YEAR BEING REPORTED: 2017

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence No. **3BM-REP1520** issued to the **Hamlet of Repulse Bay**.

 i)- iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are results for Monitoring station REP-1 (water supply volume) and REP-3 (sewage discharge volume), as well as detailed chemical, physical and biological analysis required at REP-2, REP-4, REP-6 and REP-7.

Month Reported	Quantity of Water Obtained from all Sources (m³)	Quantity of Sewage Waste Discharged (m³)
January	3,022,249.20	Same
February	3,193,618.50	Same
March	3,264,986.50	Same
April	3,212,582.90	Same
Мау	3,388,821.30	Same
June	3,086,940.00	Same
July	3,141,256.10	Same
August	3,446,735.60	Same
September	3,475,512.20	Same
October	3,376,843.20	Same
November	3,308,251.90	Same
December	3,542,577.80	Same
ANNUAL TOTAL	39,460,375.20	

Note: No meter exists to measure the sewage discharge volume, therefore water consumption volume is considered as equal volume to the Sewage discharge volume.

- iv. a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;
 - The new Water Treatment Plant was substantially completed December 2016 and warranty work is still being completed (Regional CGS Project Management Office).
 - Improved segregation at the Solid Waste Site is taking place. Batteries have been collected and are being stored in battery boxes located in a seacan.







- v. a list of unauthorized discharges and summary of follow-up action taken;
 - Spills:

Spill No.	Date	Site Description	Commodity	Quantity
2017154	2017-05-16	Housing Unit 95	Heating Fuel P-50	38 L
2017155	2017-05-11	Housing Unit 99	Heating Fuel P-50	90 L

- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
 - none
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
 - none
- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
 - none
- ix. updates or revisions to the approved Operation and Maintenance Plans.
 - The updated O&M Manual for the new Water Treatment Plant will be submitted following project completion.

ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

• The Hamlet is working with the Water Compliance Working Group to implement the Solid Waste Workplan goals.

FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

• The INAC Inspection took place on July 18, 2017. A copy of the inspection report can be found in Appendix F.

List of Appendixes:

Appendix A: REP-6 Effluent Quality Limits – 1 page

Appendix B: Certificate of Analysis June 29, 2017 – 13 pages Appendix C: Certificate of Analysis July 19, 2017 – 13 pages

Appendix D: Hazardous Materials Spill Database, Repulse Bay 2017 – 1 page

Appendix E: Naujaat Sampling Results Summary – 4 pages

Appendix F: 2017 INAC Inspection Report – 1 page

2017 Naujaat Monitoring Stations and Sampling Parameters Summary for Water License No. 3BM-REP1520 Part D, Item 2; REP-6 Effluent Quality Limits

Parameter	Maximum Concentration of any Grab	REP-6		
Parameter	sample	29-Jun-17	19-Jul-17	
BOD ₅	80 mg/L	17.3	44	
Total Suspended Solids	70 mg/L	16.0	280.0	
Fecal Coliforms	1×10^6 CFU/100 mL (1 x 10^6 CFU/dl)	411	10	
Oil & Grease	No visible sheen	5	11.2	
рН	between 6 and 9	7.75	10.12	

exceeds effluent quality limits



Hamlet of Naujaat (Repulse Bay)

ATTN: ROB HEDLEY

PO Box 10

Repulse Bay / Naujaat NU XOC OHO

Date Received: 01-JUL-17

Report Date: 14-JUL-17 06:52 (MT)

Version: FINAL

Client Phone: 867-462-9952

Certificate of Analysis

Lab Work Order #: L1952278
Project P.O. #: NOT SUBMITTED

Job Reference: HAMLET OF NAUJAAT WASTE WATER

C of C Numbers: Legal Site Desc:

Iva Wa

Hua Wo

Chemistry Laboratory Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721

ALS CANADA LTD Part of the ALS Group An ALS Limited Company



L1952278 CONTD.... PAGE 2 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
 L1952278-1 REP-6							
Sampled By: CLIENT on 29-JUN-17 @ 08:50							
Matrix: WW							
Miscellaneous Parameters							
Fecal Coliforms	411	PEHR	1	MPN/100mL		01-JUL-17	R3763783
Nunavut WW Group 1							
Alkalinity, Bicarbonate				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		07 1111 47	
Bicarbonate (HCO3)	171		1.2	mg/L		07-JUL-17	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		07-JUL-17	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		07-JUL-17	
Alkalinity, Total (as CaCO3)							
Alkalinity, Total (as CaCO3)	141		1.0	mg/L		05-JUL-17	R3766126
Ammonia by colour	45.0		2.0			44 1111 47	D0700074
Ammonia, Total (as N) Biochemical Oxygen Demand (BOD)	15.9		2.0	mg/L		11-JUL-17	R3769974
Biochemical Oxygen Demand	17.3		6.0	mg/L		01-JUL-17	R3767196
Carbonaceous BOD			0.0				110101100
BOD Carbonaceous	19.1		6.0	mg/L		05-JUL-17	R3768518
Chloride in Water by IC							
Chloride (CI)	18.9		0.50	mg/L		02-JUL-17	R3765465
Conductivity Conductivity	242		1.0	umhos/cm		05-JUL-17	D0766406
Hardness Calculated	342		1.0	ummos/cm		05-JUL-17	R3766126
Hardness (as CaCO3)	72.8	HTC	0.25	mg/L		06-JUL-17	
Mercury Total			0.20				
Mercury (Hg)-Total	<0.000050		0.0000050	mg/L	04-JUL-17	07-JUL-17	R3769516
Nitrate in Water by IC							
Nitrate (as N)	0.155		0.020	mg/L		02-JUL-17	R3765465
Nitrate+Nitrite Nitrate and Nitrite as N	0.455		0.070			06 1111 47	
Nitrite in Water by IC	0.155		0.070	mg/L		06-JUL-17	
Nitrite (as N)	<0.040		0.040	mg/L		02-JUL-17	R3765465
Oil & Grease - Gravimetric							
Oil and Grease	<5.0		5.0	mg/L		10-JUL-17	R3768790
Phenol (4AAP)							
Phenols (4AAP)	0.0013		0.0010	mg/L		13-JUL-17	R3771332
Phosphorus, Total Phosphorus (P)-Total	1.98		0.050	mg/L		07-JUL-17	R3767086
Sulfate in Water by IC	1.50		0.000	iiig/L		07-30L-17	13707000
Sulfate (SO4)	5.27		0.30	mg/L		02-JUL-17	R3765465
Total Metals by ICP-MS							
Aluminum (AI)-Total	0.0240		0.0050	mg/L	05-JUL-17	05-JUL-17	R3766035
Arsenic (As)-Total	0.00028		0.00020	mg/L	05-JUL-17	05-JUL-17	R3766035
Cadmium (Cd)-Total	0.000010		0.000010	mg/L	05-JUL-17	05-JUL-17	R3766035
Calcium (Ca)-Total Chromium (Cr)-Total	21.7 <0.0010		0.10 0.0010	mg/L mg/L	05-JUL-17 05-JUL-17	05-JUL-17 05-JUL-17	R3766035 R3766035
Cobalt (Co)-Total	<0.0010		0.0010	mg/L	05-JUL-17 05-JUL-17	05-JUL-17 05-JUL-17	R3766035
Copper (Cu)-Total	0.0107		0.00020	mg/L	05-JUL-17	05-30L-17 05-JUL-17	R3766035
Iron (Fe)-Total	0.443		0.010	mg/L	05-JUL-17	05-JUL-17	R3766035
Lead (Pb)-Total	0.000178		0.000090	mg/L	05-JUL-17	05-JUL-17	R3766035
Magnesium (Mg)-Total	4.52		0.010	mg/L	05-JUL-17	05-JUL-17	R3766035
Manganese (Mn)-Total	0.0299		0.00030	mg/L	05-JUL-17	05-JUL-17	R3766035
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	05-JUL-17	05-JUL-17	R3766035
Potassium (K)-Total	7.75		0.020	mg/L	05-JUL-17	05-JUL-17	R3766035

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

L1952278 CONTD.... PAGE 3 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1952278-1 REP-6							
Sampled By: CLIENT on 29-JUN-17 @ 08:50							
Matrix: WW							
Total Metals by ICP-MS Sodium (Na)-Total	17.3		0.030	mg/L	05-JUL-17	05-JUL-17	R3766035
Zinc (Zn)-Total	0.0086		0.0020	mg/L	05-JUL-17	05-JUL-17	R3766035
Total Organic Carbon by Combustion	0.0000		0.0020	mg/L	00 002 17	00 002 17	1137 00033
Total Organic Carbon	14.5		0.50	mg/L		11-JUL-17	R3769947
Total Suspended Solids							
Total Suspended Solids	16		10	mg/L		06-JUL-17	R3767474
рН							
pH	7.75		0.10	pH units		05-JUL-17	R3766126
L1952278-2 REP-2A							
Sampled By: CLIENT on 29-JUN-17 @ 09:25							
Matrix: WW							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		06-JUL-17	R3767225
Toluene	<0.0010		0.0010	mg/L		06-JUL-17	R3767225
Ethyl benzene	<0.00050		0.00050	mg/L		06-JUL-17	R3767225
o-Xylene	<0.00050	D. D.	0.00050	mg/L		06-JUL-17	R3767225
m+p-Xylenes	<0.00050	DLB	0.00050	mg/L		06-JUL-17	R3767225
F1 (C6-C10)	<0.10		0.10	mg/L		06-JUL-17	R3767225
Surrogate: 4-Bromofluorobenzene (SS)	114.1		70-130	%		06-JUL-17	R3767225
CCME PHC F2-F4 in Water F2 (C10-C16)	<0.10		0.10	mg/L	05-JUL-17	06-JUL-17	R3767089
F3 (C16-C34)	<0.25		0.10	mg/L	05-JUL-17	06-JUL-17	R3767089
F4 (C34-C50)	<0.25		0.25	mg/L	05-JUL-17	06-JUL-17	R3767089
Surrogate: 2-Bromobenzotrifluoride	87.0		60-140	%	05-JUL-17	06-JUL-17	R3767089
CCME Total Hydrocarbons	0.10		00				110.0.00
F1-BTEX	<0.10		0.10	mg/L		10-JUL-17	
F2-Naphth	<0.10		0.10	mg/L		10-JUL-17	
F3-PAH	<0.25		0.25	mg/L		10-JUL-17	
Total Hydrocarbons (C6-C50)	<0.38		0.38	mg/L		10-JUL-17	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.00071		0.00071	mg/L		07-JUL-17	
Miscellaneous Parameters							
Fecal Coliforms	83	PEHR	1	MPN/100mL		01-JUL-17	R3763783
Polyaromatic Hydrocarbons (PAHs)	0.000000		0.000000		05 1111 47	06 1111 47	D0700045
1-Methyl Naphthalene 2-Methyl Naphthalene	<0.000020 <0.000020		0.000020 0.000020	mg/L	05-JUL-17 05-JUL-17	06-JUL-17 06-JUL-17	R3768615 R3768615
Acenaphthene	<0.000020		0.000020	mg/L mg/L	05-JUL-17 05-JUL-17	06-JUL-17 06-JUL-17	R3768615
Acenaphthylene	<0.000020		0.000020	mg/L	05-JUL-17	06-JUL-17	R3768615
Anthracene	<0.000020		0.000020	mg/L	05-JUL-17	06-JUL-17	R3768615
Acridine	<0.000010		0.000010	mg/L	05-JUL-17	06-JUL-17	R3768615
Benzo(a)anthracene	<0.000010		0.000010	mg/L	05-JUL-17	06-JUL-17	R3768615
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	05-JUL-17	06-JUL-17	R3768615
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	05-JUL-17	06-JUL-17	R3768615
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	05-JUL-17	06-JUL-17	R3768615
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	05-JUL-17	06-JUL-17	R3768615
Chrysene	<0.000020		0.000020	mg/L	05-JUL-17	06-JUL-17	R3768615
Dibenzo(a,h)anthracene	<0.000050		0.0000050	mg/L	05-JUL-17	06-JUL-17	R3768615
Fluoranthene	<0.000020		0.000020	mg/L	05-JUL-17	06-JUL-17	R3768615
Fluorene	<0.000020		0.000020	mg/L	05-JUL-17	06-JUL-17	R3768615
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	05-JUL-17	06-JUL-17	R3768615

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

L1952278 CONTD.... PAGE 4 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1952278-2 REP-2A							
Sampled By: CLIENT on 29-JUN-17 @ 09:25							
Matrix: WW							
Polyaromatic Hydrocarbons (PAHs)							
Naphthalene	<0.000050		0.000050	mg/L	05-JUL-17	06-JUL-17	R3768615
Phenanthrene	<0.000050		0.000050	mg/L	05-JUL-17	06-JUL-17	R3768615
Pyrene Quinoline	<0.000010 <0.000020		0.000010 0.000020	mg/L mg/L	05-JUL-17 05-JUL-17	06-JUL-17 06-JUL-17	R3768615 R3768615
B(a)P Total Potency Equivalent	<0.000020		0.000020	mg/L	05-JUL-17	06-JUL-17	R3768615
Surrogate: Acenaphthene d10	88.9		40-130	%	05-JUL-17	06-JUL-17	R3768615
Surrogate: Acridine d9	102.1		40-130	%	05-JUL-17	06-JUL-17	R3768615
Surrogate: Chrysene d12	98.2		40-130	%	05-JUL-17	06-JUL-17	R3768615
Surrogate: Naphthalene d8	76.9		40-130	%	05-JUL-17	06-JUL-17	R3768615
Surrogate: Phenanthrene d10 Nunavut WW Group 1	90.3		40-130	%	05-JUL-17	06-JUL-17	R3768615
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	42.5		1.2	mg/L		07-JUL-17	
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		07-JUL-17	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		07-JUL-17	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	34.8		1.0	mg/L		05-JUL-17	R3766342
Ammonia by colour Ammonia, Total (as N)	0.046		0.010	mg/L		07-JUL-17	R3767915
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	<2.0		2.0	mg/L		01-JUL-17	R3767196
Carbonaceous BOD BOD Carbonaceous	<2.0		2.0	mg/L		05-JUL-17	R3768518
Chloride in Water by IC Chloride (Cl)	1.21		0.50	mg/L		02-JUL-17	R3765465
Conductivity Conductivity	64.1		1.0	umhos/cm		05-JUL-17	R3766342
Hardness Calculated Hardness (as CaCO3)	31.2	нтс	0.25	mg/L		06-JUL-17	
Mercury Total Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L	04-JUL-17	07-JUL-17	R3769516
Nitrate in Water by IC Nitrate (as N)	<0.020		0.020	mg/L		02-JUL-17	R3765465
Nitrate+Nitrite Nitrate and Nitrite as N	<0.070		0.070	mg/L		06-JUL-17	
Nitrite in Water by IC Nitrite (as N)	<0.010		0.010	mg/L		02-JUL-17	R3765465
Oil & Grease - Gravimetric Oil and Grease	<5.0		5.0	mg/L		10-JUL-17	R3768790
Phenol (4AAP) Phenols (4AAP)	<0.0010		0.0010	mg/L		13-JUL-17	R3771332
Phosphorus, Total Phosphorus (P)-Total	0.041		0.010	mg/L		07-JUL-17	R3767086
Sulfate in Water by IC Sulfate (SO4)	1.29		0.30	mg/L		02-JUL-17	R3765465
Total Metals by ICP-MS Aluminum (AI)-Total	0.0794		0.0050	mg/L	05-JUL-17	05-JUL-17	R3766035
Arsenic (As)-Total	<0.00020		0.00020	mg/L	05-JUL-17	05-JUL-17	R3766035
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L	05-JUL-17	05-JUL-17	R3766035
Calcium (Ca)-Total	9.87		0.10	mg/L	05-JUL-17	05-JUL-17	R3766035

