10/08	53	30 - 130	69	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Chrysene	2010/10/08	102	30 - 130	94	30 - 130	<0.0050	mg/kg	2.3	50		
4323946	Dibenz(a,h)anthracene	2010/10/08	70	30 - 130	71	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Fluoranthene	2010/10/08	75	30 - 130	76	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Fluorene	2010/10/08	80	30 - 130	79	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Indeno(1,2,3-cd)pyrene	2010/10/08	58	30 - 130	62	30 - 130	<0.0050	mg/kg	NC	50		
4323946	2-Methylnaphthalene	2010/10/08	86	30 - 130	81	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Naphthalene	2010/10/08	86	30 - 130	84	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Phenanthrene	2010/10/08	79	30 - 130	80	30 - 130	<0.0050	mg/kg	6.6	50		
4323946	Perylene	2010/10/08	66	30 - 130	67	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Pyrene	2010/10/08	79	30 - 130	77	30 - 130	<0.0050	mg/kg	NC	50		
4323946	Quinoline	2010/10/08	87	30 - 130	79	30 - 130	<0.010	mg/kg	NC	50		
4327171	Soluble (Hot water) Boron (B)	2010/10/08	100	75 - 125	93	80 - 120	<0.1	mg/kg	NC	35		
4327556	Soluble (Hot water) Boron (B)	2010/10/09	100	75 - 125	99	80 - 120	<0.1	mg/kg	NC	35		

N/A = Not Applicable

RPD = Relative Percent Difference

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 blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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.

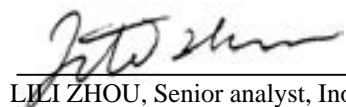
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B095579

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



LILI ZHOU, Senior analyst, Inorganic department.



ORLA JORGENSEN, Organics Supervisor



VERONICA FALK, Scientific Specialist

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Company:	Invoice To: AEL	C/O Return Address	<input type="checkbox"/>
Contact:			
Address:			
Contact #:			

Report To:	Name as Invoice	<input type="checkbox"/>
Phone	PC	
Fax	Cell	

Report Distribution (E-Mail):	
jmauchane@csd.hc.ca	
blackeaber@gmail.com	

REGULATORY GUIDELINES:

<input type="checkbox"/> AT1
<input checked="" type="checkbox"/> CCME
<input type="checkbox"/> Regulated Drinking Water
<input type="checkbox"/> Other:

Project # / Name: <u>GBL Phase I Remediation</u> Site Location: <u>Great Bear Lake</u> Date: <u> </u> Sampled By: <u>JM</u>				SERVICE REQUESTED: <input type="checkbox"/> RUSH (Contact lab to reserve) <input checked="" type="checkbox"/> REGULAR (5 to 7 Days)		See reverse for package specifics	
Sample ID	Depth (feet)	Name (m / ft)	Date Time Sampled YYMMDD HHMM	SOIL	WATER	Other Analysis	
1 EB-Ash-1		Ash	2010 Sep 27	BTEX P1-P4 ✓ Sieve (75 micron) ✓ Regulated Metals (CCME / AT1) ✓ Salinity 4 ✓ Assessment ICP Metals ✓ Basic Class II Landfill ✓ PAHs ✓ PCBs ✓	CVOCA ✓ BTEX P1 ✓ BTEX P1-P2 ✓ BTEX P1-P4 ✓ Routine Water ✓ Turbidity ✓ F ✓ TOC ✓ DOC ✓ Total Dissolved ✓ Mercury Total Dissolved ✓		
2 EB-Ash-2				✓	✓		
3 EB-Ash-3				✓	✓		
4 EB-Ash-4				✓	✓		
5 EB-Ash-5				✓	✓		
6 SB-AA			2010 Sep 29	✓	✓		
7 SB-C6A				✓	✓		
8 EB-Ash-4				✓	✓		
9 BZ-Ash-1				✓	✓		
10 BZ-Ash-2				✓	✓		
11							
12							

ARRIVED AT DEPOT: 2010 SEP 27 17:17

TEMP: 7.7 °C

Please Indicate Filtered, Preserved or Both (F, P, FP)

Requested By (Signature/Print):	Date (YY/MM/DD):	Time (24 hr):
Requested By (Signature/Print):	Date (YY/MM/DD):	Time (24 hr):
Special Instructions:	# of Jars Used & Not Submitted	

LAB USE ONLY		
Received By:	Date:	Time:
Lab Comments:	 OCT 05 2010 Zhou Q.	
Maxcon Job #:	Corely Seal	Temperature
CB045574	✓	6.3.4 ✓



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
100691

- FINAL REPORT -

Prepared For: Aboriginal Engineering Ltd.

Address: Box 133
Unit 20, 100 Borden Drive
Yellowknife, NT
X1A 2N1

Attn: Johanne Black

Facsimile: (867) 669-9482

Final report has been reviewed and approved by:

Helene Harper _____

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Tuesday, September 28, 2010

Print Date: Tuesday, September 28, 2010

Page 1 of 3



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
100691

- CERTIFICATE OF ANALYSIS -

Client Sample ID: Grey Water 1 Sawmill Bay

Taiga Sample ID: 001

Client Project:

Sample Type: Grey Water

Received Date: 17-Sep-10

Sampling Date: 16-Sep-10

Sampling Time: 16:00

Location: Great Bear Lake

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
Chlorine, Residual	0.04	0.01	mg/L	17-Sep-10	SM4500-Cl:G	
pH	7.80		pH units	17-Sep-10	SM4500-H:B	
Solids, Total Suspended	76	3	mg/L	21-Sep-10	SM2540:D	
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand			mg/L	17-Sep-10	SM5210:B	62
<u>Microbiology</u>						
Coliforms, Fecal	150	10	CFU/100mL	17-Sep-10	SM9222:D	
<u>Organics</u>						
Oil and Grease, visible	non-visual			27-Sep-10	Visual Exam	

ReportDate: Tuesday, September 28, 2010

Page 2 of 3

Print Date: Tuesday, September 28, 2010



Taiga Environmental Laboratory
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Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
100691

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Grey Water 1 Sawmill Bay**

Taiga Sample ID: **001**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

62 *Residual DO was less than 1 mg/L. No result available.*

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

ReportDate: Tuesday, September 28, 2010

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Print Date: Tuesday, September 28, 2010

APPENDIX G

PERMITS AND LICENSES

**PERMIT TO BURN**Department of Environment and Natural Resources
Pursuant to the **FOREST PROTECTION ACT****PERMIS DE BRÛLER**Ministère de l'Environnement et des Ressources naturelles
En vertu de la **LOI SUR LA PROTECTION DES FORÊTS****BP009158**

Name - Nom Bradley Landry		Aboriginal Engineering LTD	
Residence Address - Adresse du domicile Unit 20, 100 Borden Dr, Stanton Plaza		City/Town - Ville Yellowknife	Terr. NT
Mailing Address - Adresse postale P.O. Box 133		City/Town - Ville Yellowknife	Terr. NT
Birthdate - Né le D-J M-M Y-A 07/04/76	Phone No. - N° de téléphone (600) 700 5231	Date of Issue - Émis le D-J M-M Y-A 11/08/10	Issued At - Émis à Norman Wells
		Postal Code postal X1A 2N1	Vendor No. - N° de l'agent 401

The holder of a **PERMIT TO BURN** is hereby authorized to set out, start or kindle a fire during the closed season for the purpose of:Le titulaire de ce **PERMIS DE BRÛLER** est par le présent autorisé à allumer ou à attiser un feu pendant la période de fermeture dans le but :☐ clearing land; ☒ removing flammable material.☐ de déblayer un terrain; ☐ d'enlever des matières inflammables.

at the following location:

à l'emplacement suivant :

Sawmill Bay, Great Bear Lake, NWT
65° 72' 06" N 118° 92' 06" Wfrom **08:00 h** on the **11th** **08th** 20 10 to **20:00 h** on the **31st** **10th** 20 10
de le Day - Jour Month - Mois à le Day - Jour Month - Mois**Subject to the following Conditions and Restrictions:****Sous réserve des conditions et restrictions suivantes :**

1. The permittee shall keep the permit at the site of the burning operation conducted under the permit.
2. The fire must be attended at all times.
3. The fire must be extinguished before leaving the site of the burning operation.

1. Le titulaire du présent permis doit l'avoir en sa possession au moment de l'opération décrite ci-dessus;
2. Le feu devra rester sous surveillance constante;
3. Le feu devra être éteint avant de quitter le site de l'opération de brûlage.

