Crown-Indigenous Relations and Northern Affairs Canada
Relations Couronne-Autochtones et Affaires du Nord Canada

WATER LICENCE INSPECTION FORM

☐ Original
☒ Follow-Up Report

Licensee	Licensee Representative
Government of Nunavut	Nathaniel HUTCHINSON
Licence No. / Expiry	**Representative's Title**
1BR-RAN0914	Director, Petroleum Products Division
Land / Other Authorizations	**Land / Other Authorizations**
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Date of Inspection	**Inspector**
July 24th 2020	WRO J. VOISEY

Activities Inspected

☐ Camp ☐ Drilling ☐ Mining ☐ Construction ☒ Reclamation ☐ Fuel Storage

☐ Roads/Hauling ☐ Other: ☐ Other:

SECTION 1 ☒ **Comments (s.1)** ☐ Non-Compliance with Act or Licence (s.__) ☐ Action Required (s.__)

Summary

In 2019 the Government of Nunavut determined that a water licence was no longer required for the current operational activities of the landfarm (facility) located at N62° 49' 48.36", W92° 10' 22.15". The facility's water licence expired November 1st, 2014.

On July 24th, 2020 Crown Indigenous Relations and Northern Affairs Canada's Water Resource Officer (WRO), Jakob VOISEY completed an inspection of this facility, pursuant to section 11 and 12 of the *Nunavut Waters and Nunavut Surface Rights Tribunal* Act. The following report was produced with the findings of this inspection

Observations

1. The facility appears to be to in the same condition as the 2019 inspection (appendix 1).
2. The containment berms show signs of increased slouching and cracking along the inner and outer faces of the berm (photo 1).
3. There are five Quartex bags located outside of the facility filled with unknown materials (photo 2). Signs have been put up at the facility explaining that unauthorized dumping is not permitted (photo 3).
4. In multiple places around the facility the HDPE liner appears to be damaged (photo 4).
5. There is garbage and debris located inside and around the facility (photo 5-10). A hose is also noted by one of the pools of water (photo 11).
6. The water level inside the facility is high. The southern corner of the facility's fencing has fallen down (photo 12) and the berm wall in this corner is a lower elevation. The majority of the water in the facility sits against the southern berm wall.
7. No culverts are noted along the road adjacent to the facility. The facility is surrounded with water and not well drained (photo 13-14).
8. A duplicate sample was collected at approximately N62º 49' 48", W92º10' 22". The following parameters were collected: BTEX, PHC F2-F4, total hydrocarbons, and total metals. The laboratory analysis of these samples indicated no water had been released from the facility at the location where the samples were collected.

Crown-Indigenous Relations and Northern Affairs Canada
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SECTION 2 ☐ Comments (s.__)	☒ **Non-Compliance with Act or Licence (s.2)**	☐ Action Required (s.__)

Non-Compliance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act:*

Concern: Section 12(1)(b): "*No person shall deposit or permit of waste in any other place in Nunavut under conditions in which the waste or any other waste that results from the deposit of that waste may enter waters in Nunavut*."

SECTION 3 ☐ Comments (s.__)	☐ Non-Compliance with Act or Licence, (s.__)	☒ **Action Required (s.3)**

A number of concerns are noted at the facility related to operation and maintenance. The Inspector is concerned with the integrity of the berms, the water surrounding the facility, unauthorized pumping and the Quartex bags located outside the facility's containment. The Government of Nunavut shall submit a plan to the Inspector as to how the facility will be improved by May 28th, 2021. The Government of Nunavut shall contact the Inspector WRO Jakob Voisey, Jakob.voisey@canada.ca by March 31st to discuss the action plan moving forward.

Licensee or Representative	**Inspector's Name**
	J. Voisey
Signature	**Signature**
	Original signed on file
Date	**Date**
	March 15, 2021

Office Use Only: Follow-up report to be issued by Inspector ☒ Yes ☐ No

cc. Manager of Licensing
Manager of Field Operations
Nathaniel Hutchinson, Petroleum Products Division, Government of Nunavut

Attach. Photo Log
Laboratory analysis # L2481846
[2019-KIV02-JV] 1BR-RAN0914 Inspection Report

Crown-Indigenous Relations and Northern Affairs Canada
Relations Couronne-Autochtones et Affaires du Nord Canada

PHOTO LOG			
Date:	**Authorization Number:**	**Camera/Model:**	**Inspector**
July 24th, 2020	1BR-RAN0914	Sony DSC-HX50V Cyber shot	WRO Voisey
Photo No.		**Lat/Long (DD.MM.SS.SS, NAD83)**	
Photo 1		N62° 49' 51.28", W92° 10' 19.70"	

Description:

Cracking and slouching on bank of containment berm.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 2	N62° 49’ 51.01”, W92° 10’ 18.20”

Description

Five Quartex bags filled with material outside the facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 3	N62° 49’ 50.65”, W92° 10’ 18.28”

Description

Signage outside of facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 4	N62° 49’ 51.30”, W92° 10’ 18.86”

Description

HDPE liner appears to be damaged.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 5	N62° 49’ 50.74”, W92° 10’ 21.86”

Description

Water inside facility, also a plastic barrel noted inside.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 6	N62° 49’ 50.51”, W92° 10’ 22.61”

