

January 25, 2019

Via email **Organization's Email**

Public Services and Procurement Canada

Environmental Services

ATB Place North Tower

5th Floor - 10025 Jasper Avenue

Edmonton, AB T5J 1S6

Attention: Michael Brownlee

Subject: Former Iqaluit Metal Dump and Community Landfill – Nunavut Water Board (NWB) 2018 Annual Reporting – Licence No. 1BR-MDR1721

Dillon Consulting LTD./ Outcome Consultants Inc in joint venture (DOJV) was contracted by Public Services and Procurement Canada (PSPC) Environmental Services to fulfill reporting requirements for the Nunavut Water Board (NWB) water license issued for compliance monitoring at the former Iqaluit Former Military Dump (IQFMD) as per the Terms of Reference (ToR) document entitled “Compliance Long Term Monitoring for Transport Canada at the Former Iqaluit Metal Dump – Iqaluit, NU”, dated August 2018. This letter report encompasses all pertinent information provided to DOJV from PSPC and Transport Canada (TC).

Executive Summary

Previous investigations identified sediment and surface water contamination at the IQFMD (see Figure 1 for site location). A long-term monitoring plan (LTM) was developed in February 2018 by ARCADIS which outlined a sampling program to confirm that contaminants are attenuating naturally. As per the LTM, a site monitoring is required on site at years 1,3 and 5 following remediation. The 2018 monitoring program described herein is Year 1 of the LTM program.

The 2018 field program took place on September 18th and 19th at the IQFMD. The program included observational monitoring for seepage and erosion; collecting surface water and sediment samples; and producing photographs to confirm assumptions of the long-term monitoring plan.

Dillon-Outcome collected surface water samples from seven (7) predetermined LTM stations, LTM-1 through LTM-7. Surface water samples were analyzed for petroleum hydrocarbons (PHCs), Arsenic, Cadmium, Cobalt, Chromium, Lead, Nickel, Zinc, polychlorinated biphenyls (PCBs), major ions (>1ppm), hardness, total dissolved solids (TDS), total suspended solids (TSS), pH, conductivity and temperature.

Also, seven (7) sediment samples were collected from the predetermined LTM locations. Sediment samples were analysed for petroleum hydrocarbons (PHCs), Arsenic, Cadmium, Cobalt, Chromium, Lead, Nickel, Zinc and polychlorinated biphenyls (PCBs).

Water Usage

Water licence 1BR-MDR1721 was granted to TC on July 31st, 2017 by the NWB, contingent on the approval of Arcadis's Performance and Long-Term Monitoring Plan, received on September 25th, 2017. The licence was issued for a period of 4 years, effectively expiring on July 30th, 2021. The licence allowed for water use of up to fifty (50) cubic metres per day.

A maximum of approximately 100 litres (0.1m³) of water was extracted during the 2018 field program for environmental surface water sampling. No other water was used, diverted or modified during the investigation.

Seven (7) long term monitoring stations were established on-site for the purpose of evaluating long term environmental quality at the Site following remediation. Pertinent information for the long-term monitoring stations is summarized in Table 1 and the locations are shown on Figure 2.

Table 1. Summary of Surface Water Monitoring Stations (ARCADIS, 2018)

Long-Term Monitoring Station #	Surface Water Sample ID	Easting (UTM83)	Northing (UTM83)	Feature
1	LTM1-SW1-18	521750.251	7067946.256	Pond 1
2	LTM1-SW2-18	521800.108	7067986.503	Pond 2
3	LTM1-SW3-18	521836.893	7067795.774	Pond 3
4	LTM1-SW4-18	521860.124	7067686.315	Pond 4
5	LTM1-SW5-18	521915.011	7067718.731	Pond 5
6	LTM1-SW6-18	521936.764	7067744.086	Pond 6
7	LTM1-SW7-18	522027.627	7067865.856	Culvert discharge area - upgradient

Long-Term Monitoring

The objective of the Project was to collect and interpret data with respect to applicable environmental quality guidelines (EQG) established in the long-term monitoring plan (LTM Plan) prepared by ARCADIS (ARCADIS, 2018). This objective was addressed through the execution of the sampling and analytical testing program at the previously-identified areas of environmental concern (AECs) at the Site. The LTM Plan will reassess the sources, pathways and receptors at the Site to confirm that the assumptions of the LTM Plan remain valid.

