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March 24, 2024

Job No.: 10-13166
Ref. No.: 478479.81500

Mackenzie Valley Land and Water Board
4922 – 48th Street 7th Floor
P.O. Box 2130
Yellowknife, NT X1A 2P6

Attention: Angela Love, Regulatory Specialist

Water License MV2015L2-0003
Surveillance Network Program (SNP) Monthly Reporting
January 2024

INTRODUCTION

Parsons Inc. (Parsons) was retained by North American Tungsten Corporation Ltd. (NATC) to complete the monthly SNP inspection, sampling and reporting for NATC's Cantung Mine as per Water Licence MV2015L2-0003 (the Licence). The Water License expired in January 2024 and NATC carried out its obligations under that License for the remainder of the month after the License expired.

SNP MONTHLY DATA

Monitoring Data Generated (Annex A Parts B&C)

Analytical results and field water quality data collected under the SNP this month, along with Quality Assurance/Quality Control (QA/QC) results, are presented in Appendix A.

The active monitoring stations are listed in Table 1, including rationale for sampling this month, and illustrated in Figures A, B and C.

Table 1. Active SNP stations as per Part B, Condition 2 of the Licence.

SNP Station #	Site Coordinates (UTM)	Description	Samples Collected	Rationale
4-1	N 6871361.36 E 540034.38 N	Flat River fresh water intake located in the Water Supply Facility	No	Flow monitoring station.
4-5	542519.57 E, 6869094.27 N	Flat River at bridge downstream of airstrip.	Yes	
4-6	540699 E, 6870572 N	Inflow to Wastewater Treatment Facilities.	No	Only when WWTF operating.
4-13	541326 E, 6869967 N	Discharge from "E" Zone.	Yes	
5-2	540519 E, 6870986 N	Old Lagoon Outflow	Yes	
4-20	541342.06 E, 6870330.45 N	Drainage culvert from Stinky Pond.	No	2 times annually
4-27-4	540469.07 E, 6870401.17 N	Groundwater monitoring well MW-5.	No	Annual
4-27-7	541055.24 E, 6870529.79 N	Groundwater monitoring well BH-43.	No	Annual
4-27-8	541150.52 E, 6870457.79 N	Groundwater monitoring well BH-44.	No	Annual
4-27-9	540482.62 E, 6871000.43 N	Groundwater monitoring well BH-53.	No	Annual
4-27-10	540991.52 E, 6870580.59 N	TP4-07-MW01	No	Annual
4-27-11	541215.91 E, 6869955.63 N	TP5-07-MW01.	No	Annual
4-27-12	541357.03 E, 6870091.54 N	TP3-07-MW01.	No	Annual
4-27-13	541326.91 E, 6869967.73 N	TP3-07-MW02.	No	Annual
4-27-14	541256.87 E, 6869942.9 N	Groundwater well southeast of Tailings Pond 5 (between small creek and Tailings Pond 5).	No	Annual
4-27-15	541600.61 E, 6869880.3 N	Groundwater well southeast of airstrip.	No	Annual
4-27-16	540502.87 E, 6871064.44 N	Groundwater well east of Tailings Ponds 1 and 2. Replacement for SNP station 4-27-1; Groundwater monitoring well MW-1, and includes piezometers MW1-10, MW1-6, and MW1-1.	No	Annual
4-27-17	539968.54 E, 6871380.14 N	Groundwater well upstream of the Project.	No	Annual
4-27-18	540646.05 E, 6870369.63 N	Groundwater monitoring well (MW13-01) up-gradient of Tailings Storage Facility 7.	No	Temporarily suspended as of August 25, 2016 until not less than three months prior to the construction of Tailings Storage Facility 6.
4-27-19	540523.39 E, 6870788.48 N	Groundwater monitoring well down-gradient of Tailings Storage Facility 7.	No	
4-27-20	543765.09 E, 6868047.68 N	Groundwater monitoring well up-gradient of Tailings Storage Facility 6.	No	