Description

Garbage and debris located inside of facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 7	N62° 49’ 50.42”, W92° 10’ 22.97”

Description

Plastic barrel located inside of facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 8	N62° 49’ 50.29”, W92° 10’ 24.15”

Description

Garbage and debris located inside of facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 9	N62° 49’ 48.43”, W92° 10’ 20.65”

Description

Quartex bag located outside of facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 10	N62° 49’ 48.66”, W92° 10’ 19.52”

Description

Water inside facility, garbage/debris located inside facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 11	N62° 49’ 48.71”, W92° 10’ 19.24”

Description

Water hose and garbage/debris located inside facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 12	N62° 49’ 48.30”, W92° 10’ 23.37”

Description

Broken fencing.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 13	N62° 49’ 51.59”, W92° 10’ 17.98”

Description

Water surrounding facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 14	N62° 49’ 48.36”, W92° 10’ 22.15”

Description

Broken fencing and water surrounding facility.

Crown-Indigenous Relations and Northern Affairs Canada
ATTN: JAKOB VOISEY
BOX 2200

IOALUIT NU X0A 0H0

Date Received: 30-JUL-20
Report Date: 10-AUG-20 11:09 (MT)
Version: FINAL

Client Phone: 867-645-7240

Certificate of Analysis

Lab Work Order #: L2481846

Project P.O. #: NOT SUBMITTED
Job Reference: IBR-RAN
C of C Numbers:
Legal Site Desc:

Hua Wo
Chemistry Laboratory Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2481846-1 IBR-RAN N62-49'-48" W92-10'-22"							
Sampled By: CLIENT on 29-JUL-20 @ 13:40							
Matrix: FRESH WATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		01-AUG-20	R5174047
Toluene	<0.0010		0.0010	mg/L		01-AUG-20	R5174047
Ethyl benzene	<0.00050		0.00050	mg/L		01-AUG-20	R5174047
o-Xylene	<0.00050		0.00050	mg/L		01-AUG-20	R5174047
m+p-Xylenes	<0.00040		0.00040	mg/L		01-AUG-20	R5174047
F1 (C6-C10)	<0.10		0.10	mg/L		01-AUG-20	R5174047
Surrogate: 4-Bromofluorobenzene (SS)	95.1		70-130	%		01-AUG-20	R5174047
CCME PHC F2-F4 in Water							
F2 (C10-C16)	<0.10		0.10	mg/L	06-AUG-20	06-AUG-20	R5176059
F3 (C16-C34)	<0.25		0.25	mg/L	06-AUG-20	06-AUG-20	R5176059
F4 (C34-C50)	<0.25		0.25	mg/L	06-AUG-20	06-AUG-20	R5176059
Surrogate: 2-Bromobenzotrifluoride	111.9		60-140	%	06-AUG-20	06-AUG-20	R5176059
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		10-AUG-20	
F2-Naphth	<0.10		0.10	mg/L		10-AUG-20	
F3-PAH	<0.25		0.25	mg/L		10-AUG-20	
Total Hydrocarbons (C6-C50)	<0.38		0.38	mg/L		10-AUG-20	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.00064		0.00064	mg/L		04-AUG-20	
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.0058		0.0030	mg/L	06-AUG-20	06-AUG-20	R5176143
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Arsenic (As)-Total	0.00204		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Barium (Ba)-Total	0.0635		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	06-AUG-20	06-AUG-20	R5176143
Boron (B)-Total	0.032		0.010	mg/L	06-AUG-20	06-AUG-20	R5176143
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	06-AUG-20	06-AUG-20	R5176143
Calcium (Ca)-Total	52.7		0.050	mg/L	06-AUG-20	06-AUG-20	R5176143
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	06-AUG-20	06-AUG-20	R5176143
Chromium (Cr)-Total	0.00014		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Cobalt (Co)-Total	0.00026		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Copper (Cu)-Total	0.00182		0.00050	mg/L	06-AUG-20	06-AUG-20	R5176143
Iron (Fe)-Total	0.301		0.010	mg/L	06-AUG-20	06-AUG-20	R5176143
Lead (Pb)-Total	<0.000050		0.000050	mg/L	06-AUG-20	06-AUG-20	R5176143
Lithium (Li)-Total	0.0020		0.0010	mg/L	06-AUG-20	06-AUG-20	R5176143
Magnesium (Mg)-Total	9.56		0.0050	mg/L	06-AUG-20	06-AUG-20	R5176143
Manganese (Mn)-Total	0.0744		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Molybdenum (Mo)-Total	0.000228		0.000050	mg/L	06-AUG-20	06-AUG-20	R5176143
Nickel (Ni)-Total	0.00245		0.00050	mg/L	06-AUG-20	06-AUG-20	R5176143
Potassium (K)-Total	7.70		0.050	mg/L	06-AUG-20	06-AUG-20	R5176143
Phosphorus (P)-Total	<0.030		0.030	mg/L	06-AUG-20	06-AUG-20	R5176143
Rubidium (Rb)-Total	0.00368		0.00020	mg/L	06-AUG-20	06-AUG-20	R5176143
Selenium (Se)-Total	0.000152		0.000050	mg/L	06-AUG-20	06-AUG-20	R5176143
Silicon (Si)-Total	0.23		0.10	mg/L	06-AUG-20	06-AUG-20	R5176143
Silver (Ag)-Total	<0.000010		0.000010	mg/L	06-AUG-20	06-AUG-20	R5176143
Sodium (Na)-Total	33.9		0.050	mg/L	06-AUG-20	06-AUG-20	R5176143
Strontium (Sr)-Total	0.202		0.00020	mg/L	06-AUG-20	06-AUG-20	R5176143
Sulfur (S)-Total	6.94		0.50	mg/L	06-AUG-20	06-AUG-20	R5176143
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	06-AUG-20	06-AUG-20	R5176143