As per the Statement of Work by PSPC (August of 2018) upon which this project was based, “the goal of this Performance and LTM work is to ensure that present and future risks to human health and the environment from the site conditions post remedial work are negligible and that monitoring, at some point in the future, could be terminated with confidence, based on findings of no risk and no depreciation of site environmental status” (PSPC, 2018).

LTM Sampling

Dillon-Outcome collected surface water samples by submerging the bottle under the surface of the water, removing the cap and allowing the bottle to fill, then recapping the bottle. Field parameters including pH, temperature, and conductivity were measured using a Horiba U-52 hand-held water quality meter, calibrated with standards provided, and recorded in field logs.

Laboratory Chemical Analyses

Analysis of samples was performed at Maxxam Analytics Ltd (Maxxam) located in Ottawa, ON. Maxxam is certified by the Canadian Association for Laboratory Accreditation Inc. (CALA) and has an internal set of QA/QC protocols, including replicate analysis, blank spikes, matrix spikes, instrumentation calibration, internal standards, method blanks, and internal QC checks. All laboratory quality information was reviewed as part of the data review.

Table 2 summarizes all exceedances identified through the 2017 and 2018 field programs.

Table 2. Contaminant Exceedance Summarization

Sample Type	Contaminant	2017 Exceedances	2018 Exceedances
Surface Water	Cadmiun	STN 2	STN 5, 6
	Lead	-	STN 5, 6
	Zinc	STN 2, 3, 5, 6, 7	STN 5, 6, 7
Sediment	Toluene	-	STN 6
	F2	-	STN 6
	F3	-	STN 5, 6
	Cadmium	-	STN 5,6
	Lead	-	STN 5, 6
	Zinc	-	STN 5, 6, 7
	Total PCBs	-	STN 5, 6, 7

Concentrations of Cadmium, Zinc and Lead were elevated in surface water samples collected from LTM stations 5 and 6. Also, LTM station 7 exceeded guidelines for Zinc.

Based on the 2017 results; Cadmium and Zinc concentrations from LTM stations 2 and 3 no longer exceed CCME guidelines, LTM stations 5 and 6 have seen an increase in Cadmium and Lead concentrations past the guidelines, and Zinc levels in LTM stations 5 through 7 has remained relatively constant.

Sediments were not collected post remediation in 2017 and thus there is no date from 2017 to postulate trends at this time.

Future Work

“Based on the provisions outlined in the Performance and Long-Term Monitoring Plan (LTM), as part of the NWB water licence number 1BR-MDR1721 issued July 31, 2017 and associated LTM approval letter dated September 25, 2017, long- term monitoring will be undertaken at the site annually to confirm that the risk management measures implemented as part of the remedial program remain stable and provide the level of protection to human and ecological receptors as modelled in the site specific risk assessment (ARCADIS, 2018).”

Future work onsite includes observational monitoring and surface water sample extraction for chemical analysis. Future water use is not expected to exceed 50m³ per day. No future waste will be generated or deposited.

We trust that this information is satisfactory for your requirements.

Sincerely,

DILLON-OUTCOME JOINT VENTURE

Jonathan Markiewicz, P.Ge
Senior Project Manager

References

ARCADIS. (2018). *Former Iqaluit Metal Dump and Community Landfill - Nunavut Water Board (NWB) 2017 Annual Reporting - Licence 1BR-MDR1721.*

ARCADIS. (2018). *Former Iqaluit Metal Dump and Community Landfill Final Site Remediation Summary Report.* Ottawa.