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

L1952278 CONTD.... PAGE 5 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1952278-2 REP-2A							
Sampled By: CLIENT on 29-JUN-17 @ 09:25							
Matrix: WW							
Total Metals by ICP-MS							
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	05-JUL-17	05-JUL-17	R3766035
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	05-JUL-17	05-JUL-17	R3766035
Copper (Cu)-Total	0.00057		0.00020	mg/L	05-JUL-17	05-JUL-17	R3766035
Iron (Fe)-Total	0.154		0.010	mg/L	05-JUL-17	05-JUL-17	R3766035
Lead (Pb)-Total	0.000116		0.000090	mg/L	05-JUL-17	05-JUL-17	R3766035
Magnesium (Mg)-Total	1.60		0.010	mg/L	05-JUL-17	05-JUL-17	R3766035
Manganese (Mn)-Total	0.0406		0.00030	mg/L	05-JUL-17	05-JUL-17	R3766035
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	05-JUL-17	05-JUL-17	R3766035
Potassium (K)-Total	0.652		0.020	mg/L	05-JUL-17	05-JUL-17	R3766035
Sodium (Na)-Total	1.21		0.030	mg/L	05-JUL-17	05-JUL-17	R3766035
Zinc (Zn)-Total	0.0024		0.0020	mg/L	05-JUL-17	05-JUL-17	R3766035
Total Organic Carbon by Combustion Total Organic Carbon	1 92		0.50	ma/l		11-JUL-17	D2760047
Total Suspended Solids	1.83		0.50	mg/L		11-JUL-1/	R3769947
Total Suspended Solids Total Suspended Solids	<5.0		5.0	mg/L		06-JUL-17	R3767474
pH	10.0		0.5				
рН	7.28		0.10	pH units		05-JUL-17	R3766342
L1952278-3 REP-2							
Sampled By: CLIENT on 29-JUN-17 @ 09:45							
Matrix: WW							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		06-JUL-17	R3767225
Toluene	0.0101		0.0010	mg/L		06-JUL-17	R3767225
Ethyl benzene	0.00212		0.00050	mg/L		06-JUL-17	R3767225
o-Xylene	0.00339		0.00050	mg/L		06-JUL-17	R3767225
m+p-Xylenes	0.00582	DLB	0.00050	mg/L		06-JUL-17	R3767225
F1 (C6-C10)	0.27		0.10	mg/L		06-JUL-17	R3767225
Surrogate: 4-Bromofluorobenzene (SS)	95.5		70-130	%		06-JUL-17	R3767225
CCME PHC F2-F4 in Water	0.00	DIM	0.00		OF IIII 47	06 1111 47	D0707000
F2 (C10-C16) F3 (C16-C34)	0.88 2.99	DLM DLM	0.20 0.50	mg/L mg/L	05-JUL-17 05-JUL-17	06-JUL-17 06-JUL-17	R3767089 R3767089
F3 (C16-C34) F4 (C34-C50)	2.99 <0.50	DLM	0.50	mg/L	05-JUL-17 05-JUL-17	06-JUL-17 06-JUL-17	R3767089 R3767089
Surrogate: 2-Bromobenzotrifluoride	83.5	DEIVI	60-140	%	05-JUL-17	06-JUL-17	R3767089
CCME Total Hydrocarbons	00.0		00 170	/0	30 00L-17	00 002 17	1.07.07.003
F1-BTEX	0.25		0.10	mg/L		13-JUL-17	
F2-Naphth	0.88		0.20	mg/L		13-JUL-17	
F3-PAH	2.99		0.50	mg/L		13-JUL-17	
Total Hydrocarbons (C6-C50)	4.14		0.74	mg/L		13-JUL-17	
Sum of Xylene Isomer Concentrations Xylenes (Total)	0.00920		0.00071	mg/L		07-JUL-17	
Miscellaneous Parameters							
Fecal Coliforms	>2420	PEHR	1	MPN/100mL		01-JUL-17	R3763783
Polyaromatic Hydrocarbons (PAHs) 1-Methyl Naphthalene	<0.00020	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
2-Methyl Naphthalene	0.00025	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
Acenaphthene	<0.00020	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
Acenaphthylene	<0.00020	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
Anthracene	<0.00010	DLM	0.00010	mg/L	05-JUL-17	12-JUL-17	R3768615
Acridine	<0.00020	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
Benzo(a)anthracene	<0.00010	DLM	0.00010	mg/L	05-JUL-17	12-JUL-17	R3768615

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

L1952278 CONTD.... PAGE 6 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1952278-3 REP-2							
Sampled By: CLIENT on 29-JUN-17 @ 09:45							
Matrix: WW							
Polyaromatic Hydrocarbons (PAHs)							
Benzo(a)pyrene	<0.000050	DLM	0.000050	mg/L	05-JUL-17	12-JUL-17	R3768615
Benzo(b&j)fluoranthene	<0.00010	DLM	0.00010	mg/L	05-JUL-17	12-JUL-17	R3768615
Benzo(g,h,i)perylene	<0.00020	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
Benzo(k)fluoranthene Chrysene	<0.00010 <0.00020	DLM DLM	0.00010 0.00020	mg/L mg/L	05-JUL-17 05-JUL-17	12-JUL-17 12-JUL-17	R3768615 R3768615
Dibenzo(a,h)anthracene	<0.00020	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
Fluoranthene	<0.00020	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
Fluorene	<0.00020	DLM	0.00020	mg/L	05-JUL-17	12-JUL-17	R3768615
Indeno(1,2,3-cd)pyrene	<0.00010	DLM	0.00010	mg/L	05-JUL-17	12-JUL-17	R3768615
Naphthalene	<0.00050	DLM	0.00050	mg/L	05-JUL-17	12-JUL-17	R3768615
Phenanthrene	<0.00050	DLM	0.00050	mg/L	05-JUL-17	12-JUL-17	R3768615
Pyrene Quinoline	<0.00020 0.00022	DLM EMPC	0.00020 0.00020	mg/L mg/L	05-JUL-17 05-JUL-17	12-JUL-17 12-JUL-17	R3768615 R3768615
B(a)P Total Potency Equivalent	<0.00022	LIVIFO	0.00020	mg/L	05-JUL-17 05-JUL-17	12-JUL-17 12-JUL-17	R3768615
Surrogate: Acenaphthene d10	82.6		40-130	111g/L %	05-JUL-17	12-JUL-17	R3768615
Surrogate: Acridine d9	107.2		40-130	%	05-JUL-17	12-JUL-17	R3768615
Surrogate: Chrysene d12	80.6		40-130	%	05-JUL-17	12-JUL-17	R3768615
Surrogate: Naphthalene d8	188.0	SOL:MI	40-130	%	05-JUL-17	12-JUL-17	R3768615
Surrogate: Phenanthrene d10	85.9		40-130	%	05-JUL-17	12-JUL-17	R3768615
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	455		1.2	mg/L		07-JUL-17	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		07-JUL-17	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		07-JUL-17	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	373		1.0	mg/L		05-JUL-17	R3766342
Ammonia by colour Ammonia, Total (as N)	18.3		2.0	mg/L		07-JUL-17	R3767915
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	450		100	mg/L		01-JUL-17	R3767196
Carbonaceous BOD BOD Carbonaceous	330		50	mg/L		05-JUL-17	R3768518
Chloride in Water by IC							
Chloride (CI) Conductivity	32.1		1.0	mg/L		02-JUL-17	R3765465
Conductivity	1120		1.0	umhos/cm		05-JUL-17	R3766342
Hardness Calculated Hardness (as CaCO3)	487	нтс	0.25	mg/L		06-JUL-17	
Mercury Total Mercury (Hg)-Total	0.0000470		0.0000050	mg/L	04-JUL-17	07-JUL-17	R3769516
Nitrate in Water by IC Nitrate (as N)	<0.040	DLM	0.040	mg/L		02-JUL-17	R3765465
Nitrate+Nitrite Nitrate and Nitrite as N	<0.070		0.070	mg/L		06-JUL-17	
Nitrite in Water by IC Nitrite (as N)	<0.020	DLM	0.020	mg/L		02-JUL-17	R3765465
Oil & Grease - Gravimetric Oil and Grease	8.0		5.0	mg/L		10-JUL-17	R3768790
Phenol (4AAP) Phenols (4AAP)	0.0598		0.0010	mg/L		13-JUL-17	R3771332
	0.0030		0.0010	111g/L		10 002 17	13771332

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

L1952278 CONTD.... PAGE 7 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
14050070 0 DEC 0							
L1952278-3 REP-2							
Sampled By: CLIENT on 29-JUN-17 @ 09:45							
Matrix: WW							
Phosphorus, Total							
Phosphorus (P)-Total	3.50		0.050	mg/L		07-JUL-17	R3767086
Sulfate in Water by IC Sulfate (SO4)	194		0.00	a/I		02-JUL-17	R3765465
Total Metals by ICP-MS	194		0.60	mg/L		02-30L-17	K3/05405
Aluminum (Al)-Total	0.773		0.0050	mg/L	05-JUL-17	05-JUL-17	R3766035
Arsenic (As)-Total	0.00287		0.00020	mg/L	05-JUL-17	05-JUL-17	R3766035
Cadmium (Cd)-Total	0.000349		0.000010	mg/L	05-JUL-17	05-JUL-17	R3766035
Calcium (Ca)-Total	175		0.10	mg/L	05-JUL-17	05-JUL-17	R3766035
Chromium (Cr)-Total	0.0068		0.0010	mg/L	05-JUL-17	05-JUL-17	R3766035
Cobalt (Co)-Total	0.00415		0.00020	mg/L	05-JUL-17	05-JUL-17	R3766035
Copper (Cu)-Total	0.0256		0.00020	mg/L	05-JUL-17	05-JUL-17	R3766035
Iron (Fe)-Total	3.93		0.010	mg/L	05-JUL-17	05-JUL-17	R3766035
Lead (Pb)-Total	0.00857		0.000090	mg/L	05-JUL-17	05-JUL-17	R3766035
Magnesium (Mg)-Total	12.3		0.010	mg/L	05-JUL-17	05-JUL-17	R3766035
Manganese (Mn)-Total	0.529		0.00030	mg/L	05-JUL-17	05-JUL-17	R3766035
Nickel (Ni)-Total	0.0108		0.0020	mg/L	05-JUL-17	05-JUL-17	R3766035
Potassium (K)-Total Sodium (Na)-Total	25.1		0.020	mg/L	05-JUL-17 05-JUL-17	05-JUL-17 05-JUL-17	R3766035
Zinc (Zn)-Total	68.5 0.276		0.030 0.0020	mg/L mg/L	05-JUL-17 05-JUL-17	05-JUL-17 05-JUL-17	R3766035 R3766035
Total Organic Carbon by Combustion	0.276		0.0020	IIIg/L	03-30L-17	03-30L-17	K3700033
Total Organic Carbon Total Organic Carbon	253		5.0	mg/L		11-JUL-17	R3769947
Total Suspended Solids	200		0.0	9, =			110100011
Total Suspended Solids	54		10	mg/L		06-JUL-17	R3767474
рН							
pH	6.92		0.10	pH units		05-JUL-17	R3766342

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

L1952278 CONTD....

PAGE 8 of 10 Version: FINAL

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
В	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
DLB	Detection Limit Raised. Analyte detected at comparable level in Method Blank.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
EMPC	Estimated Maximum Possible Concentration. Parameter detected but didn't meet all criteria for positive identification.
HTC	Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
PEHR	Parameter Exceeded Recommended Holding Time On Receipt: Proceed With Analysis As Requested.
SOL:MI	Surrogate recovery outside acceptable limits due to matrix interference

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**	
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION	

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO3 2-/L.

ALK-HCO3HCO3-CALC-Water Alkalinity, Bicarbonate **CALCULATION**

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO3-/L

CALCULATION ALK-OHOH-CALC-WP Water Alkalinity, Hydroxide

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.

APHA 2320B ALK-TITR-WP Water Alkalinity, Total (as CaCO3)

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

BOD-CBOD-WP APHA 5210 B Water Carbonaceous BOD

Samples are diluted and seeded, have TCMP added to inhibit nitrogenous demands, and then are incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BOD-WP Biochemical Oxygen Demand (BOD) **APHA 5210 B**

Samples are diluted and seeded and then incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

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.

Total Organic Carbon by Combustion **APHA 5310 B-WP**

Sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.

CL-IC-N-WP Chloride in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

EC-WP Water Conductivity **APHA 2510B**

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

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

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

L1952278 CONTD....

PAGE 9 of 10 Version: FINAL

Reference Information

Test Method References:

ALS Test Code Matrix Method Reference** **Test Description**

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 CCME PHC F2-F4 in Water EPA 3511 Water

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.

FC-QT97-WP Water Fecal Coliform by MPN QT97 **APHA 9223B QT97**

This analysis is carried out using procedures adapted from APHA Method 9223B "Enzyme Substrate Coliform Test". The sample is mixed with a mixture of hydrolyzable substrates and then sealed in a 97-well packet. The packet is incubated at 44.5 - 0.2°C for 18 hours and then the number of wells exhibiting a positive response are counted. The final result is obtained by comparing the number of positive responses to a probability table.

HARDNESS-CALC-WP Water Hardness Calculated

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

HG-T-CVAF-WP Water Mercury Total EPA245.7 V2.0

Mercury in filtered and unfiltered waters is oxidized with Bromine monochloride and analyzed by cold-vapour atomic fluorescence spectrometry.

MET-T-L-MS-WP Water Total Metals by ICP-MS APHA 3030E/EPA 6020A-TL

This analysis involves preliminary sample treatment by hotblock acid digestion (APHA 3030E). Instrumental analysis is by inductively coupled plasma mass spectrometry (EPA Method 6020A).

NH3-COL-WP APHA 4500 NH3 F Water Ammonia by colour

Ammonia in water samples forms indophenol when reacted with hypochlorite and phenol. The intensity is amplified by the addition of sodium nitroprusside and measured colourmetrically.

NO2+NO3-CALC-WP Water Nitrate+Nitrite **CALCULATION** NO2-IC-N-WP Water Nitrite in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-WP Water Nitrate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

OG-GRAV-WP Water Oil & Grease - Gravimetric EPA 1664 (modified)

Water samples are acidified and extracted with hexane; the hexane extract is collected in a pre-weighed vial. The solvent is evaporated and Total Oil & Grease is determined from the weight of the residue in the vial.

P-T-COL-WP Phosphorus, Total APHA 4500 P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.

PAH.PANH-WP Polyaromatic Hydrocarbons (PAHs) EPA SW 846/8270-GC/MS Water

Water is spiked with a surrogate spike mix and extracted using solvent extraction techniques. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.