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2481846-1 IBR-RAN N62-49'-48" W92-10'-22"							
Sampled By: CLIENT on 29-JUL-20 @ 13:40							
Matrix: FRESH WATER							
Total Metals in Water by CRC ICPMS							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	06-AUG-20	06-AUG-20	R5176143
Thorium (Th)-Total	<0.00010		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Tin (Sn)-Total	<0.00010		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	06-AUG-20	06-AUG-20	R5176143
Tungsten (W)-Total	<0.00010		0.00010	mg/L	06-AUG-20	06-AUG-20	R5176143
Uranium (U)-Total	0.000443		0.000010	mg/L	06-AUG-20	06-AUG-20	R5176143
Vanadium (V)-Total	<0.00050		0.00050	mg/L	06-AUG-20	06-AUG-20	R5176143
Zinc (Zn)-Total	0.0129		0.0030	mg/L	06-AUG-20	06-AUG-20	R5176143
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	06-AUG-20	06-AUG-20	R5176143
CCME PAHs in mg/L							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
Acenaphthene	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
Acenaphthylene	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
Anthracene	<0.000010		0.000010	mg/L	05-AUG-20	10-AUG-20	R5177267
Acridine	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
Benzo(a)anthracene	<0.000010		0.000010	mg/L	05-AUG-20	10-AUG-20	R5177267
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	05-AUG-20	10-AUG-20	R5177267
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	05-AUG-20	10-AUG-20	R5177267
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	05-AUG-20	10-AUG-20	R5177267
Chrysene	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	05-AUG-20	10-AUG-20	R5177267
Fluoranthene	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
Fluorene	<0.000020		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	05-AUG-20	10-AUG-20	R5177267
Naphthalene	<0.000050		0.000050	mg/L	05-AUG-20	10-AUG-20	R5177267
Phenanthrene	<0.000050		0.000050	mg/L	05-AUG-20	10-AUG-20	R5177267
Pyrene	<0.000010		0.000010	mg/L	05-AUG-20	10-AUG-20	R5177267
Quinoline	0.000026		0.000020	mg/L	05-AUG-20	10-AUG-20	R5177267
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	05-AUG-20	10-AUG-20	R5177267
Surrogate: d8-Naphthalene	94.3		50-150	%	05-AUG-20	10-AUG-20	R5177267
Surrogate: d10-Phenanthrene	95.7		50-150	%	05-AUG-20	10-AUG-20	R5177267
Surrogate: d12-Chrysene	86.9		50-150	%	05-AUG-20	10-AUG-20	R5177267
Surrogate: d10-Acenaphthene	98.0		50-150	%	05-AUG-20	10-AUG-20	R5177267
Surrogate: d9-Acridine (SS)	86.4		50-150	%	05-AUG-20	10-AUG-20	R5177267

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Water	BTX plus F1 by GCMS	EPA 8260C / EPA 5021A

The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transfered into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

F1-F4-CALC-WP	Water	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-F4-FID-WP	Water	CCME PHC F2-F4 in Water	EPA 3511

Petroleum hydrocarbons in water are determined by liquid-liquid micro-scale solvent extraction using a reciprocal shaker extraction apparatus prior to capillary column gas chromatography with flame ionization detection (GC-FID) analysis.

MET-T-CCMS-WP	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod.)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

PAH-CCME-PPM-WT	Water	CCME PAHs in mg/L	EPA 3511/8270D (mod)

PAHs are extracted from water using a hexane micro-extraction technique, with analysis by GC/MS. Because the two isomers cannot be readily separated chromatographically, benzo(j)fluoranthene is reported as part of the benzo(b)fluoranthene parameter.

XYLENES-SUM-CALC-WP	Water	Sum of Xylene Isomer Concentrations	CALCULATED RESULT

Total xylenes represents the sum of o-xylene and m&p-xylene.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2481846 Report Date: 10-AUG-20

Client: Crown-Indigenous Relations and Northern Affairs Canada
BOX 2200
IQALUIT NU X0A 0H0

