

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						AH16-03	AH16-04	AH16-07	BH10-04	BH10-05	BH10-06	BH10-07	BH16-01	BH16-01	BH16-01	BH16-02	BH16-03
Sample Control Number		BC CSR		BC CSR		AH16-03/S1	AH16-04/S1	AH16-07/S1	21694-03	21694-10	21695-03	21695-09	02022-01	02022-02	02022-04	02022-05	02022-09
Sample Date (Day-Month-Year)		Soil		Soil		5-Nov-16	5-Nov-16	5-Nov-16	10-Oct-10	10-Oct-10	11-Oct-10	11-Oct-10	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16
Depth of Sample (mbgs)		Low Density		Industrial		0.5-0.6 m	0.45-0.5 m	0.8-0.9 m	0.9-1.2 m	1.5-1.8 m	0.9-1.1 m	0.7-0.9 m	0.3-0.61 m	1.21-1.52 m	3.64-3.94 m	0.3-0.61 m	0.15-0.45 m
QA/QC	Units	Residential	MCS	Industrial	MCS	Residential	Industrial	Residential	Industrial	Residential	Industrial	Residential	Industrial	Residential	Industrial	Residential	FDA
Lab Measurements																	
pH	pH units	-		-		6 to 8											
Anions																	
Chloride (leachable)	mg/kg	-		-		-											
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		-											
Chloride	mg/kg	100	DW	100	DW	-							49.5	54.1	53.2	65.9	48.6
Sodium	mg/kg	200	TOX	1000	TOX	-							8.3	8.3	137	380	15
Sodium Adsorption Ratio	none	-		-		5							10.5	16.9	51.8	< 330	21
Cyanide																	
Cyanide	mg/kg	-		-		-											
Thiocyanate and Cyanide	mg/kg	-		-		-											
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9											
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	-											
Antimony	mg/kg	20	EH	40	EH	20											
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12											
Barium	mg/kg	350/600	DW/d	350/600	DW	500											
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4											
Bismuth	mg/kg	-		-		-											
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10											
Calcium	mg/kg	-		-		-											
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64											
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50											
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63											
Iron	mg/kg	35000		150000		-											
Lead	mg/kg	120	I	120-1000	DW/T/pH	140											
Lithium	mg/kg	30	HH	450	HH	-											
Magnesium	mg/kg	-		-		-											
Manganese	mg/kg	1500	DW	1500	DW	-											
Mercury	mg/kg	10	INT	75	TOX	6.6											
Molybdenum	mg/kg	15	DW	15	DW	10											
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45											
Phosphorus	mg/kg	-		-		-											
Potassium	mg/kg	-		-		-											
Selenium	mg/kg	1	DW	1	DW	1											
Silver	mg/kg	20	EH	40	EH	20											
Sodium	mg/kg	200	TOX	1000	TOX	-											
Strontium	mg/kg	9500	HH	150000	HH	-											
Thallium	mg/kg	2	HH	2	HH	1											
Tin	mg/kg	50	EH	300	EH	50											
Titanium	mg/kg	-		-		-											
Uranium	mg/kg	30	DW	30	DW	23											
Vanadium	mg/kg	100	DW	100	DW	130											
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200											
Zirconium	mg/kg	15	HH	20	HH	-											

Notes:

All parameter units in milligrams per kilogram (mg/kg), unless otherwise noted.

land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline

Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.

CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW).

QA/QC = Quality Assurance, Quality Control

FDA = Field Duplicate Available; FD = Field Duplicate.

SCN = Sample Control Number; MCS = Most Conservative Standard

Italics = indicates that the detection limit exceeds one or more criteria.

* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

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Location						BH16-03	BH16-03	BH16-04	BH16-04	BH16-05	BH16-06	BH16-06	BH16-07	BH16-07	BH16-08	BH16-08	BH16-09				
Sample Control Number		BC CSR		BC CSR		02022-10	02023-01	02023-03	02023-06	02023-11	02021-01	02021-03	02021-04	02021-06	02021-07	02021-09	02021-10				
Sample Date (Day-Month-Year)		Soil		Soil		6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16				
Depth of Sample (mbgs)		Low Density		Industrial		0.15-0.45 m	3.94-4.24 m	0.3-0.61 m	3.94-4.24 m	3.03-3.18 m	0.3-0.61 m	2.12-2.42 m	0.15-0.45 m	2.27-2.58 m	0.05-0.35 m	1.82-2.12 m	0.15-0.45 m				
QA/QC	Units	Residential	MCS		MCS	Residential	MCS	Industrial	MCS												
Lab Measurements																					
pH	pH units	-		-		6 to 8		6 to 8		6.31	7.68	6.73	6.78	6.53	4.44	5.99	4.21	4.53	8.54	5.71	4.21
Anions																					
Chloride (leachable)	mg/kg	-		-		-		-		-		-		-		-		-		-	
Sodium and Chloride, Saturated Paste Method																					
Saturation	%	-		-		-		-		58.3	53.4	52.1	53.3	50.2	48.1	54.9	65.7	61.3	50	71	51
Chloride	mg/kg	100	DW	100	DW	-		-		15.7	56.6	297	58.4	137	912	7910	5800	1360	2230	5340	3040
Sodium	mg/kg	200	TOX	1000	TOX	-		-		22.9	41.1	< 260	8.7	31	535	4930	2420	768	1540	3220	2060
Sodium Adsorption Ratio	none	-		-		5		12		-		-		-		-		-		-	
Cyanide																					
Cyanide	mg/kg	-		-		-		-		-		-		-		-		-		-	
Thiocyanate and Cyanide	mg/kg	-		-		-		-		-		-		-		-		-		-	
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9		8		-		-		-		-		-		-	
Metals																					
Aluminum	mg/kg	40000	HH	250000	HH	-		-		8070	7010	8590	7420	8030	7050	7670	9600	8360	4150	11400	5490
Antimony	mg/kg	20	EH	40	EH	20	I	40	I	0.51	0.38	0.58	0.55	0.46	0.4	0.39	0.51	0.43	0.41	0.61	0.39
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12		12		5.6	6.65	9.9	10.2	7.97	6.41	6.08	8.33	7.94	4.87	10.1	6.64
Barium	mg/kg	350/600	DW/d	350/600	DW	500		2000		162	237	821	790	514	354	183	477	120	222	527	404
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	I	8	I	< 0.40	0.45	0.62	0.56	0.62	0.49	< 0.40	0.8	0.43	< 0.40	0.89	0.47
Bismuth	mg/kg	-		-		-		-		0.11	0.11	0.11	0.14	0.2	< 0.10	0.13	0.16	< 0.10	< 0.10	0.19	< 0.10
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10		22		0.184	0.501	0.254	0.532	0.524	0.204	0.192	0.413	0.186	0.714	0.488	0.22
Calcium	mg/kg	-		-		-		-		2810	3210	2940	2830	2960	653	2490	2980	685	71100	2870	983
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64		87		10.1	12.1	11.6	11.3	12.5	7.2	10	15	9.2	13.9	18.5	8
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	I	300	I	2.65	6.88	7.13	8.93	9.26	5.14	3.39	9.4	3.76	4.14	11.5	7.2
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63		91		5.55	13.5	13	17.1	27.1	7.4	8.25	20	8.23	11.5	25.1	9.71
Iron	mg/kg	35000		150000		-		-		13800	14900	19100	17900	13800	14400	12800	18800	14900	12000	23900	12600
Lead	mg/kg	120	I	120-1000	DW/T/pH	140		600		8.89	8.99	11	11.6	14.5	8.04	11	11.5	8.05	5.66	14.7	9
Lithium	mg/kg	30	HH	450	HH	-		-		6.4	8.2	10.5	10.1	12.8	9.9	7.7	9.4	11.3	9.3	12.6	7.2
Magnesium	mg/kg	-		-		-		-		1840	2280	1800	1830	1830	1390	1850	2080	1090	21500	2700	957
Manganese	mg/kg	1500	DW	1500	DW	-		-		73.5	235	177	201	131	63.9	73	214	52.2	473	369	120
Mercury	mg/kg	10	INT	75	TOX	6.6		50		< 0.050	< 0.050	0.052	0.067	0.051	< 0.050	< 0.050	0.058	< 0.050	< 0.050	0.072	< 0.050
Molybdenum	mg/kg	15	DW	15	DW	10	I	40	I	0.92	1.07	1.17	1.18	2.05	0.67	1.15	1.35	1.01	1.95	1.8	0.88
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45		89		7.23	17.7	19	22.6	28.2	14.1	8.48	22.8	12.5	14.5	31.3	12.3
Phosphorus	mg/kg	-		-		-		-		341	472	625	645	655	366	337	527	412	1340	665	537
Potassium	mg/kg	-		-		-		-		615	1070	1310	1290	1720	658	746	1020	663	891	1390	837
Selenium	mg/kg	1	DW	1	DW	1		2.9		< 0.50	< 0.50	< 0.50	< 0.50	0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	mg/kg	20	EH	40	EH	20	I	40	I	0.207	0.127	0.138	0.25	0.268	0.062	0.143	0.102	0.103	0.068	0.121	0.074
Sodium	mg/kg	200	TOX	1000	TOX	-		-		149	175	373	< 100	113	706	6880	3080	886	2030	6350	2090
Strontium	mg/kg	9500	HH	150000	HH	-		-		11.7	24.1	29.8	35	36.8	7.87	16.5	27.2	8.34	62.5	25.5	14.2
Thallium	mg/kg	2	HH	2	HH	1		1		0.131	0.152	0.135	0.144	0.128	0.071	0.104	0.148	0.093	0.154	0.254	0.077
Tin	mg/kg	50	EH	300	EH	50	I	300	I	0.39	0.33	0.35	0.36	0.37	0.3	0.36	0.41	0.25	0.17	0.48	0.24
Titanium	mg/kg	-		-		-		-		42.3	57.8	31.8	33.6	11.1	46.5	27.8	28.1	19.9	61.6	40.8	25.6
Uranium	mg/kg	30	DW	30	DW	23		300		0.369	0.687	0.883	0.956	0.954	0.509	0.396	1.03	0.444	0.944	1.19	0.794
Vanadium	mg/kg	100	DW	100	DW	130		130		32.9	21.2	29.8	24.6	28.1	21.6	26.6	28.5	22.9	26.9	33.6	20.2
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200		360		40.9	61.5	99.2	111	139	86.4	57	86.3	87.2	40.9	115	75.6
Zirconium	mg/kg	15	HH	20	HH	-		-		< 0.50	3.67	2.34	3.72	2.68	1.15	0.78	3.43	1.28	1.41	4.11	1.75

Notes:

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TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						BH16-09	BH16-10	BH16-10	BH16-10	BH16-11	BH16-11	BH16-12	BH16-12	BH16-13	BH16-13	BH16-13	BH16-14
Sample Control Number		BC CSR		BC CSR		02021-11	02026-01	02026-02	02026-03	02026-04	02026-06	02026-07	02026-10	01132-02	01132-03	01132-06	01132-08
Sample Date (Day-Month-Year)		Soil		Soil		6-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16
Depth of Sample (mbgs)		Low Density		Industrial		1.06-1.36 m	0-0.3 m	0.9-1.3 m	0.9-1.3 m	0.16-0.46 m	2.12-2.42 m	0.3-0.6 m	2.72-3.03 m	0.9-1.2 m	0.9-1.2 m	4.5-4.8 m	0-0.3 m
QA/QC	Units	Residential	MCS	Industrial	MCS			FDA	FD								
Lab Measurements																	
pH	pH units	-		-		6 to 8											
Anions																	
Chloride (leachable)	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/kg	100	DW	100	DW	-	2150	2780	2250	2190	491	1190	1410	52.4	60.2	63.3	72.8
Sodium	mg/kg	200	TOX	1000	TOX	-	1340	2040	1370	1390	347	841	819	78.4	70.4	54.4	20.7
Sodium Adsorption Ratio	none	-		-		5	-	-	-	-	-	-	-	31.8	16.3	13	30.8
Cyanide																	
Cyanide	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Thiocyanate and Cyanide	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9	-	-	-	-	-	-	-	-	-	-	-
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	-	5130	5950	5070	5370	4930	8650	7510	6460	10600	11500	8670
Antimony	mg/kg	20	EH	40	EH	20	0.36	0.41	0.72	1.1	0.42	0.62	0.54	0.57	0.6	0.55	0.63
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12	5.72	6.45	5.51	5.15	4.86	10.6	9.24	10.2	9.3	9.76	9.05
Barium	mg/kg	350/600	DW/d	350/600	DW	500	779	327	313	327	296	325	1190	869	737	732	831
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	0.44	0.44	< 0.40	< 0.40	0.52	0.63	0.61	0.75	0.81	< 0.40	0.66
Bismuth	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	0.12	0.12	0.12	0.12	0.17	0.2	0.14
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10	0.227	0.65	0.663	0.712	0.705	0.346	0.366	0.515	0.444	0.535	0.3
Calcium	mg/kg	-		-		-	1600	46000	54100	58600	58300	1800	2910	2590	2490	2730	3820
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64	7.3	13	11	12.7	11.3	13.7	10.8	9.7	17.2	19.1	12.1
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	5.3	5.46	4.46	4.46	4.18	8.04	8.64	8.46	9.07	10.1	8.09
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63	7.48	10.3	10	10.8	9.38	15.3	16.5	15	19.8	23.1	17
Iron	mg/kg	35000		150000		-	14700	15200	13900	14000	12800	18800	19300	17500	26800	21000	18100
Lead	mg/kg	120	I	120-1000	DW/T/pH	140	7.23	8.99	6.6	6.74	5.71	10.8	11	11.3	12.4	13.4	14.4
Lithium	mg/kg	30	HH	450	HH	-	7	10	9.4	10.5	9.4	8.3	9.7	9.8	11.6	11.8	9.9
Magnesium	mg/kg	-		-		-	1240	15400	17100	18500	18000	2010	1950	1520	2290	2570	1900
Manganese	mg/kg	1500	DW	1500	DW	-	114	446	673	598	635	215	187	165	346	298	156
Mercury	mg/kg	10	INT	75	TOX	6.6	< 0.050	< 0.050	< 0.050	< 0.050	0.064	0.052	0.063	0.073	0.072	0.055	0.162
Molybdenum	mg/kg	15	DW	15	DW	10	0.76	1.74	1.78	1.81	1.59	1.1	1.14	1.08	1.75	1.6	1.34
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45	12	15.5	15.5	15.6	14.8	19.1	24.2	21.5	29.7	31	22.1
Phosphorus	mg/kg	-		-		-	561	1150	1240	1270	1270	505	629	653	671	613	659
Potassium	mg/kg	-		-		-	701	1020	968	1050	1050	980	1080	1270	1490	1610	931
Selenium	mg/kg	1	DW	1	DW	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.56	0.51	< 0.50
Silver	mg/kg	20	EH	40	EH	20	0.078	0.07	0.061	0.074	0.072	0.103	0.154	0.281	0.128	0.144	0.063
Sodium	mg/kg	200	TOX	1000	TOX	-	1660	3340	2360	2310	918	1960	1320	115	< 100	111	156
Strontium	mg/kg	9500	HH	150000	HH	-	16.8	47.6	55.2	60.3	64.1	18.3	31.1	35.7	33.1	38	24.3
Thallium	mg/kg	2	HH	2	HH	1	0.074	0.134	0.143	0.142	0.135	0.194	0.12	0.131	0.229	0.23	0.152
Tin	mg/kg	50	EH	300	EH	50	0.2	1.36	0.23	0.24	0.28	0.35	0.39	0.34	0.5	0.54	0.47
Titanium	mg/kg	-		-		-	26	42.9	70.1	73.4	63.9	61.7	25.8	25.9	41.6	45.9	27.4
Uranium	mg/kg	30	DW	30	DW	23	0.656	0.934	1.02	0.974	0.958	0.916	0.828	0.86	1.1	1.05	0.969
Vanadium	mg/kg	100	DW	100	DW	130	18.4	27.7	28.9	31.8	26.5	26.4	25.6	23	36.5	38	29.6
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200	67.5	62.5	52.7	54.1	49.3	73.2	109	115	106	105	113
Zirconium	mg/kg	15	HH	20	HH	-	1.78	1.67	1.67	1.77	1.84	3.9	3.18	2.78	3.86	4.7	2.67