PH-WP **APHA 4500H** Water рΗ

The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

PHENOLS-4AAP-WT Water Phenol (4AAP) **EPA 9066** **Reference Information**

L1952278 CONTD.... PAGE 10 of 10

Version: FINAL

Test Method References:

ALS Test Code Matrix Method Reference** **Test Description**

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

SO4-IC-N-WP Water Sulfate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

SOLIDS-TOTSUS-WP Water **Total Suspended Solids** APHA 2540 D (modified) Total suspended solids in aquesous matrices is determined gravimetrically after drying the residue at 103 105°C. XYLENES-SUM-CALC-CALCULATED RESULT Water Sum of Xylene Isomer Concentrations

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:

WP ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA WT ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA		
WT ALCENIVIDONMENTAL WATERLOO ONTARIO CANADA	- WINNIPEG, MANITOBA, CANADA	
WI ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	- WATERLOO, ONTARIO, CANADA	

Chain of Custody Numbers:

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.

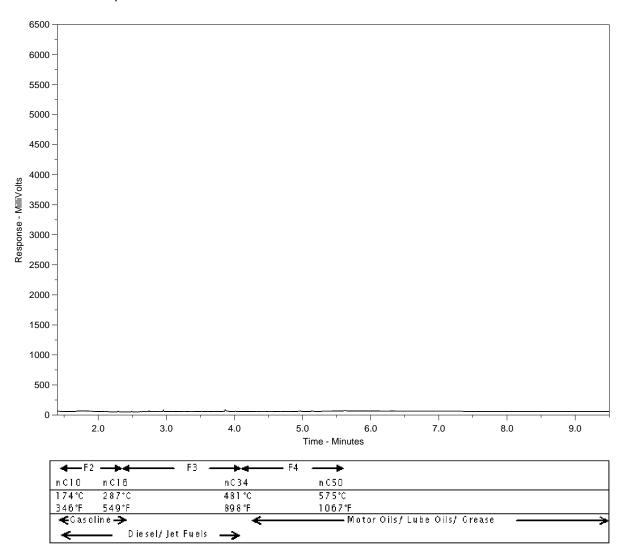
Test results reported relate only to the samples as received by the laboratory. UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1952278-2 Client Sample ID: REP-2A



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.

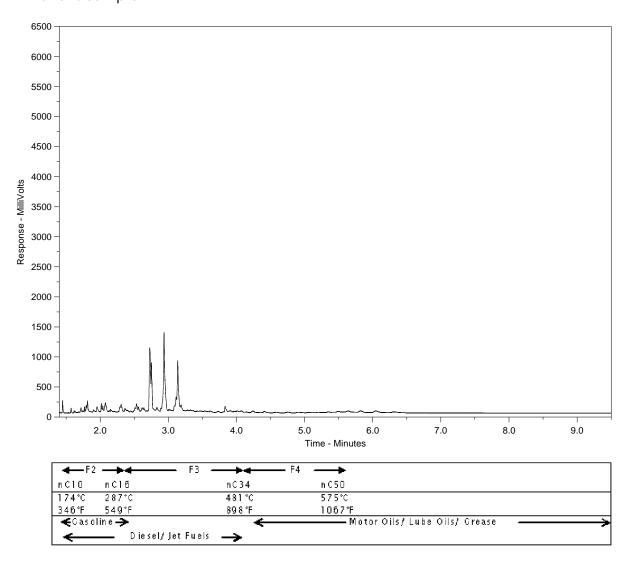
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

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.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1952278-3 Client Sample ID: REP-2



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.



Chain of Custody (COC) / Analytical Request Form

COC Number: 15 - 571778

www.alsolobal.com

Canada Toll Free: 1 800 668 9878

				ý	·						Z1 17.2	3						
Report To	Contact and company name below will appear on the fi	nal report		Report Format	/ Distribution		Select Se	rviçe L'ev	/EI'Delum	•رــــ	m all E&P 1	TATs with	your AM	l - surcha	rges will a	pply		
Company:	Hamlet of Naviant	Sel	ect Report For	mat: PDF	EXCEL E	DD (DIGITAL) ,		Reg	gular [R]		Standard	I TAT if a	eceived	by 3 pm	- busines	is days - r	no surcharg	jes apply
Contact:	Rob Hedky	Qu	ality Control (C	C) Report with Repo	rt YES	NO **	, ŝ	4 0	day [P4]			ક	1	Busin	ess day	/ [E1]		
Phone:	867-462-2952		Compare Resul	ts to Criteria on Report - _I		box checked	PRIORITY usiness Days)	3 0	day [P3]] '	N GEN	Same	Dav.	Weeker	nd or Si	tatutory	/
	Company address below will appear on the final report		ect Distribution			FAX	2 day [P2] holiday [E0]											
Street:	PO. BOX DO	Em	ail 1 or Fax 💲	annavjante	ginig com	\	Date and Time Required for all E&P TATs: did introduction (y) 1/2 form						31. ₈₇					
City/Province:	New jast, NV	Em	ail2 🜈 🕻	aulther 6 a	DUNO CA	· · · · · · · · · · · · · · · · · · ·	For tests	that can	not be perf	rmed accor	ding to the	service (e	vel selec	cted, you	will be co	ntacted.		
Postal Code:	YOĆ OHO	Em	ail3 Mily	sty@ govin								Analy	sis Re	quest				
Invoice To	Same as Report To YES NO			Invoice Dis		.*! *	L.,	: 1	ndicate Filt	ered (F), Pr	eserved (P) or Filter	red and	Preserve	ed (F/P) b	elow		
	Copy of Invoice with Report YES NO	Sel	ect Invoice Dis	tribution:	EMAIL MAIL	FAX				71 4 73]					
Company:		Em	ail 1 or Fax					,					7		- !			
Contact:		Em	ail 2			+ 4]	1 1			. ard	, l. ,	. :						و
	Project Information		0	il and Gas Required	Fields (client use	e)	j i			् तै	<u>.</u>	ا ہے ا	·3				·	aire
ALS Account #	/Quote #: WL 0624	AFE	//Cost Center:		PO#		1		3	≨ ું. ડ્રે	2	[- 1	_ [,	ച			Shift.
Job #:		Majo	or/Minor Code:		Routing Code:]	-		17cfg	. " ا ج َ	Mercury	- X	仓儿	ଅ			ာ _ရ င
PO/AFE:		Red	quisitioner:			•	1		5	∑ ∵ /	기금	3	윈	\mathcal{I}	~ l	ا ــــــــــــــــــــــــــــــــــــ) Sei
LSD:	3" ~	Loc	cation:				[ځ [ار	3	_ •	- 2	[٤, [رادهد	正	[]	٢		Number of Containers
ALS Lab Wo	ork Order # (lab use only)	AL	S Contact:		Sampler:	Koar !	Rachin	800	Backer	4	Phenois	TO 121	*	XLS	F 2 -	D.		
ALS Sample #	Sample Identification and/or	Coordinates		Date	Time	7	44	٦	Δo	+ #	2 -	18	Ó	121	_			1
(lab use only)	(This description will appear o	n the report)		(dd-mmm-yy)	(hh:mm)	Sample Type				'		[]		j				,
	REP-6			29-06-17	8:50 AM	MM	1	./	9	ρρ	Ø	P	P					٩
	REP-7 A			29-06-17		لبالبا	1	<u> </u>	P 4	2 P	P	P	P	P	PF	5	_	15
	REP-2			29-06-17			 	Y	PP			P	P		PF		+	1 1
	NEP-2			24-00-1-1	9:47 AM	<u>ww</u>	-/-	1	7 1	14	P	15	_1_	-	<u>r r</u>	-	+	- 12
	·						1					╃╌┈┥	\longrightarrow		_	+	_	
																		 _
				***								l						
	•						-			1			_ 1					
	*****		-		·							T					1	
	# REP-5 had no work	or lest	أمادها	. D 10Ca	500 ml	Int												Ø
	1 17-1) NACI (IB WATE	A for contract	CAL V	Op 1-04	,									\dashv		+		
	 						 				+	+-				-+	+	
	·						\vdash					1	┝─┤	\vdash	—-├~-	+	+	
	<u></u>	:					<u> </u>	لــــــــــــــــــــــــــــــــــــــ										L
Drinkii	ng Water (DW) Samples¹ (client use)	cial Instructions / Spec		add on report by click tronic COC only)	ing on the drop-do	wn list below	-		29 4 3 2 2	SAMPLI	COND				D (lab Y∈			W. 39 LENG #0. 1
	en from a Regulated DW System?						Frozer		_	Outer	. П			ations al intac		es [-	
	s 🗹 no	Numuut-	ろう (7RP1-6P			Ice Pa	cks g Initia		ce Cube:	" Ц	Custo	ody sea	ai miau	il 1	88 _] INC	ш
	human drinking water use?						0001111			ER TEMP	RATIBES	3.9G	128.63	+480, N. 15	FINAL	COOLÉR	TEMPERA	THRES °C
•	S (Jno	\mathcal{F}_{i} X t B	1-F4, f	HH			<u> Anna an</u>	S to their	1372,000	ER ICINE	.IOI OKE			<u> </u>			79	
	SHIPMENT RELEASE (client use)	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		IT DECEDIO!	h ilaa halin ilaa	<u> </u>				FINAL	SHIDN	4ENT	RECE	TION:	(lab use		ngsag si skala da ni antit
Released by:		Time: Re	ceived by:	MINITIAL SHIPMEN	IT RECEPTION (la	u use only)	Time:	14.3	Receive	d by:	CIIVAL	SHIPIV	TEN I	Date:	TION	iau use	Unity)	Time:
B	Bate: 06-29-2017	giroun	-,-	Ck I	idvai	7	13	וסב		* ·								
FEER TO BACK	PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATI	ON		WHI	F LABORATORY	CODY YELLOV			PY									OCTOBER 2015 FRONT

Failure to complete all portions of this form may detay 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. 1. If any water samples are taken from a Regulated Drinking Water (DW). System, please submit using an Authorized DW COC form



Hamlet of Naujaat (Repulse Bay)

ATTN: ROB HEDLEY

PO Box 10

Repulse Bay NU XOC 0H0

Date Received: 21-JUL-17

Report Date: 04-AUG-17 10:55 (MT)

Version: FINAL

Client Phone: 867-462-9952

Certificate of Analysis

Lab Work Order #: L1962532
Project P.O. #: NOT SUBMITTED

Job Reference: WATER LICENSE MONITORING

C of C Numbers: Legal Site Desc:

-lua Wo

Hua Wo Chemistry Laboratory Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721

ALS CANADA LTD Part of the ALS Group An ALS Limited Company



L1962532 CONTD.... PAGE 2 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1962532-1 REP-6 [09:00]							
Sampled By: KJ on 19-JUL-17 @ 09:00							
Matrix: WASTEWATER							
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	38.9		1.2	mg/L		26-JUL-17	
Alkalinity, Carbonate	00.0		1.2	9/ _		20 002 17	
Carbonate (CO3)	51.5		0.60	mg/L		26-JUL-17	
Alkalinity, Hydroxide	0.04		0.04			00 1111 47	
Hydroxide (OH) Alkalinity, Total (as CaCO3)	<0.34		0.34	mg/L		26-JUL-17	
Alkalinity, Total (as CaCO3)	118		1.0	mg/L		22-JUL-17	R3781711
Ammonia by colour							
Ammonia, Total (as N)	1.25		0.10	mg/L		26-JUL-17	R3783260
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	44		20	mg/L		21-JUL-17	R3783413
Carbonaceous BOD						-	
BOD Carbonaceous	25.6		6.0	mg/L		21-JUL-17	R3783413
Chloride in Water by IC Chloride (CI)	26.2		0.50	ma/l		21-JUL-17	D2701712
Conductivity	∠0.∠		0.50	mg/L		21-JUL-1/	R3781713
Conductivity	274		1.0	umhos/cm		22-JUL-17	R3781711
Fecal coliforms, 1:10 dilution by QT97							
Fecal Coliforms Hardness Calculated	<10	PEHR	10	MPN/100mL		21-JUL-17	R3780067
Hardness (as CaCO3)	115	нтс	0.20	mg/L		26-JUL-17	
Mercury Total							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L	24-JUL-17	27-JUL-17	R3784534
Nitrate in Water by IC Nitrate (as N)	0.434		0.020	mg/L		21-JUL-17	R3781713
Nitrate+Nitrite	0.434		0.020	1119/12		21 002 17	10701713
Nitrate and Nitrite as N	0.603		0.070	mg/L		25-JUL-17	
Nitrite in Water by IC	0.400		0.040			04 1111 47	D0704740
Nitrite (as N) Oil & Grease - Gravimetric	0.168		0.010	mg/L		21-JUL-17	R3781713
Oil and Grease	11.2		5.0	mg/L		31-JUL-17	R3785820
Phenol (4AAP)							
Phenols (4AAP)	0.0013		0.0010	mg/L		26-JUL-17	R3782295
Phosphorus, Total Phosphorus (P)-Total	2.82		0.10	mg/L		25-JUL-17	R3781672
Sulfate in Water by IC							
Sulfate (SO4)	9.76		0.30	mg/L		21-JUL-17	R3781713
Total Metals in Water by CRC ICPMS Aluminum (Al)-Total	0.0783		0.0030	mg/L	25-JUL-17	25-JUL-17	R3782339
Arsenic (As)-Total	0.00049		0.0030	mg/L	25-JUL-17	25-JUL-17	R3782339
Cadmium (Cd)-Total	0.0000130		0.0000050	mg/L	25-JUL-17	25-JUL-17	R3782339
Calcium (Ca)-Total	33.5		0.050	mg/L	25-JUL-17	25-JUL-17	R3782339
Chromium (Cr)-Total	0.00023		0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339
Copper (Cu) Total	0.00024		0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339
Copper (Cu)-Total Iron (Fe)-Total	0.00842 0.474		0.00050 0.010	mg/L mg/L	25-JUL-17 25-JUL-17	25-JUL-17 25-JUL-17	R3782339 R3782339
Lead (Pb)-Total	0.000228		0.00050	mg/L	25-JUL-17	25-JUL-17 25-JUL-17	R3782339
Magnesium (Mg)-Total	7.69		0.0050	mg/L	25-JUL-17	25-JUL-17	R3782339
Manganese (Mn)-Total	0.0334		0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339
Nickel (Ni)-Total	0.00139		0.00050	mg/L	25-JUL-17	25-JUL-17	R3782339
				-			