Contact: JAKOB VOISEY

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Water**							
Batch R5174047								
WG3374586-2 LCS								
Benzene			99.0		%		70-130	31-JUL-20
Toluene			102.3		%		70-130	31-JUL-20
Ethyl benzene			103.9		%		70-130	31-JUL-20
o-Xylene			106.6		%		70-130	31-JUL-20
m+p-Xylenes			102.7		%		70-130	31-JUL-20
WG3374586-3 LCS								
F1 (C6-C10)			87.3		%		70-130	31-JUL-20
WG3374586-1 MB								
Benzene			<0.00050		mg/L		0.0005	31-JUL-20
Toluene			<0.0010		mg/L		0.001	31-JUL-20
Ethyl benzene			<0.00050		mg/L		0.0005	31-JUL-20
o-Xylene			<0.00050		mg/L		0.0005	31-JUL-20
m+p-Xylenes			<0.00040		mg/L		0.0004	31-JUL-20
F1 (C6-C10)			<0.10		mg/L		0.1	31-JUL-20
Surrogate: 4-Bromofluorobenzene (SS)			96.0		%		70-130	31-JUL-20
F2-F4-FID-WP	**Water**							
Batch R5176059								
WG3377805-2 LCS								
F2 (C10-C16)			98.0		%		70-130	06-AUG-20
F3 (C16-C34)			97.8		%		70-130	06-AUG-20
F4 (C34-C50)			103.0		%		70-130	06-AUG-20
WG3377805-1 MB								
F2 (C10-C16)			<0.10		mg/L		0.1	06-AUG-20
F3 (C16-C34)			<0.25		mg/L		0.25	06-AUG-20
F4 (C34-C50)			<0.25		mg/L		0.25	06-AUG-20
Surrogate: 2-Bromobenzotrifluoride			96.4		%		60-140	06-AUG-20
MET-T-CCMS-WP	**Water**							
Batch R5176143								
WG3377020-4 DUP		**L2481846-1**						
Aluminum (Al)-Total		0.0058	0.0056		mg/L	4.0	20	06-AUG-20
Antimony (Sb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	06-AUG-20
Arsenic (As)-Total		0.00204	0.00208		mg/L	1.9	20	06-AUG-20
Barium (Ba)-Total		0.0635	0.0634		mg/L	0.2	20	06-AUG-20
Beryllium (Be)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	06-AUG-20
Bismuth (Bi)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	06-AUG-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WP	**Water**							
Batch R5176143								
WG3377020-4 DUP		**L2481846-1**						
Boron (B)-Total		0.032	0.033		mg/L	1.8	20	06-AUG-20
Cadmium (Cd)-Total		<0.0000050	<0.000005(	RPD-NA	mg/L	N/A	20	06-AUG-20
Calcium (Ca)-Total		52.7	52.8		mg/L	0.2	20	06-AUG-20
Cesium (Cs)-Total		<0.000010	0.000010	RPD-NA	mg/L	N/A	20	06-AUG-20
Chromium (Cr)-Total		0.00014	0.00015		mg/L	5.1	20	06-AUG-20
Cobalt (Co)-Total		0.00026	0.00026		mg/L	1.3	20	06-AUG-20
Copper (Cu)-Total		0.00182	0.00182		mg/L	0.2	20	06-AUG-20
Iron (Fe)-Total		0.301	0.299		mg/L	0.5	20	06-AUG-20
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	06-AUG-20
Lithium (Li)-Total		0.0020	0.0020		mg/L	1.8	20	06-AUG-20
Magnesium (Mg)-Total		9.56	9.49		mg/L	0.7	20	06-AUG-20
Manganese (Mn)-Total		0.0744	0.0749		mg/L	0.5	20	06-AUG-20
Molybdenum (Mo)-Total		0.000228	0.000243		mg/L	6.2	20	06-AUG-20
Nickel (Ni)-Total		0.00245	0.00237		mg/L	3.5	20	06-AUG-20
Potassium (K)-Total		7.70	7.64		mg/L	0.8	20	06-AUG-20
Phosphorus (P)-Total		<0.030	<0.030	RPD-NA	mg/L	N/A	20	06-AUG-20
Rubidium (Rb)-Total		0.00368	0.00351		mg/L	4.6	20	06-AUG-20
Selenium (Se)-Total		0.000152	0.000141		mg/L	7.7	20	06-AUG-20
Silicon (Si)-Total		0.23	0.23		mg/L	1.5	20	06-AUG-20
Silver (Ag)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	06-AUG-20
Sodium (Na)-Total		33.9	33.7		mg/L	0.6	20	06-AUG-20
Strontium (Sr)-Total		0.202	0.204		mg/L	1.2	20	06-AUG-20
Sulfur (S)-Total		6.94	7.01		mg/L	1.1	20	06-AUG-20
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	06-AUG-20
Thallium (Tl)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	06-AUG-20
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	06-AUG-20
Tin (Sn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	06-AUG-20
Titanium (Ti)-Total		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	06-AUG-20
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	06-AUG-20
Uranium (U)-Total		0.000443	0.000453		mg/L	2.2	20	06-AUG-20
Vanadium (V)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	06-AUG-20
Zinc (Zn)-Total		0.0129	0.0122		mg/L	5.5	20	06-AUG-20
Zirconium (Zr)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	06-AUG-20
WG3377020-2 LCS								