4-27-21	543414.08 E, 6868150.03 N	Groundwater monitoring well (MW12-09) down-gradient of north end of Tailings Storage Facility 6.	No	
4-27-22	543593.31 E, 6867899.6 N	Groundwater monitoring well (MW12-3) down-gradient of middle of Tailings Storage Facility 6.	No	
4-27-23	544032.92 E, 6867627.55 N	Groundwater monitoring well (MW12-01 and MV12-02) down-gradient of south end of Tailings Storage Facility 6.	No	
4-28-1	541224 E, 6870386 N	Groundwater pumping well PW-1.	Yes	
4-28-2	541118 E, 6870491 N	Groundwater pumping well PW-2.	No	Annual.
4-29	538180 E, 6873871 N	Flat River, three (3) kilometers upstream of pumphouse.	Yes	
4-30	540162 E, 6870912 N	Mill Tailings at Tails Box in Mill.	No	Only when Mill is operating.
4-32	540123.65 E, 6871229.02 N	Sardine Creek.	No	Frozen.
4-33	547271 E, 6864181 N	Far Field Downstream Station 8.5 km – Flat River.	No	Not accessible. 4-33R collected as alternate.
4-33R	543488.32 E, 6867874.61 N	Flat River, west of Tailings Storage Facility 6.	Yes	
4-34	540070 E, 6871022 N	Seepage down-gradient of the fuel berm.	No	No Seepage visible.
4-36	541368 E, 6870158 N	Any point between Tailings Pond 3 and the Flat River, where Seepage is visible.	No	No Seepage visible.
4-37	540997 E, 6870555 N	Any point between Tailings Pond 4 and the Flat River, where Seepage is visible.	No	No Seepage visible.
4-38	540343 E, 6871176 N	Any point between Tailings Pond 1 and the Flat River, where Seepage is visible.	No	No Seepage visible.
4-39	540407 E, 6871100 N	Any point between Tailings Pond 2 and the Flat River, where Seepage is visible.	No	No Seepage visible.
4-40	540858.16 E, 6870816.22 N	Surface Water point on Flat River between Tailings Ponds 2 and 4.	Yes	
4-41	541804 E, 6869690 N	Surface Water point on Flat River downstream of Tailings Pond 3.	Yes	
4-42	540169 E, 6870899 N	Minewater pump in the mill.	Yes	
4-43	540699 E, 6870572 N	Effluent from the Wastewater Treatment Facilities.	No	Only when WWTF operating.
4-44	541477.31 E, 6870223.15 N	Surface water point on Flat River approximately 180 metres downstream of drainage channel from Stinky Pond.	No	Temporarily suspended as of December 10, 2018 until not less than three months prior to discharge from the Wastewater Treatment Facility.
4-45	543144 E, 6868828 N	Middle Bridge, upstream of Stinky Pond Discharge to Flat River.	No	Flow monitoring station.
4-46		Thickener Overflow/Effluent.	No	When the Thickener is operating.

4-47		Collection point within Tailings Storage Facility 7 for Seepage/contact Water.	No	Facility not constructed.
4-48		Collection point within Tailings Storage Facility 6 for Seepage/contact Water.	No	Facility not constructed.
4-49	543343.79 E, 6868099.72 N	Flat River, west of the north end of Tailings Storage Facility 6.	No	Temporarily suspended as of August 25, 2016 until not less than three months prior to the construction of Tailings Storage Facility 6.
4-50	544026.55 E, 6867532.93 N	Flat River, immediately downstream of Tailings Storage Facility 6.	No	

INTERPRETATION OF QAQC RESULTS

Further to Part G, Condition 40 of the Licence, the Maximum Average Concentration (MAC), as the running average concentration of four consecutive analytic results (September, October, November and December), and Maximum Grab Concentration (MGC) were determined for listed analytical parameters at SNP station 4-28-1. Results are tabulated in Appendix A.3 and Appendix A.4, respectively indicating that SNP station 4-28-1 with effluent quality criteria (EQC) under the SNP met criteria described in Part G, Condition 40 of the Licence.