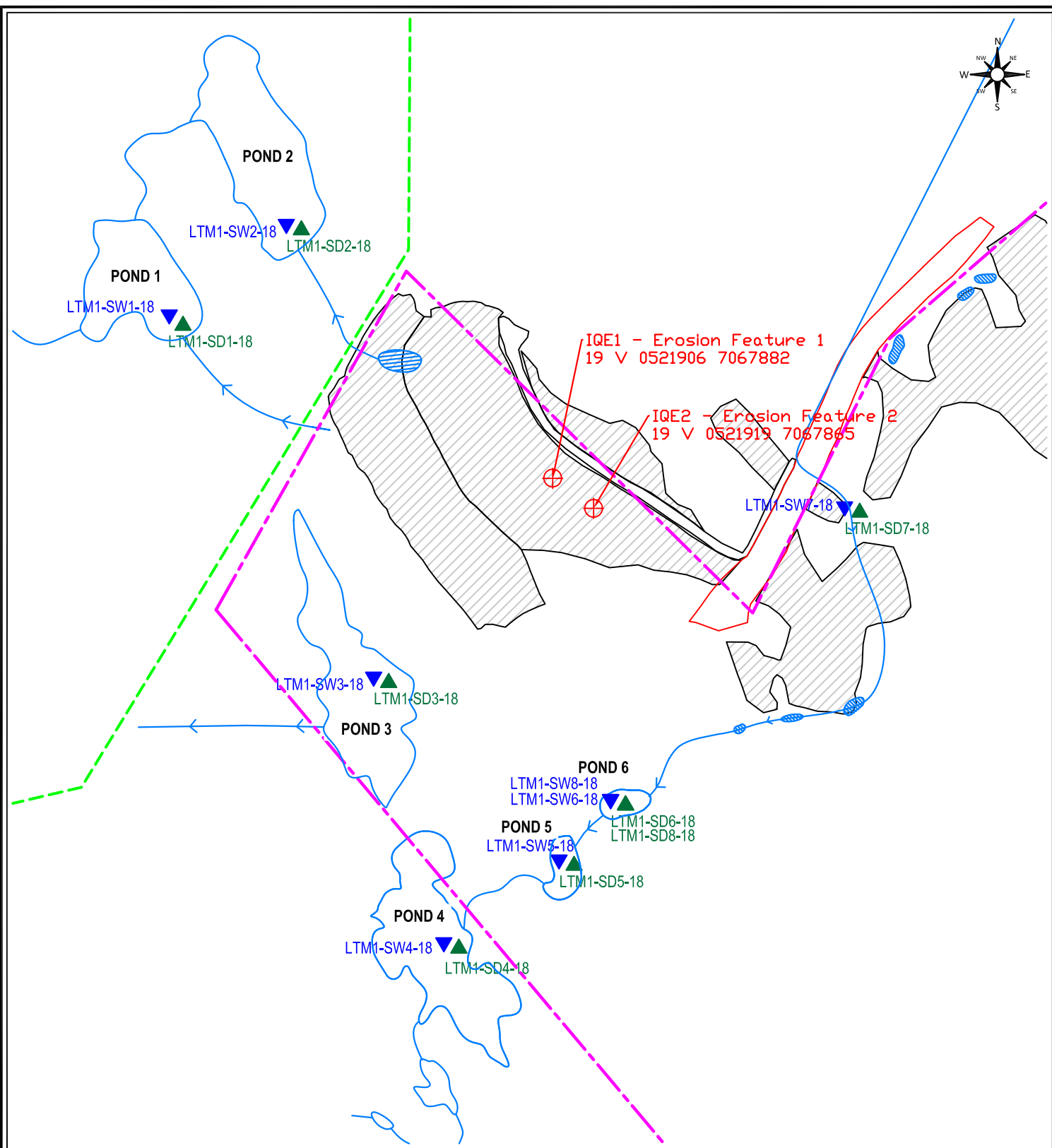
PSPC. (2018). *Statement of Work, Compliance Long Term Monitoring For Transport Canada At the Former Iqaluit Metal Dump.* Edmonton, AB, Canada.



References:
Google Earth images, Retrieved January 2019

Title:	Site Location	
Project:	FORMER IQALUIT METAL DUMP AND COMMUNITY LANDFILL SITE REMEDIATION SUMMARY REPORT	
Client:	PSPC - TRANSPORT CANADA	
outcome CONSULTANTS DILLON CONSULTING	Date: JANUARY 2019	
	FIGURE 1	