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TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						BH16-15	BH16-15	BH16-15	BH16-16	BH16-16	BH16-17	BH16-17	MW09-03	MW09-03	MW09-04	MW09-05	MW09-05				
Sample Control Number		BC CSR		BC CSR		01133-01	01133-02	01133-04	01133-05	01133-07	01133-08	01133-09	09-020143-09	09-020143-10	09-020144-01	09-020144-04	09-020144-05				
Sample Date (Day-Month-Year)		Soil		Soil		9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	6-Oct-09	6-Oct-09	7-Oct-09	8-Oct-09	8-Oct-09				
Depth of Sample (mbgs)		Low Density		Industrial		0-0.3 m	0.91-1.21 m	4.85-5.15 m	0-0.3 m	2.27-2.58 m	0.15-0.45 m	1.21-1.52 m	1.5-2 m	1.5-2 m	1.8-2.1 m	1.2-1.5 m	2.1-2.4 m				
QA/QC	Units	Residential	MCS		MCS								FDA	FD							
Lab Measurements																					
pH	pH units	-		-		6 to 8		6 to 8		7.35	7.96	8.26	7.37	5.64	6.77	6.17	5.72	5.66	6.03	5.13	-
Anions																					
Chloride (leachable)	mg/kg	-		-		-		-		-	-	-	23	24.7	329	400	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																					
Saturation	%	-		-		-		-		49.1	55.7	62.4	49.2	53.6	53.2	59.9	-	-	44.9	30.9	40.3
Chloride	mg/kg	100	DW	100	DW	-		-		8.4	6.1	87.6	16.8	16.7	2360	1190	23	24.7	664	468	153
Sodium	mg/kg	200	TOX	1000	TOX	-		-		4.5	7.2	7	20	7.1	1290	446	-	-	209	246	34.4
Sodium Adsorption Ratio	none	-		-		5		12		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide																					
Cyanide	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Thiocyanate and Cyanide	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9		8		-	-	-	-	-	-	-	-	-	-	-	-
Metals																					
Aluminum	mg/kg	40000	HH	250000	HH	-		-		7940	6400	8080	7920	9660	8220	8070	-	-	-	-	-
Antimony	mg/kg	20	EH	40	EH	20	I	40	I	0.63	0.54	0.44	0.68	0.49	0.56	0.76	< 10	< 10	< 10	< 10	-
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12		12		8.97	7.23	12	7.62	9.28	9.54	10.7	9	9.7	10.5	9.1	-
Barium	mg/kg	350/600	DW/d	350/600	DW	500		2000		471	243	418	482	832	891	1070	967	1070	712	335	-
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	I	8	I	0.55	0.45	0.55	0.53	0.58	0.65	0.58	0.62	0.66	0.7	0.54	-
Bismuth	mg/kg	-		-		-		-		0.1	< 0.10	0.15	0.11	0.13	0.11	0.12	-	-	-	-	-
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10		22		0.263	0.328	0.486	0.325	0.278	0.319	0.408	< 0.50	< 0.50	< 0.50	< 0.50	-
Calcium	mg/kg	-		-		-		-		3220	12400	10600	3530	1850	12400	3760	3140	-	-	-	-
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64		87		11.6	11.5	14.3	10.8	14.4	11	10.6	12.9	13.6	18.1	12.7	-
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	I	300	I	6.3	4.64	8.77	6.49	8	7.44	8.45	7.1	8.4	9	6.9	-
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63		91		12.2	12.5	18.5	11.2	15.2	13	14.2	15.7	15.6	22.2	10.9	-
Iron	mg/kg	35000		150000		-		-		16400	18200	18500	16600	17200	18200	17700	21000	-	-	-	-
Lead	mg/kg	120	I	120-1000	DW/T/pH	140		600		11.1	11	11.6	10.5	10.8	11.2	11.5	< 30	< 30	< 30	< 30	-
Lithium	mg/kg	30	HH	450	HH	-		-		9.3	7.5	10.8	9.8	10.1	9.8	11.7	-	-	-	-	-
Magnesium	mg/kg	-		-		-		-		1900	5000	4350	1780	2000	2150	1760	-	-	-	-	-
Manganese	mg/kg	1500	DW	1500	DW	-		-		129	146	226	131	167	161	178	-	-	-	-	-
Mercury	mg/kg	10	INT	75	TOX	6.6		50		< 0.050	< 0.050	0.051	0.055	0.056	0.055	0.064	0.0605	0.0634	0.06	0.0272	-
Molybdenum	mg/kg	15	DW	15	DW	10	I	40	I	1.1	1.18	1.17	1.05	1.18	1.14	1.68	< 4.0	< 4.0	< 4.0	< 4.0	-
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45		89		15.3	12.5	19.7	16.3	19.9	20	24.7	19.8	20.7	26.9	14	-
Phosphorus	mg/kg	-		-		-		-		423	627	663	523	509	593	656	-	-	-	-	-
Potassium	mg/kg	-		-		-		-		839	682	1330	1040	1080	1200	1050	-	-	-	-	-
Selenium	mg/kg	1	DW	1	DW	1		2.9		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.6	< 2.0	< 2.0	< 2.0	< 3.0	-
Silver	mg/kg	20	EH	40	EH	20	I	40	I	0.207	0.094	0.213	0.093	0.105	0.111	0.128	< 2.0	< 2.0	< 2.0	< 2.0	-
Sodium	mg/kg	200	TOX	1000	TOX	-		-		< 100	< 100	< 100	108	< 100	1920	615	< 200	< 200	1640	680	-
Strontium	mg/kg	9500	HH	150000	HH	-		-		18.1	20.4	38	22.9	28.2	30.1	30.7	-	-	-	-	-
Thallium	mg/kg	2	HH	2	HH	1		1		0.112	0.104	0.142	0.123	0.141	0.131	0.119	< 1.0	< 1.0	< 1.0	< 1.0	-
Tin	mg/kg	50	EH	300	EH	50	I	300	I	0.37	0.41	0.38	0.35	0.38	0.37	0.34	< 5.0	< 5.0	< 5.0	< 5.0	-
Titanium	mg/kg	-		-		-		-		26.8	25.5	47.5	28.7	32	35.3	31.5	-	-	-	-	-
Uranium	mg/kg	30	DW	30	DW	23		300		0.74	0.606	0.982	0.822	0.872	0.925	1.01	-	-	-	-	-
Vanadium	mg/kg	100	DW	100	DW	130		130		26.6	25.1	25.8	26.5	28.8	29.2	29	29.2	33.1	32.2	31.6	-
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200		360		82.1	72.6	91.4	92.9	86.3	105	123	94.8	97.9	100	83.2	-
Zirconium	mg/kg	15	HH	20	HH	-		-		1.44	1.14	4.91	1.75	3.13	2.48	2.7	-	-	-	-	-

Notes:

All parameter units in milligrams per kilogram (mg/kg), unless otherwise noted.

land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline

Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.

CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW).

QA/QC = Quality Assurance, Quality Control

FDA = Field Duplicate Available; FD = Field Duplicate.

SCN = Sample Control Number; MCS = Most Conservative Standard

Italics = indicates that the detection limit exceeds one or more criteria.

* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location																					
Sample Control Number		BC CSR		BC CSR		CCME Soil		CCME Soil		MW09-06	MW10-01S	MW10-02	MW10-02	MW10-03	MW16-01	MW16-02	MW16-02	MW16-03	MW16-03	MW16-04	MW16-04
Sample Date (Day-Month-Year)		Soil		Soil		Soil		Soil		09-020144-08	24418-01	24418-04	24418-05	24419-02	MW16-01/SA1	MW16-02/SA1	MW16-02/SA3	MW16-03/SA1	MW16-03/SA3	MW16-04/SA1	MW16-04/SA2
Depth of Sample (mbgs)		Low Density		Industrial		Residential		Industrial		8-Oct-09	20-Sep-10	22-Sep-10	22-Sep-10	27-Sep-10	31-Aug-16	1-Sep-16	1-Sep-16	1-Sep-16	1-Sep-16	2-Sep-16	2-Sep-16
QA/QC	Units	Residential	MCS	Industrial	MCS	Residential	MCS	Industrial	MCS	1.5-1.8 m	0.8-1.1 m	1.5-1.8m	3.0-3.2m	1.5-1.8m	0.33-0.66 m	0.33-0.66 m	1.97-2.3 m	0.16-0.33 m	2.3-2.63 m	0.16-0.49 m	1.64-1.97 m
Lab Measurements																					
pH	pH units	-		-		6 to 8		6 to 8		8.68	6.9	5.8	-	5.39	7.53	8.85	7.49	7.67	6.26	8.59	5.82
Anions																					
Chloride (leachable)	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																					
Saturation	%	-		-		-		-		27.8	35.4	-	33.6	57.1	38.6	53.6	48.2	64	53.4	55.9	49.4
Chloride	mg/kg	100	DW	100	DW	-		-		113	34.3	-	251	296	4.4	541	908	13.3	10.2	7.2	13.9
Sodium	mg/kg	200	TOX	1000	TOX	-		-		94	41.7	-	160	35.6	4.5	341	548	9.5	17.4	6.7	17
Sodium Adsorption Ratio	none	-		-		5		12		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide																					
Cyanide	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Thiocyanate and Cyanide	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9		8		-	-	-	-	-	-	-	-	-	-	-	-
Metals																					
Aluminum	mg/kg	40000	HH	250000	HH	-		-		-	-	-	-	-	4260	5050	6230	7520	6290	3830	8740
Antimony	mg/kg	20	EH	40	EH	20	I	40	I	< 10	< 10	< 10	-	< 10	0.25	0.37	0.38	0.46	0.46	0.32	0.36
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12		12		< 5.0	< 5.0	7.5	-	12.3	4.91	4.21	6.55	7.76	7.6	5.29	6.82
Barium	mg/kg	350/600	DW/d	350/600	DW	500		2000		755	123	1370	-	675	165	239	240	462	976	227	195
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	I	8	I	0.72	< 0.50	< 0.50	-	0.84	< 0.40	< 0.40	< 0.40	0.45	0.48	< 0.40	0.55
Bismuth	mg/kg	-		-		-		-		-	-	-	-	-	< 0.10	< 0.10	< 0.10	0.12	< 0.10	< 0.10	0.11
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10		22		< 0.50	< 0.50	0.51	-	0.8	0.282	0.575	0.2	0.259	0.297	0.839	0.237
Calcium	mg/kg	-		-		-		-		-	-	-	-	-	1890	53900	2580	8370	2380	52900	1390
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64		87		10.9	8.5	7.1	-	19.8	9.5	14.1	8.5	12.3	8.5	10.6	12.2
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	I	300	I	6.5	5.8	8.8	-	9.8	5.02	4.06	5.7	5.25	6.5	4.33	6.64
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63		91		6.1	7	7.3	-	26.7	6.89	10.3	8.64	10.4	11.8	9.98	12.5
Iron	mg/kg	35000		150000		-		-		-	-	-	-	-	10900	12200	13400	14100	14000	14500	14800
Lead	mg/kg	120	I	120-1000	DW/T/pH	140		600		< 30	< 30	< 30	-	< 30	6.23	9.16	9.35	9.8	9.32	4.57	9.25
Lithium	mg/kg	30	HH	450	HH	-		-		-	-	-	-	-	5.3	8.9	6.4	8.8	7.7	8.7	10.6
Magnesium	mg/kg	-		-		-		-		-	-	-	-	-	1660	17300	1380	2950	1620	17500	2010
Manganese	mg/kg	1500	DW	1500	DW	-		-		-	-	-	-	-	230	472	108	192	130	582	182
Mercury	mg/kg	10	INT	75	TOX	6.6		50		< 0.050	0.015	0.0355	-	0.0727	< 0.050	< 0.050	< 0.050	< 0.050	0.058	< 0.050	< 0.050
Molybdenum	mg/kg	15	DW	15	DW	10	I	40	I	< 4.0	< 4.0	< 4.0	-	< 4.0	0.67	1.9	0.79	1.39	0.97	1.7	0.83
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45		89		22.9	12.1	15.3	-	28	13.1	14.6	12.5	14.1	19.4	16.1	13.7
Phosphorus	mg/kg	-		-		-		-		-	-	-	-	-	291	984	452	783	546	1360	321
Potassium	mg/kg	-		-		-		-		-	-	-	-	-	524	870	731	819	918	610	682
Selenium	mg/kg	1	DW	1	DW	1		2.9		< 2.0	< 2.0	< 2.0	-	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	mg/kg	20	EH	40	EH	20	I	40	I	< 2.0	< 2.0	< 2.0	-	< 2.0	< 0.050	0.09	0.065	0.111	0.129	0.066	0.053
Sodium	mg/kg	200	TOX	1000	TOX	-		-		-	41.7	-	-	35.6	< 100	1350	1680	< 100	< 100	< 100	124
Strontium	mg/kg	9500	HH	150000	HH	-		-		-	-	-	-	-	10.1	54	12.6	25.1	25.9	55.8	12.2
Thallium	mg/kg	2	HH	2	HH	1		1		-	< 1.0	< 1.0	-	< 1.0	0.102	0.123	0.076	0.148	0.123	0.128	0.127
Tin	mg/kg	50	EH	300	EH	50	I	300	I	< 5.0	< 5.0	< 5.0	-	< 5.0	0.19	0.23	0.29	0.38	0.32	0.15	0.33
Titanium	mg/kg	-		-		-		-		-	-	-	-	-	59.8	49.9	39.4	45.9	25.5	46.3	46.1
Uranium	mg/kg	30	DW	30	DW	23		300		-	0.691	0.804	-	0.912	0.64	0.861	0.616	0.718	0.907	0.76	0.894
Vanadium	mg/kg	100	DW	100	DW	130		130		29.1	15.1	16.9	-	30.1	14.1	27.2	25.5	29.1	22	22.4	22.9
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200		360		118	54	84.7	-	110	38.1	47.3	68.3	69.9	95.3	49.3	51.3
Zirconium	mg/kg	15	HH	20	HH	-		-		-	-	-	-	-	2.21	1.6	0.92	< 0.50	2.14	1.4	2.92

Notes:

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land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline

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* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						MW16-04	MW16-05	MW16-06	MW16-06	MW16-06	MW16-07	MW16-07	SB-BH-05	SB-BH-07	SSURS-30	SSURS-31	SSURS-32
Sample Control Number		BC CSR		BC CSR		MW16-04/SA4	MW16-05/SA1	MW16-06/SA1	MW16-06/SA4	MW16-06/SA4 (FD)	MW16-07/SA1	MW16-07/SA1 (FD)	SBBH-05-01	SBBH-07-03	SS URS-30	SS URS-31	SS URS-32
Sample Date (Day-Month-Year)		Soil		Soil		2-Sep-16	3-Sep-16	4-Sep-16	4-Sep-16	4-Sep-16	4-Sep-16	4-Sep-16	3-Feb-03	3-Feb-03	3-Aug-06	3-Aug-06	3-Aug-06
Depth of Sample (mbgs)		Low Density		Industrial		3.78-4.11 m	0.16-0.49 m	0.33-0.66 m	2.8-3.13 m	2.8-3.13 m	0.16-0.49 m	0.16-0.49 m	1.2-1.5 m	3.3-3.4 m	0-0.2 m	0-0.2 m	0-0.2 m
QA/QC	Units	Residential	MCS	Industrial	MCS				FDA	FD	FDA	FD					
Lab Measurements																	
pH	pH units	-		-		7.26	5.01	7.58	6.37	7.17	8.21	8.1	6.86	5.68	-	-	-
Anions																	
Chloride (leachable)	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		62.9	60.2	63	47.2	49.9	57.6	49.3	-	-	-	-	-
Chloride	mg/kg	100	DW	100	DW	110	154	14	266	239	8.1	7	-	-	208	879	21
Sodium	mg/kg	200	TOX	1000	TOX	20	61.6	21	115	123	13	13.3	-	-	268	531	32.3
Sodium Adsorption Ratio	none	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide																	
Cyanide	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Thiocyanate and Cyanide	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9	-	-	-	-	-	-	-	-	0.07	< 0.02	< 0.02
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	7190	12200	7290	8170	9070	7690	6680	-	-	-	-	-
Antimony	mg/kg	20	EH	40	EH	0.4	0.7	0.44	0.46	0.45	0.57	0.53	< 10	< 10	-	-	-
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	7.84	10.5	8.66	7.32	6.96	7.89	6.7	12	13	-	-	-
Barium	mg/kg	350/600	DW/d	350/600	DW	247	759	122	501	361	595	478	1140	941	-	-	-
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	0.51	0.87	< 0.40	0.57	0.56	0.68	0.52	1	1	-	-	-
Bismuth	mg/kg	-		-		0.14	0.15	0.12	0.12	0.13	0.11	0.1	-	-	-	-	-
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	0.568	0.307	0.188	0.362	0.546	0.362	0.516	< 0.5	< 0.5	-	-	-
Calcium	mg/kg	-		-		3150	1980	2820	2390	3660	16800	25000	-	-	-	-	-
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	13.5	14.9	11	13.7	13.8	12.8	21.8	99	32	-	-	-
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	7.75	8.37	3.34	6.46	6.77	6.62	5.99	7	8	-	-	-
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	18.4	18.3	8.25	13.8	16.6	13.8	12.7	13	15	-	-	-
Iron	mg/kg	35000		150000		16800	20300	14800	16100	17200	17600	15600	-	-	-	-	-
Lead	mg/kg	120	I	120-1000	DW/T/pH	10.5	12.2	9.78	9	9.79	9.99	9.98	< 30	< 30	-	-	-
Lithium	mg/kg	30	HH	450	HH	9.3	12	7.1	8.7	9.4	10.1	9.6	-	-	-	-	-
Magnesium	mg/kg	-		-		2340	2030	1720	1980	2690	6090	9300	-	-	-	-	-
Manganese	mg/kg	1500	DW	1500	DW	276	139	66.7	166	209	227	282	-	-	-	-	-
Mercury	mg/kg	10	INT	75	TOX	0.056	0.084	< 0.050	0.061	0.063	0.058	< 0.050	0.062	0.067	-	-	-
Molybdenum	mg/kg	15	DW	15	DW	1.14	1.29	1.28	0.98	1	1.25	1.55	< 4	< 4	-	-	-
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	23.1	22.3	10.9	18.5	21.4	18.2	16.7	22	24	-	-	-
Phosphorus	mg/kg	-		-		575	626	289	518	518	655	728	-	-	-	-	-
Potassium	mg/kg	-		-		1030	1580	608	1150	1270	1120	996	-	-	-	-	-
Selenium	mg/kg	1	DW	1	DW	< 0.50	0.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2	< 2	-	-	-
Silver	mg/kg	20	EH	40	EH	0.137	0.064	0.082	0.148	0.169	0.096	0.101	< 2	< 2	-	-	-
Sodium	mg/kg	200	TOX	1000	TOX	< 100	215	112	298	391	192	131	-	-	-	-	-
Strontium	mg/kg	9500	HH	150000	HH	24.8	30.5	12.7	27	28	31.8	35.2	-	-	-	-	-
Thallium	mg/kg	2	HH	2	HH	0.2	0.199	0.112	0.162	0.174	0.144	0.139	< 1	< 1	-	-	-
Tin	mg/kg	50	EH	300	EH	0.35	0.46	0.39	0.35	0.37	0.38	0.31	< 5	< 5	-	-	-
Titanium	mg/kg	-		-		57.7	29.8	26.1	55.3	77.6	37.9	35.9	-	-	-	-	-
Uranium	mg/kg	30	DW	30	DW	0.893	1.07	0.402	0.836	0.906	0.82	0.765	-	-	-	-	-
Vanadium	mg/kg	100	DW	100	DW	23.5	36.9	29	25.1	26.1	26.7	27.3	89	75	-	-	-
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	76.9	117	65.5	77.2	71.8	89.5	110	101	99	-	-	-
Zirconium	mg/kg	15	HH	20	HH	4.36	2.61	1.09	3.81	5.36	2.42	2.03	-	-	-	-	-

Notes:

All parameter units in milligrams per kilogram (mg/kg), unless otherwise noted.

land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline

Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.

CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW).

QA/QC = Quality Assurance, Quality Control

FDA = Field Duplicate Available; FD = Field Duplicate.

SCN = Sample Control Number; MCS = Most Conservative Standard

Italics = indicates that the detection limit exceeds one or more criteria.

* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location																					
Sample Control Number		BC CSR		BC CSR		CCME Soil		CCME Soil		SSURS-33	SSURS-34	SSURS-35	SS1	SS10	SS11	SS11	SS2	SS3	SS4	SS4	SS5
Sample Date (Day-Month-Year)		Soil		Soil		Soil		Soil		SS URS-33	SS URS-34	SS URS-35	SS-1	02026-12	02026-11	02026-11	SS-2	SS-3	SS-4A	SS-4B	SS-5
Depth of Sample (mbgs)		Low Density		Industrial		Residential		Industrial		3-Aug-06	3-Aug-06	3-Aug-06	31-Aug-16	9-Sep-16	9-Sep-16	9-Sep-16	31-Aug-16	31-Aug-16	31-Aug-16	31-Aug-16	31-Aug-16
QA/QC	Units	Residential	MCS	Industrial	MCS	Residential	MCS	Industrial	MCS	0-0.2 m	0-0.2 m	0-0.2 m	0.5-0.5 m	0.15-0.45 m	0.15-0.45 m	0.15-0.45 m	0.5-0.5 m	0.5-0.5 m	0.5-0.5 m	0.5-0.5 m	0.5-0.5 m
																			FDA	FD	
Lab Measurements																					
pH	pH units	-		-		6 to 8		6 to 8		-	-	-	8.27	4.6	8.5	-	8.6	8.63	8.38	8.41	8.93
Anions																					
Chloride (leachable)	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																					
Saturation	%	-		-		-		-		-	-	-	47.7	54.4	34	-	45.4	39.9	47.5	51.1	40.1
Chloride	mg/kg	100	DW	100	DW	-		-		729	3310	4280	128	1070	2060	-	15.2	4.1	7.9	10.6	1750
Sodium	mg/kg	200	TOX	1000	TOX	-		-		404	2350	3120	54	657	1340	-	14.4	3.7	10.9	2.9	1260
Sodium Adsorption Ratio	none	-		-		5		12		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide																					
Cyanide	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Thiocyanate and Cyanide	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9		8		< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-	-	-
Metals																					
Aluminum	mg/kg	40000	HH	250000	HH	-		-		-	-	-	5510	7880	4920	-	4970	3560	3570	3740	3620
Antimony	mg/kg	20	EH	40	EH	20	I	40	I	-	-	-	0.78	0.47	0.37	-	0.68	0.35	0.49	0.46	0.29
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12		12		-	-	-	7.38	9.94	5.23	-	6.47	4.39	4.3	4.82	3.79
Barium	mg/kg	350/600	DW/d	350/600	DW	500		2000		-	-	-	315	190	295	-	277	223	207	249	194
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	I	8	I	-	-	-	0.41	< 0.40	< 0.40	-	0.4	< 0.40	< 0.40	< 0.40	< 0.40
Bismuth	mg/kg	-		-		-		-		-	-	-	< 0.10	0.11	< 0.10	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10		22		-	-	-	1.97	0.158	0.817	-	1.53	0.771	0.783	0.71	0.608
Calcium	mg/kg	-		-		-		-		-	-	-	28200	759	67000	-	47900	56900	53400	53800	53000
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64		87		-	-	-	18.1	10.3	11	-	13.7	10.8	10.1	8.9	9.4
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	I	300	I	-	-	-	5.81	3.38	4.54	-	5.03	3.92	3.81	3.88	3.54
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63		91		-	-	-	13.4	6.92	9.1	-	13.5	9.43	10.7	11	8.48
Iron	mg/kg	35000		150000		-		-		-	-	-	13100	16100	14200	-	12300	10900	10700	10600	10600
Lead	mg/kg	120	I	120-1000	DW/T/pH	140		600		-	-	-	7.31	9.33	4.96	-	6.23	3.92	5.39	5.5	3.86
Lithium	mg/kg	30	HH	450	HH	-		-		-	-	-	9.2	7.8	10.3	-	9.1	8.9	8.3	8.4	9.5
Magnesium	mg/kg	-		-		-		-		-	-	-	10000	1060	19800	-	15600	17700	17500	18600	17100
Manganese	mg/kg	1500	DW	1500	DW	-		-		-	-	-	445	63.7	797	-	550	779	456	401	483
Mercury	mg/kg	10	INT	75	TOX	6.6		50		-	-	-	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Molybdenum	mg/kg	15	DW	15	DW	10	I	40	I	-	-	-	4.31	1.14	1.85	-	3.61	1.72	1.6	1.72	1.46
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45		89		-	-	-	24.7	9.27	15.5	-	22.2	16.4	14.6	14.9	13.8
Phosphorus	mg/kg	-		-		-		-		-	-	-	2490	494	1370	-	2030	1280	1160	1130	1240
Potassium	mg/kg	-		-		-		-		-	-	-	854	757	990	-	838	572	611	688	684
Selenium	mg/kg	1	DW	1	DW	1		2.9		-	-	-	0.58	< 0.50	< 0.50	-	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	mg/kg	20	EH	40	EH	20	I	40	I	-	-	-	0.116	0.078	0.053	-	0.111	0.059	0.06	0.08	0.064
Sodium	mg/kg	200	TOX	1000	TOX	-		-		-	-	-	143	891	2250	-	< 100	< 100	< 100	< 100	1460
Strontium	mg/kg	9500	HH	150000	HH	-		-		-	-	-	56.8	13.4	70	-	64.1	55.2	54.5	53.8	52.2
Thallium	mg/kg	2	HH	2	HH	1		1		-	-	-	0.284	0.108	0.14	-	0.266	0.159	0.13	0.138	0.104
Tin	mg/kg	50	EH	300	EH	50	I	300	I	-	-	-	0.26	0.33	0.19	-	0.23	0.15	0.3	0.26	0.14
Titanium	mg/kg	-		-		-		-		-	-	-	21.2	33.7	70.6	-	35.7	55	42.9	45	62
Uranium	mg/kg	30	DW	30	DW	23		300		-	-	-	1.68	0.445	0.903	-	1.37	0.792	0.814	0.848	0.814
Vanadium	mg/kg	100	DW	100	DW	130		130		-	-	-	73.8	29.6	28.7	-	59	23.5	24.7	27.4	26.1
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200		360		-	-	-	92.9	58.9	46.8	-	74.6	41.9	63.6	66.2	39.6
Zirconium	mg/kg	15	HH	20	HH	-		-		-	-	-	0.63	0.77	2.07	-	0.95	1.21	0.76	0.78	1.44

Notes:

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land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline

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QA/QC = Quality Assurance, Quality Control

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* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						SS6	SS7	SS8	SS9	SSURS-1	SSURS-1	SSURS-2	SSURS-3	SSURS-4	SSURS-5	SSURS-6	SSURS-7
Sample Control Number		BC CSR		BC CSR		SS-6	SS-7	SS-8	SS-9	SSURS-1	SS DUP	SSURS-2	SSURS-3	SSURS-4	SSURS-5	SSURS-6	SSURS-7
Sample Date (Day-Month-Year)		Soil		Soil		31-Aug-16	31-Aug-16	31-Aug-16	31-Aug-16	22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05
Depth of Sample (mbgs)		Low Density		Industrial		0.5-0.5 m	0.5-0.5 m	0.5-0.5 m	0.5-0.5 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m
QA/QC	Units	Residential	MCS	Industrial	MCS					FDA	FD						
Lab Measurements																	
pH	pH units	-		-		6 to 8											
Anions																	
Chloride (leachable)	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		-				55	52	15	16	19	18	19	17
Chloride	mg/kg	100	DW	100	DW	-	496	41.8	38.3	25	25	839	3888	1640	988	2147	2584
Sodium	mg/kg	200	TOX	1000	TOX	-	316	47.3	6.8	7.7	10.4	513	2304	1056	511	1243	1613
Sodium Adsorption Ratio	none	-		-		5		-	-	0.4	0.5	108	200	140	32.4	53	89.7
Cyanide																	
Cyanide	mg/kg	-		-		-	-	-	-	0.05	0.06	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Thiocyanate and Cyanide	mg/kg	-		-		-	-	-	-	0.11	0.13	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9		-	-	-	-	-	-	-	-	-	-
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	-	3320	3960	7940	3780	-	-	-	-	-	-	-
Antimony	mg/kg	20	EH	40	EH	20	0.31	0.32	0.48	0.31	-	-	-	-	-	-	-
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12	3.81	4.7	9.13	3.85	-	-	-	-	-	-	-
Barium	mg/kg	350/600	DW/d	350/600	DW	500	171	198	795	174	-	-	-	-	-	-	-
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	< 0.40	< 0.40	0.54	< 0.40	-	-	-	-	-	-	-
Bismuth	mg/kg	-		-		-	< 0.10	< 0.10	0.14	< 0.10	-	-	-	-	-	-	-
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10	0.599	0.657	0.38	0.578	-	-	-	-	-	-	-
Calcium	mg/kg	-		-		-	53700	49200	1700	51300	-	-	-	-	-	-	-
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64	9.1	10.7	11.5	9.7	-	-	-	-	-	-	-
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	3.54	4.29	8.96	3.96	-	-	-	-	-	-	-
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63	8.22	10.1	13.4	9.19	-	-	-	-	-	-	-
Iron	mg/kg	35000		150000		-	9860	11600	17400	11500	-	-	-	-	-	-	-
Lead	mg/kg	120	I	120-1000	DW/T/pH	140	3.78	4.43	11.5	4.31	-	-	-	-	-	-	-
Lithium	mg/kg	30	HH	450	HH	-	7.9	9.3	9.6	9.2	-	-	-	-	-	-	-
Magnesium	mg/kg	-		-		-	17100	17500	1750	16400	-	-	-	-	-	-	-
Manganese	mg/kg	1500	DW	1500	DW	-	420	415	311	334	-	-	-	-	-	-	-
Mercury	mg/kg	10	INT	75	TOX	6.6	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-	-
Molybdenum	mg/kg	15	DW	15	DW	10	1.43	1.54	1.16	1.19	-	-	-	-	-	-	-
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45	12.7	15.3	24.5	14.2	-	-	-	-	-	-	-
Phosphorus	mg/kg	-		-		-	1240	1260	432	1310	-	-	-	-	-	-	-
Potassium	mg/kg	-		-		-	708	717	833	560	-	-	-	-	-	-	-
Selenium	mg/kg	1	DW	1	DW	1	< 0.50	< 0.50	< 0.50	< 0.50	-	-	-	-	-	-	-
Silver	mg/kg	20	EH	40	EH	20	0.058	0.07	0.117	< 0.050	-	-	-	-	-	-	-
Sodium	mg/kg	200	TOX	1000	TOX	-	545	137	1320	< 100	-	-	-	-	-	-	-
Strontium	mg/kg	9500	HH	150000	HH	-	55.5	50.8	18	50.7	-	-	-	-	-	-	-
Thallium	mg/kg	2	HH	2	HH	1	0.102	0.143	0.225	0.106	-	-	-	-	-	-	-
Tin	mg/kg	50	EH	300	EH	50	0.13	0.16	0.43	0.14	-	-	-	-	-	-	-
Titanium	mg/kg	-		-		-	52	51.6	45.6	51.3	-	-	-	-	-	-	-
Uranium	mg/kg	30	DW	30	DW	23	0.885	0.788	0.861	0.868	-	-	-	-	-	-	-
Vanadium	mg/kg	100	DW	100	DW	130	22.5	26.6	27.1	23.6	-	-	-	-	-	-	-
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200	35.7	43.9	95.5	41	-	-	-	-	-	-	-
Zirconium	mg/kg	15	HH	20	HH	-	1.47	1.52	2.06	1.37	-	-	-	-	-	-	-

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S = Schedule 10
pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						SSURS-8	SSURS-9	SSURS-10	SSURS-11	SSURS-13	SSURS-14	SSURS-15	SSURS-18	SSURS-19	SSURS-20	SSURS-21	SSURS-22
Sample Control Number		BC CSR		BC CSR		SSURS-8	SSURS-9	SSURS-10	SSURS-11	SSURS-13	SSURS-14	SSURS-15	SSURS-18	SSURS-19	SSURS-20	SSURS-21	SSURS-22
Sample Date (Day-Month-Year)		Soil		Soil		22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05	22-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05
Depth of Sample (mbgs)		Low Density		Industrial		0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m
QA/QC	Units	Residential	MCS	Industrial	MCS												FDA
Lab Measurements																	
pH	pH units	-		-		6 to 8										9.11	-
Anions																	
Chloride (leachable)	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		-	18	15	16	15	13	13	15	15	20	17	18
Chloride	mg/kg	100	DW	100	DW	-	5	67	9568	28	31	19	248	30	1082	18	8
Sodium	mg/kg	200	TOX	1000	TOX	-	19	93	6016	32	25.6	25	167	57	674	32	13
Sodium Adsorption Ratio	none	-		-		5	-	-	308	-	-	-	-	-	83.9	-	-
Cyanide																	
Cyanide	mg/kg	-		-		-	< 0.02	0.03	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Thiocyanate and Cyanide	mg/kg	-		-		-	< 0.04	0.1	< 0.04	< 0.04	-	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9	-	-	-	-	-	-	-	-	-	-	-
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	-	-	-	-	-	-	-	-	-	-	4070	-
Antimony	mg/kg	20	EH	40	EH	20	-	-	-	-	-	-	-	-	-	0.3	-
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12	-	-	-	-	-	-	-	-	-	4.1	-
Barium	mg/kg	350/600	DW/d	350/600	DW	500	-	-	-	-	-	-	-	-	-	187	-
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	-	-	-	-	-	-	-	-	-	0.3	-
Bismuth	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	< 0.1	-
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10	-	-	-	-	-	-	-	-	-	0.6	-
Calcium	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	79500	-
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64	-	-	-	-	-	-	-	-	-	9	-
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	-	-	-	-	-	-	-	-	-	5.6	-
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63	-	-	-	-	-	-	-	-	-	9	-
Iron	mg/kg	35000		150000		-	-	-	-	-	-	-	-	-	-	14600	-
Lead	mg/kg	120	I	120-1000	DW/T/pH	140	-	-	-	-	-	-	-	-	-	4.3	-
Lithium	mg/kg	30	HH	450	HH	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	22800	-
Manganese	mg/kg	1500	DW	1500	DW	-	-	-	-	-	-	-	-	-	-	597	-
Mercury	mg/kg	10	INT	75	TOX	6.6	-	-	-	-	-	-	-	-	-	< 0.05	-
Molybdenum	mg/kg	15	DW	15	DW	10	-	-	-	-	-	-	-	-	-	1.6	-
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45	-	-	-	-	-	-	-	-	-	18.4	-
Phosphorus	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	1530	-
Potassium	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	464	-
Selenium	mg/kg	1	DW	1	DW	1	-	-	-	-	-	-	-	-	-	< 0.5	-
Silver	mg/kg	20	EH	40	EH	20	-	-	-	-	-	-	-	-	-	0.06	-
Sodium	mg/kg	200	TOX	1000	TOX	-	-	-	-	-	-	-	-	-	-	161	-
Strontium	mg/kg	9500	HH	150000	HH	-	-	-	-	-	-	-	-	-	-	66.5	-
Thallium	mg/kg	2	HH	2	HH	1	-	-	-	-	-	-	-	-	-	0.12	-
Tin	mg/kg	50	EH	300	EH	50	-	-	-	-	-	-	-	-	-	0.2	-
Titanium	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	37	-
Uranium	mg/kg	30	DW	30	DW	23	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	100	DW	100	DW	130	-	-	-	-	-	-	-	-	-	20	-
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200	-	-	-	-	-	-	-	-	-	51	-
Zirconium	mg/kg	15	HH	20	HH	-	-	-	-	-	-	-	-	-	-	3.1	-

Notes:

All parameter units in milligrams per kilogram (mg/kg), unless otherwise noted.

land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline

Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.

CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW).

QA/QC = Quality Assurance, Quality Control

FDA = Field Duplicate Available; FD = Field Duplicate.

SCN = Sample Control Number; MCS = Most Conservative Standard

Italics = indicates that the detection limit exceeds one or more criteria.

* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						SSURS-22	SSURS-23	SSURS-24	SSURS-25	SSURS-30	SSURS-31	SSURS-32	SSURS-33	SSURS-34	SSURS-35	TP16-01	TP16-01
Sample Control Number		BC CSR		BC CSR		SS DUP2	SSURS-23	SSURS-24	SSURS-25	SSURS-30	SSURS-31	SSURS-32	SSURS-33	SSURS-34	SSURS-35	02025-01	02025-03
Sample Date (Day-Month-Year)		Soil		Soil		24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06	6-Sep-16	6-Sep-16
Depth of Sample (mbgs)		Low Density		Industrial		0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0-0.2 m	0.5-0.5 m	2.5-2.5 m
QA/QC	Units	Residential	MCS	Industrial	MCS	Residential	MCS	Industrial	MCS	Industrial	MCS	Industrial	Industrial	Industrial	Industrial	Industrial	Industrial
Lab Measurements																	
pH	pH units	-		-		6 to 8		6 to 8		-	-	-	-	-	-	4.75	-
Anions																	
Chloride (leachable)	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		-		-		17	18	18	15	40	15	14	13
Chloride	mg/kg	100	DW	100	DW	-		-		9	871	7	3	208	879	21	729
Sodium	mg/kg	200	TOX	1000	TOX	-		-		15	536	19	6	268	531	32.3	404
Sodium Adsorption Ratio	none	-		-		5		12		-	-	-	-	38.3	47.3	11.3	33.8
Cyanide																	
Cyanide	mg/kg	-		-		-		-		< 0.02	< 0.02	< 0.02	< 0.02	0.07	<0.02	<0.02	<0.02
Thiocyanate and Cyanide	mg/kg	-		-		-		-		< 0.04	< 0.04	< 0.04	< 0.04	0.2	0.03	0.03	<0.02
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9		8		-	-	-	-	-	-	-	-
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	-		-		-	-	-	-	-	-	6220	-
Antimony	mg/kg	20	EH	40	EH	20	I	40	I	-	-	-	-	-	-	0.56	-
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12		12		-	-	-	-	-	-	11.3	-
Barium	mg/kg	350/600	DW/d	350/600	DW	500		2000		-	-	-	-	-	-	199	-
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	I	8	I	-	-	-	-	-	-	0.55	-
Bismuth	mg/kg	-		-		-		-		-	-	-	-	-	-	< 0.10	-
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10		22		-	-	-	-	-	-	0.199	-
Calcium	mg/kg	-		-		-		-		-	-	-	-	-	-	1340	-
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64		87		-	-	-	-	-	-	8	-
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	I	300	I	-	-	-	-	-	-	6.51	-
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63		91		-	-	-	-	-	-	10.1	-
Iron	mg/kg	35000		150000		-		-		-	-	-	-	-	-	16300	-
Lead	mg/kg	120	I	120-1000	DW/T/pH	140		600		-	-	-	-	-	-	10.6	-
Lithium	mg/kg	30	HH	450	HH	-		-		-	-	-	-	-	-	8.3	-
Magnesium	mg/kg	-		-		-		-		-	-	-	-	-	-	1300	-
Manganese	mg/kg	1500	DW	1500	DW	-		-		-	-	-	-	-	-	106	-
Mercury	mg/kg	10	INT	75	TOX	6.6		50		-	-	-	-	-	-	< 0.050	-
Molybdenum	mg/kg	15	DW	15	DW	10	I	40	I	-	-	-	-	-	-	0.97	-
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45		89		-	-	-	-	-	-	13.4	-
Phosphorus	mg/kg	-		-		-		-		-	-	-	-	-	-	501	-
Potassium	mg/kg	-		-		-		-		-	-	-	-	-	-	797	-
Selenium	mg/kg	1	DW	1	DW	1		2.9		-	-	-	-	-	-	0.55	-
Silver	mg/kg	20	EH	40	EH	20	I	40	I	-	-	-	-	-	-	0.056	-
Sodium	mg/kg	200	TOX	1000	TOX	-		-		-	-	-	-	-	-	1250	-
Strontium	mg/kg	9500	HH	150000	HH	-		-		-	-	-	-	-	-	13.4	-
Thallium	mg/kg	2	HH	2	HH	1		1		-	-	-	-	-	-	0.091	-
Tin	mg/kg	50	EH	300	EH	50	I	300	I	-	-	-	-	-	-	0.26	-
Titanium	mg/kg	-		-		-		-		-	-	-	-	-	-	35	-
Uranium	mg/kg	30	DW	30	DW	23		300		-	-	-	-	-	-	0.85	-
Vanadium	mg/kg	100	DW	100	DW	130		130		-	-	-	-	-	-	21.5	-
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200		360		-	-	-	-	-	-	80.1	-
Zirconium	mg/kg	15	HH	20	HH	-		-		-	-	-	-	-	-	1.55	-

Notes:
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land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline
Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW).
QA/QC = Quality Assurance, Quality Control
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SCN = Sample Control Number; MCS = Most Conservative Standard
Italics = indicates that the detection limit exceeds one or more criteria.
* = CSR standard for sodium ion conservatively applied to total sodium concentrations
S = Schedule 10
pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						TP16-02	TP16-02	TP16-03	TP16-03	TP16-03	TP16-04	TP16-04	TP16-05	TP16-06	TP16-06	TP16-07	TP16-08
Sample Control Number		BC CSR		BC CSR		02025-04	02025-06	02025-07	02025-08	02025-09	01129-01	01129-02	01129-03	01129-04	01129-05	01129-06	02028-01
Sample Date (Day-Month-Year)		Soil		Soil		6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16
Depth of Sample (mbgs)		Low Density		Industrial		0.5-0.5 m	2.5-2.5 m	0.5-0.5 m	0.5-0.5 m	1.5-1.5 m	0.5-0.5 m	1.65-1.65 m	0.5-0.5 m	0.5-0.5 m	0.5-0.5 m	0.5-0.5 m	0.5-0.5 m
QA/QC	Units	Residential	MCS	Industrial	MCS			FDA	FD					FDA	FD		
Lab Measurements																	
pH	pH units	-		-		6 to 8											
Anions																	
Chloride (leachable)	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/kg	100	DW	100	DW	-	48.3	51.4	65.3	72	46.8	52.7	48.3	48	43.6	46.5	45.4
Sodium	mg/kg	200	TOX	1000	TOX	-	237	1020	32	29.7	276	18.1	99.1	5.1	14.2	5.7	8.6
Sodium Adsorption Ratio	none	-		-		5	51.8	90.8	35.9	40.7	< 230	15.8	63.3	11.1	16	6.9	12.9
Cyanide																	
Cyanide	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Thiocyanate and Cyanide	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9	-	-	-	-	-	-	-	-	-	-	-
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	-	4570	6350	8890	9200	6200	8800	8050	9160	7980	7280	5940
Antimony	mg/kg	20	EH	40	EH	20	0.37	0.62	0.58	0.61	0.64	0.46	0.59	0.61	0.6	0.52	0.45
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12	4.68	9.35	8.72	9.65	10.6	8.15	7.23	9.88	8.95	8.86	5.76
Barium	mg/kg	350/600	DW/d	350/600	DW	500	228	1210	471	474	358	866	2420	1420	1130	1200	1520
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	< 0.40	0.46	0.65	0.73	0.48	0.77	0.74	0.79	0.69	0.62	0.51
Bismuth	mg/kg	-		-		-	< 0.10	0.11	0.14	0.16	0.12	0.14	0.14	0.13	0.11	0.12	< 0.10
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10	0.755	0.379	0.329	0.346	0.2	0.321	0.28	0.387	0.297	0.256	0.523
Calcium	mg/kg	-		-		-	61700	2830	2900	3160	2110	1840	1740	4190	2270	2020	41600
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64	10.1	6.7	12.6	14	8.8	13.3	8.4	13.5	11.3	10.5	9.2
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	3.98	8.39	10	9.22	6.19	9.07	7.99	11.3	9.99	9.78	6.31
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63	10.5	12.7	17.2	19.5	13.5	16.5	10.9	16.4	15.5	14.7	9.2
Iron	mg/kg	35000		150000		-	14100	16000	18400	19500	16900	18100	15600	19700	18400	17300	13500
Lead	mg/kg	120	I	120-1000	DW/T/pH	140	5.97	11	12.4	13.4	11.3	11.9	17.7	12.3	11.2	11.1	8.19
Lithium	mg/kg	30	HH	450	HH	-	8.5	8.8	10.3	10.8	8.1	8.8	11.1	10.7	8.7	8.1	9.1
Magnesium	mg/kg	-		-		-	18600	1580	2100	2280	1680	2100	1800	2210	1640	1650	11600
Manganese	mg/kg	1500	DW	1500	DW	-	570	139	213	210	128	222	104	238	203	211	322
Mercury	mg/kg	10	INT	75	TOX	6.6	< 0.050	0.085	0.066	0.061	0.06	0.052	0.066	0.068	0.057	0.054	< 0.050
Molybdenum	mg/kg	15	DW	15	DW	10	1.72	1.11	1.24	1.35	1.2	1.12	0.64	1.27	1.21	1.07	1.38
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45	14	20.5	21.6	22.5	15.4	19.7	22.4	34.1	24.9	24	17.2
Phosphorus	mg/kg	-		-		-	1130	546	547	549	540	430	377	642	501	461	888
Potassium	mg/kg	-		-		-	860	1030	1050	1080	758	898	1190	1380	1000	836	988
Selenium	mg/kg	1	DW	1	DW	1	< 0.50	< 0.50	< 0.50	< 0.50	0.62	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	mg/kg	20	EH	40	EH	20	0.088	0.29	0.103	0.104	0.054	0.104	0.251	0.199	0.077	0.09	0.123
Sodium	mg/kg	200	TOX	1000	TOX	-	1930	198	1400	1890	1860	872	296	352	355	424	121
Strontium	mg/kg	9500	HH	150000	HH	-	57.1	41	19.2	20.6	15.1	20.7	39.7	35.3	24.7	23.4	45
Thallium	mg/kg	2	HH	2	HH	1	0.145	0.133	0.135	0.144	0.098	0.144	0.171	0.161	0.139	0.133	0.137
Tin	mg/kg	50	EH	300	EH	50	0.21	0.34	0.42	0.44	0.31	0.38	0.55	0.39	0.32	0.33	0.29
Titanium	mg/kg	-		-		-	74.5	25.4	35.6	29.9	33.7	40.1	113	34.7	39.4	34	74.2
Uranium	mg/kg	30	DW	30	DW	23	0.864	0.655	0.929	1.01	0.945	1.02	1.19	0.995	1.02	0.993	0.973
Vanadium	mg/kg	100	DW	100	DW	130	23.4	20.2	27.6	28.2	21.9	26.6	30.1	31	27	24.3	24.5
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200	45.5	121	163	139	96.4	79.8	124	128	102	96.7	70.3
Zirconium	mg/kg	15	HH	20	HH	-	1.94	2.75	3.07	3.52	2.12	2.83	3.26	2.89	2.69	2.46	1.69

Notes:

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* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

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TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						TP16-08	TP16-11	TP16-11	TP16-12	TP16-12	TP16-12	TP16-13	TP16-13	TP16-14	TP16-14	TP16-15	TP16-18
Sample Control Number		BC CSR		BC CSR		02028-04	02028-07	02028-09	02028-10	02028-11	02028-12	02029-01	02029-02	02029-05	02029-07	TP16-15-S1	TP16-18-S1
Sample Date (Day-Month-Year)		Soil		Soil		7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	6-Nov-16	6-Nov-16
Depth of Sample (mbgs)		Low Density		Industrial		3.4-3.4 m	1-1 m	3-3 m	0.5-0.5 m	0.5-0.5 m	1.5-1.5 m	0.5-0.5 m	1.5-1.5 m	0.5-0.5 m	2.5-2.5 m	1-1.2 m	1-1.2 m
QA/QC	Units	Residential	MCS	Industrial	MCS				FDA	FD							
Lab Measurements																	
pH	pH units	-		-		6 to 8											
Anions																	
Chloride (leachable)	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/kg	100	DW	100	DW	-	-	-	-	-	-	64	3130	1280	4090	65.2	117
Sodium	mg/kg	200	TOX	1000	TOX	-	-	-	-	-	-	82.7	2270	959	2690	56.2	178
Sodium Adsorption Ratio	none	-		-		5						-	-	-	-	-	-
Cyanide																	
Cyanide	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Thiocyanate and Cyanide	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9						-	-	-	-	-	-
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	-	-	-	-	-	-	3830	11100	4650	5380	5370	11400
Antimony	mg/kg	20	EH	40	EH	20						0.36	0.48	0.47	0.6	0.55	0.96
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12						4.85	8.11	5.4	10.1	6.89	11.5
Barium	mg/kg	350/600	DW/d	350/600	DW	500						185	159	241	342	359	397
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4						< 0.40	0.72	0.41	0.57	< 0.40	0.79
Bismuth	mg/kg	-		-		-						< 0.10	0.17	0.11	< 0.10	< 0.10	0.19
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10						0.649	0.24	0.935	0.32	0.478	1.06
Calcium	mg/kg	-		-		-						72200	1330	60000	2190	32300	12700
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64						9.6	18.7	10.7	8.4	10.1	18.8
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50						3.95	6.37	4.55	8.9	4.63	8.75
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63						8.74	18.3	10.5	10.7	11.9	22.2
Iron	mg/kg	35000		150000		-						13700	21100	13500	15600	13700	23000
Lead	mg/kg	120	I	120-1000	DW/T/pH	140						5.06	11.8	6.01	9.61	10.4	21.1
Lithium	mg/kg	30	HH	450	HH	-						9.8	12.2	9.9	7.3	8.7	15.9
Magnesium	mg/kg	-		-		-						22400	2820	19300	1480	9800	3850
Manganese	mg/kg	1500	DW	1500	DW	-						434	148	511	184	345	567
Mercury	mg/kg	10	INT	75	TOX	6.6						< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.059
Molybdenum	mg/kg	15	DW	15	DW	10						1.49	1.16	1.86	1.2	1.63	3.19
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45						11.5	17.7	14.6	15.9	15	25.2
Phosphorus	mg/kg	-		-		-						1330	391	1250	509	851	1350
Potassium	mg/kg	-		-		-						822	1050	1000	923	828	1700
Selenium	mg/kg	1	DW	1	DW	1						< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.71
Silver	mg/kg	20	EH	40	EH	20						0.111	0.059	0.071	0.132	0.079	0.324
Sodium	mg/kg	200	TOX	1000	TOX	-						378	3870	2010	3890	< 100	820
Strontium	mg/kg	9500	HH	150000	HH	-						63.5	17.9	59.8	17.3	36.4	39.8
Thallium	mg/kg	2	HH	2	HH	1						0.135	0.164	0.16	0.11	0.141	0.241
Tin	mg/kg	50	EH	300	EH	50						0.22	0.5	0.24	0.29	0.38	0.78
Titanium	mg/kg	-		-		-						73.3	53.6	60.9	38.9	33.6	31.2
Uranium	mg/kg	30	DW	30	DW	23						1.02	1.32	0.919	0.937	1.59	1.38
Vanadium	mg/kg	100	DW	100	DW	130						25.2	35.1	30.9	22.4	23.9	46.3
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200						38.5	69.9	48.7	84.1	67.6	140
Zirconium	mg/kg	15	HH	20	HH	-						1.42	2.98	1.31	1.81	0.82	0.61

Notes:

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land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline

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Italics = indicates that the detection limit exceeds one or more criteria.

* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location																					
Sample Control Number		BC CSR		BC CSR		CCME Soil		CCME Soil		TP16-31	TP16-31	TP16-31	TP16-32	URS-BH03	URS-BH04	URS-BH04	URS-BH04	URS-BH05	URS-BH05	URS-BH06	URS-BH06
Sample Date (Day-Month-Year)		Soil		Soil		Soil		Soil		TP16-31-S1	TP16-31-S2	TP16-31-S2 FD	TP16-32-S1	URS BH03-3.3	URSBH04-0.3	URS BH04-0.7	URSBH04-1.8	URS BH05-0.3	URS BH05-0.8	URS BH06-0.4	URS BH06-0.8
Depth of Sample (mbgs)		Low Density		Industrial		Residential		Industrial		0.8-0.9	1.8-1.9	1.8-1.9	0.8-0.9	3.2-3.4 m	0.2-0.4 m	0.6-0.8 m	1.7-1.9 m	0.2-0.4 m	0.7-0.9 m	0.3-0.5 m	0.7-0.9 m
QA/QC	Units	Residential	MCS	Industrial	MCS	Residential	MCS	Industrial	MCS		FDA	FD					FDA				
Lab Measurements																					
pH	pH units	-		-		6 to 8		6 to 8		8.89	6.3	6.38	8.27	7.03	-	-	6.54	-	7.65	7.21	-
Anions																					
Chloride (leachable)	mg/kg	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																					
Saturation	%	-		-		-		-		75.7	69	68.3	-	-	55	46	37	20	20	34	29
Chloride	mg/kg	100	DW	100	DW	-		-		9.9	1410	1370	-	-	2228	1170	476	2640	3180	5508	3530
Sodium	mg/kg	200	TOX	1000	TOX	-		-		9.4	760	791	-	-	869	398	158	1640	<0.1	3288	<0.1
Sodium Adsorption Ratio	none	-		-		5		12		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide																					
Cyanide	mg/kg	-		-		-		-		-	-	-	-	-	< 0.02	-	-	< 0.02	-	0.06	-
Thiocyanate and Cyanide	mg/kg	-		-		-		-		-	-	-	-	-	< 0.04	-	-	< 0.04	-	0.15	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9		8		-	-	-	-	-	-	-	-	<0.02	-	0.06	-
Metals																					
Aluminum	mg/kg	40000	HH	250000	HH	-		-		4900	7860	8620	4310	7760	-	-	7070	-	3830	5910	-
Antimony	mg/kg	20	EH	40	EH	20	I	40	I	0.46	0.47	0.51	0.51	0.5	-	-	0.6	-	0.1	0.4	-
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12		12		5.1	7.78	8.36	4.88	10.1	-	-	12	-	2	7.4	-
Barium	mg/kg	350/600	DW/d	350/600	DW	500		2000		218	304	304	200	559	-	-	843	-	107	418	-
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	I	8	I	< 0.40	0.63	0.63	< 0.40	0.5	-	-	0.5	-	0.2	0.4	-
Bismuth	mg/kg	-		-		-		-		< 0.10	0.18	0.19	< 0.10	0.2	-	-	0.1	-	<0.1	<0.1	-
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10		22		0.825	0.498	0.437	0.832	0.19	-	-	0.35	-	0.16	0.11	-
Calcium	mg/kg	-		-		-		-		52500	3410	3480	49500	5990	-	-	2730	-	14200	8570	-
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64		87		10.5	15.6	16.7	15.8	13	-	-	11	-	11	9	-
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	I	300	I	4.64	9.98	9.27	4.75	8.4	-	-	11.6	-	2.4	6.1	-
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63		91		10.1	21	21.7	15.8	17.9	-	-	18.9	-	4.2	11.7	-
Iron	mg/kg	35000		150000		-		-		13600	18300	19700	13300	24900	-	-	26400	-	8190	15400	-
Lead	mg/kg	120	I	120-1000	DW/T/pH	140		600		5.78	11.6	11.9	5.73	11	-	-	12.4	-	4.7	8.6	-
Lithium	mg/kg	30	HH	450	HH	-		-		10.2	10.2	11.2	9.9	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-		-		-		-		15700	2820	3080	15600	2770	-	-	1870	-	5170	3650	-
Manganese	mg/kg	1500	DW	1500	DW	-		-		443	383	322	486	242	-	-	247	-	152	143	-
Mercury	mg/kg	10	INT	75	TOX	6.6		50		< 0.050	< 0.050	0.05	< 0.050	0.08	-	-	0.08	-	< 0.05	< 0.05	-
Molybdenum	mg/kg	15	DW	15	DW	10	I	40	I	2.22	1.26	1.31	2.4	1.6	-	-	1.7	-	1.4	1.4	-
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45		89		17.1	34	34.5	17.6	22.5	-	-	29.2	-	8.3	14.1	-
Phosphorus	mg/kg	-		-		-		-		1390	559	543	1570	627	-	-	796	-	636	538	-
Potassium	mg/kg	-		-		-		-		800	1000	1150	747	989	-	-	1030	-	537	684	-
Selenium	mg/kg	1	DW	1	DW	1		2.9		< 0.50	< 0.50	< 0.50	< 0.50	0.6	-	-	0.6	-	< 0.5	< 0.5	-
Silver	mg/kg	20	EH	40	EH	20	I	40	I	0.06	0.094	0.101	0.068	0.16	-	-	0.27	-	< 0.05	0.06	-
Sodium	mg/kg	200	TOX	1000	TOX	-		-		< 100	1470	1420	< 100	252	-	-	124	-	2630	3890	-
Strontium	mg/kg	9500	HH	150000	HH	-		-		55.6	30.6	31	55.8	26.5	-	-	35	-	18.1	16.8	-
Thallium	mg/kg	2	HH	2	HH	1		1		0.196	0.242	0.221	0.18	0.18	-	-	0.17	-	0.06	0.1	-
Tin	mg/kg	50	EH	300	EH	50	I	300	I	0.27	0.58	0.57	0.44	0.4	-	-	0.4	-	0.2	0.3	-
Titanium	mg/kg	-		-		-		-		53.1	34.6	47.8	42	96	-	-	38	-	20	39	-
Uranium	mg/kg	30	DW	30	DW	23		300		1.02	0.867	0.901	1.07	-	-	-	-	-	-	-	-
Vanadium	mg/kg	100	DW	100	DW	130		130		32.4	25.3	27.9	30.8	26	-	-	26	-	13	20	-
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200		360		53.1	73.4	78.4	54.6	98	-	-	140	-	35	80	-
Zirconium	mg/kg	15	HH	20	HH	-		-		1.15	5.39	5.11	1.41	6.9	-	-	6	-	4.6	2.9	-

Notes:

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pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						URS-BH06	URS-BH07	URS-BH08	URS-BH09	URS-BH09	URS-BH09	URS-BH10	URS-BH12	URS-BH14	URS-BH14	URS-BH14	URS-BH14
Sample Control Number		BC CSR		BC CSR		URS BH06-1.4	URS BH07-0.3	URS BH08-0.2	URS BH 09-0.3	URSBH DUP4	URSBH 09- 1.5	URSBH 10 0.4	URS BH12-0.2	URSBH14-0.3	URSBH DUP6	URSBH 14-3.5	URSBH 14-4.3
Sample Date (Day-Month-Year)		Soil		Soil		23-Nov-05	23-Nov-05	23-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05
Depth of Sample (mbgs)		Low Density		Industrial		1.3-1.5 m	0.2-0.4 m	0.1-0.3 m	0.2-0.4 m	0.2-0.4 m	1.4-1.6 m	0.3-0.5 m	0.1-0.3 m	0.2-0.4 m	0.2-0.4 m	3.4-3.6 m	4.2-4.4 m
QA/QC	Units	Residential	MCS	Industrial	MCS				FDA	FD				FDA	FD		
Lab Measurements																	
pH	pH units	-		-		-	-	5.94	6.11	6.44	6.51	5.48	6.17	5.83	5.74	7.76	7.84
Anions																	
Chloride (leachable)	mg/kg	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Sodium and Chloride, Saturated Paste Method																	
Saturation	%	-		-		41	25	-	-	-	-	-	-	-	-	-	-
Chloride	mg/kg	100	DW	100	DW	2900	250	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	200	TOX	1000	TOX	1470	116	-	-	-	-	-	-	-	-	-	-
Sodium Adsorption Ratio	none	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Cyanide																	
Cyanide	mg/kg	-		-		-	0.3	-	-	-	-	-	-	-	-	-	-
Thiocyanate and Cyanide	mg/kg	-		-		-	0.5	-	-	-	-	-	-	-	-	-	-
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	-	0.3	-	-	-	-	-	-	-	-	-	-
Metals																	
Aluminum	mg/kg	40000	HH	250000	HH	-	-	8150	8220	9290	6490	10300	7420	7270	6280	6270	5780
Antimony	mg/kg	20	EH	40	EH	-	-	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.4	0.6	0.5
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	-	-	8.3	8.8	9.1	10	9.3	8.9	8.4	8.8	10.1	8.5
Barium	mg/kg	350/600	DW/d	350/600	DW	-	-	797	396	435	737	250	590	261	347	759	560
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	-	-	0.6	0.4	0.5	0.5	0.6	0.5	0.4	0.4	0.5	0.5
Bismuth	mg/kg	-		-		-	-	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.1
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	-	-	0.08	0.11	0.1	0.25	0.11	0.07	0.1	0.1	0.3	0.34
Calcium	mg/kg	-		-		-	-	1740	2030	1750	2450	389	1500	679	825	5240	4940
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	-	-	12	11	12	12	14	10	9	8	10	10
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	-	-	7.3	5.9	5.3	9	7.5	8.8	6.5	7	9.1	9.5
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	-	-	17.3	14.5	11.3	18.1	18.5	16.6	10.9	12	18.4	18.4
Iron	mg/kg	35000		150000		-	-	19100	18900	25700	20400	21200	18700	17300	18500	20100	20500
Lead	mg/kg	120	I	120-1000	DW/T/pH	-	-	10.6	11.1	11.6	11.7	12.1	11.4	9.3	9.9	11.2	10.6
Lithium	mg/kg	30	HH	450	HH	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-		-		-	-	1710	1650	1810	1720	1820	1870	1470	1420	2170	2470
Manganese	mg/kg	1500	DW	1500	DW	-	-	131	98.9	88.4	194	126	172	153	173	188	220
Mercury	mg/kg	10	INT	75	TOX	-	-	0.06	< 0.05	0.07	0.06	< 0.05	0.07	< 0.05	0.05	0.07	< 0.05
Molybdenum	mg/kg	15	DW	15	DW	-	-	1.5	1.3	1.4	1.6	1.3	1.1	1	1.1	1.5	1.5
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	-	-	21.8	15	14.5	24	16.9	17.9	14.5	14.4	25.2	26.8
Phosphorus	mg/kg	-		-		-	-	622	418	445	681	417	504	463	505	716	639
Potassium	mg/kg	-		-		-	-	786	610	693	887	702	625	589	556	1050	894
Selenium	mg/kg	1	DW	1	DW	-	-	0.6	0.6	0.6	< 0.5	< 0.5	< 0.5	0.5	0.5	0.7	0.5
Silver	mg/kg	20	EH	40	EH	-	-	0.07	0.09	0.13	0.2	0.09	0.07	0.07	0.07	0.28	0.25
Sodium	mg/kg	200	TOX	1000	TOX	-	-	210	284	271	220	<100	975	< 100	131	< 100	< 100
Strontium	mg/kg	9500	HH	150000	HH	-	-	25.8	13.7	12	28.4	14.2	17.8	11.3	12	34.3	31.1
Thallium	mg/kg	2	HH	2	HH	-	-	0.12	0.14	0.18	0.18	0.14	0.14	0.11	0.11	0.16	0.15
Tin	mg/kg	50	EH	300	EH	-	-	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3
Titanium	mg/kg	-		-		-	-	31	27	39	39	32	55	43	50	40	27
Uranium	mg/kg	30	DW	30	DW	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	100	DW	100	DW	-	-	26	26	32	22	28	24	22	21	22	20
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	-	-	107	94	95	118	80	92	72	73	121	110
Zirconium	mg/kg	15	HH	20	HH	-	-	4.2	2.8	2.2	7	4.9	4.5	1.2	1.3	6.1	5.7

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TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						URS-BH15	URS-BH15	URS-BH17	URS-BH17	URS-BH18	UTP-A	UTP-A	UTP-B	UTP-B	UTP-B	UTP-B	UTP-F				
Sample Control Number		BC CSR		BC CSR		URSBH 15-0.4	URSBH 15-1.7	URSBH 17-0.3	URSBH 17-2.4	URS BH 18-0.3	UTP-A 0.3	UTP-A 0.9	UTP-B 0.2	UTP-B 0.7	UTP-B 1.5	UTP-B 2.6	UTP-F 0.4				
Sample Date (Day-Month-Year)		Soil		Soil		24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06				
Depth of Sample (mbgs)		Low Density		Industrial		0.3-0.5 m	1.6-1.8 m	0.2-0.4 m	2.3-2.5 m	0.2-0.4 m	0.2-0.4 m	0.8-1 m	0.1-0.3 m	0.6-0.8 m	1.4-1.6 m	2.5-2.7 m	0.3-0.5 m				
QA/QC	Units	Residential	MCS	Industrial	MCS	Residential	MCS	Industrial	MCS												
Lab Measurements																					
pH	pH units	-		-		6 to 8		6 to 8		9.45	7.72	5.63	7.2	-	8.4	7.96	7.48	9	-	-	9.39
Anions																					
Chloride (leachable)	mg/kg	-		-		-		-		-		-		-		-		-		-	
Sodium and Chloride, Saturated Paste Method																					
Saturation	%	-		-		-		-		-	18	-	22	17	46	45		-			
Chloride	mg/kg	100	DW	100	DW	-		-		2430	46	-	4020	2240	6750	12200		-			
Sodium	mg/kg	200	TOX	1000	TOX	-		-		462	39.5	-	2700	1590	4890	9010		-			
Sodium Adsorption Ratio	none	-		-		5		12		-	9.1	-	108	138	211	229		-			
Cyanide																					
Cyanide	mg/kg	-		-		-		-		-	< 0.02	-	0.02	< 0.02	< 0.02	< 0.02		-			
Thiocyanate and Cyanide	mg/kg	-		-		-		-		-	< 0.02	-	0.13	0.87	0.1	0.04		-			
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9		8		-	-	-	-	-	-	-		-			
Metals																					
Aluminum	mg/kg	40000	HH	250000	HH	-		-		3890	7080	6760	5460	-	6310	7940	5780	4510	-	-	4280
Antimony	mg/kg	20	EH	40	EH	20	I	40	I	0.3	0.3	0.6	0.6	-	0.5	0.6	0.4	0.4	-	-	0.4
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12		12		4.1	4.1	9.4	10.1	-	7.3	9.8	5.3	4	-	-	5.3
Barium	mg/kg	350/600	DW/d	350/600	DW	500		2000		216	3490	1010	771	-	437	618	260	148	-	-	204
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	I	8	I	0.3	0.4	0.6	0.5	-	0.5	0.7	0.4	0.3	-	-	0.3
Bismuth	mg/kg	-		-		-		-		<0.1	<0.1	0.1	0.1	-	<0.1	0.1	<0.1	<0.1	-	-	<0.1
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10		22		0.42	< 0.05	0.12	0.26	-	0.51	0.25	0.54	0.45	-	-	0.61
Calcium	mg/kg	-		-		-		-		88500	1120	2270	2770	-	46300	10900	77900	95500	-	-	72600
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64		87		11	8	12	8	-	10	11	10	10	-	-	9
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	I	300	I	4.2	4	8.1	9.1	-	6.7	8.3	4.8	4.5	-	-	4.9
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63		91		11	6.1	19.4	15.7	-	13.8	17.5	10.9	12.9	-	-	10.2
Iron	mg/kg	35000		150000		-		-		14500	9660	21100	20200	-	18400	22400	14600	12700	-	-	12900
Lead	mg/kg	120	I	120-1000	DW/T/pH	140		600		4.9	10.1	10.8	11	-	9.2	11.3	6.9	4.7	-	-	4.5
Lithium	mg/kg	30	HH	450	HH	-		-		-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-		-		-		-		27300	1360	1630	1610	-	12000	5230	25800	26000	-	-	25500
Manganese	mg/kg	1500	DW	1500	DW	-		-		685	44	161	184	-	417	259	492	339	-	-	882
Mercury	mg/kg	10	INT	75	TOX	6.6		50		< 0.05	< 0.05	0.06	0.06	-	0.05	0.08	< 0.05	< 0.05	-	-	< 0.05
Molybdenum	mg/kg	15	DW	15	DW	10	I	40	I	2.8	0.8	1.7	1.2	-	1.9	1.7	1.7	1.8	-	-	1.7
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45		89		16.5	14	25.5	23.1	-	20.9	24.3	16.4	18.3	-	-	17.2
Phosphorus	mg/kg	-		-		-		-		1070	349	737	707	-	1010	879	1180	1470	-	-	2000
Potassium	mg/kg	-		-		-		-		578	675	949	961	-	714	865	739	630	-	-	748
Selenium	mg/kg	1	DW	1	DW	1		2.9		< 0.5	< 0.5	0.7	0.5	-	< 0.5	0.7	0.7	0.6	-	-	< 0.5
Silver	mg/kg	20	EH	40	EH	20	I	40	I	0.1	0.21	0.14	0.28	-	0.11	0.13	0.16	0.05	-	-	< 0.05
Sodium	mg/kg	200	TOX	1000	TOX	-		-		583	2530	1770	<100	-	353	351	7470	4030	-	-	1610
Strontium	mg/kg	9500	HH	150000	HH	-		-		71.2	11.8	31.1	33.6	-	48.9	28.7	58.8	75.9	-	-	60.2
Thallium	mg/kg	2	HH	2	HH	1		1		0.13	0.09	0.14	0.15	-	0.17	0.15	0.14	0.2	-	-	0.2
Tin	mg/kg	50	EH	300	EH	50	I	300	I	0.2	0.4	0.5	0.3	-	0.5	0.6	0.4	0.4	-	-	0.4
Titanium	mg/kg	-		-		-		-		46	53	33	33	-	45	38	45	59	-	-	43
Uranium	mg/kg	30	DW	30	DW	23		300		-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	100	DW	100	DW	130		130		20	19	24	21	-	26	25	23	25	-	-	21
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200		360		42	76	120	115	-	81	111	56	51	-	-	47
Zirconium	mg/kg	15	HH	20	HH	-		-		3.7	3.4	5.8	7.6	-	11.8	15.5	6.5	8	-	-	8.7

Notes:

All parameter units in milligrams per kilogram (mg/kg), unless otherwise noted.

land (IL). CCME notes include: F = Free Cyanide refers to the sum of molecular HCN and the cyanide anion; I = Interim Guideline

Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.

CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW).

QA/QC = Quality Assurance, Quality Control

FDA = Field Duplicate Available; FD = Field Duplicate.

SCN = Sample Control Number; MCS = Most Conservative Standard

Italics = indicates that the detection limit exceeds one or more criteria.

* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependant; d = depth dependent; WAD = weak acid dissociable.

TABLE B1 Results of Soil Analyses - Metals and Salt
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						UTP-G	UTP-G	UTP-G	UTP-G	UTP-G	UTP-H	UTP-I	UTP-I	UTP-I	UTP-J	UTP-K	UTP-L	UTP-L					
Sample Control Number		BC CSR		BC CSR		UTP-G 0.3	UTP-G 0.7	UTP-G 1.6	UTP-G 2.3	DUP 1	UTP-H 0.1	UTP-I 0.3	UTP-I 0.9	UTP-I 1.5	UTP-J 0.2	UTP-K 0.3	DUP4	UTP-L 0.3					
Sample Date (Day-Month-Year)		Soil		Soil		2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06					
Depth of Sample (mbgs)		Low Density		Industrial		0.2-0.4 m	0.6-0.8 m	1.5-1.7 m	2.3 m	2.3 m	0-0.2 m	0.2-0.4 m	0.8-1 m	1.4-1.6 m	0.1-0.3 m	0.2-0.4 m	0.2-0.4 m	0.2-0.4 m					
QA/QC	Units	Residential	MCS		MCS																		
Lab Measurements																							
pH	pH units	-		-		6 to 8					9.55	-	-	-	8.78	8.88	6.73	5.39	8.5	8.26	9.48	9	
Anions																							
Chloride (leachable)	mg/kg	-		-		-					-	-	-	-	-	-	-	-	-	-	-	-	
Sodium and Chloride, Saturated Paste Method																							
Saturation	%	-		-		-					14	51	59	33	37	18	14	-	-	14	-	-	17
Chloride	mg/kg	100	DW	100	DW	-					311	6940	1860	498	596	3	2	-	-	7	-	-	25
Sodium	mg/kg	200	TOX	1000	TOX	-					250	4580	420	76.6	80.2	7.3	6.5	-	-	11.6	-	-	59.3
Sodium Adsorption Ratio	none	-		-		5					85.7	81.9	5.5	2.4	2.1	1.4	2.2	-	-	4	-	-	26.5
Cyanide																							
Cyanide	mg/kg	-		-		-					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	<0.02	-	-	<0.02	
Thiocyanate and Cyanide	mg/kg	-		-		-					<0.02	0.03	<0.02	<0.02	<0.02	0.03	<0.02	-	-	<0.02	-	-	0.05
Cyanide (WAD)	mg/kg	1.5	AW	1.5	AW	0.9					-	-	-	-	-	-	-	-	-	-	-	-	
Metals																							
Aluminum	mg/kg	40000	HH	250000	HH	-					4170	-	-	-	-	3800	3170	10500	10400	3970	6860	3860	3770
Antimony	mg/kg	20	EH	40	EH	20	I				0.3	-	-	-	-	0.3	0.2	0.7	0.5	0.4	0.4	0.3	0.4
Arsenic	mg/kg	10/15	DW/d	10/15	DW/d	12					4.2	-	-	-	-	3.5	3	7.8	8.3	4.4	8.2	3.9	4.6
Barium	mg/kg	350/600	DW/d	350/600	DW	500					209	-	-	-	-	167	107	508	550	172	510	165	216
Beryllium	mg/kg	1-85	DW/HH	1-350	HH/EH	4	I				0.3	-	-	-	-	0.3	0.2	0.7	0.8	0.4	0.5	0.4	0.3
Bismuth	mg/kg	-		-		-					<0.1	-	-	-	-	<0.1	<0.01	0.2	0.2	<0.1	0.1	<0.1	<0.1
Cadmium	mg/kg	1-85	DW/HH	1-350	HH/EH	10					0.55	-	-	-	-	0.59	0.36	1.62	0.11	0.62	0.25	0.51	0.76
Calcium	mg/kg	-		-		-					90700	-	-	-	-	81400	88000	9020	1600	60400	18000	87100	80500
Chromium	mg/kg	60 ^{VI} , 100 ^{total}	V	60 ^{VI} , 250 ^{total}	V	64					9	-	-	-	-	8	8	14	14	8	9	9	9
Cobalt	mg/kg	25/30	DW/d	25/30	DW/d	50	I				4	-	-	-	-	3.7	3.6	6.9	9.7	4.1	6.5	3.9	4.4
Copper	mg/kg	70-150	AW/T/pH	70-300	AW/T/pH	63					12.4	-	-	-	-	7.9	7.5	22.2	21	9.2	12.6	9	10.7
Iron	mg/kg	35000		150000		-					13300	-	-	-	-	12700	10500	19600	22800	14500	18600	19500	16400
Lead	mg/kg	120	I	120-1000	DW/T/pH	140					4.7	-	-	-	-	4.3	3.5	17.6	12.2	5.6	9.2	4.3	4.2
Lithium	mg/kg	30	HH	450	HH	-					-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-		-		-					28600	-	-	-	-	27100	28700	2880	2400	21100	6710	24700	25100
Manganese	mg/kg	1500	DW	1500	DW	-					703	-	-	-	-	722	353	426	251	600	248	551	1300
Mercury	mg/kg	10	INT	75	TOX	6.6					< 0.05	-	-	-	-	< 0.05	< 0.05	0.06	0.07	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	mg/kg	15	DW	15	DW	10	I				1.9	-	-	-	-	1.4	1.1	2.4	1.4	1.7	1.3	1.8	2.7
Nickel	mg/kg	70-150	DW/pH/T	70-250	DW/pH/T	45					15.4	-	-	-	-	15	12.8	25.2	22.8	15.3	17.3	16.2	20.1
Phosphorus	mg/kg	-		-		-					1850	-	-	-	-	1510	1110	979	598	1470	901	1150	1420
Potassium	mg/kg	-		-		-					637	-	-	-	-	499	522	1170	851	600	703	542	637
Selenium	mg/kg	1	DW	1	DW	1					0.8	-	-	-	-	0.6	< 0.5	1	0.9	< 0.5	0.9	< 0.5	0.7
Silver	mg/kg	20	EH	40	EH	20	I				0.07	-	-	-	-	0.05	0.05	0.45	0.09	0.06	0.09	0.06	0.05
Sodium	mg/kg	200	TOX	1000	TOX	-					960					102	112	1010	1020	141	188	497	452
Strontium	mg/kg	9500	HH	150000	HH	-					68.2	-	-	-	-	58.4	58.2	24.9	22.2	49.2	26.8	58.9	64.7
Thallium	mg/kg	2	HH	2	HH	1					0.3	-	-	-	-	0.16	0.11	0.33	0.19	0.13	0.13	0.12	0.17
Tin	mg/kg	50	EH	300	EH	50	I				0.5	-	-	-	-	0.4	0.3	0.8	0.6	0.4	0.5	0.5	0.4
Titanium	mg/kg	-		-		-					43	-	-	-	-	60	61	47	32	43	39	57	48
Uranium	mg/kg	30	DW	30	DW	23					-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	100	DW	100	DW	130					20	-	-	-	-	18	16	44	27	18	21	19	24
Zinc	mg/kg	150-450	DW/AW/T/pH	150-450	DW/AW/T/pH	200					41	-	-	-	-	39	34	94	99	48	92	42	48
Zirconium	mg/kg	15	HH	20	HH	-					9.4	-	-	-	-	9.4	8.8	8.7	14.5	7.1	6.1	10.8	9.4

Notes:

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Italics = indicates that the detection limit exceeds one or more criteria.

* = CSR standard for sodium ion conservatively applied to total sodium concentrations