4. Materials burned are free of non-combustible material and/or free of hazardous waste.**5. That the forest fire prevention & suppression guidelines for industrial activities are adhered to.****6. That the regional (Saktu) duty officer (587-3512) be notified prior to and after burning.****PERMIT HOLDER - TITULAIRE DU PERMIS****FOREST OFFICER - AGENT FORESTIER****X**
Signature

D-J M-M Y-A

X
Signature

D-J M-M Y-A



SAHTU Land and Water Board Water Licence

Pursuant to the Mackenzie Valley Resource Management Act, the Northwest Territories Waters Act and Regulations, the SAHTU Land and Water Board, hereinafter referred to as the Board, hereby grants to

**Indian and Northern Affairs Canada – NT Region
Contaminant and Remediation Directorate**

(licencee)

of **Box 1500, Yellowknife, NT X1A 1N5**
(Mailing Address)

hereinafter called the Licencee, the right to alter, divert or otherwise use water subject to the restrictions and conditions contained in the Mackenzie Valley Resource Management Act, the Northwest Territories Waters Act and Regulations made thereunder and subject to and in accordance with the conditions specified in this licence.

Licence Number	<u>S09L8-001</u>
Licence Type	<u>"B"</u>
Location	<u>Great Bear Lake Mine Sites: Sawmill Bay, Silver Bear Mines, El Bonanza/Bonanza Mines and Contact Lake Mine</u>
Purpose	<u>Water use and Waste disposal reclamation and remediation of mining sites</u>
Effective Date of Licence	<u>July 26, 2010</u>
Expiry Date of Licence	<u>July 25, 2015</u>

This Licence issued and recorded at Fort Good Hope includes and is subject to the annexed conditions.


Witness

SAHTU Land and Water Board


Chairman

**This Licence and conditions shall be kept on site.
If you have any questions please call the SAHTU Land & Water Board at
(867) 598-2413**

SAHTU LAND AND WATER BOARD

LICENSEE: Indian and Northern Affairs
Canada - CARD

LICENCE NUMBER: S09L8-001

**EFFECTIVE DATE OF
LICENCE ISSUANCE:** July 26, 2010

TERMS AND CONDITIONS

PART A: SCOPE AND DEFINITIONS

1. Scope

- a) This Licence entitles the Indian and Northern Affairs Canada - CARD to use water and deposit waste for miscellaneous undertakings in remediation and restoration of the Great Bear Lake Mine Sites and associated uses in the Northwest Territories:

Site	Latitude (°N)	Longitude (°W)	Area (ha)
Silver Bear Mines			4166
- Terra Mine	65.6042	118.1153	
- Northrim Mine	65.6011	117.9669	
- Smallwood Mine	65.5667	117.9333	
- Norex & Graham Vein	65.5833	117.8932	
Contact Lake Mine	65.9833	117.8000	1480
El Bonanza/Bonanza	66.0078	118.1306	875
Sawmill Bay	65.7206	118.9206	2322

- b) This Licence entitles the Indian and Northern Affairs Canada - to use water for miscellaneous undertakings, in remediation and reclamation and associated uses, for camp use, decontamination, dust suppression, concrete mixing and for construction and maintenance of a maximum of 24 kilometers of existing overland Winter Road access beginning at a point at or near the Charter Community of Deline on Great Bear Lake and ending at the Silver Bear Mines - Terra Mine site. The water sources are as follows:

Water Source	Volume (m³)	Latitude (°N)	Longitude (°W)
Great Bear Lake (WR)		65 00 47.798	121 48 42.580
Great Bear Lake (WR)		64 57 57.171	121 27 54.138
Great Bear Lake (WR)	22600	65 42 55.100	119 36 53.870
Great Bear Lake (WR)	22500	65 43 19.440	118 54 37.520
Camsell River (PII)	101577		
Great Bear Lake (PI)	11650		
Great Bear Lake (PIII)	11650		

(WR) - Winter Road, (PI) - Phase I, (PII) - Phase II, (PIII) - Phase III

- c) This Licence is issued, subject to the conditions contained herein, with respect to the taking of water and the depositing of Waste of any type in any Waters or in any place under any conditions where such waste or any other Waste that

results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Governor-in-Council under the *Northwest Territories Waters Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations; and

- d) Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

In this Licence: S09L8-001

"Act" means the *Mackenzie Valley Resource Management Act* and/or the *Northwest Territories Waters Act*.

"Analyst" means an Analyst designated by the Minister under Section 35(1) of the *Northwest Territories Water Act*.

"Board" means the Sahtu Land and Water Board established under Section 60(1) of the *Mackenzie Valley Resource Management Act*.

"Contingency Planning" means a plan to establish a state of readiness that will enable prompt and effective response to possible spill or system failure.

"Licensee" means the holder of this Licence.

"LC50(96)" means in a bioassay test, that effluent is deemed acutely lethal if the undiluted (100%) effluent kills 50% or more of the fish in the test after 96 hours.

"EC50(15)" means in a bioassay test, the effluent is deemed excessively toxic if the light emission of a marine bioluminescent bacterium colony is reduced by more than 50% over 15 minutes when challenged by a sample containing a toxic substance. A test result of greater than or equal to 75 is considered a pass.

"Freeboard" means the vertical distance between the water line and the crest on a dam or dyke's upstream slope.

"Greywater" means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes.

"Low Permeability" a rate of hydraulic conductivity of less than $10^{-6} \text{ m}^2/\text{s}$.

"Microtox Test" means a bioassay test, that monitors changes in the level of light emission from a marine luminescent bacteria when challenged with a toxic substance or sample containing toxic materials, and is used to provide a more rapid, real-time measurement of acute toxicity. Microtox Test is measured as EC50 (15) or LC50 (15).

"Minister" means the Minister of Indian Affairs and Northern Development.

"Modification" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion.

"Process Water" means water used for, but not limited to, washing drums, barrels, equipment, soil and buildings and the decontamination of items and objects related to remediation and reclamation.

"Regulations" means Regulations proclaimed pursuant to Section 33 of the *Northwest Territories Waters Act*.

"Sewage" means all toilet wastes (blackwater) and greywater.

"Surveillance Network Program" means a series or network of devices or sampling points designed to test environmental conditions for comparison against baseline data obtained from a point or area designated as a control. This is a method of tracking and identifying the spread of deleterious substances in the environment.

"Toilet Wastes" means all human excreta and associated products, but does not include greywater.

"Toxicity Bioassays" means tests used to determine if components that might be harmful to vegetation, microorganisms, aquatic species, as well as animals or humans are present, but are not normally detected in routine chemical analysis.

"Waste" means waste as defined by Section 2 of the *Northwest Territories Waters Act*.

"Waste Disposal Facilities" mean all facilities designated for the disposal of Waste.

"Watercourse" means a natural watercourse, body of water or water supply, whether usually containing water or not, and includes groundwater, springs, swamps, and gulches, as defined in the *Northwest Territories Waters Regulations*.

"Water Licence Inspector" means an Inspector designated by the Minister under Section 35(1) of the *Northwest Territories Waters Act*.

"Waters" means any inland water, whether in a liquid or frozen state, on or below the surface of the land in the Northwest Territories;

PART B: GENERAL CONDITIONS

1. The Licencee shall file an Annual Report with the Board not later than December 1st, 2010 and each year thereafter for the life of the Water Licence which shall contain the following information:

- a) the monthly and annual quantities in cubic metres of fresh water obtained from all sources;
- b) the monthly and annual quantities in cubic metres of each and all Waste(s) discharged;

DAY 1 = AUG 12

1000 L / day

until Sep 8

Sep 9 - 2000 L

LAST DAY = OCT 1

- 2021
- c) (an itemized list indicating the names, uses and quantities of all substances which were used during the remediation and reclamation operation;
 - d) a summary of all remediation and reclamation activities as they relate to Water use and Waste disposal;
 - e) tabular summaries of all data generated under the "Surveillance Network Program";
 - f) a list of unauthorized discharges;
 - g) the details and results of the required Annual Summer Site Inspection;
 - h) a camp set-up schematic for each phase;
 - i) details of all abandonment and restoration activities carried out in each phase; and
 - j) any other details on water use or Waste disposal requested by the Board by May 31st of the year being reported.
2. The Licencee shall submit all reports in the units of measurement as outlined in Part B: General Conditions.
 3. All laboratory test results shall be submitted to the Board and the Water Licence Inspector, concurrently, within forty-eight (48) hours of the Licencee receiving such results. The laboratory tests include, but are not limited to: total Waste samples, Microtox Test samples, LC(50)96 samples on test populations, other Toxicity Bioassays, unauthorized Waste samples, dissolved oxygen/temperature profiles and water quality sample results.
 4. Meters, devices or other such methods used for measuring the volumes of water used shall be installed, operated and maintained by the Licensee to the satisfaction of the Board and the Water Licence Inspector.
 5. The Licencee shall maintain a copy of the Water Licence on-site at all times.
 6. The Licencee shall comply with the "Surveillance Network Program" annexed to this Licence, and any amendment to the said "Surveillance Network Program" as may be made from time to time, pursuant to the conditions of this Licence.
 7. The "Surveillance Network Program" and compliance dates specified in this Licence may be modified at the discretion of the Board.
 8. The Licencee shall within thirty (30) days of the issuance of this Licence, post the necessary signs, where applicable, to identify the stations of the "Surveillance Network Program". All postings shall be located and maintained to the satisfaction of the Water Licence Inspector.
 9. The Licencee shall submit the results of the Annual Summer Site Inspection to the Board in the Annual Report as set out in Part B: General Conditions, Sub-part (1), Item (g), which shall contain the details and results of the inspection as set out in Part E, Conditions Applying to Abandonment and Restoration, sub-part (1) to (5) inclusive.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all water for miscellaneous undertakings, in remediation and reclamation and associated uses, for camp use, decontamination, dust suppression, concrete mixing and for construction and maintenance of a maximum of 24 kilometers of existing overland Winter Road access beginning at a point near or at the Charter Community of Deline on Great Bear Lake and ending at the Silver Bear Mines – Terra Mine site from water sources identified in the application and listed above in Part A, or as otherwise approved by the Inspector.
2. Water obtained for miscellaneous undertakings, in remediation and reclamation and associated uses, includes water taken for camp use, decontamination, dust suppression, concrete mixing and for construction and maintenance of a maximum of 24 kilometers of existing overland Winter Road access across the Leith Peninsula to the Silver Bear Mines – Terra Mine site.
3. Total quantities of water involved are approximately as follows:

ACTIVITY	WATER USAGE (m ³)
Camp Use	8100 m ³ at 10 m ³ /day
Dust Suppression	40500 m ³ at 50 m ³ /day
Cleaning	81000 m ³ at 100 m ³ /day
Concrete Mixing	20250 m ³ at 25 m ³ /day
Winter Road Construction and Maintenance	48,000 m ³ at 24,000 m ³ per winter season for 2 years

4. The Licensee shall erect and maintain permanent conspicuous signage at all approved water sources. The signage shall be erected at or near the point where land and water interface nearest to the water intake location.
5. Signage erected at all approved water sources shall include the following information: the words "Water Intake Site", the Water Licence file designation "S09L8-001", the approved nomenclature for the water source as indicated in Part A: Scope, Item (1), (b).
6. The Licensee shall maintain water uptake logs for all utilized sources. The water uptake logs shall include the following information: identification of water source, volume of water withdrawn per trip in cubic meters, cumulative uptake per source, time of uptake, date of uptake, and contractor and employee identification.
7. The water intake hose used on the water pumps shall be equipped with a screen of a mesh size of 2.54 mm sufficient to ensure no entrainment of fish, as per DFO requirements.
8. The Licensee shall comply with the most recent version of the Department of Fisheries and Oceans "Freshwater Intake End-of-Pipe Fish Screen Guidelines, 1995,"

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. All Hazardous Wastes must be handled according to the *Transportation of Dangerous Goods Act* and removed for disposal to an approved waste disposal facility outside of the Northwest Territories.
2. The Licencee shall notify the Board and the Water Licence Inspector, in writing, forty-eight (48) hours prior to the shipping of any Hazardous Wastes.
3. The Licencee shall not at any time deposit Hazardous Wastes into a Solid Waste Facility in the Northwest Territories.
4. All sampling, sample preservation and analysis shall be conducted in accordance with methods prescribed in the current edition of "Standard Methods for the Examination of Water and Wastewater", or by such other methods as approved by the Analyst.
5. The Licencee shall provide to the Board, in the required Annual Report as set out in Part B: General Conditions, Sub-part (1), Item (h), and after completion of the remediation and reclamation, an as-built drawing showing the location of all activities including the placement of the proposed Terra Mine site landfill and other remediation and reclamation activities.
6. All test results must be reported in the units of measurement as indicated in the Terms and Conditions applying to water usage and Waste disposal.
7. The Licencee shall ensure that qualified personnel are retained to ensure the success of the sampling regime and sampling results in keeping with Part D, Sub-part (6) of the Water Licence Terms and Conditions.
8. The Licencee shall treat all sewage in a treatment plant capable of extracting eighty-five to ninety (85-90%) per cent of the biodegradable solids.
9. Solid Waste(s) removed from the camp sewage effluent by the portable sewage treatment plant shall be deposited at a waste disposal facility approved by the Water Licence Inspector.
10. All liquid Waste(s) generated by the camp, specifically grey water, sewage effluent and process water, will be processed on-site by a portable waste treatment plant prior to being spread on the surface of the land.
11. The Licencee shall endeavor to spread treated camp effluent to known or identified wetlands.
12. Non-hazardous solid Waste generated by the camp(s) and project activities shall be deposited in the proposed Solid Waste Facility at the Terra Mine site.

13. All sewage effluent discharged from the portable sewage treatment plant at the "Surveillance Network Program" Stations shall meet the following effluent quality standards:

PARAMETER	MAX. CONCENTRATION
Suspended Solids	100 mg/L
Oil and Grease	5 mg/L
BOD ₅	100 mg/L
Fecal Coliforms	1 x 10 ⁴ CFU/100mL

14. All Process water effluent discharged from the process water treatment plant will meet the appropriate criteria for the following:

Parameter	Concentration Limit
Volatile Hydrocarbons	15 mg/L
pH	6 - 9
Extractable Hydrocarbons	5 mg/L
Non-aqueous phase liquid/free product	Not present
Phenols	µg/L
Arsenic (total)	100 µg/L
Copper (dissolved)	200 µg/L
Cadmium (dissolved)	10 µg/L
Mercury (total)	0.6 µg/L
Nickel (dissolved)	200 µg/L
Lead (dissolved)	50 µg/L
Zinc (total)	1000 µg/L
Chromium (total)	100 µg/L
Cobalt (dissolved)	50 µg/L
Toxicity (Microtox EC50(15)*)	Pass=EC50(15)>=75%
LC50(96) Toxicity Testing*	Test sample is of acutely lethal toxicity if test population mortality equals or exceeds 50% of the test population in 96 hour time period
Microtox EC50(15) With Charcoal Filtration**	Pass with Charcoal Filtration=EC50(15)>=75%

*Applicant must complete either a Microtox EC50 (15) toxicity test, a LC50 (96) toxicity test or both.

** If original microtox tests fail the applicant may perform the microtox test with charcoal filtration.

***All results must be reported in indicated units of measurement.

15. The waste discharged shall have a pH between 6 and 9, and no visible sheen of oil and grease.
16. Within thirty (30) days, the Licensee shall design and submit to the SLWB a Domestic Waste Management Plan which contains the following:
- A detailed list of waste treatment and disposal plans
 - A listing of expected waste types and quantities to be shipped off-site.
 - Treatment, testing and disposal methods for all waste products to be transported off-site.

17. Within thirty (30) days, the Licencee shall design and submit to the SLWB a Domestic Waste Management Plan which contains the following:

- a) A detailed list of waste treatment and disposal plans.
- b) A listing of expected waste types and quantities to be shipped off-site.
- c) Treatment, testing and disposal methods for all waste products to be transported off-site.

18. The Licencee shall not deposit raw, untreated sewage on the land surface.

PART E: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. The Licencee shall monitor the project area affected by activities relating to the issued Water Licence for a minimum of five (5) years to ensure that mitigation, reseedling, erosion control and restoration efforts have been successful. These efforts shall be performed to the satisfaction of the Board and the Water Licence Inspector.
2. The Licencee shall, within nine (9) months submit to the Board for approval a Remedial Action Plan for Sawmill Bay. The plan shall include, but not be limited to:
 - a) Outline of community consultation;
 - b) Details of any excavation of contaminated soils and methods of disposal;
 - c) Details of safety precautions taken for workers regarding exposure to radionuclide contaminated soils;
 - d) Details of any removal of heritage mining equipment and its destination;
 - e) or any other changes that may be required by the Board or the Water Licence Inspector.
3. The Licencee shall inspect the project location for the parameters set out in Part E: Conditions (1) of this document once in the summer months to ensure that efforts to fulfill the conditions are successful. The inspection results shall be to the satisfaction of the Board and the Water Licence Inspector.
4. During the 5-year monitoring period, any failure of the measures as set out in Conditions (1) and (2) of Part E: shall be reported to the Board and the Water Licence Inspector within seven (7) days of the discovery of said failure or failures.
5. The Licencee shall submit a written report documenting the Annual Summer Site Inspection as set out in Part B, General Conditions, sub-part (10). - subpart 1 ? not 10
6. All disturbed areas relating to Water Licence activities shall be restored, fertilized and reseeded with an approved natural or native seed mixture.