TO BE PRINTED IN COLOUR ON 8.5"x11" PAPER ONLY - DO NOT SCALE



Legend

- POOLING WATER
- PROPERTY BOUNDARY
- PARK BOUNDARY
- STREAM/DRAINAGE

- EXTENT OF COMPLETED LANDFILL & CAPPING
- ACCESS ROAD

LONG TERM MONITORING SAMPLES

- LTM-SW4 SURFACE WATER SAMPLE STATION
- LTM-SD4 SEDIMENT SAMPLE STATION

Note: Adapted from Arcadis file:
102153-000_remediation_report_2018-01-04.dwg



Title: LONG TERM MONITORING
SAMPLE LOCATIONS

Project: FORMER IQALUIT METAL DUMP AND
COMMUNITY LANDFILL
SITE REMEDIATION SUMMARY REPORT

Client: PSPC - TRANSPORT CANADA



Date: JANUARY 2019

FIGURE 2



Table 2. Surface Water Sample Lab Results

Maxxam ID	Units	CCME Freshwater ¹	CCME Marine ²	Alberta Tier ³	LTM1	DUP 1	LTM1-SW1-18	LTM2	LTM2	LTM1-SW2-18	LTM3	LTM3	LTM1-SW3-18	LTM4	LTM4	LTM1-SW4-18	LTM5	LTM5	LTM1-SW5-18	LTM6	LTM6	LTM1-SW6-18	LTM1-SW8-18	RPD	LTM7	LTM7	DUP2	LTM1-SW7-18			
Station ID					1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	6		7	7	7	7			
Date					21/Sep/17	21/Sep/17	19/Sep/18	21/Sep/17	3/Oct/17	19/Sep/18	21/Sep/17	3/Oct/17	19/Sep/18	21/Sep/17	3/Oct/17	19/Sep/18	21/Sep/17	3/Oct/17	19/Sep/18	21/Sep/17	3/Oct/17	19/Sep/18	21/Sep/17	3/Oct/17	19/Sep/18	19/Sep/18		21/Sep/17	3/Oct/17	3/Oct/17	19/Sep/18
Source					ARCADIS 2017	ARCADIS 2017	OCI	ARCADIS 2017	ARCADIS 2017	OCI	ARCADIS 2017	ARCADIS 2017	OCI	ARCADIS 2017	ARCADIS 2017	OCI	ARCADIS 2017	ARCADIS 2017	OCI	ARCADIS 2017	ARCADIS 2017	OCI	ARCADIS 2017	ARCADIS 2017	OCI	OCI		ARCADIS 2017	ARCADIS 2017	ARCADIS 2017	OCI
Parameter (ug/L)																															
PHCs, F1 to F4 (Including BTEX)																															
Benzene	ug/L	370	110		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	<0.20	<0.20	<0.20			
Ethylbenzene	ug/L	90	25		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.69	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	<0.20	<0.20	<0.20			
Toluene	ug/L	2	215		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	<0.20	<0.20	<0.20			
o-Xylene	ug/L	-	-		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	<0.20	<0.20	<0.20			
m+p-Xylene	ug/L	-	-		<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	nc	<0.40	<0.40	<0.40	<0.40			
Xylenes (total)	ug/L	-	-		<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	nc	<0.40	<0.40	<0.40	<0.40			
F1 (C6-C10)	ug/L	-	-	2200	<25	<25	<25	<25	<25	<25	<25	56	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	nc	<25	<25	<25	<25			
F1 (C6-C10) minus BTEX	ug/L	-	-		<25	<25	<25	<25	<25	<25	<25	56	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	nc	<25	<25	<25	<25			
F2 (C10-C16)	ug/L	-	-	1100	<100	<100	<100	<100	<100	<100	<100	220	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	nc	<100	<100	<100	<100			
F3 (C16-C34)	ug/L	-	-		<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	nc	<200	<200	<200	<200			