S = Schedule 10

pH = Standard is pH dependent; d = depth dependent; WAD = weak acid dissociable.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential		AH16-01	AH16-01	AH16-02	AH16-02	AH16-03	AH16-03	AH16-04	AH16-05	AH16-05	AH16-06	AH16-07	AH16-08	BH10-04	BH10-05
Sample Control Number	Soil		Soil		Soil	CCME Soil	AH16-01/S1	AH16-01/S2	AH16-02/S1	AH16-02/S2	AH16-03/S1	AH16-03/S2	AH16-04/S1	AH16-05/S1	AH16-05/S2	AH16-06/S1	AH16-07/S1	AH16-08/S1	21694-03	21694-10
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential	Industrial	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	10-Oct-10	10-Oct-10
Depth of Sample (mbgs)	MCS		MCS		MCS	MCS	0.2-0.3 m	0.9-1 m	0.5-0.6 m	0.8-0.9 m	0.5-0.6 m	0.8-0.9 m	0.45-0.5 m	0.35-0.45 m	0.75-0.85 m	0.85-0.95 m	0.8-0.9 m	0.3-0.4 m	0.9-1.2 m	1.5-1.8 m
QA/QC																				
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	0.012	0.0058	< 0.0050	< 0.0050	< 0.0050	0.013	< 0.0050	< 0.0050	0.0079	< 0.0050	< 0.0050	< 0.0050	0.0083	0.0238
Ethylbenzene	10	DW	10	DW	0.018	0.018	0.018	0.01	< 0.010	< 0.010	< 0.010	0.026	< 0.010	< 0.010	0.033	0.037	0.023	< 0.010	0.229	0.805
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.050	< 0.050
Toluene	0.3	AW	0.3	AW	0.08	0.08	0.056	0.036	0.028	0.035	< 0.020	0.09	0.026	0.031	0.065	0.063	0.065	0.028	< 0.050	< 0.050
m,p-Xylenes	-		-		-	-	0.04	< 0.040	< 0.040	< 0.040	< 0.040	0.093	< 0.040	< 0.040	0.12	0.19	0.091	< 0.040	1.54	5.02
o-Xylene	-		-		-	-	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	0.047	< 0.040	< 0.040	0.058	0.079	0.042	< 0.040	0.375	0.13
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	0.04	< 0.040	< 0.040	< 0.040	< 0.040	0.14	< 0.040	< 0.040	0.18	0.27	0.13	< 0.040	1.92	5.15
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.20
VH (C6-C10)	-		-		-	-	< 10	< 10	< 10	< 10	18	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	< 10	< 10	18	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	< 0.0050	< 0.0050	0.045	< 0.0050	< 0.0050	0.0076	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.20	-
Acenaphthylene	-		-		320	320	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.060	-
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	< 0.0040	< 0.0040	0.014	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.040	-
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.010	-
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.010	-
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.024	-
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.018	-
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.010	-
Chrysene	40	HH	900	HH	6.2	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.005	-
Fluoranthene	50	T	200	T	15.4	180	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.010	-
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.274	-
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.010	-
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.010	0.012	< 0.010	0.017	< 0.010	0.022	0.083	< 0.010	< 0.010	0.018	< 0.010	0.017	1.32	-
Phenanthrene	5	EH	50	EH	0.046	0.046	0.012	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.029	< 0.010	0.041	< 0.010	0.019	0.011	0.469	-
Pyrene	10	EH	100	EH	7.7	100	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.032	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.010	-
2-methylnaphthalene	60	HH	950	HH	-	-	< 0.020	< 0.020	< 0.020	0.057	< 0.020	0.034	0.22	< 0.020	0.022	0.033	< 0.020	0.031	4.61	-
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	< 0.050	< 0.050	< 0.050	0.13	< 0.050	0.056	0.34	< 0.050	0.063	0.052	< 0.050	0.059	-	-
PAH, High Molecular Weight	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-
PAH, Total	-		-		-	-	< 0.050	< 0.050	< 0.050	0.13	< 0.050	0.056	0.37	< 0.050	0.063	0.052	< 0.050	0.059	-	-
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.041	0.041	0.041	0.041	0.041	0.041	0.041	0.041	0.041	0.041	0.041	0.041	-	-
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	-	-
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	< 100	< 100	1900	< 100	< 100	970	< 100	< 100	< 100	100	< 100	1290	-
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	< 100	< 100	1900	< 100	< 100	970	< 100	< 100	< 100	100	< 100	1290	-
EPH (C19-C32)	1000 *		5000 *		-	-	240	< 100	< 100	< 100	< 100	< 100	580	< 100	< 100	< 100	350	970	< 200	-
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	240	< 100	< 100	< 100	< 100	< 100	580	< 100	< 100	< 100	350	970	< 200	-
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	18	< 10	< 10	< 10	< 10	< 10	< 10	< 10	191	181
Petroleum Hydrocarbons - F1 (C6-C10)-BTEX	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	18	< 10	< 10	< 10	< 10	< 10	< 10	< 10	189	175
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	39	< 10	< 10	1700	17	< 10	520	15	18	< 10	21	11	503	615
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	502	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	110	26	44	290	42	22	540	18	32	34	470	910	329	494
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	329	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	12	< 10	32	< 10	< 10	< 10	19	< 10	< 10	< 10	52	120	-	-
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	BH10-06	BH10-07	BH16-01	BH16-01	BH16-02	BH16-02	BH16-03	BH16-03	BH16-03	BH16-03	BH16-04	BH16-04	BH16-04	BH16-05
Sample Control Number	Soil	MCS	Soil	MCS			21695-03	21695-09	02022-01	02022-02	02022-05	02022-07	02022-09	02022-10	02022-11	02023-01	02023-03	02023-04	02023-06	02023-08
Sample Date (Day-Month-Year)	Low Density		Industrial				11-Oct-10	11-Oct-10	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16
Depth of Sample (mbgs)	Residential						0.9-1.1 m	0.7-0.9 m	0.3-0.61 m	1.21-1.52 m	0.3-0.61 m	1.82-2.12 m	0.15-0.45 m	0.15-0.45 m	0.91-1.21 m	3.94-4.24 m	0.3-0.61 m	1.52-1.82 m	3.94-4.24 m	1.06-1.36 m
QA/QC													FDA	FD						
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	0.132	0.109	< 0.010	0.022	< 0.010	< 0.010	< 0.010	< 0.010	0.023	0.011	< 0.010	< 0.010	< 0.010	< 0.010
Styrene	5	EH	50	EH	5	50	< 0.050	< 0.050	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	< 0.050	< 0.050	0.58	0.15	0.34	0.19	0.091	< 0.020	1.2	0.58	0.063	< 0.020	0.021	0.11
m,p-Xylenes	-		-		-	-	1.25	0.205	0.074	0.075	0.083	0.061	0.097	0.052	0.14	0.079	0.05	< 0.040	0.052	0.062
o-Xylene	-		-		-	-	0.601	< 0.050	< 0.040	0.048	0.047	< 0.040	< 0.040	< 0.040	0.063	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	1.85	0.205	0.074	0.12	0.13	0.061	0.097	0.052	0.2	0.079	0.05	< 0.040	0.052	0.062
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.20	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.14	< 0.10	0.1	0.11	< 0.10	< 0.10	< 0.10
VH (C6-C10)	-		-		-	-	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	-	< 0.30	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Acenaphthylene	-		-		320	320	-	< 0.090	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Anthracene	2.5	T	30	T	2.5	32	-	< 0.080	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Benzo(a)anthracene	1	EH	10	EH	1	10	-	< 0.010	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	-	< 0.010	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	-	0.018	0.024	0.028	< 0.020	0.03	< 0.020	< 0.020	< 0.020	< 0.020	0.026	< 0.020	0.024	0.023
Benzo(g,h,i)perylene	-		-		-	-	-	0.013	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(k)fluoranthene	1	EH	10	EH	1	10	-	< 0.010	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Chrysene	40	HH	900	HH	6.2	-	-	< 0.010	< 0.020	< 0.020	< 0.020	0.024	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.02	0.024	< 0.020
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	-	< 0.0050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Fluoranthene	50	T	200	T	15.4	180	-	< 0.010	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Fluorene	600	HH	9500	HH	0.25	0.25	-	0.734	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	-	< 0.010	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	-	< 1.0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.037	< 0.010	< 0.010	< 0.010	0.036	< 0.010
Phenanthrene	5	EH	50	EH	0.046	0.046	-	0.729	0.019	0.022	0.019	0.02	0.01	< 0.010	0.058	< 0.010	0.021	0.021	0.049	0.022
Pyrene	10	EH	100	EH	7.7	100	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
2-methylnaphthalene	60	HH	950	HH	-	-	-	4.43	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.026	< 0.020	< 0.020	< 0.020	0.044	< 0.020
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.12	< 0.050	< 0.050	< 0.050	0.13	< 0.050
PAH, High Molecular Weight	-		-		-	-	-	-	< 0.050	< 0.050	< 0.050	0.054	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
PAH, Total	-		-		-	-	-	-	< 0.050	0.05	< 0.050	0.073	< 0.050	< 0.050	0.12	< 0.050	< 0.050	< 0.050	0.18	< 0.050
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	-	-	0.042	0.043	0.041	0.043	0.041	0.041	0.041	0.041	0.042	0.041	0.042	0.042
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	-	-	0.39	0.42	0.31	0.44	0.31	0.31	0.31	0.31	0.41	0.31	0.4	0.39
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	-	3260	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	-	3260	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	-	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	-	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	75	208	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	73	207	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	496	911	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	911	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	293	511	27	23	45	21	65	44	37	30	46	22	37	19
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	510	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	-	-	< 10	< 10	22	< 10	14	14	< 10	< 10	10	< 10	< 10	< 10
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b,j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	BH16-05	BH16-06	BH16-06	BH16-07	BH16-07	BH16-08	BH16-08	BH16-09	BH16-09	BH16-10	BH16-10	BH16-10	BH16-11	BH16-11
Sample Control Number	Soil		Soil		Soil		02023-11	02021-01	02021-03	02021-04	02021-06	02021-07	02021-09	02021-10	02021-11	02026-01	02026-02	02026-03	02026-04	02026-06
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential		6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16
Depth of Sample (mbgs)	MCS		MCS		MCS		3.03-3.18 m	0.3-0.61 m	2.12-2.42 m	0.15-0.45 m	2.27-2.58 m	0.05-0.35 m	1.82-2.12 m	0.15-0.45 m	1.06-1.36 m	0-0.3 m	0.9-1.3 m	0.9-1.3 m	0.16-0.46 m	2.12-2.42 m
QA/QC	Residential		Industrial		Residential		FDA FD													
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.010	0.03	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.020	< 0.010
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.060	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	0.052	3.5	< 0.020	0.12	0.031	0.095	0.31	0.077	0.11	0.19	1.5	0.48	3.5	< 0.020
m,p-Xylenes	-		-		-	-	< 0.040	0.21	< 0.040	< 0.040	< 0.040	< 0.040	0.055	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
o-Xylene	-		-		-	-	< 0.040	0.087	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.080	< 0.040
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	0.3	< 0.040	< 0.040	< 0.040	< 0.040	0.055	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10
VH (C6-C10)	-		-		-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.031	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Acenaphthylene	-		-		320	320	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.018	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	0.022	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	0.12	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.025	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(g,h,i)perylene	-		-		-	-	0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Chrysene	40	HH	900	HH	6.2	-	0.063	< 0.020	0.023	0.04	< 0.020	0.029	< 0.020	0.025	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Fluoranthene	50	T	200	T	15.4	180	0.037	< 0.020	< 0.020	< 0.020	< 0.020	0.023	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.029	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	0.036	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	5	EH	50	EH	0.046	0.046	0.21	0.013	0.03	0.077	0.02	0.1	0.013	0.026	0.019	< 0.010	0.013	< 0.010	0.011	< 0.010
Pyrene	10	EH	100	EH	7.7	100	0.041	< 0.020	< 0.020	< 0.020	< 0.020	0.12	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.026	< 0.020	< 0.020
2-methylnaphthalene	60	HH	950	HH	-	-	0.11	< 0.020	< 0.020	< 0.020	< 0.020	0.026	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	0.35	< 0.050	< 0.050	0.077	< 0.050	0.21	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
PAH, High Molecular Weight	-		-		-	-	0.38	< 0.050	< 0.050	< 0.050	< 0.050	0.17	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
PAH, Total	-		-		-	-	0.73	< 0.050	0.052	0.12	< 0.050	0.38	< 0.050	0.076	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.065	0.041	0.041	0.041	0.041	0.041	0.041	0.043	0.041	0.041	0.041	0.041	0.041	0.041
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	1	0.31	0.31	0.32	0.31	0.32	0.31	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	< 100	< 100	< 100	< 100	230	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	< 100	< 100	< 100	< 100	230	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	< 100	< 100	< 100	< 100	330	< 100	< 100	< 100	< 100	< 100	160	150	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	< 100	< 100	< 100	< 100	330	< 100	< 100	< 100	< 100	< 100	160	150	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	14	< 10	< 10	< 10	< 10	76	18	< 10	< 10	< 10	15	< 10	12	< 10
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	50	36	15	38	13	620	74	22	17	60	110	220	230	26
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 10	18	< 10	< 10	< 10	150	23	11	< 10	20	43	29	98	21
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
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TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	BH16-12	BH16-12	BH16-13	BH16-13	BH16-13	BH16-14	BH16-14	BH16-15	BH16-15	BH16-15	BH16-15	BH16-16	BH16-16	BH16-17
Sample Control Number	Soil		Soil		Soil		02026-07	02026-10	01132-02	01132-03	01132-06	01132-08	01132-11	01133-01	01133-01	01133-02	01133-04	01133-05	01133-07	01133-08
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential		9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16
Depth of Sample (mbgs)	MCS		MCS		MCS		0.3-0.6 m	2.72-3.03 m	0.9-1.2 m	0.9-1.2 m	4.5-4.8 m	0-0.3 m	3.63-3.9 m	0-0.3 m	0-0.3 m	0.91-1.21 m	4.85-5.15 m	0-0.3 m	2.27-2.58 m	0.15-0.45 m
QA/QC	Residential		Industrial		Residential															
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.0050	< 0.0050	0.013	< 0.0050	< 0.0050	0.0063	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.010	< 0.010	< 0.010	0.015	< 0.010	< 0.010	< 0.010	< 0.010	-	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	-	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	1.1	< 0.020	< 0.020	0.044	< 0.020	< 0.020	0.1	0.48	-	1.1	1.5	0.17	0.056	0.24
m,p-Xylenes	-		-		-	-	< 0.040	< 0.040	< 0.040	0.057	< 0.040	< 0.040	< 0.040	< 0.040	-	< 0.040	0.06	< 0.040	< 0.040	< 0.040
o-Xylene	-		-		-	-	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	-	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	< 0.040	< 0.040	0.057	< 0.040	< 0.040	< 0.040	< 0.040	-	< 0.040	0.06	< 0.040	< 0.040	< 0.040
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
VH (C6-C10)	-		-		-	-	< 10	< 10	< 10	17	12	43	< 10	< 10	-	< 10	< 10	< 10	< 10	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	< 10	16	12	43	< 10	< 10	-	< 10	< 10	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.39	0.2	< 0.0050	0.0082	-	< 0.0050	< 0.0050	< 0.0050	0.16	< 0.0050
Acenaphthylene	-		-		320	320	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.12	< 0.0050	< 0.0050	0.0076	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.038	0.037	< 0.0040	< 0.0040	-	< 0.0040	< 0.0040	< 0.0040	0.045	< 0.0040
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	0.026	< 0.020
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	< 0.020	0.023	0.022	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	0.035	< 0.020	0.034	< 0.020
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Chrysene	40	HH	900	HH	6.2	-	< 0.020	0.022	< 0.020	< 0.020	< 0.020	0.021	< 0.020	< 0.020	-	0.023	0.037	< 0.020	0.043	< 0.020
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Fluoranthene	50	T	200	T	15.4	180	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.063	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	0.11	< 0.020
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	< 0.020	< 0.020	< 0.020	0.84	0.48	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	0.098	< 0.020
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.010	< 0.010	< 0.010	< 0.010	2.1	0.077	< 0.010	< 0.010	-	< 0.010	0.038	< 0.010	0.91	< 0.010
Phenanthrene	5	EH	50	EH	0.046	0.046	0.013	0.024	0.057	0.053	1.4	0.56	< 0.010	0.024	-	0.019	0.081	0.019	0.23	0.015
Pyrene	10	EH	100	EH	7.7	100	< 0.020	< 0.020	< 0.020	< 0.020	0.071	0.31	< 0.020	0.024	-	< 0.020	0.025	< 0.020	0.075	< 0.020
2-methylnaphthalene	60	HH	950	HH	-	-	< 0.020	< 0.020	0.065	0.036	8.6	1.1	0.025	0.042	-	0.027	0.084	< 0.020	0.2	< 0.020
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	< 0.050	< 0.050	0.15	0.089	14	2.6	< 0.050	0.081	-	< 0.050	0.2	< 0.050	1.6	< 0.050
PAH, High Molecular Weight	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	0.071	0.39	< 0.050	< 0.050	-	< 0.050	0.097	< 0.050	0.29	< 0.050
PAH, Total	-		-		-	-	< 0.050	0.07	0.17	0.089	14	3	< 0.050	0.1	-	0.069	0.3	< 0.050	1.9	< 0.050
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.041	0.042	0.042	0.041	0.041	0.041	0.041	0.041	-	0.041	0.044	0.041	0.045	0.041
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.31	0.4	0.38	0.31	0.31	0.31	0.31	0.31	-	0.31	0.48	0.31	0.53	0.31
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	< 100	600	480	2600	4800	< 100	-	390	330	< 100	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	< 100	600	480	2600	4800	< 100	390	-	330	< 100	< 100	< 100	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	< 100	< 100	< 100	330	2400	< 100	-	520	390	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	< 100	< 100	< 100	330	2400	< 100	520	-	390	< 100	< 100	< 100	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 10	18	13	47	< 10	< 10	-	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	< 10	< 10	< 10	18	13	47	< 10	< 10	-	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 10	< 10	450	370	2100	3400	< 10	-	120	140	19	47	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	40	41	260	210	820	4100	18	-	1100	720	96	110	49	26
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	22	13	< 10	< 10	90	740	< 10	-	44	150	32	25	15	< 10
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	BH16-17	MW09-03	MW09-03	MW09-04	MW09-05	MW10-01S	MW10-02	MW10-03	MW16-02	MW16-02	MW16-05	MW16-05	MW16-06	MW16-06
Sample Control Number	Soil	MCS	Soil	MCS	MCS	MCS	01133-09	09-020143-09	09-020143-10	09-020144-01	09-020144-04	24418-01	24418-04	24419-02	MW16-02/SA2	MW16-02/SA3	MW16-05/SA2	MW16-05/SA4	MW16-06/SA4	MW16-06/SA4
Sample Date (Day-Month-Year)	Low Density		Industrial				9-Sep-16	6-Oct-09	6-Oct-09	7-Oct-09	8-Oct-09	20-Sep-10	22-Sep-10	27-Sep-10	1-Sep-16	1-Sep-16	3-Sep-16	3-Sep-16	4-Sep-16	4-Sep-16
Depth of Sample (mbgs)	Residential						1.21-1.52 m	1.5-2 m	1.5-2 m	1.8-2.1 m	1.2-1.5 m	0.8-1.1 m	1.5-1.8m	1.5-1.8m	0.99-1.32 m	1.97-2.3 m	1.15-1.48 m	3.78-4.11 m	2.8-3.13 m	2.8-3.13 m
QA/QC								FDA	FD										FDA	FD
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.010	< 0.050	< 0.050	< 0.050	< 0.050	< 0.015	< 0.015	< 0.015	< 0.010	< 0.010	< 0.020	0.099	< 0.010	< 0.010
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.030	< 0.030	< 0.060	< 0.030	< 0.030	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	0.064	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.020	< 0.020	0.051	0.04	< 0.020	< 0.020
m,p-Xylenes	-		-		-	-	< 0.040	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.05	< 0.040	< 0.040	0.22	< 0.040	< 0.040
o-Xylene	-		-		-	-	< 0.040	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.040	< 0.040	0.14	0.089	< 0.040	< 0.040
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	< 0.10	< 0.10	< 0.10	< 0.10	< 0.071	< 0.071	< 0.071	0.05	< 0.040	0.14	0.31	< 0.040	< 0.040
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10
VH (C6-C10)	-		-		-	-	< 10	-	-	-	-	-	-	-	< 10	< 10	< 20	120	< 10	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	-	-	-	-	-	-	-	< 10	< 10	< 20	120	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	-	-	-	-	-	-	-	< 0.0050	< 0.0050	< 0.0050	0.073	< 0.0050	< 0.0050
Acenaphthylene	-		-		320	320	< 0.0050	-	-	-	-	-	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.023	< 0.0050	< 0.0050
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	-	-	-	-	-	-	-	< 0.0040	< 0.0040	< 0.0040	< 0.022	< 0.0040	< 0.0040
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	-	-	-	-	-	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	-	-	-	-	-	-	-	0.022	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	0.021	-	-	-	-	-	-	-	0.035	< 0.020	0.022	< 0.020	< 0.020	< 0.020
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	-	-	-	-	-	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Chrysene	40	HH	900	HH	6.2	-	< 0.020	-	-	-	-	-	-	-	0.05	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Fluoranthene	50	T	200	T	15.4	180	< 0.020	-	-	-	-	-	-	-	0.023	< 0.020	< 0.020	0.027	< 0.020	< 0.020
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	-	-	-	-	-	-	-	< 0.020	< 0.020	< 0.020	0.17	< 0.020	< 0.020
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.010	-	-	-	-	-	-	-	0.013	< 0.010	< 0.010	1.1	< 0.010	< 0.010
Phenanthrene	5	EH	50	EH	0.046	0.046	0.019	-	-	-	-	-	-	-	0.034	0.015	0.016	0.32	< 0.010	< 0.010
Pyrene	10	EH	100	EH	7.7	100	< 0.020	-	-	-	-	-	-	-	0.073	< 0.020	< 0.020	0.05	< 0.020	< 0.020
2-methylnaphthalene	60	HH	950	HH	-	-	< 0.020	-	-	-	-	-	-	-	0.03	< 0.020	< 0.020	0.15	< 0.020	< 0.020
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	< 0.050	-	-	-	-	-	-	-	0.076	< 0.020	< 0.020	1.8	< 0.020	< 0.020
PAH, High Molecular Weight	-		-		-	-	< 0.050	-	-	-	-	-	-	-	0.2	< 0.050	< 0.050	0.077	< 0.050	< 0.050
PAH, Total	-		-		-	-	< 0.050	-	-	-	-	-	-	-	0.28	< 0.050	< 0.050	1.9	< 0.050	< 0.050
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.042	-	-	-	-	-	-	-	0.055	0.041	0.042	0.041	0.041	0.041
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.38	-	-	-	-	-	-	-	0.51	0.31	0.39	0.31	0.31	0.31
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	-	-	-	-	-	-	-	120	< 100	< 100	600	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	-	-	-	-	-	-	-	120	< 100	< 100	600	< 100	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	-	-	-	-	-	-	-	570	< 100	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	-	-	-	-	-	-	-	570	< 100	< 100	< 100	< 100	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	120	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	120	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 10	< 30	< 30	< 30	< 30	< 20	< 20	< 20	68	< 10	< 10	550	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	28	< 50	< 50	203	< 50	< 20	< 20	< 20	960	38	180	230	18	17
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 10	-	-	-	-	-	-	-	1000	18	230	< 10	< 10	< 10
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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ppm = parts per million; m bgs = metres below ground surface
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* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
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CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	MW16-06	MW16-07	MW16-07	MW16-08	MW16-08	MW16-08	MW16-08	SB-BH-02	SB-BH-03	SB-BH-04	SB-BH-05	SB-BH-06	SB-BH-07	SB-BH-07
Sample Control Number	Soil	MCS	Soil	MCS	MCS	MCS	MW16-06/SA5	MW16-07/SA3	MW16-07/SA5	MW16-08/SA2	MW16-08/SA2	MW16-08/SA4	MW16-08/SA4 (FD)	SBBH-02-02	SBBH-03-01	SBBH-04-01	SBBH-05-01	SBBH-06-01	SBBH-07-01	SBBH-07-03
Sample Date (Day-Month-Year)	Low Density		Industrial				4-Sep-16	4-Sep-16	4-Sep-16	5-Sep-16	5-Sep-16	5-Sep-16	5-Sep-16	1-Feb-03	1-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03
Depth of Sample (mbgs)	Residential						3.95-4.28 m	2.63-2.96 m	4.93-5.39 m	0.82-1.15 m	0.82-1.15 m	1.97-2.3 m	1.97-2.3 m	2.7-3 m	1.2-1.5 m	0.9-1.2 m	1.2-1.5 m	1.5-1.8 m	1.2-1.5 m	3.3-3.4 m
QA/QC												FDA	FD							
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.0050	< 0.010	-	< 0.0050	0.025	0.02	-	-	-	-	-	-	< 0.2
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.010	< 0.010	< 0.020	-	< 0.010	0.72	0.33	-	-	-	-	-	-	< 0.2
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.030	< 0.060	-	< 0.030	< 0.030	< 0.030	-	-	-	-	-	-	< 0.2
Toluene	0.3	AW	0.3	AW	0.08	0.08	< 0.020	< 0.020	0.23	-	< 0.020	0.091	0.059	-	-	-	-	-	-	< 0.2
m,p-Xylenes	-		-		-	-	< 0.040	< 0.040	< 0.040	-	< 0.040	1.8	0.92	-	-	-	-	-	-	< 0.2
o-Xylene	-		-		-	-	< 0.040	< 0.040	< 0.080	-	< 0.040	1.5	0.77	-	-	-	-	-	-	< 0.2
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	< 0.040	< 0.040	-	< 0.040	3.3	1.7	-	-	-	-	-	-	< 0.4
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.10	< 0.20	-	< 0.10	< 0.10	< 0.10	-	-	-	-	-	-	-
VH (C6-C10)	-		-		-	-	< 10	< 10	< 20	-	11	60	33	-	-	-	-	-	-	-
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	< 20	11	-	56	31	-	-	-	-	-	-	-
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	0.027	< 0.0050	0.27	-	0.015	0.0074	< 0.04	2.96	52	< 0.04	< 0.04	< 0.04	-
Acenaphthylene	-		-		320	320	< 0.0050	0.0073	< 0.0050	0.021	-	< 0.0050	< 0.0050	< 0.05	0.29	0.91	< 0.05	< 0.05	< 0.05	-
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	< 0.0040	< 0.0040	0.022	-	< 0.0040	< 0.0040	< 0.05	1.42	36.6	< 0.05	< 0.05	< 0.05	-
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	0.054	-	< 0.020	< 0.020	< 0.05	1.35	26.2	< 0.05	< 0.05	< 0.05	-
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	0.021	< 0.020	0.076	-	< 0.020	< 0.020	< 0.05	0.69	19.3	< 0.05	< 0.05	< 0.05	-
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	< 0.05	1.17	33	< 0.05	< 0.05	< 0.05	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	< 0.020	0.046	< 0.020	0.14	-	< 0.020	< 0.020	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	< 0.050	< 0.050	0.071	-	< 0.050	< 0.050	< 0.05	0.32	8.28	< 0.05	0.06	< 0.05	-
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	0.028	-	< 0.020	< 0.020	< 0.05	0.48	10.5	< 0.05	< 0.05	< 0.05	-
Chrysene	40	HH	900	HH	6.2	-	< 0.020	0.03	< 0.020	0.32	-	0.023	< 0.020	< 0.05	2.27	32.3	< 0.05	< 0.05	< 0.05	-
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.05	0.09	2.46	< 0.05	< 0.05	< 0.05	-
Fluoranthene	50	T	200	T	15.4	180	< 0.020	< 0.020	< 0.020	0.12	-	< 0.020	< 0.020	< 0.05	8.64	90.1	< 0.05	< 0.05	< 0.05	-
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	< 0.020	< 0.020	0.061	-	0.022	< 0.020	< 0.05	2.92	41	< 0.05	< 0.05	< 0.05	-
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.05	0.41	10.5	< 0.05	< 0.05	< 0.05	-
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.010	< 0.010	0.011	< 0.010	-	0.22	0.18	< 0.05	9.96	96.3	0.07	< 0.05	< 0.05	-
Phenanthrene	5	EH	50	EH	0.046	0.046	0.01	0.013	0.03	0.15	-	0.037	0.024	< 0.05	11.1	141	0.06	0.06	< 0.05	-
Pyrene	10	EH	100	EH	7.7	100	< 0.020	0.083	< 0.020	0.24	-	< 0.020	< 0.020	< 0.05	5.73	68.1	< 0.05	< 0.05	< 0.05	-
2-methylnaphthalene	60	HH	950	HH	-	-	< 0.020	0.021	< 0.020	0.04	-	0.42	0.31	-	-	-	-	-	-	-
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	< 0.020	0.068	< 0.050	0.56	-	0.72	0.52	-	-	-	-	-	-	-
PAH, High Molecular Weight	-		-		-	-	< 0.050	0.18	< 0.050	1.1	-	< 0.050	< 0.050	-	-	-	-	-	-	-
PAH, Total	-		-		-	-	< 0.050	0.25	< 0.050	1.6	-	0.74	0.52	-	-	-	-	-	-	-
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.041	0.056	0.041	0.13	-	0.041	0.041	-	-	-	-	-	-	-
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.31	0.57	0.31	1.7	-	0.31	0.31	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	700	< 100	2200	-	320	180	< 200	336	1510	< 200	< 200	< 200	-
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	700	< 100	2200	-	320	180	< 200	315	1270	< 200	< 200	< 200	-
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	270	< 100	5400	-	190	140	< 200	542	2090	< 200	< 200	266	-
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	270	< 100	5400	-	190	140	< 200	532	1920	< 200	< 200	266	-
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 20	-	12	63	39	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F1 (C6-C10)-BTX	200 *	G	200 *	G	30	170	< 10	< 10	< 20	12	-	59	37	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 10	320	< 10	1000	-	280	150	33	103	792	< 20	26	30	-
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	33	93	696	<20	26	30	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	36	700	44	6300	-	320	220	221	918	3070	101	128	536	-
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	221	888	2670	101	128	536	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	12	38	< 10	2400	-	110	72	102	406	829	74	77	334	-
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	1150	1570	-	-	<500	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	SB-BH-07	SB-BH-08	SB-BH-08	SB-BH-10	SB-BH-11	SB-BH-12	SB-BH-13	SB-BH-14	SB-BH-15	SB-BH-16	SB-BH-17	SB-BH-18	SB-BH-19	SS10
Sample Control Number	Soil Low Density Residential		Soil Industrial		Soil Residential		SBBH-07-04	SBBH-08-01	SBBH-08-02	SBBH-10-01	SBBH-11-01	SBBH-12-01	SBBH-13-01	SBBH-14-01	SBBH-15-01	SBBH-16-01	SBBH-17-01	SBBH-18-01	SBBH-19-01	02026-12
Sample Date (Day-Month-Year)							3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	3-Feb-03	9-Sep-16
Depth of Sample (mbgs)							3.4 m	1.2-1.5 m	2.7-3.1 m	1.2-1.5 m	0.9-1.2 m	0.7-0.9 m	0.7-0.9 m	0.5-0.7 m	0.3-0.6 m	0.4-0.6 m	1.5-1.8 m	0.9-1.2 m	1.2-1.5 m	0.15-0.45 m
QA/QC																				
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	-	-	-	< 0.04	<0.04	< 0.04	-	< 0.04	< 0.04	-	-	-	-	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	-	-	-	0.32	1.05	1.05	-	< 0.05	< 0.05	-	-	-	-	< 0.010
Styrene	5	EH	50	EH	5	50	-	-	-	< 0.05	<0.05	< 0.05	-	< 0.05	< 0.05	-	-	-	-	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	-	-	-	< 0.05	<0.05	< 0.05	-	< 0.05	< 0.05	-	-	-	-	0.42
m,p-Xylenes	-		-		-	-	-	-	-	0.42	-	6.28	-	0.26	0.39	-	-	-	-	< 0.040
o-Xylene	-		-		-	-	-	-	-	0.13	-	5.01	-	0.62	0.43	-	-	-	-	< 0.040
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	-	-	-	0.6	6.28	11.3	-	0.9	0.8	-	-	-	-	< 0.040
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.10
VH (C6-C10)	-		-		-	-	-	-	-	137	-	651	-	< 100	121	-	-	-	-	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	-	-	-	136	-	639	-	< 100	120	-	-	-	-	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.04	0.08	< 0.04	0.08	< 0.04	0.81	< 0.04	0.09	0.14	< 0.04	< 0.04	< 0.04	< 0.04	< 0.0050
Acenaphthylene	-		-		320	320	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.23	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.0050
Anthracene	2.5	T	30	T	2.5	32	< 0.05	0.12	0.06	< 0.05	< 0.05	0.18	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.0040
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.020
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.020
Benzo(b)fluoranthene	1	EH	10	EH	1	10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.020
Benzo(g,h,i)perylene	-		-		-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.020
Chrysene	40	HH	900	HH	6.2	-	< 0.05	0.06	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.020
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050
Fluoranthene	50	T	200	T	15.4	180	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.020
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.05	0.22	0.05	0.12	< 0.05	1.12	< 0.05	0.18	0.07	< 0.05	< 0.05	< 0.05	< 0.05	< 0.020
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.05	0.24	0.05	0.76	< 0.05	4.45	< 0.05	0.07	0.76	< 0.05	< 0.05	< 0.05	< 0.05	< 0.010
Phenanthrene	5	EH	50	EH	0.046	0.046	< 0.05	0.32	0.26	0.16	< 0.05	1.66	< 0.05	0.29	0.18	< 0.05	< 0.05	< 0.05	< 0.05	0.016
Pyrene	10	EH	100	EH	7.7	100	< 0.05	0.18	0.06	< 0.05	< 0.05	0.24	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.020
2-methylnaphthalene	60	HH	950	HH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.020
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.050
PAH, High Molecular Weight	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.050
PAH, Total	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.050
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	0.041
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 200	2180	389	999	< 200	7150	< 200	936	1790	< 200	< 200	< 200	< 200	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 200	2180	389	998	< 200	7140	< 200	936	1790	< 200	< 200	< 200	< 200	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	< 200	2320	587	< 200	< 200	522	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 200	2320	587	< 200	< 200	522	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	-	-	-	-	-	-	-	-	-	-	-	-	-	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	-	-	-	-	-	-	-	-	-	-	-	-	-	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 20	1310	102	877	< 20	6090	< 20	740	1480	< 20	56	< 20	< 20	< 10
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	< 20	1310	102	876	< 20	6090	< 20	740	1480	< 20	56	< 20	< 20	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	51	3510	946	344	90	2090	102	459	538	< 50	87	< 50	< 50	35
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	51	3510	946	344	90	2090	102	459	538	< 50	87	< 50	< 50	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 50	1330	381	58	70	256	73	< 50	< 50	< 50	< 50	< 50	< 50	< 10
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	4340	751	-	-	-	-	-	-	-	-	-	-	-