Historically, the results of the duplicate samples are considered notably different when the relative percent difference (RPD) between the two results is greater than 20% and the results are greater than five times above the Detection Limits (DLs.) The duplicate sample taken at SNP station 4-42 show that one (1) of the parameters (dissolved lithium) included in the duplicate sample analysis was notably different from one another. However, given the heterogeneity that is typical in groundwater sample results, an RPD of less than 50% is generally considered to be acceptable for the purposes of identifying potential data quality concerns in the sampling program. Given that only one parameter had an RPD greater than 20% but less than 50% and that this parameter does not have an associated Effluent Quality Limit (EQL), overall there does not appear to be any data quality concerns that would call into question the reliability of the data (see Appendix A.5).

Further, the detection limits for the 1 field blank and 1 trip blank submitted are exceeded 3% or less of the time, indicating a low frequency of contamination in blank samples (see Appendix A.6).

Finally, the lab report also includes a Quality Assurance Report indicating that the overall quality control for all the samples in January 2024 meets acceptability criteria.

ANALYTICAL RESULTS COMPARED TO COMPLIANCE POINTS (ANNEX A, PART A.2B)

Graphical results for the stations listed in Annex A Part A item 2b are not included as the stations, with one exception, are measured annually and therefore there are not enough data points to graph. Graphical results for SNP station 4-28-1 are included in Appendix B.

ACTIONS TAKEN IN RESPONSE TO EQC EXCEEDANCE (ANNEX A, PART A.2c).

There were no EQC exceedances this month.

MONITORING EQUIPMENT CALIBRATION (ANNEX A, PART A.2d)

Field water quality data is collected at the time of extraction using a YSI Professional Plus multimeter in conformance with NATC field sampling protocol. The YSI multi meter is calibrated prior to every sampling event using calibration solutions for pH and electrical conductivity, and atmospheric calibration for dissolved oxygen as per manufacturer instructions.

SUMMARY OF CUMULATIVE WATER USE (ANNEX A, PART A.2f)

There was no water use in January 2024 and only bottled water was used for potable purposes.

METEOROLOGICAL MONITORING (ANNEX A, PART A.2g)

Meteorological data can be found in Appendix D. Since the site power was shut off in December 2023, the weather station relies on solar panels and a small battery. The weather station was inspected during the January site visit and had no power, so data could not be downloaded.

WATER WITHDRAWN FROM THE WATER SUPPLY FACILITY (ANNEX A PART C.1.A)

No water was withdrawn from the Flat River in January 2024.

ORE MILLED (ANNEX A PART C.1.B)

No ore was milled this month.

WASTE DISCHARGED TO THE TAILINGS CONTAINMENT AREA (ANNEX A PART C.1.c)

No treated sewage effluent was generated or discharged to the TCA in January 2024.

THICKENER OVERFLOW DISCHARGED TO THE WASTEWATER TREATMENT FACILITIES AND/OR TP5 (ANNEX A PART C.1.D)

The Wastewater Treatment Facilities (WWTF) were not in service after December 6, 2023. No thickener overflow was discharged to the WWTF and/or TP5 this month.

CONTACT WATER DISCHARGED TO THE WASTEWATER TREATMENT FACILITIES AND/OR TP5 (ANNEX A PART C.1.E)

The Dry Stack Tailings Storage Facilities have not been constructed. There was no discharge from this facility this month.

Liquid Waste Discharged from the Wastewater Treatment Facilities (Annex A Part C.1.F)

The WWTF was not in service after December 6, 2023. No liquid waste was discharged from the WWTF to Stinky Pond this month.

FLOW AND VELOCITY AT THE DRAINAGE CULVERT AT STINKY POND (ANNEX A PART C.1.G)

No monitoring was required nor occurred at this station in January 2024.

DISCHARGE OF THE FLAT RIVER (ANNEX A PART C.1.H)

No monitoring was required nor occurred at this station this month.