PART F: CONDITIONS APPLYING TO STREAM CROSSINGS

1. The Licencee shall ensure that only clean snow is used on all stream crossings and that no debris is left on the surfaces of the crossings.
2. Stream crossings shall be v-notched or completely removed before spring break-up to facilitate natural flow.
3. The removal of naturally occurring material from the bed or banks of any stream below the ordinary high water mark is not permitted other than what has been outlined in the submitted Remedial Action Plans.
5. The Licencee shall not cut or modify any stream banks during the building and maintenance of the proposed Winter Road.
6. The Licencee shall not cut or modify any stream banks unless previously identified in the remediation and reclamation plans, Phases I-III.
7. The Licencee shall not ford wet watercourses or areas of overflow unless previously identified in the remediation and reclamation plans, Phases I-III, or authorized in writing by the Water Licence Inspector.
8. The Licencee shall not destroy or damage beaver dams or lodges, and minimize disturbance to beaver activities.
9. The Licencee shall comply with the most recent version of the *"Department of Fisheries and Oceans Protocol for Temporary Winter Access Water Crossings for Oil and Gas Activities in the Northwest Territories"*.
10. The Licencee shall comply with the most recent version of the *"Department of Fisheries and Oceans Ice Bridges Operational Statement"*.
11. The Licencee shall ensure that stream crossings occur at a 90-degree angle to the channel.
12. The Licencee shall ensure that stream crossings have the proper ice thickness to carry the anticipated loads and that no debris is left of the surface of the crossings.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licencee may, without written approval from the Board, carry out Modification(s) to the planned undertakings provided that such Modification(s) are consistent with the terms of this Licence and the following requirements are met:
 - a) the Licencee has notified the Board in writing of such proposed Modification(s) at least thirty (30) days prior to beginning the Modification(s);
 - b) such Modification(s) do not place the Licensee in contravention of either the Licence or the Act;
 - c) the Board has not, during the thirty (30) days following notification of the proposed Modification(s), informed the Licensee that review of the proposal will require more than thirty (30) days; and


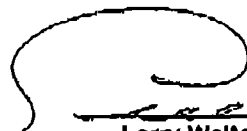
- d) the Board has not rejected the proposed Modification(s).
- 2. Modification(s) for which all of the conditions referred to in Part G, Item (1), have not been met may be carried out only with written approval from the Board.
- 3. The Licencee shall provide to the Board as-built plans and drawings of the Modification(s) referred to in this Licence within ninety (90) days of completion of the Modification(s).

PART H: CONDITIONS APPLYING TO CONTINGENCY PLANNING

- 1. The Licencee shall maintain a copy of the Emergency Response Plan on-site in a readily available location to the satisfaction of the Water Licence Inspector.
- 2. The Licencee shall ensure that petroleum products, hazardous material and other Waste(s) associated with the project do not enter any Waters.
- 3. The Licencee shall review the Spill Contingency Plan annually and modify the plan as necessary to reflect changes in Regulations, operations and technology. Any proposed Modification(s) shall be submitted to the Board for approval.
- 4. Site-specific Spill Contingency Plans shall be developed for all locations where refined petroleum products will be stored and used for refueling with copies being distributed to operators in the field. These Plans should include, but not be limited to:
 - a) An inventory of response and clean-up equipment,
 - b) A site map with location of storage facilities, and the location of emergency equipment with spill response and clean-up equipment; and
 - c) A cover page that clearly identifies: The NWT 24-hour Spill Report Line and the name, job title and 24-hr telephone number for the person(s) responsible for activating the Spill Contingency Plan.
- 5. If, during the period of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a.) employ the appropriate Spill Contingency Plan;
 - b.) report the incident immediately via the (24) Hour NWT Spill Report Line. Currently the number is (867) 920-8130;
 - c.) report the unauthorized discharge of Waste to the Board within (24) hours; and
 - d.) submit to a Water Licence Inspector, a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.
- 5. The Licencee shall report spills to the NT-NU 24-hour Spill Report Line (867) 920-8130, fax (867) 873-6924, and/or e-mail spills@gov.nt.ca in accordance with the NT-NU Spill Reporting Protocol, the NT-NU Spill Report Form, and the Instructions for Completing the NT-NU Spill Report Form.

PART I: CONDITIONS APPLYING TO THE UNDERTAKING

1. The Licencee shall ensure all refueling and storage of fuels, chemicals or deleterious substances are located a minimum of 100 metres from the Ordinary High Water Mark of any Watercourse.
2. The Licencee shall ensure that all fuels in excess of 4000 litres stored on-site are contained in an approved double-walled or self-berming storage tank(s), and located within a bermed area incorporating a synthetic liner that is considered to be impermeable to leakage and is capable of containing 110% of the total volume of largest fuel tank(s) employed within the bermed area.
3. The Licencee shall ensure that all project activities are confined to locations as described in the Water Licence application.
4. The Licencee shall ensure that the undertaking conforms to a Letter of Advice as may be issued to the Licensee by the Department of Fisheries and Oceans.
5. Materials cleared from the project site shall not be placed within one hundred (100) metres of the Ordinary High Water Mark of any watercourse or in such a manner as to enter any watercourse.
6. All sites affected by project and camp activities shall be stabilized, groomed, reseeded and landscaped as necessary and suitable erosion control measures implemented to minimize sediment deposition into Watercourse(s).
7. The Licensee shall not operate any machinery within 150 m of any known historical or archaeological site or burial ground.
8. The Licencee shall make every effort to ensure that no historical or archaeological site will be affected by this operation.
9. The Licencee shall make every effort to retain riparian vegetation.

SAHTU LAND AND WATER BOARD
Witness
Larry Wallace
Chairman

LICENCEE: Contaminants and Remediation Directorate - INAC

LICENCE NUMBER: S09L8-001

EFFECTIVE DATE OF LICENCE: July 26, 2010

EFFECTIVE DATE OF SURVEILLANCE NETWORK PROGRAM: July 26, 2010

SURVEILLANCE NETWORK PROGRAM

1. Location of Surveillance Stations

<u>Station Number</u>	<u>Description</u>
<u>S09L8-001(1)</u>	Treated sewage effluent prior to disposal
<u>S09L8-001(2)</u>	Treated greywater prior to disposal
<u>S09L8-001(3)</u>	Treated Process water prior to disposal

2. Sampling and Analysis Requirements

Any effluent discharged at SNP Stations S09L8-001(1) and S09L8-001(2) shall be sampled prior to disposal and analyzed for the following parameters and shall not exceed criteria as per Part D (14) of the Licence:

Total Suspended Solids
Oil and Grease
BOD₅
Fecal Coliforms
pH

Any effluent discharged from SNP Station S09L8-001(3) shall be sampled prior to disposal and analyzed for the following parameters and shall not exceed criteria as per Part D (15) of the Licence.

Parameter	Concentration Limit
Volatile Hydrocarbons	15 mg/L
pH	6 - 9
Extractable Hydrocarbons	5 mg/L
Non-aqueous phase liquid/free product	Not present
Phenols	µg/L
Arsenic (total)	100 µg/L
Copper (dissolved)	200 µg/L
Cadmium (dissolved)	10 µg/L
Mercury (total)	0.6 µg/L
Nickel (dissolved)	200 µg/L
Lead (dissolved)	50 µg/L
Zinc (total)	1000 µg/L

Chromium (total)	100 µg/L
Cobalt (dissolved)	50 µg/L
Toxicity (Microtox EC50(15)*	Pass=EC50(15)>=75%
LC50(96) Toxicity Testing*	Test sample is of acutely lethal toxicity if test population mortality equals or exceeds 50% of the test population in 96 hour time period
Microtox EC50(15) With Charcoal Filtration**	Pass with Charcoal Filtration=EC50(15)>=75%

*Applicant must complete either a Microtox EC50 (15) toxicity test, a LC50 (96) toxicity test or both.

** If original microtox tests fail the applicant may perform the microtox test with charcoal filtration.

***All results must be reported in indicated units of measurement.

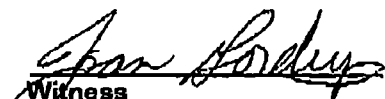
Sample frequency may be altered at the request/approval of the Water Licence Inspector.

All analyses shall be performed in a laboratory approved by the Analyst

3. Reports

The Licencee shall, unless otherwise requested by the Water Licence Inspector, include all of the data and information required by the "Surveillance Network Program" in the Licencee's Annual Report, which shall be submitted to the Board by December 1st of the year following the calendar year being reported.

SAHTU LAND AND WATER BOARD


Witness


Chairman



SAHTU Land & Water Board
REASONS FOR DECISION
Issued Pursuant to Section 121 of
The Mackenzie Valley Resource Management Act
and Section 26 of the Northwest Territories Waters Act

Water Licence Number: S09L8-001 (Type "B")

This is the decision of the SAHTU Land & Water Board with respect to an application for a Water Licence dated February 2, 2009 made by:

Indian and Northern Affairs Canada – NT Region
Contaminates and Remediation Directorate
P.O. Box 1500
Yellowknife, NT
X1A 2R3

For: Water use and Waste disposal for a mining remediation program at Great Bear Lake Mine Sites
Remediation Program on the east side of Great Bear Lake, NT.

With respect to this application, written notice was given to 10 organizations within the Sahtu and 13 outside of the settlement area in accordance with Sections 63 & 64 of the Mackenzie Valley Resource Management Act. There was no Public Hearing held in association with this application.

