

TABLE 2

Water Quality Results - Water Characterization

Northwest Territories Power Corporation
Aklavik, N.W.T.

Sample Point Sample Date MSI Sample Number		Pre-treatment 24-Jul-19 21784190724101	Post-treatment 24-Jul-19 21784190724102	Holding Tank 25-Jul-19 21784190725103	Site Specific Water Release Criteria*
General and Inorganic Parameters					
Lab pH		8.23	8.1	8.01	6 to 9
Lab Electrical Conductivity	µS/cm	990	980	970	NS
Calcium	mg/L	138	138	137	NS
Magnesium	mg/L	43.7	44	43.5	NS
Sodium	mg/L	7.5	7.6	8.1	NS
Potassium	mg/L	2.7	3.9	4.4	NS
Chloride	mg/L	30.1	14.2	6.6	NS
Sulphate	mg/L	354	365	359	NS
Fluoride	mg/L	0.12	0.14	0.13	NS
Nitrite-Nitrogen	mg/L	<0.01	<0.01	<0.01	NS
Nitrate-Nitrogen	mg/L	<0.02	<0.02	<0.02	NS
(Nitrite + Nitrate)-Nitrogen	mg/L	<0.02	<0.02	<0.02	NS
Total Alkalinity	mg/L	180	170	160	NS
Bicarbonate	mg/L	220	200	200	NS
Hardness	mg/L	525	526	521	NS
Total Dissolved Solids	mg/L	684	671	657	NS
Total Suspended Solids	mg/L	2	3	4	15
Total Metals					
Aluminum	mg/L	0.023	0.012	0.01	NS
Antimony	mg/L	<0.001	<0.001	<0.001	NS
Arsenic	mg/L	<0.001	<0.001	<0.001	NS
Barium	mg/L	0.06	<0.05	<0.05	NS
Beryllium	mg/L	<0.0005	<0.0005	<0.0005	NS
Boron	mg/L	0.09	0.08	0.08	NS
Cadmium	mg/L	<0.000025	<0.000025	<0.000025	NS
Chromium	mg/L	<0.0005	<0.0005	<0.0005	NS
Cobalt	mg/L	<0.0009	<0.0009	<0.0009	NS
Copper	mg/L	0.0047	0.0071	0.0087	NS
Iron	mg/L	0.1	0.7	1.2	NS
Lead	mg/L	0.001	0.0036	0.0015	0.007 ^H
Lithium	mg/L	0.008	0.009	0.009	NS
Manganese	mg/L	0.025	0.047	0.07	NS
Mercury	mg/L	---	---	---	NS
Molybdenum	mg/L	0.002	0.002	0.002	NS
Nickel	mg/L	0.003	0.008	<0.003	NS
Selenium	mg/L	0.0007	0.0006	0.0005	NS
Silicon	mg/L	0.151	0.66	0.822	NS
Silver	mg/L	<0.0001	<0.0001	<0.0001	NS
Strontium	mg/L	0.348	0.358	0.361	NS
Thallium	mg/L	<0.0001	<0.0001	<0.0001	NS
Tin	mg/L	<0.0001	0.0001	<0.0001	NS
Titanium	mg/L	0.001	0.001	0.001	NS
Uranium	mg/L	0.003	0.003	0.003	NS
Vanadium	mg/L	<0.001	<0.001	<0.001	NS
Zinc	mg/L	0.029	0.19	0.283	NS
Petroleum Hydrocarbons					
Benzene	mg/L	<0.0005	<0.0005	<0.0005	0.37
Toluene	mg/L	<0.0003	<0.0003	<0.0003	0.002
Ethylbenzene	mg/L	<0.0005	<0.0005	<0.0005	0.09
Xylenes	mg/L	<0.0005	<0.0005	<0.0005	0.03
Styrene	mg/L	<0.0005	<0.0005	<0.0005	NS
VPW	mg/L	<0.1	<0.1	<0.1	NS
VHW (C ₆ -C ₁₀)	mg/L	<0.1	<0.1	<0.1	NS
EPHW (C ₁₀ -C ₁₉)	mg/L	0.2	<0.1	<0.1	NS
LEPHW (C ₁₀ -C ₁₉)**	mg/L	0.2	<0.1	<0.1	NS
EPHW (C ₁₉ -C ₃₂)	mg/L	0.2	<0.1	<0.1	NS
HEPHW (C ₁₉ -C ₃₂)**	mg/L	0.2	<0.1	<0.1	NS
Total Petroleum Hydrocarbons	mg/L	0.4	<0.1	<0.1	5
Oil & Grease	mg/L	3.5	<0.2	0.2	5
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	µg/L	<0.01	<0.01	<0.01	NS
Acridine	µg/L	<0.05	<0.05	<0.05	NS
Anthracene	µg/L	<0.010	<0.010	<0.010	NS
Benzo[a]anthracene	µg/L	<0.01	<0.01	<0.01	NS
Benzo[a]pyrene	µg/L	<0.007	<0.007	<0.007	0.015
Chrysene	µg/L	<0.01	<0.01	<0.01	NS
Fluoranthene	µg/L	<0.01	<0.01	<0.01	NS
Fluorene	µg/L	<0.01	<0.01	<0.01	NS
Naphthalene	µg/L	0.02	<0.01	<0.01	NS
Phenanthrene	µg/L	<0.01	<0.01	<0.01	NS
Pyrene	µg/L	<0.01	<0.01	<0.01	NS
Quinoline	µg/L	<0.04	<0.04	<0.04	NS

Notes:

- NS - not specified
- - not analyzed
- ^H - dependent on hardness value
- ^{*} - laboratory visual determination
- * - *Water Licence N3L8-1838* (Inuvialuit Water Board 2016)
- Italics** - indicates values do not meet applicable guidelines