LITHOLOGICAL IDENTIFICATION AND SULPHUR PLUS CARBON ANALYSES (ANNEX A PART C.1.I)

Mining has ceased; no new waste rock was generated this month and no analysis undertaken.

COMPOSITE MILL TAILS SAMPLE (ANNEX A PART C.1.J)

Milling has ceased; no new tails were generated this month, and no analysis undertaken.

OBSERVATIONS FROM THE INSPECTION OF THE TCA (ANNEX A PART C.1.K)

TCA observations can be found in Appendix E.

OBSERVATIONS FROM THE DAILY INSPECTION OF THE WWTF (ANNEX A PART C.1.L)

The WWTF is not in service. No inspection was undertaken.

DRY STACK TAILINGS MOISTURE AND DENSITY TESTING (ANNEX A PART C.1.M)

The Dry Stack Tailings Storage Facilities have not been constructed. No testing was undertaken this month.

DATA FROM THE PIEZOMETERS AND INCLINOMETERS (ANNEX A PART C.1.N)

Dataloggers were installed on the piezometers in July 2023 which allow for continuous logging; data was downloaded from the stations in January 2024. Data is downloaded periodically and will be reported at a future date following compilation and analysis.

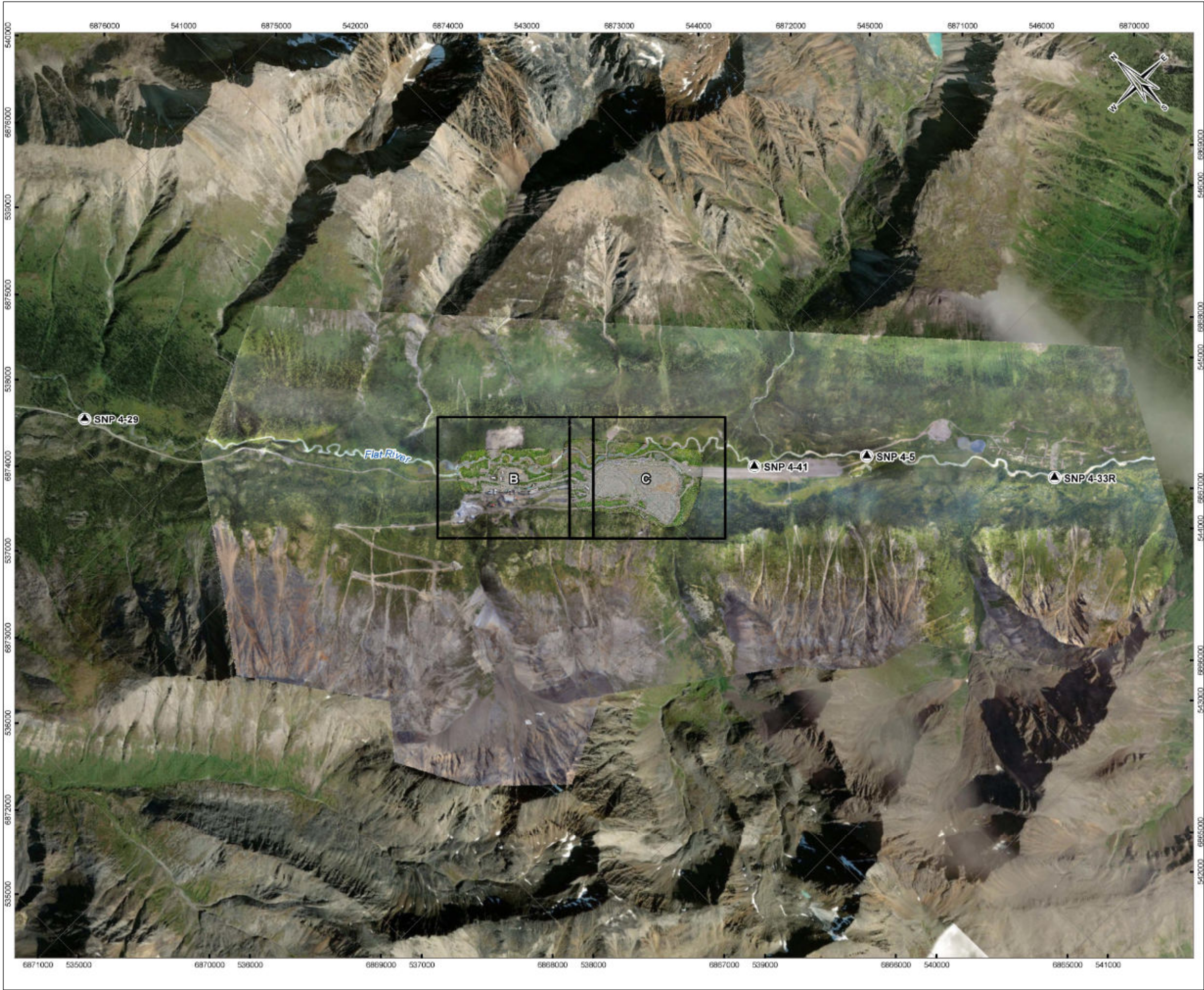