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

L1962532 CONTD.... PAGE 3 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1962532-1 REP-6 [09:00]							
Sampled By: KJ on 19-JUL-17 @ 09:00							
Matrix: WASTEWATER							
Total Metals in Water by CRC ICPMS							
Potassium (K)-Total	10.3		0.050	mg/L	25-JUL-17	25-JUL-17	R3782339
Sodium (Na)-Total	24.1		0.050	mg/L	25-JUL-17	25-JUL-17	R3782339
Zinc (Zn)-Total	0.0098		0.0030	mg/L	25-JUL-17	25-JUL-17	R3782339
Total Organic Carbon by Combustion				,,			
Total Organic Carbon	3.61		0.50	mg/L		28-JUL-17	R3785176
Total Suspended Solids Total Suspended Solids	280		33	mg/L		24-JUL-17	R3781717
pH	200		33	IIIg/L		24-30L-17	K3761717
рН	10.12		0.10	pH units		22-JUL-17	R3781711
L1962532-2 REP-2 [09:45]							
Sampled By: KJ on 19-JUL-17 @ 09:45							
Matrix: WASTEWATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		27-JUL-17	R3783613
Toluene	<0.0010		0.0010	mg/L		27-JUL-17	R3783613
Ethyl benzene	<0.00050		0.00050	mg/L		27-JUL-17	R3783613
o-Xylene	<0.00050		0.00050	mg/L		27-JUL-17	R3783613
m+p-Xylenes	<0.00040		0.00040	mg/L		27-JUL-17	R3783613
F1 (C6-C10)	<0.10		0.10	mg/L		27-JUL-17	R3783613
Surrogate: 4-Bromofluorobenzene (SS) CCME PHC F2-F4 in Water	113.8		70-130	%		27-JUL-17	R3783613
F2 (C10-C16)	<0.10		0.10	mg/L	24-JUL-17	25-JUL-17	R3782553
F3 (C16-C34)	<0.25		0.25	mg/L	24-JUL-17	25-JUL-17	R3782553
F4 (C34-C50)	<0.25		0.25	mg/L	24-JUL-17	25-JUL-17	R3782553
Surrogate: 2-Bromobenzotrifluoride	98.3		60-140	%	24-JUL-17	25-JUL-17	R3782553
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		04-AUG-17	
F2-Naphth	<0.10		0.10	mg/L		04-AUG-17	
F3-PAH	<0.25		0.25	mg/L		04-AUG-17	
Total Hydrocarbons (C6-C50)	<0.38		0.38	mg/L		04-AUG-17	
Sum of Xylene Isomer Concentrations Xylenes (Total)	<0.00064		0.00064	mg/L		27-JUL-17	
Aylones (Total)	VO.00004		0.00004	mg/L		27 002 17	
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	27-JUL-17 27-JUL-17	27-JUL-17	R3786696
Acenaphthene Acenaphthylene	<0.000020 <0.000020		0.000020 0.000020	mg/L mg/L	27-JUL-17 27-JUL-17	27-JUL-17 27-JUL-17	R3786696 R3786696
Anthracene	<0.000020		0.000020	mg/L	27-JUL-17 27-JUL-17	27-JUL-17 27-JUL-17	R3786696
Acridine	<0.000010		0.000010	mg/L	27-30L-17 27-JUL-17	27-30L-17 27-JUL-17	R3786696
Benzo(a)anthracene	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Benzo(a)pyrene	<0.000050		0.0000050	mg/L	27-JUL-17	27-JUL-17	R3786696
Benzo(b&j)fluoranthene	<0.00010		0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696
Chrysene	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Dibenzo(a,h)anthracene	<0.000050		0.000050	mg/L	27-JUL-17	27-JUL-17	R3786696
Fluoranthene	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Fluorene	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696

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

L1962532 CONTD.... PAGE 4 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1962532-2 REP-2 [09:45]							
Sampled By: KJ on 19-JUL-17 @ 09:45							
Matrix: WASTEWATER							
Polyaromatic Hydrocarbons (PAHs) Naphthalene	<0.000050		0.000050	mg/L	27-JUL-17	27-JUL-17	R3786696
Phenanthrene	<0.000050		0.000050	mg/L	27-JUL-17	27-JUL-17	R3786696
Pyrene	<0.000010		0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696
Quinoline	0.000032	EMPC	0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	27-JUL-17	27-JUL-17	R3786696
Surrogate: Acridina d0	101.8		40-130	%	27-JUL-17	27-JUL-17	R3786696
Surrogate: Acridine d9 Surrogate: Chrysene d12	89.1 102.8		40-130 40-130	% %	27-JUL-17 27-JUL-17	27-JUL-17 27-JUL-17	R3786696 R3786696
Surrogate: Naphthalene d8	84.2		40-130	%	27-JUL-17	27-30L-17 27-JUL-17	R3786696
Surrogate: Phenanthrene d10	88.2		40-130	%	27-JUL-17	27-JUL-17	R3786696
Nunavut WW Group 1							
Alkalinity, Bicarbonate	0.5-		4.5			00 !! " 1=	
Bicarbonate (HCO3)	205		1.2	mg/L		26-JUL-17	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		26-JUL-17	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		26-JUL-17	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	168		1.0	mg/L		22-JUL-17	R3781711
Ammonia by colour Ammonia, Total (as N)	0.302		0.010	mg/L		26-JUL-17	R3783260
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	5.3		2.0	mg/L		21-JUL-17	R3783413
Carbonaceous BOD BOD Carbonaceous	3.2		2.0	mg/L		21-JUL-17	R3783413
Chloride in Water by IC Chloride (CI)	12.2		0.50	mg/L		21-JUL-17	R3781713
Conductivity Conductivity	324		1.0	umhos/cm		22-JUL-17	R3781711
Fecal coliforms, 1:10 dilution by QT97 Fecal Coliforms	<10	PEHR	10	MPN/100mL		21-JUL-17	R3780067
Hardness Calculated Hardness (as CaCO3)	164	HTC	0.20	mg/L		26-JUL-17	
Mercury Total Mercury (Hg)-Total	0.0000067		0.0000050	mg/L	24-JUL-17	27-JUL-17	R3784534
Nitrate in Water by IC Nitrate (as N)	0.069		0.020	mg/L		21-JUL-17	R3781713
Nitrate+Nitrite Nitrate and Nitrite as N	<0.070		0.070	mg/L		25-JUL-17	
Nitrite in Water by IC Nitrite (as N) Oil & Grease - Gravimetric	<0.010		0.010	mg/L		21-JUL-17	R3781713
Oil and Grease	<5.0		5.0	mg/L		31-JUL-17	R3785820
Phenol (4AAP) Phenols (4AAP)	<0.0010		0.0010	mg/L		26-JUL-17	R3782295
Phosphorus, Total Phosphorus (P)-Total	0.086		0.010	mg/L		25-JUL-17	R3781672
Sulfate in Water by IC Sulfate (SO4)	10.9		0.30	mg/L		21-JUL-17	R3781713
Total Metals in Water by CRC ICPMS Aluminum (Al)-Total	0.0270		0.0030	mg/L	25-JUL-17	25-JUL-17	R3782339
Arsenic (As)-Total	0.00054		0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339

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

L1962532 CONTD.... PAGE 5 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier* D.L.	Units	Extracted	Analyzed	Batch
L1962532-2 REP-2 [09:45]						
Sampled By: KJ on 19-JUL-17 @ 09:45						
Matrix: WASTEWATER						
Total Metals in Water by CRC ICPMS						
Cadmium (Cd)-Total	0.0000199	0.0000050	mg/L	25-JUL-17	25-JUL-17	R3782339
Calcium (Ca)-Total	52.1	0.050	mg/L	25-JUL-17	25-JUL-17	R3782339
Chromium (Cr)-Total	0.00046	0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339
Cobalt (Co)-Total	0.00039	0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339
Copper (Cu)-Total	0.00352	0.00050	mg/L	25-JUL-17	25-JUL-17	R3782339
Iron (Fe)-Total	0.334	0.010	mg/L	25-JUL-17	25-JUL-17	R3782339
Lead (Pb)-Total	0.000633	0.000050	mg/L	25-JUL-17	25-JUL-17	R3782339
Magnesium (Mg)-Total	8.33	0.0050	mg/L	25-JUL-17	25-JUL-17	R3782339
Manganese (Mn)-Total	0.155	0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339
Nickel (Ni)-Total	0.00200	0.00050	mg/L	25-JUL-17	25-JUL-17	R3782339
Potassium (K)-Total	4.51	0.050	mg/L	25-JUL-17	25-JUL-17	R3782339
Sodium (Na)-Total	19.6	0.050	mg/L	25-JUL-17	25-JUL-17	R3782339
Zinc (Zn)-Total	0.0072	0.0030	mg/L	25-JUL-17	25-JUL-17	R3782339
Total Organic Carbon by Combustion Total Organic Carbon	2.57	0.50	ma/l		28-JUL-17	D2705176
Total Suspended Solids	3.57	0.50	mg/L		20-JUL-17	R3785176
Total Suspended Solids Total Suspended Solids	<10	10	mg/L		24-JUL-17	R3781717
pH	110		g, <u>_</u>		2100217	110701717
рH	7.81	0.10	pH units		22-JUL-17	R3781711
L1962532-3 REP-2A [10:05]	_		<u>'</u>			
Sampled By: KJ on 19-JUL-17 @ 09:10						
' '						
Matrix: WASTEWATER BTEX plus F1-F4						
BTX plus F1 by GCMS						
Benzene	<0.00050	0.00050	mg/L		27-JUL-17	R3783613
Toluene	<0.0010	0.0010	mg/L		27-JUL-17	R3783613
Ethyl benzene	<0.00050	0.00050	mg/L		27-JUL-17	R3783613
o-Xylene	<0.00050	0.00050	mg/L		27-JUL-17	R3783613
m+p-Xylenes	<0.00040	0.00040	mg/L		27-JUL-17	R3783613
F1 (C6-C10)	<0.10	0.10	mg/L		27-JUL-17	R3783613
Surrogate: 4-Bromofluorobenzene (SS)	106.7	70-130	%		27-JUL-17	R3783613
CCME PHC F2-F4 in Water						
F2 (C10-C16)	<0.10	0.10	mg/L	24-JUL-17	25-JUL-17	R3782553
F3 (C16-C34)	<0.25	0.25	mg/L	24-JUL-17	25-JUL-17	R3782553
F4 (C34-C50)	<0.25	0.25	mg/L	24-JUL-17	25-JUL-17	R3782553
Surrogate: 2-Bromobenzotrifluoride	86.9	60-140	%	24-JUL-17	25-JUL-17	R3782553
CCME Total Hydrocarbons F1-BTEX	<0.10	0.10	mg/L		04-AUG-17	
F2-Naphth	<0.10	0.10	mg/L		04-AUG-17	
F3-PAH	<0.10	0.10	mg/L		04-AUG-17	
Total Hydrocarbons (C6-C50)	<0.38	0.38	mg/L		04-AUG-17	
Sum of Xylene Isomer Concentrations			<i>3</i> -			
Xylenes (Total)	<0.00064	0.00064	mg/L		27-JUL-17	
Polyaromatic Hydrocarbons (PAHs)						
1-Methyl Naphthalene	<0.000020	0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
2-Methyl Naphthalene	<0.000020	0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Acenaphthene	<0.000020	0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Acenaphthylene	<0.000020	0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Anthracene	<0.000010	0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696
Acridine	<0.000020	0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696

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

L1962532 CONTD.... PAGE 6 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	* D.L.	Units	Extracted	Analyzed	Batch
 L1962532-3 REP-2A [10:05]							
Sampled By: KJ on 19-JUL-17 @ 09:10							
Matrix: WASTEWATER							
Polyaromatic Hydrocarbons (PAHs)							
Benzo(a)anthracene	<0.000010		0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696
Benzo(a)pyrene	<0.000050		0.0000050	mg/L	27-JUL-17	27-JUL-17	R3786696
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Benzo(k)fluoranthene Chrysene	<0.000010		0.000010	mg/L	27-JUL-17 27-JUL-17	27-JUL-17 27-JUL-17	R3786696
Dibenzo(a,h)anthracene	<0.000020 <0.000050		0.000020 0.0000050	mg/L mg/L	27-JUL-17 27-JUL-17	27-JUL-17 27-JUL-17	R3786696 R3786696
Fluoranthene	<0.000020		0.0000030	mg/L	27-JUL-17	27-JUL-17	R3786696
Fluorene	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696
Naphthalene	<0.000050		0.000050	mg/L	27-JUL-17	27-JUL-17	R3786696
Phenanthrene	<0.000050		0.000050	mg/L	27-JUL-17	27-JUL-17	R3786696
Pyrene	<0.000010		0.000010	mg/L	27-JUL-17	27-JUL-17	R3786696
Quinoline	<0.000020		0.000020	mg/L	27-JUL-17	27-JUL-17	R3786696
B(a)P Total Potency Equivalent Surrogate: Acenaphthene d10	<0.000030 121.3		0.000030 40-130	mg/L %	27-JUL-17 27-JUL-17	27-JUL-17 27-JUL-17	R3786696 R3786696
Surrogate: Acertapritierie d 10 Surrogate: Acridine d9	121.3		40-130	%	27-JUL-17 27-JUL-17	27-JUL-17 27-JUL-17	R3786696
Surrogate: Chrysene d12	107.3		40-130	%	27-JUL-17	27-JUL-17	R3786696
Surrogate: Naphthalene d8	89.0		40-130	%	27-JUL-17	27-JUL-17	R3786696
Surrogate: Phenanthrene d10	108.5		40-130	%	27-JUL-17	27-JUL-17	R3786696
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	186		1.2	mg/L		26-JUL-17	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		26-JUL-17	
Alkalinity, Hydroxide	<0.00		0.00	1119/1		20 002 17	
Hydroxide (OH)	<0.34		0.34	mg/L		26-JUL-17	
Alkalinity, Total (as CaCO3)							
Alkalinity, Total (as CaCO3)	153		1.0	mg/L		22-JUL-17	R3781711
Ammonia by colour						00 1111 47	
Ammonia, Total (as N)	0.040		0.010	mg/L		26-JUL-17	R3783260
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	<2.0		2.0	mg/L		21-JUL-17	R3783413
Carbonaceous BOD	\2.0		2.0	9/ =		2.002	110700410
BOD Carbonaceous	<2.0		2.0	mg/L		21-JUL-17	R3783413
Chloride in Water by IC							
Chloride (CI)	12.9		0.50	mg/L		21-JUL-17	R3781713
Conductivity Conductivity	202		1.0	umhos/cm		22 11 11 17	D2704744
Fecal coliforms, 1:10 dilution by QT97	302		1.0	umnos/cm		22-JUL-17	R3781711
Fecal Colliforms	<10	PEHR	10	MPN/100mL		21-JUL-17	R3780067
Hardness Calculated							
Hardness (as CaCO3)	145	HTC	0.20	mg/L		26-JUL-17	
Mercury Total							
Mercury (Hg)-Total	<0.000050		0.0000050	mg/L	24-JUL-17	27-JUL-17	R3784534
Nitrate in Water by IC Nitrate (as N)	0.107		0.020	mg/L		21-JUL-17	R3781713
Nitrate+Nitrite	0.107		0.020	illy/L		21 00L-11	10101110
Nitrate and Nitrite as N	0.107		0.070	mg/L		25-JUL-17	
Nitrite in Water by IC							
Nitrite (as N)	<0.010		0.010	mg/L		21-JUL-17	R3781713
Oil & Grease - Gravimetric							

