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February 29, 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: To whom it may concern

Water License MV2015L2-0003 Surveillance Network Program (SNP) Monthly Reporting December 2023

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.)

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.

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	
4-27-19	540523.39 E, 6870788.48 N	Groundwater monitoring well down- gradient of Tailings Storage Facility 7.	No	of August 25, 2016 until not less than three months prior to the construction of	
4-27-20	543765.09 E, 6868047.68 N	Groundwater monitoring well up- gradient of Tailings Storage Facility 6.	No	Tailings Storage Facility 6.	

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

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
4-50	544026.55 E, 6867532.93 N	Flat River, immediately downstream of Tailings Storage Facility 6.	No	to the construction of Tailings Storage Facility 6.

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 samples taken at SNP station 4-42 show that two (2) of the parameters (total aluminum and dissolved barium) included in the duplicate sample analysis are 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 two parameters had an RPD greater than 20% but less than 50% and that those parameters do not have an associated 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 December 2023 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 not available for December 2023 due to issues with analytical laboratories and NATCL's data management software.

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 NATCL 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.

A Sparling Model 8712 C/U/H (4") flow meter measures the quantity of Waste discharged from the sewage treatment plant to the Tailings Containment Area (TCA). The flow meter was installed and is operated as per the manufacturer's instructions. Calibration of the flow meter is completed prior to leaving the manufacturer and does not require field calibration.

A Global Flow FP111 portable flow meter is used to measure flow at the drainage culvert at Stinky Pond. The calibration factors are both preset and provided in the manufacturer's manual. These are verified regularly to ensure accurate data is being collected.

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

A tabular summary of cumulative water use for 2023 can be found in Appendix C.

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

Meteorological data can be found in Appendix D. Issues with precipitation instrumentation were encountered and values for a portion of the month were not recorded. Since the site power was shut off on December 6, further data in December is not anticipated.

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

Table 2 presents the quantity of water withdrawn from the Flat River at the Water Supply Facility.

	Water (m ³) withdrawn from the Water Supply Facility at SNP station 4-1 in 2023														
Week	January	February	March	April	May	June	July	August	September	October	November	December			
1	453	356	309	80	506	221	81	261	92.2	335	NA	156			
2	524	602	557	549	586	558	464	368	325	351	222	149			
3	599	560	568	577	584	536	392	342	328	338	519	0			
4	612	534	475	598	572	495	377	442	331	423	556	0			
5	265	219	437	595	314	430	388	191	378	230	387	0			
6				83			126								
Total	2,453	2,270	2,345	2,481	2,561	2,240	1,828	1,603	1,454	1,678	1,685	305			

Table 2. Weekly quantity of Water withdrawn from the Water Supply Facility in 2023.

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)

Treated sewage effluent was discharged to the TCA until the 6th of December 2023. Only treated sewage effluent was discharge to the TCA this month; amounts are presented in Table 3.

Table 3. Weekly quantity of Waste discharged to the TCA in 2023.

	Waste (m ³) discharged to the Tailings Containment Area, TCA in 2023																							
	Janu	uary	Febr	ruary	Ma	rch	A	pril	м	ay	Ju	ine	JI	uly	Aug	just	Septe	mber	Octo	ober	Nove	mber	Dece	mber
Week	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings	Sewage	Tailings
	(m [°])	(m²)	(m [~])	(m°)	(m²)	(m ⁻)	(m°)	(m°)	(m²)	(m°)	(m [°])	(m²)	(m [°])	(m°)	(m²)	(m°)	(m°)	(m²)	(m [°])	(m°)	(m²)	(m [~])	(m°)	(m²)
1	478		441		342		106		843		73		40		139		58		270		318		161	
2	548		728		707		645		766		211		200		202		207		426		499		155	
3	567		700		741		624		696		194		192		177		211		384		497		0	
4	692		640		428		738		483		161		213		169		334		441		626		0	
5	290		193		394		721		226		205		218		136		314		450		425		0	
6							105						83											
Total	2 576	0	2 703	0	2 612	0	2 9 3 9	0	3.015	0	844	0	945	0	822	0	1 1 2 3	0	1 970	0	2 365	0	316	0

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 December.

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 not downloaded in December 2023. Data is downloaded periodically and will be reported following download 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





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

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



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

APPENDIX A

WATER QUALITY DATA

Excel File Enclosed

APPENDIX B

WATER QUALITY TRENDS

Not Available for December 2023

APPENDIX C

WATER USE

Excel File Enclosed

APPENDIX D

METEOROLOGICAL DATA

Excel File Enclosed

APPENDIX E

TCA INSPECTION

	Cantung Mine - TSF Inspection Sheet													
Month			TP3			TP4			TP5	r F	Initial	Observations		
Dec 2023	Time	Тое	Crest	Freeboard	Toe	Crest	Freeboard	Тое	Crest	Freeboard	Initial	Observations		
1	2:30		-		/	/	/	/			DR			
2	11:00	V	/	./	. /	-	_	termore		-	$\Omega \Omega$			
3	11:00	-		~	-	-			-	1	60			
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