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WP	**Water**							
Batch R5176143								
WG3377020-2 LCS								
Aluminum (Al)-Total			101.0		%		80-120	06-AUG-20
Antimony (Sb)-Total			100.4		%		80-120	06-AUG-20
Arsenic (As)-Total			100.3		%		80-120	06-AUG-20
Barium (Ba)-Total			100.1		%		80-120	06-AUG-20
Beryllium (Be)-Total			101.6		%		80-120	06-AUG-20
Bismuth (Bi)-Total			97.5		%		80-120	06-AUG-20
Boron (B)-Total			98.4		%		80-120	06-AUG-20
Cadmium (Cd)-Total			99.9		%		80-120	06-AUG-20
Calcium (Ca)-Total			99.3		%		80-120	06-AUG-20
Cesium (Cs)-Total			98.6		%		80-120	06-AUG-20
Chromium (Cr)-Total			102.2		%		80-120	06-AUG-20
Cobalt (Co)-Total			98.6		%		80-120	06-AUG-20
Copper (Cu)-Total			102.2		%		80-120	06-AUG-20
Iron (Fe)-Total			96.7		%		80-120	06-AUG-20
Lead (Pb)-Total			98.7		%		80-120	06-AUG-20
Lithium (Li)-Total			100.6		%		80-120	06-AUG-20
Magnesium (Mg)-Total			107.1		%		80-120	06-AUG-20
Manganese (Mn)-Total			102.0		%		80-120	06-AUG-20
Molybdenum (Mo)-Total			99.8		%		80-120	06-AUG-20
Nickel (Ni)-Total			100.0		%		80-120	06-AUG-20
Potassium (K)-Total			105.0		%		80-120	06-AUG-20
Phosphorus (P)-Total			104.6		%		80-120	06-AUG-20
Rubidium (Rb)-Total			100.9		%		80-120	06-AUG-20
Selenium (Se)-Total			99.3		%		80-120	06-AUG-20
Silicon (Si)-Total			101.6		%		80-120	06-AUG-20
Silver (Ag)-Total			98.8		%		80-120	06-AUG-20
Sodium (Na)-Total			101.6		%		80-120	06-AUG-20
Strontium (Sr)-Total			102.7		%		80-120	06-AUG-20
Sulfur (S)-Total			93.7		%		80-120	06-AUG-20
Tellurium (Te)-Total			97.3		%		80-120	06-AUG-20
Thallium (Tl)-Total			98.9		%		80-120	06-AUG-20
Thorium (Th)-Total			96.8		%		80-120	06-AUG-20
Tin (Sn)-Total			98.4		%		80-120	06-AUG-20
Titanium (Ti)-Total			98.3		%		80-120	06-AUG-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WP	**Water**							
Batch R5176143								
WG3377020-2 LCS								
Tungsten (W)-Total			97.6		%		80-120	06-AUG-20
Uranium (U)-Total			97.4		%		80-120	06-AUG-20
Vanadium (V)-Total			101.5		%		80-120	06-AUG-20
Zinc (Zn)-Total			101.5		%		80-120	06-AUG-20
Zirconium (Zr)-Total			93.3		%		80-120	06-AUG-20
WG3377020-1 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	06-AUG-20
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Arsenic (As)-Total			0.00016	B	mg/L		0.0001	06-AUG-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	06-AUG-20
Boron (B)-Total			<0.010		mg/L		0.01	06-AUG-20
Cadmium (Cd)-Total			<0.000005(		mg/L		0.000005	06-AUG-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	06-AUG-20
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	06-AUG-20
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	06-AUG-20
Iron (Fe)-Total			<0.010		mg/L		0.01	06-AUG-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	06-AUG-20
Lithium (Li)-Total			<0.0010		mg/L		0.001	06-AUG-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	06-AUG-20
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	06-AUG-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	06-AUG-20
Potassium (K)-Total			<0.050		mg/L		0.05	06-AUG-20
Phosphorus (P)-Total			<0.030		mg/L		0.03	06-AUG-20
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	06-AUG-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	06-AUG-20
Silicon (Si)-Total			<0.10		mg/L		0.1	06-AUG-20
Silver (Ag)-Total			<0.000010		mg/L		0.00001	06-AUG-20
Sodium (Na)-Total			<0.050		mg/L		0.05	06-AUG-20
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	06-AUG-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WP	**Water**							
Batch R5176143								
WG3377020-1 MB								
Sulfur (S)-Total			<0.50		mg/L		0.5	06-AUG-20
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	06-AUG-20
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	06-AUG-20
Thorium (Th)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Tin (Sn)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	06-AUG-20
Tungsten (W)-Total			<0.00010		mg/L		0.0001	06-AUG-20
Uranium (U)-Total			<0.000010		mg/L		0.00001	06-AUG-20
Vanadium (V)-Total			<0.00050		mg/L		0.0005	06-AUG-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	06-AUG-20
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	06-AUG-20
WG3377020-5 MS		**L2481846-1**						
Aluminum (Al)-Total			97.9		%		70-130	06-AUG-20
Antimony (Sb)-Total			99.7		%		70-130	06-AUG-20