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

L1962532 CONTD.... PAGE 7 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1962532-3 REP-2A [10:05]							
Sampled By: KJ on 19-JUL-17 @ 09:10							
Matrix: WASTEWATER							
Oil & Grease - Gravimetric							
Oil and Grease	<5.0		5.0	mg/L		31-JUL-17	R3785820
Phenol (4AAP)							
Phenols (4AAP)	<0.0010		0.0010	mg/L		26-JUL-17	R3782295
Phosphorus, Total Phosphorus (P)-Total	0.032		0.010	mg/L		25-JUL-17	R3781672
Sulfate in Water by IC	0.032		0.010	IIIg/L		25-30L-17	K3/010/2
Sulfate (SO4)	10.7		0.30	mg/L		21-JUL-17	R3781713
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.0662		0.0030	mg/L	25-JUL-17	25-JUL-17	R3782339
Arsenic (As)-Total	0.00043		0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339
Cadmium (Cd)-Total	0.0000070		0.0000050	mg/L	25-JUL-17	25-JUL-17	R3782339
Calcium (Ca)-Total Chromium (Cr)-Total	45.7		0.050	mg/L	25-JUL-17	25-JUL-17	R3782339
Cobalt (Co)-Total	0.00040 0.00025		0.00010 0.00010	mg/L mg/L	25-JUL-17 25-JUL-17	25-JUL-17 25-JUL-17	R3782339 R3782339
Copper (Cu)-Total	0.00025		0.00010	mg/L	25-JUL-17 25-JUL-17	25-JUL-17 25-JUL-17	R3782339 R3782339
Iron (Fe)-Total	0.220		0.010	mg/L	25-JUL-17	25-JUL-17	R3782339
Lead (Pb)-Total	0.000168		0.000050	mg/L	25-JUL-17	25-JUL-17	R3782339
Magnesium (Mg)-Total	7.44		0.0050	mg/L	25-JUL-17	25-JUL-17	R3782339
Manganese (Mn)-Total	0.0539		0.00010	mg/L	25-JUL-17	25-JUL-17	R3782339
Nickel (Ni)-Total	0.00182		0.00050	mg/L	25-JUL-17	25-JUL-17	R3782339
Potassium (K)-Total	3.24		0.050	mg/L	25-JUL-17	25-JUL-17	R3782339
Sodium (Na)-Total Zinc (Zn)-Total	22.2 <0.0030		0.050 0.0030	mg/L mg/L	25-JUL-17 25-JUL-17	25-JUL-17 25-JUL-17	R3782339 R3782339
Total Organic Carbon by Combustion	<0.0030		0.0030	IIIg/L	25-30L-17	25-30L-17	K3/02339
Total Organic Carbon	9.05		0.50	mg/L		28-JUL-17	R3785176
Total Suspended Solids							
Total Suspended Solids	20.0		5.0	mg/L		24-JUL-17	R3781717
pH							<u>-</u>
pH	7.99		0.10	pH units		22-JUL-17	R3781711

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

L1962532 CONTD....

Reference Information

PAGE 8 of 10 Version: FINAL

Sample Parameter Qualifier Key:

Qualifier	Description
EMPC	Estimated Maximum Possible Concentration. Parameter detected but didn't meet all criteria for positive identification.
HTC	Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
PEHR	Parameter Exceeded Recommended Holding Time On Receipt: Proceed With Analysis As Requested.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**	
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION	

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO3 2-/L.

ALK-HCO3HCO3-CALC- Water Alkalinity, Bicarbonate CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO3-/L

ALK-OHOH-CALC-WP Water Alkalinity, Hydroxide CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.

ALK-TITR-WP Water Alkalinity, Total (as CaCO3) APHA 2320B

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

BOD-CBOD-WP Water Carbonaceous BOD APHA 5210 B

Samples are diluted and seeded, have TCMP added to inhibit nitrogenous demands, and then are incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BOD-WP Water Biochemical Oxygen Demand (BOD) APHA 5210 B

Samples are diluted and seeded and then incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

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.

C-TOC-HTC-WP Water Total Organic Carbon by Combustion APHA 5310 B-WP

Sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.

CL-IC-N-WP Water Chloride in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

EC-WP Water Conductivity APHA 2510B

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

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.

L1962532 CONTD.... PAGE 9 of 10 Version: FINAL

Reference Information

Test Method References:

ALS Test Code Matrix Method Reference** **Test Description**

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.

Fecal coliforms, 1:10 dilution by QT97 Water APHA 9223B QT97

Analysis is carried out using procedures adapted from APHA 9223 "Enzyme Substrate Coliform Test". Fecal (thermotolerant) coliform bacteria are determined by mixing a 1:10 dilution of sample with a product containing hydrolyzable substrates and sealing in a 97-well packet. The packet is incubated at 44.5 – 0.2°C for 18 hours and then the number of wells exhibiting positive responses are counted. The final results are obtained by comparing the number of positive responses to a probability table.

HARDNESS-CALC-WP Water Hardness Calculated **APHA 2340B**

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

EPA245.7 V2.0 HG-T-CVAF-WP Water Mercury Total

Mercury in filtered and unfiltered waters is oxidized with Bromine monochloride and analyzed by cold-vapour atomic fluorescence spectrometry.

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

NH3-COL-WP APHA 4500 NH3 F Water Ammonia by colour

Ammonia in water samples forms indophenol when reacted with hypochlorite and phenol. The intensity is amplified by the addition of sodium

nitroprusside and measured colourmetrically.

NO2+NO3-CALC-WP Water Nitrate+Nitrite **CALCULATION** NO2-IC-N-WP Water Nitrite in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-WP Nitrate in Water by IC Water EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

OG-GRAV-WP Water Oil & Grease - Gravimetric EPA 1664 (modified)

Water samples are acidified and extracted with hexane; the hexane extract is collected in a pre-weighed vial. The solvent is evaporated and Total Oil &

Grease is determined from the weight of the residue in the vial.

P-T-COL-WP Phosphorus, Total APHA 4500 P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.

PAH, PANH-WP Polyaromatic Hydrocarbons (PAHs) EPA SW 846/8270-GC/MS

Water is spiked with a surrogate spike mix and extracted using solvent extraction techniques. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.

PH-WP **APHA 4500H** Water

The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

PHENOLS-4AAP-WT Water Phenol (4AAP) **EPA 9066**

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

WATER LICENSE MONITORING

Reference Information

L1962532 CONTD....
PAGE 10 of 10
Version: FINAL

Test Method References:

ALS Test Code Matrix Method Reference** **Test Description** SO4-IC-N-WP Water Sulfate in Water by IC EPA 300.1 (mod) Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. SOLIDS-TOTSUS-WP Water **Total Suspended Solids** APHA 2540 D (modified) Total suspended solids in aquesous matrices is determined gravimetrically after drying the residue at 103 105°C. XYLENES-SUM-CALC-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:

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.

WP

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.

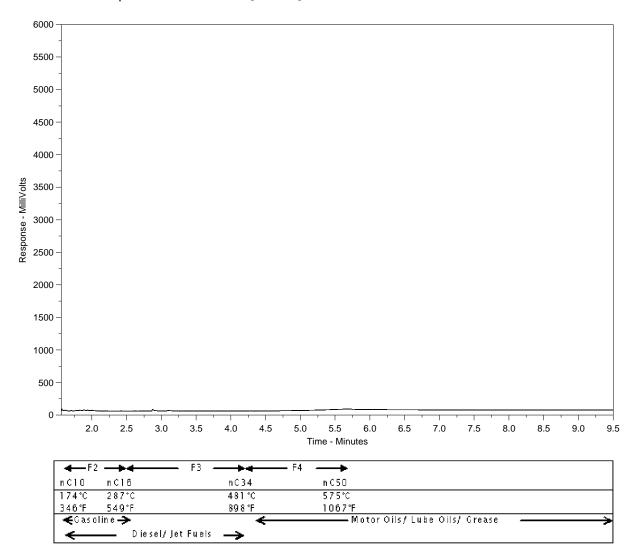
Application results in unsigned test reports with the DRAET watermark are subject to

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1962532-2 Client Sample ID: REP-2 [09:45]



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.

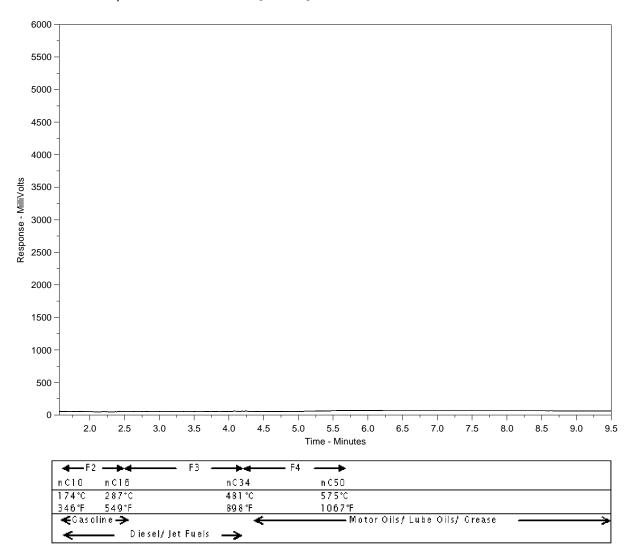
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

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.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1962532-3 Client Sample ID: REP-2A [10:05]



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.



Chain of Custody (COC) / Analytical Request Form

L1962532-COFC

coc Number: 15 - 571781

Page of (9), 7537

Canada Toll Free: 1 800 668 9878

Report To Contact and company name below will appear on the final report		Report Format /	Distribution		Select S	ervice Lev	vel Below	Please co	nfirm all E&P	TATs with	your AN	1 - surcha	s Iliw zegru	pply		
Company: Hanlet of Navincet	Select Report Forn	nat: 🔲 🕫 🛚	EXCEL .	EDD (DIGITAL)		Re	gular [F	रा 🖸	Standa	d TAT if	received	by 3 pm	ı - busine	s days -	no surcha	ges apply
Contact: 1206 HEdley	Quality Control (Q0	C) Report with Repo	rt 🔲 YES [NO	γ Say3	4 (day [P4]		ИСУ	1	Busin	iess day	/ [E1]		
Phone: 267-462-9952	Compare Results	s to Criteria on Report - p			RIORI	3 (day (P3] .		ERGE	Same				Statutory	[,] □
Company address below will appear on the final report	Select Distribution:	EMAIL	MAIL L	FAX	L a	2 (day [P2]				<u> </u>	holiday	[E0]		
Street: Po Box 10	Email 1 or Fax 🤱	agmania	Asinio.	<u> </u>		Date a	and Time	Required	for all E&P	TATs:			d	d-men	n-yy hh:	197
City/Province: Naciont, NO	Email 2 m	stypgov.n	<u> </u>		For tests	that can	not be pe	formed ac	cording to th	service	evel sele	cted, you	will be co	ntacted.		
Postal Code: Yok OHO	Email 3 C CO.	NKneron									/sis Re					
nvoice To Same as Report To YES NO		Invoice Dis			<u> </u>	- 1	ndicate Fi	itered (F),	Preserved (P) or Fille	ered and	Preserv	ad (F/P) b	elow		1 1
Copy of Invoice with Report YES NO	Select Invoice Dist	ribution:1	MAIL MAIL	FAX						<u> </u>				_		1 1
Company:	Email 1 or Fax				1						~					
Contact:	Email 2				↓			ŀ			🔀					રા ક
Project Information		and Gas Required	· · · · · · · · · · · · · · · · · · ·	e)	1						ایا	m	~			of Containers
ALS Account # / Quote #: WPO 624	AFE/Cost Center:		PO#		4				ыl		성	*	×			5
100#: Water Licence Monitoring	Major/Minor Code:		Routing Code:		از ا			-	7	_	۲	_		-		jo j
PO / AFE:	Requisitioner:	·	-		اعٌ ا		걸	9		1 5	[O]	\tilde{n}	7-			ipe ipe
SD:	Location:			_	X		ا رو	3	6 0	32	11	***	12	_		Zur
ALS Lab Work Order # (lab use only)		inig .	Sampler: 🚝	7	7738	BOD	Bacteria	etals	Nutrie	٦٢		メ		习		1
		Ridaell			W.	8	201	2	ج اح	<u> </u>	õ		7	١.		1
ALS Sample # Sample Identification and/or Coordinates (lab use only) (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	١٢٠		Carrier 1	-	$ \mathcal{L} $	- -≥	19	53	π	7-		
(This description will appear on the report)			 				0	01	7 P	10	P					9
KEY-6		19-0717	09:00 M	_	1 .1	-	S	2-	0 0	कि	R	A	10 4	. 	م دُو صاد	1/1/5/~
WREVER	1000			Mistrate	7	سيز		7 1	P	10	1	_	1 T	2 -	4	
REP-Z		19-07-17				<u> </u>	?	7 1	DO	1	7	8		_	_	15
REP-2a		19-07-17	10:05 Am	(x)asteurste		~	4	8	1 1	18	9	٢	P P		<u> </u>	15
	_															
				· ·												
No water at REP-5 Talvi	9117 R 908	MAG														
100 00 00 00 00 00 00 00 00 00 00 00 00	<i>41</i>	, , , ,								1		$\neg \uparrow$		_	1	!
· Coder	=1-0-0-1									+-			+	+	<u> </u>	
Lacter 1	on ppea	·					-	-	-	+	┝╌┥			+	-	1
									+	┼-		 +		+	-	+
								CARED	LE CONT	UTION	AS DE	CEN	ÉD /Inh		dia coco	5. To 3. To 3. To 3. To 3.
Drinking Water (DW) Samples¹ (client use)	s / Specify Criteria to a elect)	dd on report by click ronic COC only)	ing on the drop-do	wn list below	Froze	<u>. </u>		T SAIM	CE COM		Observ		Ye			
Are samples taken from a Regulated DW System?	-1.36 - (- 2 m - L	20		Ice Pa			Ice Cut	oes 🗀	Cust				es T	_	Ξl
□res □ro Nunavut	-WW-(س- ۱ ۳ در	· 1			ig Initia		П			•	-				_
Are samples for human drinking water use?	F1-44, 9	2A.H			1 . 1	iNii	TIAL COC		PERATURE	S°C ⊹	9 (NZ)	10 gov.	- FINAL (COOLER	TEMPER	NTURES ℃
	, , , ,										Ī	17.	.7			1
SHIPMENT RELEASE (client use)		INITIAL SHIPMEN	T RECEPTION (la	b use only)		, y . :]			FINAL	SHIP	MENT I		PTION (lab use	only)	gas karjaja karanja i
Released by: Date: Time:		C-1	21.7-17		Time:	00	Receiv	ed by:			Ī	Date:				Time:
PREFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION	[Al		E LABORATORY (PY			<u> </u>						OCTOBER 2015 FRONT
CLERY TO DAGIN BLOCK LOUGHED FOR MILE HAD BUILDING HALOKWATION		******	~ :- NOUNTORT (JULI ILLLUY		.,,, 00										SOTOBER 2013 FROM



Hazardous Materials Spill Database

Environment Division of ENR Scotia 6, 5102-50th Avenue; Yellowknife, NT X1A 3S8 Phone: (867) 873-7654 Fax: (867) 873-0221

Sorted By: SpillNo for the year(s):

Spill No.	Date	Ter	Region	Location	Site Description	Commodity	Quantity	Source	Agency
2017154	2017-05-16	NU	KEE	Repulse Bay	Housing Unit 95	Heating Fuel P-50	38 L	ST<	GN
2017155	2017-05-11	NU	BAF	Repulse Bay	Housing Unit 99	Heating Fuel P-50	90 L	ST<	GN

Total Spills on this Report: 2

This report contains information regarding spills that were reported to the NWT 24-Hour Spill Line. The absence of information on any particular location in no way guarantees that contamination has not occurred at that location.