DECISION


The Board is satisfied that the project has had a Preliminary Screening pursuant to the Mackenzie Valley Resource Management Act; that the proposed project is not likely to cause any significant adverse environmental impact or be the source of any public concern. The Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope and intent of the Mackenzie Valley Resource Management Act and Regulations made there under has determined that:
Land Use Permit S09L8-001 be issued subject to the Terms and Conditions contained therein.
The Board's reasons for this decision are as follows:

1. Information contained in Staff Report S09L8-001 (1), (2) and (3) relative to environmental impacts and/or public concerns.
2. Any public concerns previously made known to the Board have been mitigated through community and leadership consultation and engagement.
3. The Board received a request dated July 2, 2010 from the Deline Land Corporation, Deline First Nations and Deline Renewable Resources Board requesting a 45 day review extension. After carefully considering the request and a written response from INAC-CARD dated July 8, 2010, the Board does not deem the extension necessary as there were not sufficient reasons to grant the extension within the mandate of the Board.
4. Any disturbance to the natural conditions of the land in the area of the Mining Remediation Project will be temporary and can be minimized by conducting the undertaking in compliance with the Terms and Conditions imposed by the Permit and will improve the environment of the nine abandoned mine sites.
5. The Sahtu Land and Water Board has met its referral obligations to the Sahtu Land Use Planning Board as outlined in the Mackenzie Valley Resource Management Act. There has been no indication that the project does not conform to an approved Land Use Plan, as one does not exist.
6. The use of the land proposed by the Permittee is of a nature consistent with the Mackenzie Valley Resource Management Act.
7. The undertaking will support the socio-economic well-being and economic development of the region.

Water Licence S09L8-001 contains provisions, which the Board feels necessary to ensure and monitor compliance with the Mackenzie Valley Resource Management Act and the Regulations made there under and to provide appropriate safeguards in respect of the applicant's use of the land affected by the Permit. The Board will provide any referenced material or documents and/or reasons for decision for any specific clause or clauses contained within the application if requested to do so in writing.

The Board will provide any referenced material or documents and/or reasons for decision for any specific clause or clauses contained within the application if requested to do so in writing.

SIGNED this 21st day of July, 2010 on behalf of the SAHTU Land & Water Board.



Larry Wallace (Chairman)
SAHTU Land & Water Board



SAHTU Land & Water Board Land Use Permit

Permit Class: Class A Land Use Permit

Permit No.: S09D-001

Subject to the Mackenzie Valley Land Use Regulations and the terms and conditions in this permit, authority is hereby granted to:

**Indian and Northern Affairs Canada - NT Region
Contaminants and Remediation Directorate**

Permittee

To proceed with the land use operation described in the application of:

Signature: Jessica Mace

Date: February 24, 2009

Type of Land Use Operations: Mining Remediation

Location: Great Bear Lake Mine Sites on the east side of Great Bear Lake, NT

This permit may be assigned, extended, discontinued, suspended or cancelled pursuant to the Mackenzie Valley Land Use Regulations.

Dated at: Fort Good Hope, NT

This 21st Day of July Year: 2010

Witness

Larry Wallace (Chairman)
SAHTU Land & Water Board

Commencement Date: July 26, 2010

Expiry Date: July 25, 2015

NOTE

IT IS A CONDITION OF THIS PERMIT THAT THE PERMITTEE COMPLY WITH THE PROVISIONS OF THE MACKENZIE VALLEY RESOURCE MANAGEMENT ACT AND REGULATIONS AND THE TERMS AND CONDITIONS SET OUT HEREIN. A FAILURE TO COMPLY MAY RESULT IN SUSPENSION OR CANCELLATION OF THIS PERMIT BY THE BOARD.

THIS PERMIT SHALL BE POSTED OR BE AVAILABLE ON SITE.

If you have any questions please call the SAHTU Land & Water Board at
(867) 598-2413

**CONDITIONS ANNEXED TO AND FORMING PART OF
LAND USE PERMIT S09D-001**

26 (1) (A) - LOCATION AND AREA

- | | | |
|------|--|-------------------------------|
| 1.1 | The Permittee shall not conduct this land use operation on any lands not designated in the accepted application, unless otherwise authorized in writing by a Land Use Inspector or the S.L.W.B. | PLANS |
| 1.2 | The Permittee shall not conduct any part of the land use operation within three hundred (300) metres of any privately held land or structure, unless otherwise authorized in writing by the S.L.W.B. | PRIVATE PROPERTY |
| 1.5 | The Permittee shall use existing campsite. | CAMP LOCATION |
| 1.6 | The Permittee shall only excavate and stockpile in areas designated by the Land Use Inspector. | DESIGNATED AREAS |
| 1.7 | The Permittee shall remove from project area; all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material. | REMOVAL WASTE MATERIAL |
| 1.10 | The Permittee shall use existing campsites where they exist, all campsites shall be located a minimum of 100 metres from the high water mark of any water body. | CAMP LOCATION |

26 (1) (B) - TIME

- | | | |
|-----|--|-------------------------------|
| 2.1 | The Permittee's Field Supervisor shall contact or meet with the Land Use Inspector at the Norman Wells office of the Department of Indian Affairs and Northern Development, telephone number (867) 587-2911, at least 48 hours prior to the commencement of this land use operation. | CONTACT INSPECTOR |
| 2.2 | The Permittee shall advise the Land Use Inspector at least ten (10) days prior to the completion of the land use operation of

(a) his plan for removal or storage of equipment and materials, and

(b) when final clean-up and restoration of the lands used will be completed. | REPORTS BEFORE REMOVAL |
| 2.3 | The Permittee shall submit a progress report to the Land Use Inspector every 14 days during this land use operation. | PROGRESS REPORT |

- | | | |
|------|---|----------------------------------|
| 2.11 | The Permittee shall remove all snow fills from winter access road stream crossings prior to spring break-up or completion of the land use operation, unless otherwise approved in writing by a Land Use Inspector | REMOVE
SNOW FILLS |
| 2.12 | The Permittee shall restore all sumps prior to spring break-up, unless otherwise authorized in writing by the Land Use Inspector. | SUMPS/SPRING
BREAK-UP |
| 2.13 | The Inspector reserves the right to impose closure of any area to the Permittee in periods when dangers to natural resources are severe. | CLOSURE |
| 2.14 | The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this permit. | CLEAN-UP |

26 (1) (C) EQUIPMENT

- | | | |
|------|--|------------------------------------|
| 3.1 | The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application, unless otherwise authorized in writing by the Land Use Inspector. | ONLY APPROVED
EQUIPMENT |
| 3.3 | The Permittee shall use a forced-air, fuel-fired incinerator to incinerate all combustible garbage and debris. | INCINERATORS |
| 3.5 | The Permittee shall use portable ramps during loading or unloading of ships or barges. | PORTABLE
RAMPS |
| 3.8 | The Permittee shall, in camps of more than five (5) personnel, maintain the following fire fighting equipment in the base camp and in active readiness:

(a) four (4) backpack bags or cans complete with hand pumps.

(b) a minimum of two (2) pieces of each of the following: pulaskis, axes, shovels | FIRE FIGHTING
EQUIPMENT |
| 3.9 | The Permittee shall have any helicopter based at the camp equipped with a water dropping bucket in operating condition | WATER BUCKET |
| 3.10 | The Permittee shall ensure a garbage container is on site. | GARBAGE
CONTAINER |

26 (1) (D) - METHODS AND TECHNIQUES

- | | | |
|------------|---|--|
| 4.1 | The Permittee shall scout proposed lines and routes to select the best location for crossing streams and avoiding terrain obstacles prior to the movement of any vehicle that exerts pressure on the ground in excess of 35 K pa. | DETOURS &
CROSSINGS |
| 4.2 | The Permittee shall construct and maintain winter roads with a minimum of 15 centimetres packed snow at all times during this land use operation. If this cannot be done, then the Permittee shall construct <u>Ice Roads</u> in a manner approved by a Land Use Inspector. | SNOW ROADS/
ICE ROADS |
| 4.3 | The Permittee shall dogleg lines, trails and rights-of-way that approach lakes, streams or public roads, as specified in writing by the Land Use Inspector. | DOGLEG
APPROACHES |
| 4.9 | The Permittee shall slope the side of excavations and embankments except in solid rock or two (2) horizontal to one (1) vertical, unless otherwise authorized in writing by the Land Use Inspector | EXCAVATIONS
AND
EMBANKMENTS |
| 4.10 | The Permittee shall slope the sides of waste material piles to a gradient specified in writing by the Land Use Inspector. | WASTE
MATERIAL PILES |
| 4.13 | The Permittee shall not erect camps or store material on the surface ice of streams. | STORAGE ON
ICE |
| NEW | The Permittee shall use only clean snow in the construction of winter access crossings. | CLEAN SNOW |

26 (1) (E) - TYPE, LOCATION, CAPACITY AND OPERATION OF FACILITIES

- | | | |
|-----|--|----------------------------|
| 5.7 | The Permittee shall ensure that the land use area is kept clean and tidy at all times. | CLEAN WORK
AREA |
|-----|--|----------------------------|

**26 (1) (F) - CONTROL OR PREVENTION FLOODING,
EROSION AND SUBSIDENCE OF LAND**

- | | | |
|-----|---|--------------------------------|
| 6.2 | The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation. | NATURAL
DRAINAGE |
| 6.4 | The Permittee shall not use any material other than water in the construction of ice bridges. | ICE BRIDGE
MATERIAL |
| 6.5 | The Permittee shall not allow any ice or snow bridge to hinder the flow of water in any stream. | ICE BRIDGE |