CLOSURE

We trust the foregoing information is satisfactory for your requirements. If you have any questions or concerns, please contact Marianna Lee at marianna.lee@alvarezandmarsal.com.

PARSONS INC.



Michael Taylor, P.Ag.



LEGEND

▲ Surface Water

▭ Detailed Figure Extent

NOTES
All locations are approximate.
Base data source:
Data provided by INAC (2013).
High resolution drone imagery collected in 2022.

Monitoring Locations

CANTUNG MINE, NT

Reference: Tetra Tech 2023	Drawn By: JDC	Ref. No.: 10-11248
	Reviewed By: MFT	Date: 2024-02-12

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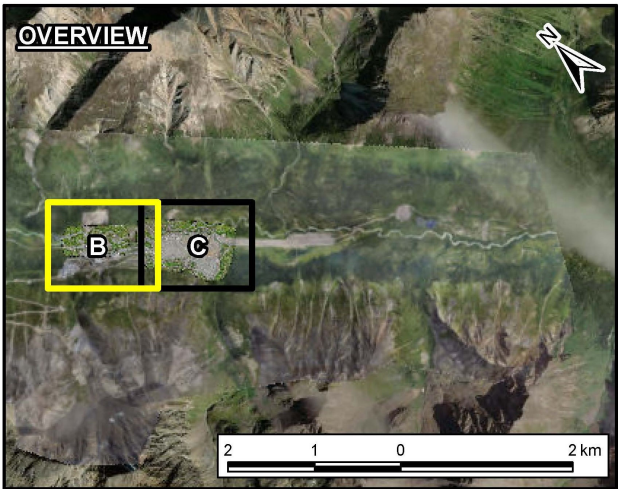
Drawing No.:
A

Document Path: C:\Z_Drive\0_Cantung\Mine\DWG B_CANTUNG MINE.mxd Coordinate System: NAD 1983 UTM Zone 9N



LEGEND

- ▲ Surface Water
- ⊙ Monitoring Well



NOTES
All locations are approximate.
Base data source:
Data provided by INAC (2013).
High resolution drone imagery collected in 2022.

Monitoring Locations

CANTUNG MINE, NT

Reference: Tetra Tech 2023	Drawn By: JDC	Ref. No.: 10-11248
	Reviewed By: MFT	Date: 2024-02-12