Arsenic (As)-Total			99.99		%		70-130	06-AUG-20
Barium (Ba)-Total			N/A	MS-B	%		-	06-AUG-20
Beryllium (Be)-Total			104.3		%		70-130	06-AUG-20
Bismuth (Bi)-Total			95.4		%		70-130	06-AUG-20
Boron (B)-Total			107.5		%		70-130	06-AUG-20
Cadmium (Cd)-Total			100.4		%		70-130	06-AUG-20
Calcium (Ca)-Total			N/A	MS-B	%		-	06-AUG-20
Cesium (Cs)-Total			101.0		%		70-130	06-AUG-20
Chromium (Cr)-Total			100.4		%		70-130	06-AUG-20
Cobalt (Co)-Total			97.0		%		70-130	06-AUG-20
Copper (Cu)-Total			95.7		%		70-130	06-AUG-20
Iron (Fe)-Total			98.4		%		70-130	06-AUG-20
Lead (Pb)-Total			97.2		%		70-130	06-AUG-20
Lithium (Li)-Total			104.0		%		70-130	06-AUG-20
Magnesium (Mg)-Total			N/A	MS-B	%		-	06-AUG-20
Manganese (Mn)-Total			N/A	MS-B	%		-	06-AUG-20
Molybdenum (Mo)-Total			102.0		%		70-130	06-AUG-20
Nickel (Ni)-Total			96.4		%		70-130	06-AUG-20
Potassium (K)-Total			N/A	MS-B	%		-	06-AUG-20
Phosphorus (P)-Total			104.3		%		70-130	06-AUG-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WP	**Water**							
Batch R5176143								
WG3377020-5 MS		**L2481846-1**						
Rubidium (Rb)-Total			98.9		%		70-130	06-AUG-20
Selenium (Se)-Total			103.0		%		70-130	06-AUG-20
Silicon (Si)-Total			98.5		%		70-130	06-AUG-20
Silver (Ag)-Total			98.7		%		70-130	06-AUG-20
Sodium (Na)-Total			N/A	MS-B	%		-	06-AUG-20
Strontium (Sr)-Total			N/A	MS-B	%		-	06-AUG-20
Sulfur (S)-Total			103.1		%		70-130	06-AUG-20
Tellurium (Te)-Total			95.7		%		70-130	06-AUG-20
Thallium (Tl)-Total			96.2		%		70-130	06-AUG-20
Thorium (Th)-Total			103.9		%		70-130	06-AUG-20
Tin (Sn)-Total			99.98		%		70-130	06-AUG-20
Titanium (Ti)-Total			99.1		%		70-130	06-AUG-20
Tungsten (W)-Total			99.8		%		70-130	06-AUG-20
Uranium (U)-Total			99.3		%		70-130	06-AUG-20
Vanadium (V)-Total			101.4		%		70-130	06-AUG-20
Zinc (Zn)-Total			95.9		%		70-130	06-AUG-20
Zirconium (Zr)-Total			99.8		%		70-130	06-AUG-20
PAH-CCME-PPM-WT	**Water**							
Batch R5177267								
WG3376478-2 LCS								
1-Methyl Naphthalene			109.1		%		50-150	06-AUG-20
2-Methyl Naphthalene			108.4		%		50-150	06-AUG-20
Acenaphthene			127.4		%		50-150	06-AUG-20
Acenaphthylene			119.3		%		50-150	06-AUG-20
Anthracene			126.2		%		50-150	06-AUG-20
Acridine			111.3		%		50-150	06-AUG-20
Benzo(a)anthracene			136.2		%		50-150	06-AUG-20
Benzo(a)pyrene			123.8		%		50-150	06-AUG-20
Benzo(b&j)fluoranthene			139.1		%		50-150	06-AUG-20
Benzo(g,h,i)perylene			139.8		%		50-150	06-AUG-20
Benzo(k)fluoranthene			130.7		%		50-150	06-AUG-20
Chrysene			139.8		%		50-150	06-AUG-20
Dibenzo(a,h)anthracene			116.2		%		50-150	06-AUG-20
Fluoranthene			131.8		%		50-150	06-AUG-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-CCME-PPM-WT	**Water**							
Batch R5177267								
WG3376478-2 LCS								
Fluorene			124.8		%		50-150	06-AUG-20
Indeno(1,2,3-cd)pyrene			139.8		%		50-150	06-AUG-20
Naphthalene			113.4		%		50-150	06-AUG-20
Phenanthrene			130.3		%		50-150	06-AUG-20
Pyrene			134.1		%		50-150	06-AUG-20
Quinoline			119.4		%		50-150	06-AUG-20
WG3376478-1 MB								
1-Methyl Naphthalene			<0.000020		mg/L		0.00002	06-AUG-20
2-Methyl Naphthalene			<0.000020		mg/L		0.00002	06-AUG-20
Acenaphthene			<0.000020		mg/L		0.00002	06-AUG-20
Acenaphthylene			<0.000020		mg/L		0.00002	06-AUG-20
Anthracene			<0.000010		mg/L		0.00001	06-AUG-20
Acridine			<0.000020		mg/L		0.00002	06-AUG-20
Benzo(a)anthracene			<0.000010		mg/L		0.00001	06-AUG-20
Benzo(a)pyrene			<0.000005		mg/L		0.000005	06-AUG-20
Benzo(b&j)fluoranthene			<0.000010		mg/L		0.00001	06-AUG-20
Benzo(g,h,i)perylene			<0.000020		mg/L		0.00002	06-AUG-20
Benzo(k)fluoranthene			<0.000010		mg/L		0.00001	06-AUG-20
Chrysene			<0.000020		mg/L		0.00002	06-AUG-20
Dibenzo(a,h)anthracene			<0.000005		mg/L		0.000005	06-AUG-20
Fluoranthene			<0.000020		mg/L		0.00002	06-AUG-20
Fluorene			<0.000020		mg/L		0.00002	06-AUG-20
Indeno(1,2,3-cd)pyrene			<0.000010		mg/L		0.00001	06-AUG-20
Naphthalene			<0.000050		mg/L		0.00005	06-AUG-20
Phenanthrene			<0.000050		mg/L		0.00005	06-AUG-20
Pyrene			<0.000010		mg/L		0.00001	06-AUG-20
Quinoline			<0.000020		mg/L		0.00002	06-AUG-20
Surrogate: d8-Naphthalene			97.5		%		50-150	06-AUG-20
Surrogate: d10-Phenanthrene			96.4		%		50-150	06-AUG-20
Surrogate: d12-Chrysene			91.7		%		50-150	06-AUG-20
Surrogate: d10-Acenaphthene			98.2		%		50-150	06-AUG-20
Surrogate: d9-Acridine (SS)			76.6		%		50-150	06-AUG-20