- | | | |
|------------|---|-------------------------------------|
| 6.7 | The Permittee shall not use the bed of streams for access routes except for the purpose of crossing the streams, unless otherwise authorized by the Land Use Inspector. | STREAM BEDS - ACCESS |
| 6.8 | The Permittee shall locate all lines, trails and rights-of-way to be constructed parallel to streams a minimum of thirty (30) metres from any stream except at crossings, unless otherwise authorized in writing by the Land Use Inspector. | PARALLELLING STREAMS |
| 6.15 | The Permittee shall install erosion control structures as the land use operation progresses, unless otherwise authorized by the Land Use Inspector. | EROSION CONTROL |
| 6.17 | The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface. | PREVENTION OF RUTTING |
| 6.20 | The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. | VEHICLE MOVEMENT FREEZE-UP |
| 6.21 | The Permittee shall suspend overland travel of equipment or vehicles if rutting occurs. | SUSPEND OVERLAND TRAVEL |
| 6.25 | The Permittee shall mark all culvert location in such a way that their location is visible for demobilization, unless otherwise authorized by the Land Use Inspector. | MARK CULVERT LOCATIONS |
| NEW | All culverts must be removed prior to the demobilization of men and equipment from the permitted area. | |
| NEW | The Permittee shall maintain a snow cover of no less than 15 cm on all winter access roads. If this cannot be done roads will have to be watered. | PROTECTION OF VEGETATIVE MAT |

26 (1) (G) - USE, STORAGE, HANDLING AND DISPOSAL OF CHEMICAL OR TOXIC MATERIAL

- | | | |
|-----|---|------------------------------|
| 7.1 | The Permittee shall not use chemicals in connection with the land use operation without the prior approval of the S.L.W.B. | APPROVAL OF CHEMICALS |
| 7.3 | The Permittee shall submit to the S.L.W.B. a contingency plan, for chemical spills, for use during the construction and operation of the winter road and associated facilities. | CONTINGENCY PLAN |

7.9	The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form N.W.T. 1086(10/79). 24 hour spill report line (867) 920-8130.	REPORT CHEMICAL AND PETROLEUM SPILLS
NEW	All contaminated material must be removed from the permitted area or deposited in accordance with an approved Remedial Action Plan	REMOVE CONTAMINATED MATERIAL
26 (1) (H) - WILDLIFE AND FISHERIES HABITAT		
8.1	The Permittee shall not unnecessarily damage wildlife habitat in conducting this land use operation.	HABITAT DAMAGE
8.2	The Permittee shall construct and maintain all structures placed in streams frequented by fish, in such a manner that will not obstruct passage of fish.	FREE FISH MOVEMENT
8.3	The Permittee shall not obstruct the movement of fish while conducting this land use operation.	FREE FISH MOVEMENT
8.6	The Permittee shall not destroy or damage beaver dams.	BEAVER DAMS
8.7	The Permittee shall not destroy or damage muskrat lodges	MUSKRAT LODGES
8.9	Your operation is in an area where bears may be encountered. Proper food handling and garbage disposal procedures will lessen the likelihood of bears being attracted to your operation. Information about the latest bear detection and deterrent techniques can be obtained from the Department of Environment and Natural Resources at (867) 587-2130.	BEAR/MAN CONFLICT
8.11	The Permittee shall not quarry to a depth below that of the water table. Do not quarry below existing pit floor.	QUARRY DEPTH
NEW	If Caribou, Moose, Grizzly Bear or Muskoxen are spotted within five hundred (500) metres of any work/camp site immediate notification shall be made to the environmental monitor and/ or the Sahtu Renewable Resources Board.	NOTIFICATION LARGE GAME
NEW	There shall be no hunting by project staff at any time, within the project area.	NO HUNTING
NEW	A minimum vertical distance of three hundred (300) metres and a minimum horizontal distance of five hundred (500) metres will be maintained from all sensitive species.	AIRCRAFT/ SENSITIVE SPECIES

NEW Aircraft will maintain a vertical distance of 1 km and a horizontal distance of 1.5 km from large concentrations of birds. **AIRCRAFT/ BIRDS**

26 (1) (I) THE STORAGE, HANDLING, AND DISPOSAL OF REFUSE OR SEWAGE

- 9.4 The Permittee shall keep all garbage and debris in a covered container until disposed of. This container shall be marked with the Permittee's name. **GARBAGE CONTAINERS**
- 9.5 The Permittee shall burn all garbage and debris at least daily. **GARBAGE DISPOSAL**
- 9.6 The Permittee shall dispose of all non-combustible garbage and debris by burial beneath no less than one (1) metre of compacted soil in an area pre approved by the Land Use Inspector. **BURY WASTE MATERIAL**
- 9.12 The Permittee shall dispose of all combustible waste petroleum products by incineration or removal. **WASTE PETROLEUM DISPOSAL**
- NEW** (a) The Permittee shall treat all sewage in a treatment plant capable of extracting eighty-five to ninety (85-90%) per cent of the biodegradable solids. **SEWAGE DISPOSAL**
- (b) Solid waste(s) removed from the camp sewage effluent by the portable waste treatment plant shall be deposited at an approved waste disposal facility.
- (c) All liquid Waste(s) and sewage generated by a camp, specifically grey water and black waters, will be processed on-site by a portable waste treatment plant prior to being spread on the surface of the land.
- (d) The Permittee shall endeavour to spread treated camp effluent to known or identified wetlands.

26 (I) (J) - HISTORICAL AND ARCHAEOLOGICAL SITES AND BURIAL GROUNDS

- 10.1 The permittee shall not operate any machinery or equipment within (150) metres of any known Historical or Archaeological Site or Burial Ground. **NO ACTIVITY**
- 10.2 The permittee shall make every effort to ensure that no Historical or Archaeological Site or Burial Ground will be affected by this operation **SITES PROTECTION**

where is k?)

26 (1) (L) - SECURITY DEPOSIT

- | | | |
|------|--|------------------------------|
| 12.1 | The operator shall deposit with the S.L.W.B. a security deposit in the amount of <u>nil</u> pursuant to Section 26 (1) (L) of the Mackenzie Valley Land Use Regulations. | SECURITY DEPOSIT |
| 12.2 | The Permittee shall be liable for any cost of damages over and above the amount of the security deposit. | LIABILITY FOR DAMAGES |

26 (1) (M) - PETROLEUM FUEL STORAGE

- | | | |
|-------|--|-----------------------------|
| 13.1 | The Permittee shall report in writing to the Land Use Inspector the location and quantity of all petroleum fuel caches within ten (10) days after the establishment. | REPORT FUEL LOCATION |
| 13.2 | The Permittee shall not place any petroleum fuel storage containers within one hundred (100) metres of the normal high water mark of any stream. | FUEL BY STREAM |
| 13.3 | The Permittee shall locate mobile fuel facilities on land when stationary for any period of time exceeding twelve (12) hours. | FUEL ON LAND |
| 13.4 | The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies. | FUEL CONTAINMENT |
| 13.6 | The Permittee shall construct a dyke around each stationary fuel container or group of stationary fuel containers where any one container has a capacity exceeding 4 000 litres. | DYKE/FUEL CONTAINERS |
| 13.7 | The Permittee shall line the dyke and area enclosed by the dyke with a type of plastic film liner approved by the S.L.W.B. | LINE DYKE |
| 13.8 | The volume of the dyked area shall be 10% greater than the capacity of the largest fuel container placed therein. | CAPACITY |
| 13.9 | The Permittee shall ensure that the dyke and the area enclosed by the dyke shall be impermeable to petroleum products at all times. | IMPERMEABLE DYKE |
| 13.10 | The Permittee shall: <ul style="list-style-type: none"> (a) examine all fuel storage containers for leaks a minimum of once every day. (b) repair all leaks immediately. | CHECK FOR LEAKS |
| 13.12 | The Permittee shall submit to the S.L.W.B. a contingency plan, for petroleum spills, for use during the construction and operation of the winter road and associated facilities. | CONTINGENCY PLAN |

- | | |
|--|---|
| 13.13 The Permittee shall not use bladders for storing petroleum products. | BLADDERS
PROHIBITED |
| 13.14 The Permittee shall not use bladders for transporting petroleum. | BLADDERS
PROHIBITED |
| 13.15 The Permittee shall mark all stationary petroleum products storage facilities with flags, posts or similar devices so that they are at all time plainly visible to local vehicle travel. | MARK FUEL
LOCATION |
| 13.16 The Permittee shall seal all container outlets except the outlet currently in use. | SEAL OUTLET |
| 13.17 The Permittee shall mark all fuel containers with the Permittee's name. This includes 45 gallon drums. | MARK
CONTAINERS |
|
26 (1) (N) - DEBRIS AND BRUSH DISPOSAL | |
| 14.2 The Permittee shall make the windrow of brush and debris lie flat and compact by:

(a) bucking the material into suitable lengths and lopping the branches from the stem, and/or