F4 (C34-C50)	ug/L	-	-		<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	nc	<200	<200	<200	<200			
Reached Baseline at C50	-	-	-		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes			
Metals																															
Arsenic	ug/L	5	12.5		<1.0	<1.0	<1.0	<0.10	<0.10	<1.0	<0.50	0.6	<1.0	<0.10	<0.10	<1.0	<0.10	<0.10	<1.0	<0.10	<0.10	<1.0	<1.0	nc	0.15	0.17	0.17	<1.0			
Cadmium	ug/L	0.09	0.12		<0.10	<0.10	<0.10	<0.010	0.111	<0.10	<0.050	0.017	<0.10	0.021	0.04	<0.10	0.035	0.043	0.14	0.025	0.043	0.15	<0.10	nc	<0.010	0.013	0.019	<0.1			
Chromium	ug/L	-	-		<10	<10	<5	<1.0	<1.0	<5	<5.0	<1.0	<5	<1.0	<1.0	<5	<1.0	<1.0	<5	<1.0	<1.0	<5	<5	nc	<1.0	<1.0	<1.0	<5			
Lead	ug/L	See Note 4			<2.0	<2.0	<0.5	0.64	2.31	<0.5	<1.0	12.9	<0.5	<0.20	<0.20	<0.5	0.26	<0.20	1.8	<0.20	<0.20	2.4	1.6	0.40	0.21	0.61	0.62	<0.5			
Nickel	ug/L	See Note 4			<10	<10	<1	<1.0	1.3	<1	<5.0	2.5	<1	<1.0	<1.0	<1	<1.0	<1.0	<1	<1.0	<1.0	<1	<1	nc	<1.0	<1.0	1.3	<1			
Zinc	ug/L	7	-		<50	<50	5.6	<5.0	14.7	<5	68	18.4	<5	<5.0	5.3	<5	5.7	28	16	14.4	9.1	16	13	0.21	40.8	223	254	57			
PCBs and Pesticides																															
Aroclor 1016	ug/L	-	-		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05				<0.05	<0.05	<0.05				
Aroclor 1221	ug/L	-	-		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05				<0.05	<0.05	<0.05				
Aroclor 1232	ug/L	-	-		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05		<0.05	<0.05				<0.05	<0.05	<0.05				
Aroclor 1242	ug/L	-	-		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05	<0.05	<0.05			
Aroclor 1248	ug/L	-	-		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05	<0.05	<0.05			
Aroclor 1254	ug/L	-	-		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05	<0.05	<0.05			
Aroclor 1260	ug/L	-	-		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05	<0.05	<0.05			
Polychlorinated biphenyls	ug/L	*	*		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05	<0.05	<0.05			
Other																															
Total Dissolved Solid (TDS)	mg/L	-	-				1880			1340			4740			395			170			130	65					80			
Low Level Total Suspended Solids (TSS)	mg/L	-	-				7			1			5			1			28			64	25					1			
Hardness (CaCO3)	mg/L	-	-				350			250			840			110			46			44	44					50			
Lead Criteria (Based on Hardness)	ug/L						7			7			7			3.59			1			1	1					1			
Nickel Criteria (Based on Hardness)	ug/L						150			150			150			102.76			25			25	25					25			
Temperature (field, °C)	-	-	-				3.11			1.01			1.48			0.76			1.01			0.92	0.92					1.68			
pH (lab)		6.5-9	7-8.7		7.67	7.63	7.59	7.67	6.64	7.49	7.54	6.79	7.52	7.64	7.43	7.62	7.61	7.41	7.45	7.63	7.37	7.42	7.21	0.03	7.31	7.23	7.22	7.29			
pH (field)							6.14			6.51			6.41			7.52			7.93			7.6	7.6					7.5			
Conductivity	mS/cm						3.13			2.56			8.92			1.27			0.145			0.109	0.109					0.12			