LEGEND

Region:	Source:		Agency:
BAF - Baffin DEH - Deh Cho INU - Inuvik KEE - Keewatin KIT - Kitikmeot NSL - North Slave SAH - Sahtu SSL - South Slave	AIR - Aircraft DRUM - Drum or Barrel MV - Marine Vessel NS - Natural Seepage OTH - Other Transportation	PL - Pipe or Line RT - Rail Train SL - Sewage Lagoon ST< - Storage Tank <4000 litres ST> - Storage Tank >4000 litres	CCG - Canadian Coast Guard EP - Environment Canada GN - Government of Nunavut GNWT - Government of Northwest Territories ILA - Inuvialiut Land Administration INAC - Indian and Northern Affairs Canada NEB - National Energy Board

Personation	REP-2			2014		2015		2016	20	17		Statistics	
Aladinity Color	Parameter	Unit	DI		25-lun-15		25-Διισ-15		_		Min	1	Average
Restriction (PCCS)		Offic	DE	20 Aug 14	25 Juli 15	29 Jul 19	25 Aug 15	03 Aug 10	25 Juli 17	15 301 17	IVIIII	IVIUX	Average
Hydromosic (OH)	•	mg/L	1.2	/	102	190	248	238	455	205	102	455	239.67
Total (as CaCO2) meg/L 1.0 285 834 159 204 495 273 498 83.4 372 195.34	Carbonate (CO3)	mg/L	0.60	/	0.60	1.92	0.60	0.60	0.60	0.60	0.60	1.92	0.82
Manifesta by Colour Total gas N mg/L 0.20 0.000 0.010 0.014 0.010 0.011 18.3 0.302 0.011 18.3 2.67	Hydroxide (OH)	mg/L	0.34	/	0.34	0.34		0.34	0.34	0.34	0.34	0.34	0.34
Total cas No		mg/L	1.0	185	83.4	159	204	195	373	168	83.4	373	195.34
Biotherical Organopes General of Mode Solution So													
Biochemical Compage Demand mag/L 60 60 7 7 7 20 20 20 30 33 20 450 6704		mg/L	0.20	0.010	0.010	0.014	0.010	0.011	18.3	0.302	0.01	18.3	2.67
Carbonaceous BOD Septemberseous mg/L 6.0 / 2.0 2.0 2.0 330 3.2 2.0 330 0.78		m a /1	C 0	C 0	2.0	2.0	2.0	2.0	450	F 2	2.0	450	67.04
Modern M		mg/L	6.0	6.0	2.0	2.0	2.0	2.0	450	5.5	2.0	450	67.04
Chloride in Water by IC Chloride (C) mg/L 10 / 100 13.9 25.6 31.3 32.1 12.2 10 32.1 28.5 Conductivity umbos/cm 1.0 565 233 352 447 487 1120 32.6 21.3 1120 501.14 Fead Colforms Fead Colforms Fead Colforms Fead Colforms Fead Colforms MPN/100mL 3 75 3 3 3 3 7 10 3 75 16.17 Fead Colforms Fead Colforms MPN/100mL 3 75 3 3 3 3 7 10 3 75 16.17 Fead Colforms MPN/100mL 3 75 16.17 Fead Colforms MPN/100mL 3 75 3 3 3 3 7 10 3 75 16.17 Fead Colforms MPN/100mL 3 75 3 3 3 3 7 10 3 75 16.17 Fead Colforms MPN/100mL 3 75 75 75 75 75 75 75		mg/l	6.0	1	1	2.0	2.0	2.0	330	3.2	2.0	330	67.84
Chloride (C)		mg/ L	0.0	1	1	2.0	2.0	2.0	330	3.2	2.0	330	07.04
Conductivity Conductivity Conductivity Conductivity Conductivity Fecal Coliforms Fecal Coliforms Fecal Coliforms Fecal Coliforms MPM/100mL 3 75 3 3 3 3 7 10 3 75 15.17		mg/L	10	/	10.0	13.9	25.6	31.3	32.1	12.2	10	32.1	20.85
Feed Coliforms NeW/Itlant 3 75 3 3 3 3 7 10 3 75 16.17		g,		,									
Fecal Coliforms MPN/100mL 3 75 3 8 3 3 7 10 3 75 16.17	Conductivity	umhos/cm	1.0	565	213	352	447	487	1120	324	213	1120	501.14
Hardness Calculated Hardness (ar.CaCO3)	Fecal Coliforms												
Mercury (He)	Fecal Coliforms	MPN/100mL	3	75	3	3	3	3	/	10	3	75	16.17
Mercury Total													
Mercury (righ Myster by C Mirate in Water by C Mirate in Wat	` '	mg/L	0.30	223	95.2	151	200	222	487	164	95.2	487	220.31
Nirrate in Water by IC Nirrate (as N)	•	/I	0.00020	0.000020	0.000020	0.000020	0.000020	0.000000	0.0000470	0.0000007	0.0000067	0.000047	0.000033
Nitrate (as N) mg/L 0.40 / 0.277 0.050 0.297 0.020 0.040 0.069 0.02 0.297 0.13		mg/L	0.00020	0.000020	0.000020	0.000020	0.000020	0.000020	0.0000470	0.0000067	0.000006/	0.000047	0.000022
Nitrate Nitrite Nitrit		mg/l	0.40	1	0.277	0.050	0.297	0.020	0.040	0.069	0.02	0 297	0.13
Nivrate and Nivrine as N mg/L 0.45 0.161 0.277 0.070 0.0297 0.070 0.070 0.070 0.07 0.297 0.15	· · ·	IIIg/ L	0.40	/	0.277	0.030	0.237	0.020	0.040	0.003	0.02	0.237	0.13
Nitrite in Water by IC Nitrite (as N)		mg/L	0.45	0.161	0.277	0.070	0.297	0.070	0.070	0.070	0.07	0.297	0.15
Oil & Grease - Gravimetric Oil and Grease mg/L S.0 2.0 2.0 2.0 2.0 5.0 8.0 5.0 2.0 3.71	Nitrite in Water by IC	O,											
Phenol P	Nitrite (as N)	mg/L	0.20	/	0.010	0.010	0.010	0.010	0.020	0.010	0.010	0.020	0.012
Phenols	Oil & Grease - Gravimetric												
Phenols	Oil and Grease	mg/L	5.0	2.0	2.0	2.0	2.0	5.0	8.0	5.0	2.0	8.0	3.71
Phosphorus (P)													
Phosphorus (P)		mg/L	0.0010	0.0010	0.0016	0.0010	0.0013	0.0018	0.0598	0.0010	0.001	0.0598	0.010
Sulfate in Water by IC Sulfate (SO4) mg/L 6.0 / 14.1 10.6 10.2 21.0 194 11 10.2 194 43.47		/I	0.010	1	0.013	0.011	0.010	0.013	2.50	0.000	0.01	2.5	0.61
Sulfate (SOA)	, , , ,	mg/L	0.010	/	0.013	0.011	0.010	0.012	3.50	0.086	0.01	3.5	0.61
Total Metals by ICP-MS		mg/l	6.0	1	14 1	10.6	10.2	21.0	194	11	10.2	194	<i>1</i> 3 <i>1</i> 7
Aluminium (Al)	` '	1116/ 2	0.0	1	11.1	10.0	10.2	21.0	131		10.2	191	13.17
Arsenic (As)	•	mg/L	0.0050	/	0.380	0.0182	0.0514	0.0176	0.773	0.0270	0.0176	0.773	0.21
Calcium (Ca) mg/L 0.10 66.6 29.4 47.0 60.3 68.2 175 52.1 29.4 175 71.23 Chromium (Cr) mg/L 0.0010 0.0010 0.0010 0.0010 0.0010 0.0006 0.0006 0.0006 0.00064 0.00064 0.00068 0.0018 Cobalt (Co) mg/L 0.00020 / 0.00020 0.00020 0.00020 0.00021 0.00039 0.00023 0.00021 0.00015 Copper (Cu) mg/L 0.00020 0.00151 0.00235 0.00076 0.00115 0.00126 0.0055 0.00352 0.00076 0.0256 0.0055 iron (Fe) mg/L 0.000 0.000090 0.000090 0.000090 0.000090 0.00087 0.00033 0.0003 0.00021 Lead (Pb) mg/L 0.0000 0.000090 0.000090 0.000090 0.000897 0.00087 0.00033 0.00087 0.0014 Magnesium (Mg) mg/L 0.010 13.7 5.31 8.10 11.9 12.6 12.3 8.33 5.31 13.7 10.32 Manganese (Mn) mg/L 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0018 0.0020 0.0051 0.0051 Potassium (K) mg/L 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0018 0.0020 0.0003 0.00039 0.00039 0.00039 0.00087 0.00031 0.00039 0	Arsenic (As)			0.00023	0.00020		0.00022	0.00022	0.00287		0.0002		0.00064
Chromium (Cr)	Cadmium (Cd)	mg/L	0.000010	0.000010	0.000010	0.000010	0.000010	0.000010	0.000349	0.0000199	0.00001	0.000349	0.000060
Cobalt (Co)	` '	mg/L		66.6									71.23
Copper (Cu)				0.0010									
Iron (Fe)	` '			/									
Lead (Pb) mg/L 0.000090 0.000090 0.000090 0.000090 0.000090 0.000857 0.000633 0.00009 0.00857 0.000633 0.00009 0.00857 0.00083 0.00009 0.00857 0.00083 0.00009 0.000857 0.000857 0.0014 Magnesium (Mg) mg/L 0.00030 / 0.00875 0.0148 0.00640 0.00518 0.529 0.155 0.00518 0.0219 0.022 0.0021 0.0020 0.0												1	
Magnesium (Mg)												ł	
Manganese (Mn) mg/L 0.00030 / 0.00875 0.0148 0.00640 0.00518 0.529 0.155 0.00518 0.529 0.12 Nickel (Ni) mg/L 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0030 0.0033 Potassium (K) mg/L 0.020 4.03 2.15 2.14 2.95 3.45 25.1 4.51 2.14 25.1 6.33 Sodium (Na) mg/L 0.030 30.3 9.69 15.7 21.4 27.4 68.5 19.6 9.69 68.5 27.51 Zinc (Zn) mg/L 0.0020 / 0.0020 0.0020 0.0020 0.0220 0.0276 0.0072 0.002 0.276 0.049 Total Organic Carbon by Combustion Total Suspended Solids mg/L 13 6.0 5.0 9.0 8.0 5.0 54 10 5.0 54 13.86 pH													
Nickel (Ni)				/								1	
Potassium (K)				0.0020									
Sodium (Na) mg/L 0.030 30.3 9.69 15.7 21.4 27.4 68.5 19.6 9.69 68.5 27.51													
Total Organic Carbon by Combustion Total Organic Carbon mg/L 0.50 / 3.5 5.8 8.2 9.75 253 3.57 3.5 253 47.30 Total Suspended Solids mg/L 13 6.0 5.0 9.0 8.0 5.0 54 10 5.0 54 13.86 pH pH Units 0.10 8.24 8.04 8.30 8.28 8.19 6.92 7.81 6.92 8.3 7.97 Benzene mg/L 0.00050 / 0.00050 <t< td=""><td></td><td></td><td></td><td>30.3</td><td>9.69</td><td></td><td>21.4</td><td></td><td></td><td></td><td>9.69</td><td>68.5</td><td>27.51</td></t<>				30.3	9.69		21.4				9.69	68.5	27.51
Total Organic Carbon mg/L 0.50 / 3.5 5.8 8.2 9.75 253 3.57 3.5 253 47.30 Total Suspended Solids mg/L 13 6.0 5.0 9.0 8.0 5.0 54 10 5.0 54 13.86 pH pH pH Units 0.10 8.24 8.04 8.30 8.28 8.19 6.92 7.81 6.92 8.3 7.97 Benzene mg/L 0.00050 / 0.00050		mg/L		1	0.0020	0.0020	0.0020		0.276		0.002		0.049
Total Suspended Solids Total Suspended Solids mg/L 13 6.0 5.0 9.0 8.0 5.0 54 10 5.0 54 13.86 pH pH pH Units 0.10 8.24 8.04 8.30 8.28 8.19 6.92 7.81 6.92 8.3 7.97 Benzene mg/L 0.00050 / 0.00050	-												
Total Suspended Solids mg/L 13 6.0 5.0 9.0 8.0 5.0 54 10 5.0 54 13.86 pH pH pH Units 0.10 8.24 8.04 8.30 8.28 8.19 6.92 7.81 6.92 8.3 7.97 Benzene mg/L 0.00050 / 0.00050		mg/L	0.50	1	3.5	5.8	8.2	9.75	253	3.57	3.5	253	47.30
pH pH pH Units 0.10 8.24 8.04 8.30 8.28 8.19 6.92 7.81 6.92 8.3 7.97 Benzene mg/L 0.00050 / 0.00050 0.0005	•	,	- 10										40.5
pH pH Units 0.10 8.24 8.04 8.30 8.28 8.19 6.92 7.81 6.92 8.3 7.97 Benzene mg/L 0.00050 / 0.00050 0	·	mg/L	13	6.0	5.0	9.0	8.0	5.0	54	10	5.0	54	13.86
Benzene mg/L 0.00050 / 0.00050		nH Heite	0.10	0.24	9.04	9.20	0.20	0.10	6.02	7.01	6.02	0.2	7.07
Toluene mg/L 0.0010 / 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0011 0.0011 0.0011 0.0011 0.0011 0.0025 Ethyl Benzene mg/L 0.00050 / 0.00050 0.00	•			8.24									
Ethyl Benzene mg/L 0.00050 / 0.00050 0				1									
o-Xylene mg/L 0.00050 / 0.00050 0.00050 0.00050 0.00039 0.00050 0.0005 0.00050 0.00039 0.00050				/									
F1 (C6-C10) mg/L 0.10 / 0.10 0.10 0.10 0.27 0.10 0.10 0.27 0.10 0.27 0.13 F2 (C10-C16) mg/L 0.25 / 0.25 0.25 0.25 0.10 0.88 0.10 0.10 0.88 0.31 F3 (C16-C34) mg/L 0.25 / 0.25	•			/								1	
F2 (C10-C16) mg/L 0.25 / 0.25 0.25 0.25 0.10 0.88 0.10 0.10 0.88 0.31 F3 (C16-C34) mg/L 0.25 / 0.25 0.25 0.25 0.25 2.99 0.25 0.25 2.99 0.71 F4 (C34-C50) mg/L 0.25 / 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25				/									
F4 (C34-C50) mg/L 0.25 / 0.25 0.25 0.25 0.50 0.25 0.25 0.50 0.29				/									
	` '	mg/L		1									
Total Hydrocarbons (C6-C50) mg/L 0.44 / 0.44 0.44 0.44 0.38 0.38 4.14 1.04		mg/L		1								1	
	Total Hydrocarbons (C6-C50)	mg/L	0.44	1	0.44	0.44	0.44	0.38	4.14	0.38	0.38	4.14	1.04