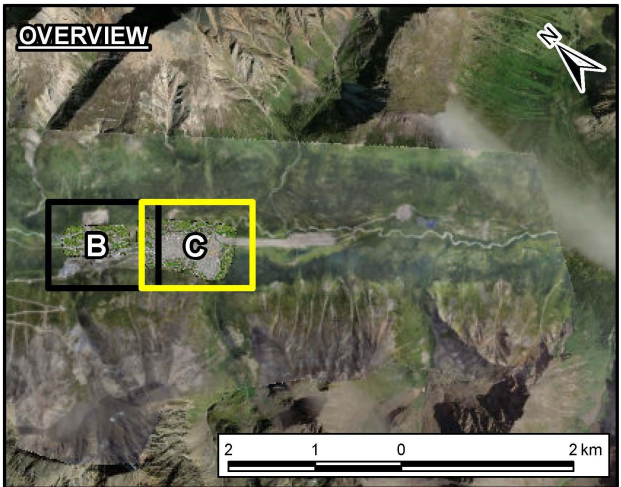
PARSONS

Drawing No.:
B



LEGEND

- Surface Water
- Monitoring Well



NOTES
All locations are approximate.
Base data source:
Data provided by INAC (2013).
High resolution drone imagery collected in 2022.

Monitoring Locations

CANTUNG MINE, NT

Reference: Tetra Tech 2023	Drawn By: JDC	Ref. No.: 10-11248
	Reviewed By: MFT	Date: 2024-02-12