(b) crushing with heavy machinery in order to compact the material. | BRUSH DISPOSAL |
| 14.3 The Permittee shall ensure that windrows are separated from standing timber. | WINDROWS
LOCATION |
| 14.16 The Permittee shall not use any self-propelled machinery for clearing the brush. | HAND CREWS
ONLY |
| 14.17 The Permittee shall not leave tree stumps exceeding twenty (20) centimetres above the ground surface. | TREE STUMPS |
|
26 (1) (O) - RESTORATION OF THE LANDS | |
| 15.1 The Permittee shall establish vegetation on all areas stripped of vegetation during this land use operation to a minimum of seventy (70%) per cent ground cover, unless otherwise authorized in writing by the Land Use Inspector or the S.L.W.B. | REVEGETATE
STRIPPED
AREA |
| 15.3 The Permittee shall commence and foster re-vegetation on all parts of the land used, as may be directed by a Land Use Inspector, within one year of the completion of the land use operation. | RE-ESTABLISH
VEGETATION |

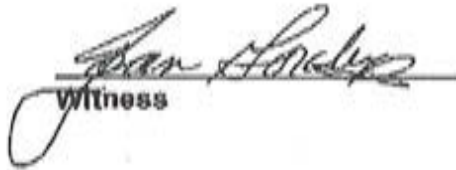
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|---|--|----------------------------|
| 15.5 | The Permittee shall save the organic soil stripped from the excavation area. | SAVE ORGANIC SOIL |
|
26 (1) (P) - DISPLAY OF PERMITS AND PERMIT NUMBERS | | |
| 16.1 | The Permittee shall display a copy of this Permit in a conspicuous place in each campsite established to carry out this land use operation. | DISPLAY PERMIT |
| 16.2 | The Permittee shall keep on hand, at all times during this land use operation, a copy of the Land Use Permit. | COPY OF PERMIT |
|
26 (1) (Q) - MATTERS NOT INCONSISTENT WITH THE REGULATIONS | | |
| 17.5 | The Permittee shall provide in writing to the Land Use Inspector at least forty-eight (48) hours prior to commencement of this land use operation, the following information:

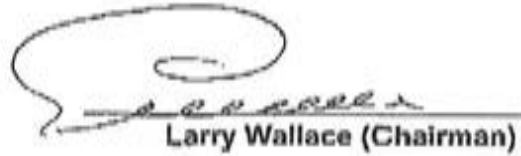
<div style="margin-left: 20px;"> (a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;

 (b) alternates;

 (c) all the indirect methods for contacting the above person(s). </div> | IDENTIFY AGENT |
| 17.6 | The Permittee shall, while conducting the operation, make every effort to avoid covering or destroying traps or snares that may be found in the area. | TRAPS PROTECTION |
| 17.7 | The Permittee shall restore any trails used by trappers or hunters by slashing any and all trees that may fall across these paths or trails and by removing any other obstructions such as snow piles or debris that may be pushed across the trails. | TRAILS RESTORATION |
| 17.8 | The Permittee shall not feed wildlife | NO FEEDING WILDLIFE |
| NEW | The Permittee shall submit a Final Plan in Digital Format compatible with ARC GIS software for the footprint used and a map at a scale of 1:250,000 for the operations. | FINAL PLANS |
| 17.12 | The Permittee shall adhere to all comments and procedures stated in the Land Use Permit application unless otherwise stated in the Terms and Conditions of this Land Use Permit authorized by the Land Use Inspector. | OTHER COMMITMENTS |

SAHTU Land and Water Board


Witness


Larry Wallace (Chairman)



SAHTU Land & Water Board
REASONS FOR DECISION
Issued Pursuant to Section 121 of
The Mackenzie Valley Resource Management Act

Land Use Permit Number: S09D-001 (Type "A")

This is the decision of the SAHTU Land & Water Board with respect to an application for a Land Use Permit dated, February 2, 2009 made by:

Indian and Northern Affairs Canada – NT Region
Contaminates and Remediation Directorate
P.O Box 1500
Yellowknife, NT
X1A 2R3

for a mining remediation program at Great Bear Lake Mine Sites Remediation Program on the east side of Great Bear Lake, NT. With respect to this application, written notice was given to 10 organizations within the Sahtu and 13 outside of the settlement area in accordance with Sections 63 & 64 of the *Mackenzie Valley Resource Management Act*. There was no Public Hearing held in association with this application.

DECISION

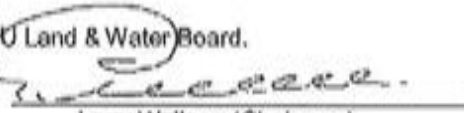
The Board is satisfied that the project has had a Preliminary Screening pursuant to the Mackenzie Valley Resource Management Act; that the proposed project is not likely to cause any significant adverse environmental impact or be the source of any public concern. The Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope and intent of the Mackenzie Valley Resource Management Act and Regulations made there under has determined that:
Land Use Permit S09D-001 be issued subject to the Terms and Conditions contained therein.
The Board's reasons for this decision are as follows:

1. Information contained in Staff Report S09L8-001 (1), (2) and (3) relative to environmental impacts and/or public concerns.
2. Any public concerns previously made known to the Board have been mitigated through community and leadership consultation and engagement.
3. The Board received a request dated July 2, 2010 from the Deline Land Corporation, Deline First Nations and Deline Renewable Resources Board requesting a 45 day review extension. After carefully considering the request and a written response from INAC-CARD dated July 8, 2010, the Board does not deem the extension necessary as there were not sufficient reasons to grant the extension within the mandate of the Board.
4. Any disturbance to the natural conditions of the land in the area of the Mining Remediation Project will be temporary and can be minimized by conducting the undertaking in compliance with the Terms and Conditions imposed by the Permit and will improve the environment of the nine abandoned mine sites.
5. The Sahtu Land and Water Board has met its referral obligations to the Sahtu Land Use Planning Board as outlined in the Mackenzie Valley Resource Management Act. There has been no indication that the project does not conform to an approved Land Use Plan, as one does not exist.
6. The use of the land proposed by the Permittee is of a nature consistent with the Mackenzie Valley Resource Management Act.
7. The undertaking will support the socio-economic well-being and economic development of the region.

Land Use Permit S09D-001 contains provisions, which the Board feels necessary to ensure and monitor compliance with the Mackenzie Valley Resource Management Act and the Regulations made there under and to provide appropriate safeguards in respect of the applicant's use of the land affected by the Permit. The Board will provide any referenced material or documents and/or reasons for decision for any specific clause or clauses contained within the application if requested to do so in writing.

The Board will provide any referenced material or documents and/or reasons for decision for any specific clause or clauses contained within the application if requested to do so in writing.

SIGNED this 21st day of July, 2010 on behalf of the SAHTU Land & Water Board.

A handwritten signature in cursive script, appearing to read "Larry Wallace", is written over a horizontal line.

Larry Wallace (Chairman)
SAHTU Land & Water Board

1. CLOSE UP BLDGS.
2. REMARK RESTRICTED ACCESS AREAS.

APPENDIX H

HAZARDOUS MATERIAL TRANSPORTATION DOCUMENTS

SHIPPER'S DECLARATION FOR DANGEROUS GOODS
DECLARATION DE L'EXPÉDITEUR POUR MARCHANDISES DANGEREUSES

Shipper Expéditeur ABORIGINAL ENGINEERING UNIT 20, STANTON PLAZA P.O. BOX 133 YELLOWKNIFE - N.W.T. X1A 2N1 c/o SAWMILL BAY LINDRA MINE SITE	Air Waybill No. No de L.T.A. Page 1 of 1 Pages Page de pages Shipper's Reference Number (optional) N° de référence de l'expéditeur (facultatif) NT03504-7 NUC 100008
--	---

Consignee Destinataire INAC generated waste to KBL Environmental PO Box 1108, 17 Cameron Rd Yellowknife NT 867 873 5263
--

Two completed and signed copies of this declaration must be handed to the operator.
Deux copies de cette déclaration dûment remplies et signées doivent être remises à l'exploitant.

TRANSPORT DETAILS RENSEIGNEMENTS SUR LE TRANSPORT This shipment is within the limitations prescribed for: (delete non-applicable) Cette expédition est dans les limites autorisées pour: (biffer la mention inutile)	
AIRCRAFT AND PASSENGER CARGO ONLY AÉRORECH PASSENGER CARGO SEULEMENT	AIRCRAFT CARGO ONLY AÉRORECH CARGO SEULEMENT
Airport of Departure Aéroport de départ LINDRA MINE SAWMILL BAY	
Airport of Destination Aéroport de destination YELLOWKNIFE - N.W.T.	

WARNING
Failure to comply in all respects with the applicable Dangerous Goods Regulations may be a breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

AVERTISSEMENT
Le non-respect sur quelque point que ce soit de la Réglementation sur le transport des marchandises dangereuses peut constituer une infraction aux lois en vigueur, punissable par la loi. Cette déclaration ne peut en aucun cas être remplie et/ou signée par un groupeur, un transitaire ou une agence messagerie IATA.