NAU-2A										
				15	2016	20			Statistics	
Parameter	Unit	DL	25-Aug-15	27-Aug-15	09-Aug-16	29-Jun-17	19-Jul-17	Min	Max	Average
Alkalinity	,,,,,,/I	1.2	7.7	200	200	42.5	100	42.5	767	200.70
Bicarbonate (HCO3)	mg/L	1.2 0.60	767 0.60	208	200 0.60	42.5 0.60	186 0.60	42.5	767 3.00	280.70 1.08
Carbonate (CO3) Hydroxide (OH)	mg/L		0.80	3.00				0.60	ł — — — — — — — — — — — — — — — — — — —	0.34
Total (as CaCO3)	mg/L	0.34 1.0	629	0.34 175	0.34 164	0.34 34.8	0.34 153	0.34 34.8	0.34 629	231.16
,	mg/L	1.0	629	1/5	104	34.8	153	34.8	029	231.10
Ammonia by Colour Total (as N)	mg/L	0.20	25.6	0.234	0.77	0.046	0.040	0.04	25.6	5.34
Biochemical Oxygen Demand (BOD)	IIIg/L	0.20	23.0	0.234	0.77	0.040	0.040	0.04	23.0	5.54
Biochemical Oxygen Demand	mg/L	6.0	263	2.0	2.0	2.0	2.0	2.0	263	54.20
Carbonaceous BOD	IIIg/ L	0.0	203	2.0	2.0	2.0	2.0	2.0	203	34.20
BOD Carbonaceous	mg/L	6.0	258	2.0	2.0	2.0	2.0	2.0	258	53.20
Chloride in Water by IC	IIIg/ L	0.0	230	2.0	2.0	2.0	2.0	2.0	230	33.20
Chloride (Cl)	mg/L	10	47.0	17.0	9.39	1.21	12.9	1.21	47	17.50
Conductivity	1116/ 2	10	47.0	17.0	3.33	1.21	12.3	1.21	47	17.50
Conductivity	umhos/cm	1.0	1250	388	345	64.1	302	64.1	1250	469.82
Fecal Coliforms	annios/ em	1.0	1230	300	3 13	0111	302	0111	1230	103.02
Fecal Coliforms	MPN/100mL	3	240	9	43	/	10	9	240	75.50
Hardness Calculated	1111 11 2001112	ū			.0	7		,		70.00
Hardness (as CaCO3)	mg/L	0.30	411	160	167	31.2	145	31.2	411	182.84
Mercury Total	6/ -									
Mercury (Hg)	mg/L	0.00020	0.00020	0.00020	0.000020	0.0000050	0.0000050	0.000005	0.0002	0.00009
Nitrate in Water by IC	<u> </u>									
Nitrate (as N)	mg/L	0.40	0.040	0.066	0.193	0.020	0.107	0.02	0.193	0.09
Nitrate + Nitrite										
Nitrate and Nitrite as N	mg/L	0.45	0.070	0.070	0.193	0.070	0.107	0.07	0.193	0.10
Nitrite in Water by IC										
Nitrite (as N)	mg/L	0.20	0.020	0.010	0.010	0.010	0.010	0.01	0.02	0.01
Oil & Grease - Gravimetric										
Oil and Grease	mg/L	5.0	2.0	2.0	5.0	5.0	5.0	2.0	5.0	3.80
Phenol										
Phenols	mg/L	0.0010	0.132	0.0019	0.0019	0.0010	0.0010	0.001	0.132	0.03
Phosphorus, Total										
Phosphorus (P)	mg/L	0.010	2.21	0.020	0.066	0.041	0.032	0.02	2.21	0.47
Sulfate in Water by IC										
Sulfate (SO4)	mg/L	6.0	26.3	6.75	10.5	1.29	10.7	1.29	26.3	11.11
	mg/L	6.0	26.3	6.75	10.5	1.29	10.7	1.29	26.3	11.11
Sulfate (SO4)	mg/L mg/L	6.0 0.0050	26.3 0.121	6.75 0.0080	10.5 0.0422	0.0794	10.7 0.0662	1.29 0.008	26.3 0.121	11.11 0.063
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As)		0.0050 0.00020	0.121 0.00347	0.0080 0.00034	0.0422 0.00034			0.008 0.0002	0.121 0.00347	0.063 0.0010
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd)	mg/L	0.0050 0.00020 0.000010	0.121 0.00347 0.000327	0.0080	0.0422 0.00034 0.000010	0.0794	0.0662	0.008 0.0002 0.000007	0.121	0.063 0.0010 0.00007
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As)	mg/L mg/L	0.0050 0.00020 0.000010 0.10	0.121 0.00347 0.000327 142	0.0080 0.00034 0.000010 47.5	0.0422 0.00034 0.000010 52.8	0.0794 0.00020 0.000010 9.87	0.0662 0.00043 0.0000070 45.7	0.008 0.0002 0.000007 9.87	0.121 0.00347 0.000327 142	0.063 0.0010 0.00007 59.57
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr)	mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010	0.121 0.00347 0.000327 142 0.0073	0.0080 0.00034 0.000010 47.5 0.0010	0.0422 0.00034 0.000010 52.8 0.0010	0.0794 0.00020 0.000010 9.87 0.0010	0.0662 0.00043 0.0000070 45.7 0.00040	0.008 0.0002 0.000007 9.87 0.0004	0.121 0.00347 0.000327 142 0.0073	0.063 0.0010 0.00007 59.57 0.00
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020	0.121 0.00347 0.000327 142 0.0073 0.00562	0.0080 0.00034 0.000010 47.5 0.0010 0.00020	0.0422 0.00034 0.000010 52.8 0.0010 0.00020	0.0794 0.00020 0.000010 9.87 0.0010 0.00020	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025	0.008 0.0002 0.000007 9.87 0.0004 0.0002	0.121 0.00347 0.000327 142 0.0073 0.00562	0.063 0.0010 0.00007 59.57 0.00 0.0013
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.00090 0.010 0.00030 0.0020	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.00030 0.0020 0.020	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00090 0.010 0.00030 0.0020 0.020 0.030	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.00030 0.0020 0.020	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025	0.0422 0.00034 0.000010 52.8 0.0010 0.00220 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312	0.063 0.0010 0.00007 59.57 0.00 0.013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00090 0.010 0.00030 0.0020 0.020 0.030	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025	0.0422 0.00034 0.000010 52.8 0.0010 0.00220 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312	0.063 0.0010 0.00007 59.57 0.00 0.013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids PH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266	0.063 0.0010 0.00007 59.57 0.00 0.013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025 11.3	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0420 0.652 1.21 0.0024 1.83	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54	0.063 0.0010 0.00007 59.57 0.00 0.013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids pH pH Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 13	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025 11.3	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4 9.0 8.14 0.00050	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83 5.0	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60 7.93 0.00050
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids pH pH Benzene Toluene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0 7.79 0.00050 0.0022	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025 11.3 5.0 8.45 0.00050 0.0010	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4 9.0 8.14 0.00050 0.0010	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05 20.0 7.99 0.00050 0.0010	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54 8.45 0.00050 0.0022	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60 7.93 0.00050 0.0012
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0 7.79 0.00050 0.0022 0.00050	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.00050 4.32 18.9 0.0025 11.3 5.0 8.45 0.00050 0.0010 0.00050	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4 9.0 8.14 0.00050 0.0010 0.00050	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05 20.0 7.99 0.00050 0.0010 0.00050	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54 8.45 0.00050 0.0022 0.00050	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60 7.93 0.00050 0.0012 0.00050
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids Total Suspended Solids PH PH Benzene Toluene Ethyl Benzene O-Xylene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0 7.79 0.00050 0.0022 0.00050 0.00050	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.00050 0.0020 4.32 18.9 0.0025 11.3	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4 9.0 8.14 0.00050 0.00050 0.00050	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.00050	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05 20.0 7.99 0.00050 0.0010 0.00050 0.00050	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54 8.45 0.00050 0.0022 0.00050	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60 7.93 0.00050 0.0012 0.00050
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene O-Xylene F1 (C6-C10)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.00050 0.00050 0.10	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0 7.79 0.00050 0.00022 0.00050 0.10	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.00580 0.0020 4.32 18.9 0.0025 11.3 5.0 8.45 0.00050 0.0010 0.00050 0.00050 0.10	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4 9.0 8.14 0.00050 0.0010 0.00050 0.00050 0.10	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.00050 0.10	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05 20.0 7.99 0.00050 0.0010 0.00050 0.00050 0.10	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.00050 0.10	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54 8.45 0.00050 0.0022 0.00050 0.00050 0.10	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60 7.93 0.00050 0.0012 0.00050 0.10
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene o-Xylene F1 (C6-C10) F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13 0.10 0.00050 0.00050 0.10 0.25	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0 7.79 0.00050 0.00022 0.00050 0.100 0.42	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025 11.3 5.0 8.45 0.00050 0.0010 0.00050 0.100 0.25	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4 9.0 8.14 0.00050 0.0010 0.00050 0.00050 0.10 0.1	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.00050 0.100 0.10	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05 20.0 7.99 0.00050 0.0010 0.00050 0.10 0.10	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.10 0.10	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54 8.45 0.00050 0.0022 0.00050 0.10 0.42	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60 7.93 0.00050 0.0012 0.00050 0.10 0.19
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene o-Xylene F1 (C6-C10) F2 (C10-C16) F3 (C16-C34)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13 0.10 0.00050 0.00050 0.10 0.25 0.25	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0 7.79 0.00050 0.0022 0.00050 0.10 0.42 1.51	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.00580 0.0020 4.32 18.9 0.0025 11.3 5.0 8.45 0.00050 0.0010 0.00050 0.00050 0.10 0.25 0.25	0.0422 0.00034 0.000010 52.8 0.0010 0.0020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4 9.0 8.14 0.00050 0.0010 0.00050 0.00050 0.10 0.1	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.100 0.100 0.25	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05 20.0 7.99 0.00050 0.0010 0.00050 0.10 0.10 0.25	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.10 0.10 0.25	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54 8.45 0.00050 0.0022 0.00050 0.10 0.42 1.51	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60 7.93 0.00050 0.0012 0.00050 0.10 0.19 0.50
Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene o-Xylene F1 (C6-C10) F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13 0.10 0.00050 0.00050 0.10 0.25	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54.0 7.79 0.00050 0.00022 0.00050 0.100 0.42	0.0080 0.00034 0.000010 47.5 0.0010 0.00020 0.00114 0.19 0.000118 10.1 0.0580 0.0020 4.32 18.9 0.0025 11.3 5.0 8.45 0.00050 0.0010 0.00050 0.100 0.25	0.0422 0.00034 0.000010 52.8 0.0010 0.00020 0.00284 0.282 0.000229 8.48 0.0872 0.0020 4.06 13.0 0.0044 10.4 9.0 8.14 0.00050 0.0010 0.00050 0.00050 0.10 0.1	0.0794 0.00020 0.000010 9.87 0.0010 0.00020 0.00057 0.154 0.000116 1.60 0.0406 0.0020 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.00050 0.100 0.10	0.0662 0.00043 0.0000070 45.7 0.00040 0.00025 0.00169 0.220 0.000168 7.44 0.0539 0.00182 3.24 22.2 0.0030 9.05 20.0 7.99 0.00050 0.0010 0.00050 0.10 0.10	0.008 0.0002 0.000007 9.87 0.0004 0.0002 0.00057 0.154 0.000116 1.6 0.0406 0.00182 0.652 1.21 0.0024 1.83 5.0 7.28 0.00050 0.0010 0.00050 0.10 0.10	0.121 0.00347 0.000327 142 0.0073 0.00562 0.0686 2.85 0.0104 13.6 0.923 0.0116 31.5 98.2 0.312 266 54 8.45 0.00050 0.0022 0.00050 0.10 0.42	0.063 0.0010 0.00007 59.57 0.00 0.0013 0.015 0.74 0.0022 8.24 0.23 0.0039 8.75 30.70 0.065 59.72 18.60 7.93 0.00050 0.0012 0.00050 0.10 0.19