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

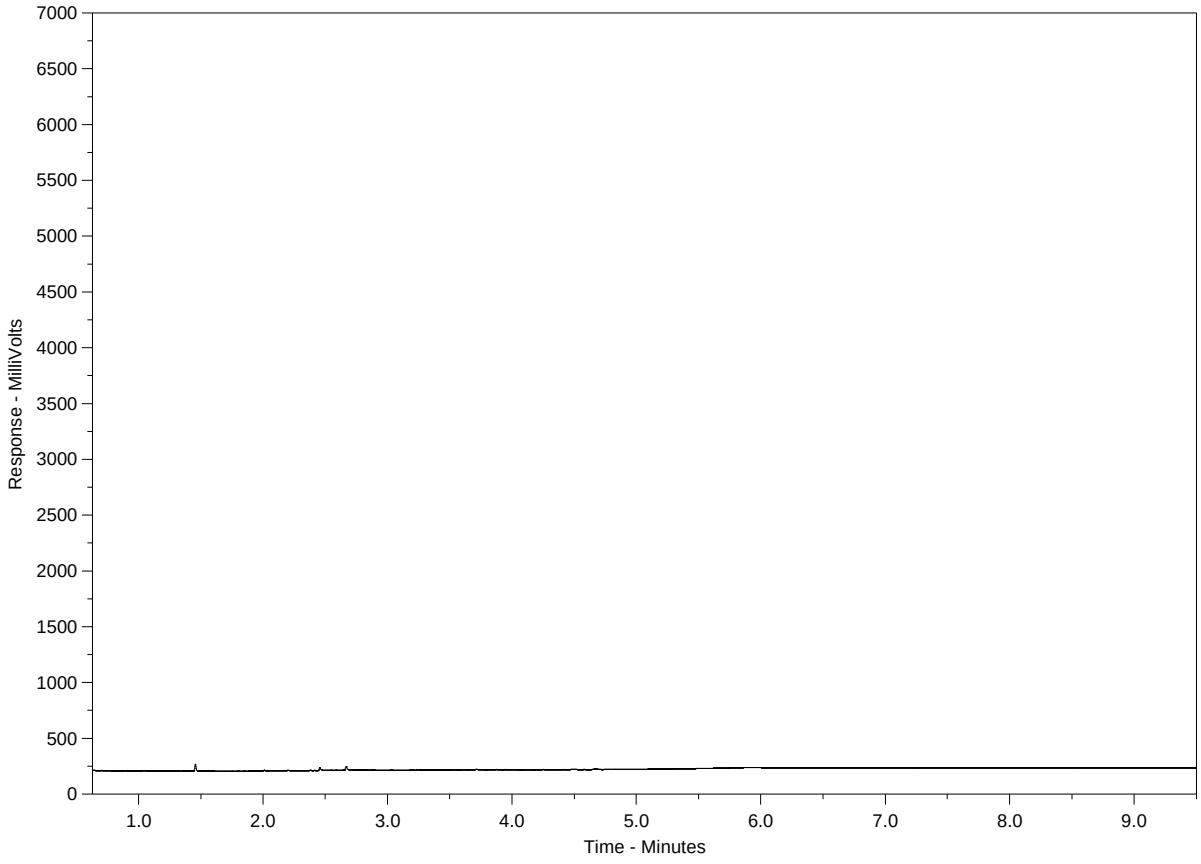
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

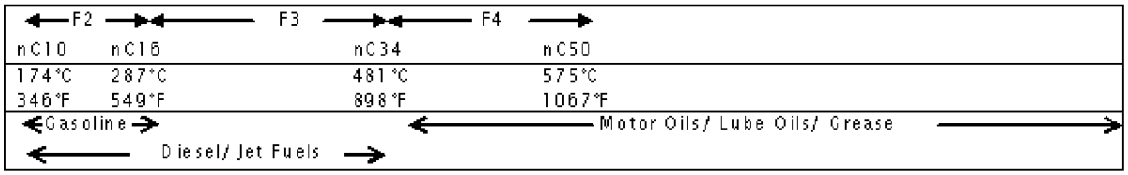
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2481846-1
Client Sample ID: IBR-RAN N62-49'-48" W92-10'-22"