PARSONS

Drawing No.:
C

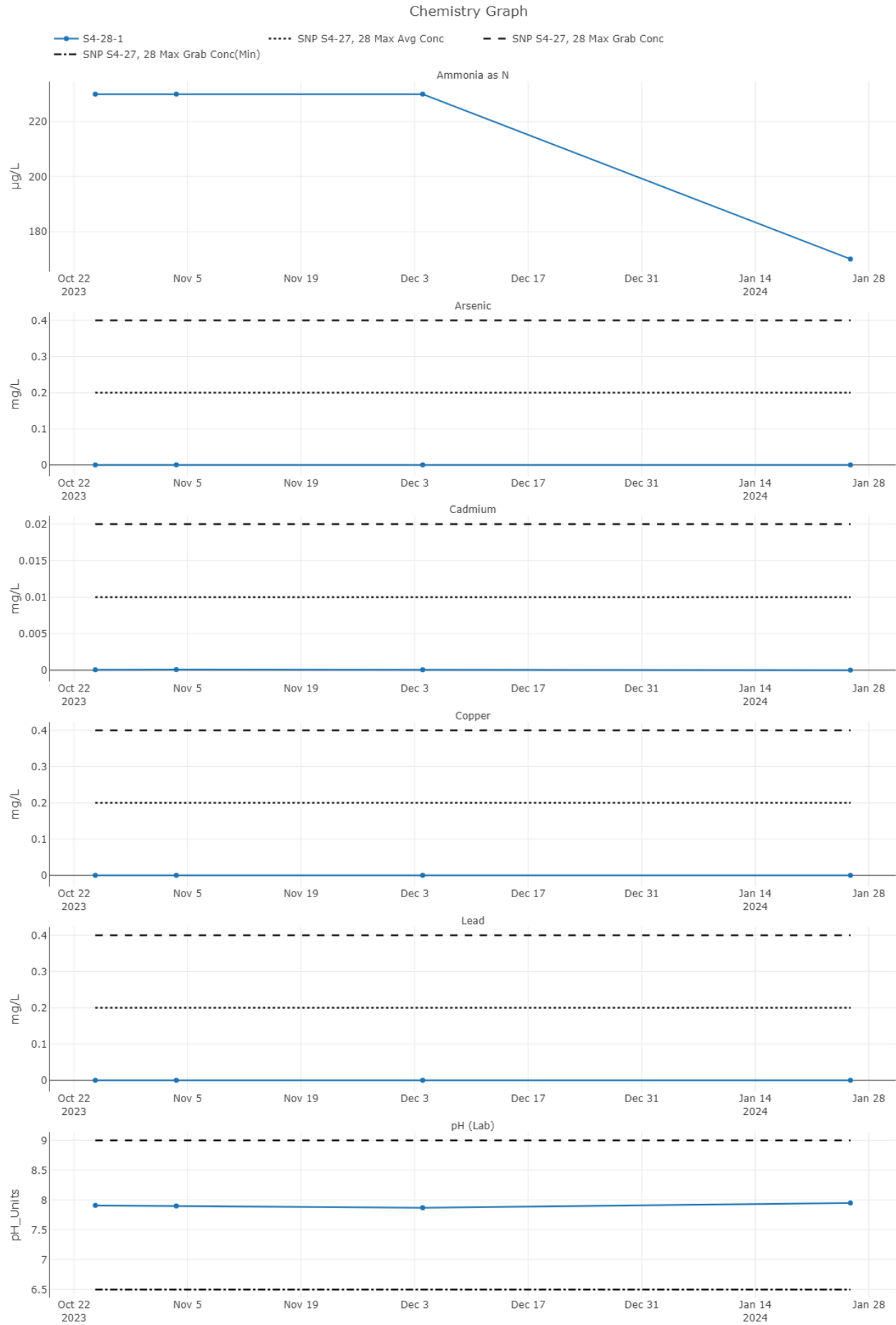
APPENDIX A

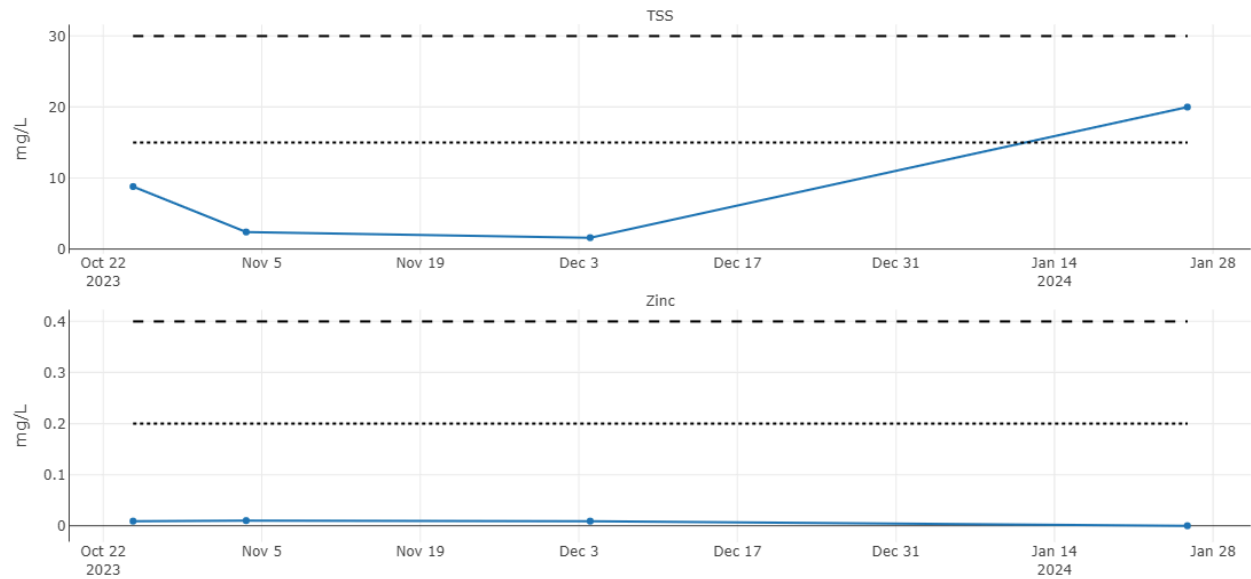
WATER QUALITY DATA

Excel File Enclosed

APPENDIX B

WATER QUALITY TRENDS





The report was generated based on the following filter:
Total or Filtered "Total",
Chem Names In "Ammonia as N,Arsenic,Cadmium,C...",
Locations In "S4-28-1",
Sampled Date between "27 Sep 2023" and "27 Jan 2024"