Notes:

¹ Canadian Council of Ministers of the Environment (CCME), Water Quality Guidelines for the Protection of Aquatic Life. Freshwater. (Retrieved January 2019)

² Canadian Council of Ministers of the Environment (CCME), Water Quality Guidelines for the Protection of Aquatic Life. Marine. (Retrieved January 2019)

³ Alberta Government, Alberta Tier 1 Soil and Groundwater Guidelines. Table 2. Updated 2019

⁴ Guideline is hardness dependent

20= Denotes Exceedance of CCME Criteria for lowest value of Marine/Freshwater Guidelines

nc= not calculable

Table 3. Soil Sample Lab Results

Sample ID Station ID Source Sampling Date	UNITS	MDL	SQGPAL (Freshwater)		SQGPAL (Marine)		CCME Soil PL3	CCME Soil CL4	CWS Soil PL5	CWS Soil CL6	LTM-SD1-18 1 OCI	LTM-SD2-18 2 OCI	LTM-SD3-18 3 OCI	LTM-SD4-18 4 OCI	LTM-SD5-18 5 OCI	LTM-SD6-18 6 OCI	LTM-SD8-18 6 OCI	RPD	LTM-SD7-18 7 OCI
			ISQG	PEL	ISQG	PEL					9/19/2018	9/19/2018	9/19/2018	9/19/2018	9/19/2018	9/19/2018	9/19/2018		9/19/2018
Moisutre	%		-	-	-	-	-	-	-	-	19	15	16	21	89	82	84		72
PHCs, F1 to F4 (Including BTEX)																			
Benzene	ug/g	0.005	-	-	-	-	0.03	0.03	-	-	<0.0060	<0.0060	<0.0060	<0.0060	<0.036	<0.018	<0.024		<0.012
Toluene	ug/g	0.02	-	-	-	-	0.082	0.082	-	-	<0.020	<0.020	0.030	<0.020	<0.12	0.10	0.26	0.89	<0.040
Ethylbenzene	ug/g	0.01	-	-	-	-	0.37	0.37	-	-	<0.010	<0.010	<0.010	<0.010	<0.060	<0.030	<0.040		<0.020
o-Xylene	ug/g	0.02	-	-	-	-	-	-	-	-	<0.020	<0.020	<0.020	<0.020	<0.12	<0.060	<0.080		<0.040
p+m-Xylene	ug/g	0.04	-	-	-	-	-	-	-	-	<0.020	<0.020	<0.020	<0.020	<0.12	<0.060	<0.080		<0.040
Total Xylenes	ug/g	0.04	-	-	-	-	11	11	-	-	<0.020	<0.020	<0.020	<0.020	<0.12	<0.060	<0.080		<0.040
F1 (C6-C10)	ug/g	10	-	-	-	-	-	-	210	320	<10	<10	<10	<10	<60	<30	<40		<20
F1 (C6-C10) - BTEX	ug/g	10	-	-	-	-	-	-	-	-	<10	<10	<10	<10	<60	<30	<40		<20
F2 (C10-C16 Hydrocarbons)	ug/g	10	-	-	-	-	-	-	150	260	<10	<10	<10	<10	290	2700	210	1.71	<30
F3 (C16-C34 Hydrocarbons)	ug/g	50	-	-	-	-	-	-	300	1700	<50	<50	<50	<50	1400	1700	1200	0.34	290
F4 (C34-C50 Hydrocarbons)	ug/g	50	-	-	-	-	-	-	2800	3300	<50	<50	<50	<50	<500	540	420	0.25	<150
Metals																			
Arsenic (As)	ug/g	1.0	5.9	17.0	7.2	41.6	-	-	-	-	1.4	1.6	1.2	1.6	1.8	1.8	2.3	0.2	2.7
Cadmium (Cd)	ug/g	0.10	0.6	3.5	0.7	4.2	-	-	-	-	<0.10	0.2	<0.10	0.2	4.9	3.9	9.3	0.8	0.2
Chromium (Cr)	ug/g	1.0	37.3	90	52.3	160	-	-	-	-	28	22	19	17	23	28	35	0.22	43
Cobalt (Co)	ug/g	0.10	-	-	-	-	-	-	-	-	4.4	4.5	5.3	3.6	7.5	7.8	9.5	0.20	10
Lead (Pb)	ug/g	1.0	35.0	91.3	30.2	112	-	-	-	-	3.6	3.6	8.9	6.5	69	100	110	0.10	20
Nickel (Ni)	ug/g	0.50	-	-	-	-	-	-	-	-	7.5	8.2	5.5	5.3	14	12	16	0.29	15
Zinc (Zn)	ug/g	5.0	123	315	124	124	-	-	-	-	40	56	46	52	250	240	440	1	230
PCBs and Pesticides																			
Total PCB	ug/g	0.075	0.0341	0.277	0.0215	0.189	-	-	-	-	<0.010	<0.010	<0.010	<0.010	1.4	3.4	3.8	0.11	0.59
Aroclor 1242	ug/g	0.075	-	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.090	<0.60	<0.050		<0.040
Aroclor 1248	ug/g	0.075	-	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.090	<0.60	<0.050		<0.040
Aroclor 1254	ug/g	0.075	-	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.090	<0.60	<0.050		<0.040
Aroclor 1260	ug/g	0.075	-	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	1.4	3.4	3.8	0.11	0.59

Notes:

¹ CCME, Canadian Sediment Quality Guidelines for the Protection of Aquatic Life, Freshwater, ISQG (Retrieved February 2019)

² CCME, Canadian Sediment Quality Guidelines for the Protection of Aquatic Life, Freshwater, PEL (Retrieved February 2019)

³ CCME, Canadian Soil Quality Guidelines for the Protection of Environmental Health, Residential/Parkland Land-Use, coarse-grained soil (Retrieved February 2019)

⁴ CCME, Canadian Soil Quality Guidelines for the Protection of Environmental Health, Commercial Land-Use, coarse-grained soil (Retrieved February 2019)

⁵ CCME (2008) Canadian-Wide Standards for Petroleum Hydrocarbons in Soil - table 1, Tier 1 levels for PHCs, Residential/Parkland Use in coarse-grained surface soils

⁶ CCME (2008) Canadian-Wide Standards for Petroleum Hydrocarbons in Soil - table 1, Tier 1 levels for PHCs, Commercial Use in coarse-grained surface soils

20 = Denotes exceedance of CCME for both freshwater/marine ISQG (or other criteria)

20 = Denotes exceedance of CCME for freshwater ISQG

20 = Denotes exceedance of CCME for marine ISQG

- = No Guideline

Table 5. Surface Water Sample Field Results

[illegible]

Table 5. Surface Water Sample Field Results

[illegible]