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

10-224654

ALS Environmental

L2481846-COFC

Page 1 of 1

Report To		Service Request: (Rush subject to availability - Contact ALS to confirm TAT)
Company: CIRNAC	Standard: Other (specify):	✓ Regular (Standard Turnaround Times - Business Days)
Contact: Jakob Voisey	Select: (PDF) Excel Digital Fax	Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Address: P.O. Box 2200 Iqaluit NU X0A 0H0	Email 1: Jakob.Voisey@Canada.ca	Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
	Email 2:	Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone: 1867 645 7240 Fax:		**Analysis Request**
Invoice To Same as Report ? (circle) Yes or (No) (if No, provide details)	**Client / Project Information**	(Indicate Filtered or Preserved, F/P)
Copy of Invoice with Report? (circle) Yes or (No)	Job #:	
Company: CIRNAC Account # W10787	PO / AFE:	
Contact: Layli Noble	LSD:	
Address: P.O. Box 2200 Iqaluit NU X0A 0H0		
Phone: 1867 975 4540 Fax:	Quote #:	
Lab Work Order # (lab use only)	ALS Contact: Craig Riddell	Sampler: Jakob Voisey

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	BTEX (P)	F1-F4 (P)	PAHs (P)									Number of Containers
	IBR-RAN N62°49'48" W92°10'22"	29/07/20	13:40	Fresh water												

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
			[illegible]	July 30	11:20AM	14.1 °C				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY GENF 18.01 Front

Crown-Indigenous Relations and Northern Affairs Canada | Relations Couronne-Autochtones et Affaires du Nord Canada

WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative
Government of Nunavut	Nathaniel HUTCHINSON
Licence No. / Expiry	**Representative's Title**
1BR-RAN0914	Director, Petroleum Products Division
Land / Other Authorizations	**Land / Other Authorizations**
--	--
Date of Inspection	**Inspector**
July 4th 2019	WRO J. VOISEY

Activities Inspected

☐ Camp ☐ Drilling ☐ Mining ☐ Construction ☒ Reclamation ☒ Fuel Storage

☐ Roads/Hauling ☐ Other: ☐ Other:

SECTION 1 ☒ **Comments (s.1)** ☐ Non-Compliance with Act or Licence (s.__) ☐ Action Required (s.__)

Summary

On July 4th, 2019 Crown Indigenous Relations and Northern Affairs Canada's Water Resource Officer, Jakob VOISEY completed a compliance inspection of the Government of Nunavut's Land farm (photo 1) - Water Licence No. 1BR-RAN0914. The following report was produced with the findings of that inspection.

Observations

1. The facility's water licence is currently expired as of November 1, 2014.
2. The facility appears to require maintenance. The southern corner of the land farms fencing has fallen down, and also the containment berms are slouching and cracked along the inner and outer faces of the berm (Photo 1).
3. Water surrounds the facility on the northwest and south sides (Photo 2).
4. The containment area is filled with deep pools of water. A hose is noted in the water (Photo 3).
5. The HDPE liner appears to be damaged/ripped (Photos 4-6).
6. Erosion on the banks of the containment berms (Photo 7).

SECTION 2 ☐ Comments (s.__) ☒ **Non-Compliance with Act or Licence (s.2)** ☐ Action Required (s.__)

Non-Compliance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act:*

— No concerns at this time.

SECTION 3 ☐ Comments (s.__) ☐ Non-Compliance with Act or Licence, (s.__) ☒ **Action Required (s.3)**

The Government of Nunavut requested a final inspection of 1BR-RAN0914 as they determined that a water licence was no longer required for the current operational activities. The inspector confirms that at the time of the inspection, the facility was respecting both sections 11 and 12 of the Act. The Government of Nunavut is encouraged to maintain this facility as any releases to the environment may be considered a failure under section 12 of the Act.

Please be in contact with your new inspector Jakob Voisey at 1-867-645-2089 or jakob.voisey@canada.ca as plans for the project change.

Licensee or Representative	Inspector's Name
	J. Voisey
Signature	**Signature**
	Original signed on file
Date	**Date**

	July 8th, 2019
Office Use Only: Follow-up report to be issued by Inspector	☐ Yes ☒ No

PHOTO LOG

Date:	Authorization Number:	Camera/Model:	Inspector
July 4th, 2019	1BR-RAN0914	Sony DSC-HX50V Cyber shot	WRO Voisey

Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 1	N62° 49' 48.46", W92° 10' 22.53"

Description:
Broken fencing on South side of Rankin Inlet landfarm.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 2	N62° 49’ 50.19”, W92° 10’ 23.88”

Description

Water ponded around facility.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 3	N62° 49’ 48.70”, W92° 10’ 18.98”

Description

Containment area filled with water.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 4	N62° 49’ 51.34”, W92° 10’ 19.28”

Description

HDPE liner appears to be damaged.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 5	N62° 49’ 51.25”, W92° 10’ 19.44”

Description

HDPE liner appears to be damaged.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 6	N62° 49’ 49.55”, W92° 10’ 24.67”

Description

HDPE liner appears to be damaged.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 7	N62° 49’ 50.33”, W92° 10’ 24.17”

Description

Erosion on bank of containment berm.