Publication Date: 19 Mar 2024

APPENDIX C

WATER USE

No Water Use Data for January 2024

APPENDIX D

METEOROLOGICAL DATA

No Meteorological Data for January 2024

APPENDIX E
TCA INSPECTION

Care and Maintenance - Periodic Tour & Facility Checks - General Description

Check		Mill and Tailings Pond
✓	1	Tour all site access roads, keep eye out for anything unusual, checking pipelines, ditches, berms, etc.
✓	2	Tailings Pond Inspections
✓	a	Inspect TP5, TP3 & TP4 berm and toes of berms to ensure no problems or irregularities
✓	b	Inspect all tailings berms and water levels
✓	c	Complete tails check sheet, as per SOP MILL 040 - TSF and WWTF Inspections
		Surface Facility
✓	1	Remove Garbage from Administration Building GARBAGE REMOVED OFF SITE
	2	Check site security
✓	a	Ensure buildings are secured
✓	b	Air strip, no unauthorized personnel
	3	Freshwater Pump house:
NA	a	Check pump, barrel, lines, screens, water elevation and heaters
NA	b	Check & record the Flow Totalizer, Flow Rate and Line Pressure
NA	c	Check Chlorine Tank, Dilution, Pump and Discharge into sump
NA	d	Adjust the Chlorine Pump speed based on the Chlorine analysis above, and record in Log Book (bump pump once daily to clean line of precipitate)
NA	e	Monthly Maintenance: pull screens & check for blockage
	4	Sewage Treatment Plant (STP):
NA	a	In Lift Pump house, check Pumps, Heater, Tank level, Volume Totalizer, Pipeline Drain valve (1/4 turn open in winter).
NA	b	Check Flow into the STP mixer/aerator, and clean out coarse trap as required.
NA	c	Check air temperature inside the building (> 10 C) and settling tank water (> 5 C).
NA	d	Check Blower and lines, switching to alternate between 1 & 2 each week.
NA	e	Check coarse trap on discharge of Settling Tank, dumping coarse material back into the settling tank.
NA	f	Check Air Compressor for the Settling Tank, and weekly move the hose & air lance to a different corner of the tank.
NA	g	Check heat is on in green lift station by TP4
NA	h	Monthly Maintenance: Blowers & lift Pumps - 2 shots grease each
NA	5	Check Admin and Accommodation's building water system and general building conditions
NA	6	Check fresh water bleeds and continual flows
	7	Generators - general, fuel piping
NA	8	Generator radiator supply and return temperatures, sensors, valves, leaks
✓	9	All fuel and gas dispensing areas, tanks, berms 65 LITER DIESEL BURN - LIGHT PLANT
✓	10	Monitor avalanche hazard - refer to Avalanche Abatement Plan for information
✓	11	Check site building, tanks and facilities for any unusual items
		Mine
✓	1	Check entrances, ensure they are secure
		Surface
	1	Inactive buildings & facilities - entrances secure
✓	a	Mine Vent Fan Area (while accessible) - Ensure intake covers secure (x2)
✓	b	Mine Dry Complex
✓	c	80 Man facility
✓	d	Kitchen Facility
✓	e	Apartment A and C
✓	f	Mill checks
NA	2	Admin - Chlorine concentration in Potable Fresh Water system (Range = 0.2 - 0.8 mg/L Free Chlorine)
	3	Inspect behind Mill and check Mine water flow at S4-12
✓	a	observe containment within diversion ditch
✓	b	ensure water is flowing
	4	Inspect S5-2 polishing pond water flow inlet and outlet
✓	a	observe containment within pond
✓	b	ensure water is flowing
	5	Inspect S4-13 mine portal discharge
NA	a	observe containment within diversion ditch FROZEN

NA	b	ensure water is flowing
NA	c	ensure sample point and flow measurement area is free of ice
✓	6	Hazardous waste storage is secure, no spills, accessible
NA	7	ID waste oil for heating as required
NA	8	Erosion control locations
NA	9	Surface water routes (freshet)
Data Checks		
✓	1	Download hydrology data
✓	2	Collection and shipping of SNP WQ samples
NA	3	Sewage Treatment Plant (STP) flow meter reading
NA	4	Weather station maintenance
	5	VW data collected and sent to EOR <i>DONE - YET TO BE SUBMITTED</i>
NA	6	Weather station downloads
NA	7	SI data collected and sent to EOR

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