Shipment type: (delete non-applicable) Type d'envoi (biffer la mention incorrecte) NON-RADIOACTIVE NON-RADIOACTIF	RADIOACTIVE RADIOACTIF
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NATURE AND QUANTITY OF DANGEROUS GOODS
NATURE ET QUANTITÉ DE MARCHANDISES DANGEREUSES

Dangerous Goods Identification Identification des marchandises dangereuses					Quantity and type of packing Quantité et type d'emballage	Packing Inst. Instructions d'emballage	Authorization Autorisation
Proper Shipping Name Appellation réglementaire	Class or Division Classe ou division	UN or ID No. N° UN ou ID	Pack- ing group Groupe d'emballage	Subsidi- ary Risk Risque subsidiaire			
BATTERIES, WET, FILLED WITH ACID	8	2794	III		4 WOODEN CRATES 800 "OVERPACK" 39 BATTERIES		
WASTE, CONTAINING PEST CONTROL PRODUCTS	6.1	2588	III		5 MEGA-BAGS DOUBLE LINED		
ARTICLES CONTAINING Polychlorinated Biphenyls (PCB) LESS THAN 50 PPM	9	2315	II		3 TRANSFORMERS STORED IN OVERPACKS 1) 96 PPM - S# 130605 2) 24 PPM - S# 128064 3) 8 PPM - S# 54541		

Additional Handling Information Renseignements complémentaires concernant la manutention WAYBILL Movement Document # NT03504-7	Shipment is made under the provisions of ICAO L'envoi est effectué conformément aux dispositions de l'OCAI
24 hr. Emergency Contact Tel. No. N° de téléphone d'urgence (24 heures):	
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable International and National Governmental Regulations. Par la présente, je déclare que les renseignements relatifs à la description du contenu du chargement et à l'appellation réglementaire du produit expédié sont complets et exacts; et que le contenu est correctement classé, emballé, identifié, étiqueté/placardé et qu'il est conforme à tous égards aux règlements gouvernementaux nationaux et internationaux en matière de transport.	Name/Title of Signatory Nom/Titre du Signataire BRAD LANDRY, Sites Mgr. Place and Date Lieu et Date SAWMILL BAY, GREAT BEAR LAKE Signature (See warning above) Signature (Voir avertissement ci-dessus)

DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document must conform to all federal and provincial transport and environmental legislation. Ce document de mouvement/transport est conforme aux législations fédérales et provinciales sur l'environnement et le transport.

Movement Document / Manifeste Mouvements No. 27 de référence du document de nos universitaires

NT03505-4

A Generator / consigneur Producteur / expéditeur		Registration No. / Provincial ID No. N° d'immatriculation - G.D. provincial NUC 100008		B Carrier Transporteur		Registration No. / Provincial ID No. N° d'immatriculation - G.D. provincial AIR TINDI PO Box 1693		Address / Nom de l'entreprise 28 Mitchell Drive Yellowknife NT X1A 2P3 Tel. No. / N° de tél. () ()	
Country / Nom du pays INDIAN NORTHERN AFFAIRS CANADA (NAD)		City / Ville PO Box 1500 Yellowknife NT X1A 1N5		Country / Nom de l'entreprise C-G NPS		City / Ville Tel. No. / N° de tél. () ()		Country / Nom de l'entreprise Tel. No. / N° de tél. () ()	
Mailing address / Adresse postale Wpatt-Guy-Guy Inc. a/c - g.c. ca 867873		Province Postal code / Code postal		Vehicle / Véhicule Trailer - Rail car No. 1 C' - motorized - motorisé Trailer - Rail car No. 2 2' - non-motorized - non-motorisé		Part of entry Part of entry Part of entry Part of entry		Country / Nom de l'entreprise Tel. No. / N° de tél. () ()	
Intended Recipient / consignataire Récipiendaire / destinataire prévu KBL Environmental City / Ville PO Box 1108, 17 Cameron Rd Yellowknife NWT Tel. No. / N° de tél. () ()		Registration No. / Provincial ID No. N° d'immatriculation - G.D. provincial Postal code / Code postal Tel. No. / N° de tél. () ()		Country / Nom de l'entreprise Tel. No. / N° de tél. () ()		Country / Nom de l'entreprise Tel. No. / N° de tél. () ()		Country / Nom de l'entreprise Tel. No. / N° de tél. () ()	
Mailing address / Adresse postale doug.kble@environmental.com 867 8735263		City / Ville Yellowknife NT		Country / Nom de l'entreprise Tel. No. / N° de tél. () ()		Country / Nom de l'entreprise Tel. No. / N° de tél. () ()		Country / Nom de l'entreprise Tel. No. / N° de tél. () ()	
Shipping name / Appellation réglementaire Old Batteries		Quantity / Quantité 8		Quantity / Quantité 46 batteries, 3 cabs		Quantity / Quantité Tel. No. / N° de tél. () ()		Quantity / Quantité Tel. No. / N° de tél. () ()	
National Law No. N° de loi de réglementation City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. / N° de tél. () ()	
National Law No. N° de loi de réglementation City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. / N° de tél. () ()	
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National Law No. N° de loi de réglementation City / Ville Tel. No. / N° de tél. () ()		National Code Code national City / Ville Tel. No. /							

WINE & SPIRITS

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche)

NT03504-7

Measurement Document | Maryland Performance Test
If the difference in the document on measures of reading

Copy / Copie 1 (white / blanche)

SHIPPER'S DECLARATION FOR DANGEROUS GOODS
 DÉCLARATION DE L'EXPÉDITEUR POUR MARCHANDISES DANGEREUSES

Shipper
 Expéditeur **Aboriginal Engineering**
Unit 20, Stanton Plaza
PO Box 133 Yellowknife NWT
XIA 2N1

Air Waybill No. **NT03505-4**
 No de L.T.A.

Page **1** of **1** Pages
 Page de **1** de **1** pages

Shipper's Reference Number (optional) **NUC1000008**
 N° de référence de l'expéditeur (facultatif) **waybill NT03505-4**

Consignee
 Destinataire **KBL Environmental**
PO Box 1108, 17 Cameron Rd
Yellowknife NT 8678735263

Two completed and signed copies of this declaration must be handed to the operator.
 Deux copies de cette déclaration dûment remplies et signées doivent être remises à l'exploitant.

TRANSPORT DETAILS
 RENSEIGNEMENTS SUR LE TRANSPORT

This shipment is within the limitations prescribed for: (delete non-applicable)

Cette expédition est dans les limites autorisées pour: (biffer la mention inutile)

☒ PASSENGER AND CARGO AIRCRAFT
☒ AÉROPLAN PASSAGERS ET CARGO
☐ CARGO AIRCRAFT ONLY
☐ AÉRONEF CARGO SEULEMENT

Airport of Departure
 Aéroport de départ

Sawmill Bay

Airport of Destination:
 Aéroport de destination: **Yellowknife, NWT**

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be a breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

AVERTISSEMENT

Le non-respect sur quelque point que ce soit de la Réglementation sur le transport des marchandises dangereuses peut constituer une infraction aux lois en vigueur, punissable par la loi. Cette déclaration ne peut en aucun cas être remplie et/ou signée par un groupeur, un transitaire ou une agence messagerie IATA.

Shipment type: (delete non-applicable) Type d'envoi (biffer la mention incorrecte)

☒ NON-RADIOACTIVE
☒ NON-RADIOACTIF

☐ RADIOACTIVE
☐ RADIOACTIF

NATURE AND QUANTITY OF DANGEROUS GOODS
 NATURE ET QUANTITÉ DE MARCHANDISES DANGEREUSES

Dangerous Goods Identification Identification des marchandises dangereuses					Quantity and type of packing Quantité et type d'emballage	Packing Inst. Instructions d'emballage	Authorization Autorisation
Proper Shipping Name Appellation réglementaire	Class or Division Classe ou division	UN or ID No. N° UN ou ID	Pack- ing group Groupe d'emballage	Subsidi- ary Risk Risque subsidiaire			
Batteries, wet filled with acid	8	2794	III		46 batteries, 3 wooden crates "Overpak"		

Additional Handling Information
 Renseignements complémentaires concernant la manutention

24 hr. Emergency Contact Tel. No.
 N° de téléphone d'urgence (24 heures):

Shipment is made under the provisions of ICAO
 L'envoi est effectué conformément aux dispositions de l'OACI

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable International and National Governmental Regulations.

Par la présente, je déclare que les renseignements relatifs à la description du contenu du chargement et à l'appellation réglementaire du produit expédié sont complets et exacts; et que le contenu est correctement classé, emballé, identifié, étiqueté/placardé et qu'il est conforme à tous égards aux règlements gouvernementaux nationaux et internationaux en matière de transport.

Name/Title of Signatory **Brad Landry**
 Nom/Titre du Signataire

Place and Date **Sawmill Bay, Oct 1/2010**
 Lieu et Date

Signature
 (See warning above)
 Signature
 (Voir avertissement ci-dessus)