Parameter Alkalinity			2015 2016		20	17	Statistics		
Alkalinity	Unit	DL	25-Jun-15	09-Aug-16		19-Jul-17	Min	Max	Average
Bicarbonate (HCO3)	mg/L	1.2	167	373	/	/	167	373	270
Carbonate (CO3)	mg/L	0.60	0.60	0.60	/	/	0.60	0.60	0.60
Hydroxide (OH)	mg/L	0.34	0.34	0.34	/	/	0.34	0.34	0.34
Total (as CaCO3)	mg/L	1.0	137	306	/	/	137	306	221.5
Ammonia by Colour									
Total (as N)	mg/L	0.20	0.026	0.075	/	/	0.026	0.075	0.0505
Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	mg/L	6.0	2.0	2.0	/	/	2.0	2.0	2.0
Carbonaceous BOD			,		,	,			
BOD Carbonaceous	mg/L	6.0	/	2.0	/	/	2.0	2.0	2.0
Chloride in Water by IC	/1	40	0.07	22.5	1	1	0.07	22.5	24 225
Chloride (CI)	mg/L	10	8.97	33.5	/	/	8.97	33.5	21.235
Conductivity	umb os /sm	1.0	205	866	1	1	305	866	FOF F
Conductivity Fecal Coliforms	umhos/cm	1.0	305	800	/	/	305	800	585.5
	MPN/100mL	3	3	3	1	1	3	3	3
Hardness Calculated	IVIPIN/ 100IIIL	3	3	3	/	/	3	3	3
Hardness (as CaCO3)	mg/L	0.30	160	361	/	/	160	361	260.5
Mercury Total	IIIB/ L	0.50	100	301	1	1	100	301	200.5
Mercury (Hg)	mg/L	0.00020	0.000020	0.000020	1	/	0.000020	0.000020	0.000020
Nitrate in Water by IC	6/ -	5.55520	0.000020	0.000020	1	1	5.555520	0.000020	5.555520
Nitrate (as N)	mg/L	0.40	0.020	0.057	/	/	0.020	0.057	0.0385
Nitrate + Nitrite	8/ =		0.020		,	,			
Nitrate and Nitrite as N	mg/L	0.45	0.070	0.070	/	/	0.070	0.070	0.070
Nitrite in Water by IC	O,				,	,			
Nitrite (as N)	mg/L	0.20	0.010	0.020	/	/	0.010	0.020	0.015
Oil & Grease - Gravimetric	Ç,								
Oil and Grease	mg/L	5.0	2.0	5.0	/	/	2.0	5.0	3.5
Phenol									
Phenols	mg/L	0.0010	0.0033	0.0034	/	/	0.0033	0.0034	0.00335
Phosphorus, Total									
Phosphorus (P)	mg/L	0.010	0.045	0.029	/	/	0.029	0.045	0.037
	mg/L	0.010	0.045	0.029	/	/	0.029	0.045	0.037
Phosphorus (P)	mg/L mg/L	0.010 6.0	0.045 19.8	0.029 130	/	/	0.029 19.8	0.045 130	0.037 74.9
Phosphorus (P) Sulfate in Water by IC					/	/			
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI)		6.0 0.0050	19.8 0.348	130 0.0390	/	/	19.8 0.039	130 0.348	74.9 0.1935
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS	mg/L	6.0	19.8 0.348 0.00036	130 0.0390 0.00065	/ /	/ /	19.8	130	74.9 0.1935 0.000505
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd)	mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010	19.8 0.348 0.00036 0.000010	130 0.0390 0.00065 0.000029	/ / / /	/ / / /	19.8 0.039 0.00036 0.00001	130 0.348 0.00065 0.000029	74.9 0.1935 0.000505 1.95E-05
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca)	mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10	19.8 0.348 0.00036 0.000010 49.1	130 0.0390 0.00065 0.000029 89.9	/ / / /	/ / / /	19.8 0.039 0.00036 0.00001 49.1	130 0.348 0.00065 0.000029 89.9	74.9 0.1935 0.000505 1.95E-05 69.5
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr)	mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010	19.8 0.348 0.00036 0.000010 49.1 0.0010	130 0.0390 0.00065 0.000029 89.9 0.0010	/ / / / /	/ / / / /	19.8 0.039 0.00036 0.00001 49.1 0.0010	130 0.348 0.00065 0.000029 89.9 0.0010	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021	/ / / / /	/ / / / /	19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.000405	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203	/ / / / / /	/ / / / / /	19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03	/ / / / / / /	/ / / / / / /	19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163		/ / / / / / / /	19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.00090 0.010	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.000090 0.010 0.00030	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.00090 0.010 0.00030 0.0020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00203 1.03 0.000163 33.1 0.0447 0.0020			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447 0.002	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447 0.002 15	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020 0.030	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447 0.002 15	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.00090 0.010 0.00030 0.0020 0.020 0.030 0.0020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020 0.030	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020 0.030 0.0020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.00090 0.010 0.00030 0.0020 0.020 0.030 0.0020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020 0.030 0.0020	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids Total Suspended Solids Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 0.050	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020 12.6	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002 12.6	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585 17.6	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids PH pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020 12.6 5.0	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585 17.6 5.0			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002 12.6 5.0	130 0.348 0.00065 0.000029 89.9 0.0010 0.00021 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585 17.6 5.0	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025 15.1 5.0
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.00010 0.10 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020 12.6 5.0 8.12 0.00050 0.0010	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585 17.6 5.0 8.23 0.00050			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002 12.6 5.0 8.12 0.00050	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585 17.6 5.0 8.23 0.00050	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025 15.1 5.0 8.175 0.00050
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids PH pH Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.00010 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.030 13 0.10 0.50 13 0.10 0.00050 0.0010	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020 12.6 5.0 8.12 0.00050 0.0010	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585 17.6 5.0 8.23 0.00050 0.0010			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002 12.6 5.0 8.12 0.00050 0.0010	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585 17.6 5.0 8.23 0.00050 0.0010	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025 15.1 5.0 8.175 0.00050 0.0010
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.00010 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.030 0.050 13 0.10 0.00050 0.0010 0.00050	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020 12.6 5.0 8.12 0.00050 0.0010 0.00050	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585 17.6 5.0 8.23 0.00050 0.0010 0.00050			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002 12.6 5.0 8.12 0.00050 0.0010 0.00050	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.004309 33.1 0.0447 0.002 15 56.5 0.0585 17.6 5.0 8.23 0.00050 0.0010 0.00050	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025 15.1 5.0 8.175 0.00050 0.0010 0.00050
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene O-Xylene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.00020 0.00020 0.00020 0.010 0.00030 0.020 0.020 0.030 0.020 13 13 0.10 0.00050 0.00050 0.00050	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020 12.6 5.0 8.12 0.00050 0.0010 0.00050 0.00050	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585 17.6 5.0 8.23 0.00050 0.0010 0.00050 0.00050			19.8 0.039 0.00036 0.00001 49.1 0.0002 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002 12.6 5.0 8.12 0.00050 0.00050 0.00050 0.00050	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.000309 33.1 0.0447 0.002 15 56.5 0.0585 17.6 5.0 8.23 0.00050 0.00050 0.00050	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025 15.1 5.0 8.175 0.00050 0.0010 0.00050 0.00050
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids Total Suspended Solids PH pH Benzene Toluene Ethyl Benzene O-Xylene F1 (C6-C10)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.00010 0.10 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.030 0.050 13 0.10 0.00050 0.00050 0.00050 0.10	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020 12.6 5.0 8.12 0.00050 0.0010 0.00050 0.00050 0.10	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585 17.6 5.0 8.23 0.00050 0.00050 0.00050 0.10			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.0020 0.00203 0.29 0.000163 9.1 0.00525 0.002 3.07 5.68 0.002 12.6 5.0 8.12 0.00050 0.0010 0.00050 0.00050 0.10	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.00407 0.00447 0.002 15 56.5 0.0585 17.6 5.0 8.23 0.00050 0.00050 0.00050 0.10	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025 15.1 5.0 8.175 0.00050 0.00050 0.00050 0.00050 0.10
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene o-Xylene F1 (C6-C10) F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.00010 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 0.030 0.0020 0.030 0.0050 0.00050 0.00050 0.10 0.25	19.8 0.348 0.00036 0.000010 49.1 0.0010 0.00020 0.00405 0.29 0.000309 9.10 0.00525 0.0020 3.07 5.68 0.0020 12.6 5.0 8.12 0.00050 0.0010 0.00050 0.00050 0.00050 0.10 0.25	130 0.0390 0.00065 0.000029 89.9 0.0010 0.00021 0.00203 1.03 0.000163 33.1 0.0447 0.0020 15.0 56.5 0.0585 17.6 5.0 8.23 0.00050 0.0010 0.00050 0.00050 0.10 0.24			19.8 0.039 0.00036 0.00001 49.1 0.0010 0.00203 0.29 0.00525 0.002 3.07 5.68 0.002 12.6 5.0 8.12 0.00050 0.0010 0.00050 0.00050 0.00050 0.10 0.24	130 0.348 0.00065 0.000029 89.9 0.0010 0.00405 1.03 0.004309 33.1 0.0447 0.002 15 56.5 0.0585 17.6 5.0 8.23 0.00050 0.0010 0.00050 0.00050 0.10 0.25	74.9 0.1935 0.000505 1.95E-05 69.5 0.0010 0.000205 0.00304 0.66 0.000236 21.1 0.024975 0.002 9.035 31.09 0.03025 15.1 5.0 8.175 0.00050 0.0010 0.00050 0.00050 0.10 0.245

REP-6			2015			2016	2017		Statistics		
Parameter	Unit	DL	25-Jun-15		25-Aug-15	09-Aug-16	29-Jun-17	19-Jul-17	Min	Max	Average
Alkalinity						00 1100 20		20 00 21			
Bicarbonate (HCO3)	mg/L	1.2	141	160	144	179	171	38.9	38.9	179	138.98
Carbonate (CO3)	mg/L	0.60	0.60	0.60	22.3	6.00	0.60	51.5	0.60	51.5	13.60
Hydroxide (OH)	mg/L	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Total (as CaCO3)	mg/L	1.0	116	131	155	157	141	118	116	157	136.33
Ammonia by Colour											
Total (as N)	mg/L	0.20	10.7	2.95	0.038	4.81	15.9	1.25	0.038	15.9	5.94
Biochemical Oxygen Demand (BOD)											
Biochemical Oxygen Demand	mg/L	6.0	12.7	20	26.2	16.1	17.3	44	12.7	44	22.72
Carbonaceous BOD	1.		,	10.5	100	10.0					4= 00
BOD Carbonaceous	mg/L	6.0	/	10.5	18.2	13.0	19.1	25.6	10.5	25.6	17.28
Chloride in Water by IC	/I	10	1.0.0	24.2	24.4	10.0	10.0	26.2	16.6	24.4	22.47
Chloride (CI) Conductivity	mg/L	10	16.6	21.3	31.1	18.9	18.9	26.2	16.6	31.1	22.17
Conductivity	umhos/cm	1.0	298	350	392	375	342	274	274	392	338.50
Fecal Coliforms	unnos/cm	1.0	230	330	332	373	342	274	274	332	336.30
Fecal Coliforms	MPN/100mL	3	9300	3	3	240	411	10	3	9300	1661.17
Hardness Calculated	Wil 14/ 100IIIE	3	3300	3	3	240	411	10	9	3300	1001.17
Hardness (as CaCO3)	mg/L	0.30	71.7	108	145	151	72.8	115	71.7	151	110.58
Mercury Total	<u> </u>										
Mercury (Hg)	mg/L	0.00020	0.00020	0.00020	0.00020	0.000020	0.0000050	0.0000050	0.000005	0.0002	0.00011
Nitrate in Water by IC											
Nitrate (as N)	mg/L	0.40	0.038	0.680	0.031	0.535	0.155	0.434	0.031	0.68	0.31
Nitrate + Nitrite											
Nitrate and Nitrite as N	mg/L	0.45	0.070	0.860	0.097	0.678	0.155	0.603	0.07	0.86	0.41
Nitrite in Water by IC											
Nitrite (as N)	mg/L	0.20	0.010	0.179	0.066	0.143	<0.040	0.168	0.010	0.179	0.11
Oil & Grease - Gravimetric											
Oil and Grease	mg/L	5.0	2.0	2.0	2.0	5.0	5.0	11.2	2.0	11.2	4.53
Phenol	/1	0.0040	0.0067	0.0040	0.0024	0.0040	0.0043	0.0043	0.004	0.0067	0.0026
Phenols	mg/L	0.0010	0.0067	0.0010	0.0034	0.0019	0.0013	0.0013	0.001	0.0067	0.0026
Phosphorus, Total	ma/l	0.010	1.06	1.06	1 22	1.28	1.00	2.82	1.28	2 02	1 07
Phosphorus (P) Sulfate in Water by IC	mg/L	0.010	1.96	1.86	1.32	1.20	1.98	2.02	1.28	2.82	1.87
Sulfate (SO4)	mg/L	6.0	7.07	11.0	14.4	17.8	5.27	9.76	5.27	17.8	10.88
Total Metals by ICP-MS	IIIB/ L	0.0	7.07	11.0	17.7	17.0	3.27	3.70	3.27	17.0	10.00
Aluminium (Al)	mg/L	0.0050	0.0282	0.0344	0.0392	0.0370	0.0240	0.0783	0.024	0.0783	0.04
Arsenic (As)	mg/L	0.00020	0.00026	0.00030	0.00044	0.00027	0.00028	0.00049	0.00026	0.00049	0.0003
Cadmium (Cd)	mg/L	0.000010		0.00010	0.000010	0.000010	0.000010	0.0000130	0.00001	0.0001	0.00003
Calcium (Ca)	mg/L	0.10	21.0	32.9	42.7	46.8	21.7	33.5	21	46.8	33.10
Chromium (Cr)	mg/L	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.00023	0.00023	0.001	0.0009
Cobalt (Co)	mg/L	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00024	0.0002	0.00024	0.0002
Copper (Cu)	mg/L	0.00020	0.0111	0.00436	0.00332	0.00513	0.0107	0.00842	0.00332	0.0111	0.007
Iron (Fe)	mg/L	0.010	0.39	0.42	0.21	0.282	0.443	0.474	0.21	0.474	0.37
Lead (Pb)	mg/L	0.000090		0.000103	0.000090	0.000130	0.000178	0.000228	0.00009	0.000228	0.0002
Magnesium (Mg)	mg/L	0.010	4.68	6.27	9.24	8.22	4.52	7.69	4.52	9.24	6.77
Manganese (Mn)	mg/L	0.00030	0.0296	0.0309	0.0274	0.0296	0.0299	0.0334	0.0274	0.0334	0.030
Nickel (Ni)	mg/L	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.00139	0.00139	0.0020	0.0019
Potassium (K)	mg/L	0.020	5.75	5.68	9.13	4.22	7.75	10.3	4.22	10.3	7.14
Sodium (Na)	mg/L	0.030	15.2	18.8	29.8	19.4	17.3	24.1	15.2	29.8	20.77
Zinc (Zn) Total Organic Carbon by Combustion	mg/L	0.0020	0.0130	0.0095	0.0039	0.0096	0.0086	0.0098	0.0039	0.013	0.009
Total Organic Carbon by Combustion Total Organic Carbon	mg/L	0.50	12.6	35.5	27,9	20.5	14.5	3.61	3.61	35.5	17.34
Total Suspended Solids	mg/L	0.30	12.0	33.3	21,3	20.3	14.3	3.01	2.01	ر.رر	17.34
Total Suspended Solids	mg/L	13	5.0	35.0	42.0	19.0	16	280	5.0	280	66.17
pH	1116/2		<u> </u>	33.0	12.0	10.0			5.0		55.17
pН	pH Units	0.10	8.12	7.96	9.14	8.56	7.75	10.12	7.75	10.12	8.61
Benzene	mg/L	0.00050	0.00050	0.00050	0.00050	/	/	/	0.00050	0.00050	0.00050
Toluene	mg/L	0.0010	0.0010	0.0010	0.0010	/	1	/	0.0010	0.0010	0.0010
Ethyl Benzene	mg/L	0.00050	0.00050	0.00050	0.00050	/	/	/	0.00050	0.00050	0.00050
o-Xylene	mg/L	0.00050	0.00050	0.00050	0.00050	/	/	/	0.00050	0.00050	0.00050
F1 (C6-C10)	mg/L	0.10	0.10	0.10	0.10	/	1	/	0.10	0.10	0.100
F2 (C10-C16)	mg/L	0.25	0.25	0.25	0.25	/	/	/	0.25	0.25	0.25
F3 (C16-C34)	mg/L	0.25	0.75	0.35	0.44	/	1	/	0.35	0.75	0.51
F4 (C34-C50)	mg/L	0.25	0.26	0.25	0.25	/	1	1	0.25	0.26	0.25
Total Hydrocarbons (C6-C50)	mg/L	0.44	1.01	0.44	0.44	/	/	/	0.44	1.01	0.63



WATER LICENCE INSPECTION FORM Follow-Up Report Licensee Representative Licensee Hamlet of Naujaat Rob Headley Representative's Title Licence No. / Expiry 3BM-REP1520 Senior Administrative Officer Land / Other Authorizations **Land / Other Authorizations** Date of Inspection Inspector July 18th 2017 Atuat Shouldice **Activities Inspected** ☐ Camp
☐ Roads/Hauling Drilling ☐ Mining ☐ Construction ☐ Reclamation ☐ Fuel Storage Other: Municipal **SECTION 1** Comments (s.1) Non-Compliance with Act or Licence (s.___) Action Required (s._ Summary On July 18th, 2017 Indigenous and Northern Affairs Canada's Water Resource Officer, Atuat Shouldice completed an annual Community inspection of the hamlet of Rankin Inlet permit 3BM-REP1520. **Observations SECTION 2** Comments (s.__) Non-Compliance with Act or Licence (s.2) Action Required (s._ The Hamlet of Naujaat has done a lot of work segregating hazardous waste and different material from the landfill. Discarded Batteries are put in lined boxes and stored in a seacan so not to leach in to the environment. With limited space in the fenced area of the landfill, the hamlet was looking at storing waste metal at the old landfill site. Non-Compliance with Act or Licence, (s.__) Comments (s.__) Action Required (s.3) The Hamlet of Naujaat has been following the yearly goals of the water licence working compliance group. The hamlet suggested and inspector believes it would be a good idea to place bulk items, at the old landfill as a bulk/metal waste storage sit to extend the life of the new landfill. Licensee or Representative Inspector's Name WRO Atuat Shouldice Signature

		Original signed on file
Date		Date
		5/28/2018
Office Use Only:	Follow-up report to be issued by Inspector	⊠ Yes □ No

Erik Allain, Manager Field Operations, INAC CC.



File Number: 2017-KIV02-CW