Notes:

Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.

ppm = parts per million; m bgs = metres below ground surface

FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control

MCS = most conservative standard based on applicable site-specific standards

CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.

CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)

* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.

Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).

CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).

Italics = indicates that the detection limit exceeds one or more criteria.

Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.

High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b,j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	SS11	SS11	SSURS-10	TP-1	TP-3	TP-4	TP-6	TP-6	TP-7	TP-8	TP-10	TP-13	TP-14	TP-14
Sample Control Number	Soil		Soil		Soil	Soil	02026-11	02026-11	SSURS-10	SB-01-03	SB-03-01	SB-04-01	SB-06-01	SB-06-02	SB-07-02	SB-08-01	SB-10-02	SB-13-02	SB-14-00	SB-14-02
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential	Industrial	9-Sep-16	9-Sep-16	22-Nov-05	12-Aug-01	12-Aug-01	12-Aug-01	12-Aug-01	12-Aug-01	12-Aug-01	12-Aug-01	12-Aug-01	12-Aug-01	12-Aug-01	12-Aug-01
Depth of Sample (mbgs)	MCS		MCS		MCS	MCS	0.15-0.45 m	0.15-0.45 m	0-0.2 m	3 m	1 m	-	1 m	3.2 m	0.8 m	-	-	-	3.2 m	4.6 m
QA/QC	Residential		Industrial																	
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	-	0.002	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.010	-	< 0.003	-	-	-	-	-	-	-	-	-	-	-
Styrene	5	EH	50	EH	5	50	< 0.030	-	< 0.1	-	-	-	-	-	-	-	-	-	-	-
Toluene	0.3	AW	0.3	AW	0.08	0.08	1.3	-	< 0.01	-	-	-	-	-	-	-	-	-	-	-
m,p-Xylenes	-		-		-	-	< 0.040	-	< 0.1	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	-		-		-	-	< 0.040	-	< 0.1	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	-	< 0.1	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	-	-	-	-	-	-	-	-	-	-	-	-	-
VH (C6-C10)	-		-		-	-	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	-	-	-	-	-	-	-	-	-	-	-	< 100	-
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	-	< 0.01	< 0.07	-	-	-	<0.005	< 0.03	-	-	-	0.09	-
Acenaphthylene	-		-		320	320	< 0.0050	-	< 0.01	< 0.02	-	-	-	<0.005	< 0.007	-	-	-	< 0.05	-
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	-	< 0.01	< 0.3	-	-	-	< 0.01	< 0.02	-	-	-	< 0.05	-
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	-	< 0.01	< 0.02	-	-	-	< 0.01	< 0.01	-	-	-	< 0.05	-
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	-	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	-	-	-	< 0.05	-
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	< 0.03	-	-	-	< 0.02	< 0.01	-	-	-	< 0.05	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	< 0.020	-	< 0.01	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	-	< 0.02	0.01	-	-	-	0.01	<0.01	-	-	-	< 0.05	-
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	-	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	-	-	-	< 0.05	-
Chrysene	40	HH	900	HH	6.2	-	< 0.020	-	< 0.01	< 0.08	-	-	-	< 0.01	< 0.01	-	-	-	< 0.05	-
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	-	< 0.02	< 0.005	-	-	-	< 0.005	< 0.005	-	-	-	< 0.05	-
Fluoranthene	50	T	200	T	15.4	180	< 0.020	-	< 0.01	< 0.03	-	-	-	< 0.01	< 0.02	-	-	-	< 0.05	-
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	-	< 0.01	0.14	-	-	-	< 0.01	< 0.08	-	-	-	0.18	-
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	-	< 0.02	< 0.01	-	-	-	< 0.01	< 0.01	-	-	-	< 0.05	-
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.010	-	< 0.01	< 0.04	-	-	-	< 0.01	< 0.08	-	-	-	0.07	-
Phenanthrene	5	EH	50	EH	0.046	0.046	< 0.010	-	< 0.01	0.36	-	-	-	0.02	0.1	-	-	-	0.29	-
Pyrene	10	EH	100	EH	7.7	100	< 0.020	-	0.01	< 0.3	-	-	-	< 0.01	0.03	-	-	-	< 0.05	-
2-methylnaphthalene	60	HH	950	HH	-	-	< 0.020	-	-	0.12	-	-	-	< 0.01	0.12	-	-	-	-	-
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	< 0.050	-	<0.01	-	-	-	-	-	-	-	-	-	-	-
PAH, High Molecular Weight	-		-		-	-	< 0.050	-	<0.02	-	-	-	-	-	-	-	-	-	-	-
PAH, Total	-		-		-	-	< 0.050	-	<0.02	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.041	-	-	-	-	-	-	-	-	-	-	-	-	-
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	-	< 100	< 100	1060	270	< 200	< 200	< 200	317	< 200	< 200	< 200	-	< 200
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	-	< 100	-	-	-	-	< 200	317	-	-	-	-	-
EPH (C19-C32)	1000 *		5000 *		-	-	-	< 100	359	1550	857	< 200	< 200	< 200	< 200	280	230	< 200	-	< 200
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	-	359	-	-	-	-	< 200	< 200	-	-	-	-	-
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	11	-	< 10	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	-	< 10	< 50	563	151	< 50	< 50	< 50	221	< 50	54	71	740	< 50
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	< 50	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	-	18	281	2910	1950	< 50	< 50	69	178	486	450	76	459	< 50
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	-	< 10	137	2560	2010	< 50	< 50	< 50	< 50	< 50	263	< 50	< 50	< 50
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	TP-15	TP-15	TP16-01	TP16-01	TP16-02	TP16-02	TP16-03	TP16-03	TP16-03	TP16-08	TP16-08	TP16-11	TP16-11	TP16-12
Sample Control Number	Soil		Soil		Soil		SB-15-02	SB-15-05	02025-01	02025-03	02025-04	02025-06	02025-09	02025-10	02025-11	02028-02	02028-04	02028-08	02028-09	02028-10
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential		12-Aug-01	12-Aug-01	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16
Depth of Sample (mbgs)	MCS		MCS		MCS		1.8 m	4.6 m	0.5-0.5 m	2.5-2.5 m	0.5-0.5 m	2.5-2.5 m	1.5-1.5 m	2.5-2.5 m	3.5-3.5 m	1.5-1.5 m	3.4-3.4 m	2-2 m	3-3 m	0.5-0.5 m
QA/QC	Residential																			FDA
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.017	< 0.0050	< 0.0050	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	-	-	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.028	0.11	< 0.010	< 0.010	< 0.010
Styrene	5	EH	50	EH	5	50	-	-	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.076	0.065	0.034	0.22
m,p-Xylenes	-		-		-	-	-	-	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	0.081	0.49	< 0.040	< 0.040	< 0.040
o-Xylene	-		-		-	-	-	-	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	0.046	0.078	< 0.040	< 0.040	< 0.040
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	-	-	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	0.13	0.57	< 0.040	< 0.040	< 0.040
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
VH (C6-C10)	-		-		-	-	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	240	62	< 10	< 10	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	240	61	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.27	0.12	< 0.0050	< 0.0050	0.05
Acenaphthylene	-		-		320	320	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.062	0.047	< 0.0050	< 0.0050	0.018
Anthracene	2.5	T	30	T	2.5	32	-	-	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.025	0.025	< 0.0040	< 0.0040	0.0069
Benzo(a)anthracene	1	EH	10	EH	1	10	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	-	-	< 0.020	< 0.020	< 0.020	< 0.020	0.021	< 0.020	< 0.020	< 0.020	< 0.020	0.023	< 0.020	< 0.020
Benzo(g,h,i)perylene	-		-		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(k)fluoranthene	1	EH	10	EH	1	10	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Chrysene	40	HH	900	HH	6.2	-	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Fluoranthene	50	T	200	T	15.4	180	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.046	< 0.020	< 0.020	< 0.020	< 0.020
Fluorene	600	HH	9500	HH	0.25	0.25	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.58	0.32	< 0.020	< 0.020	0.079
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	-	-	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	1.3	1.1	< 0.010	< 0.010	0.031
Phenanthrene	5	EH	50	EH	0.046	0.046	-	-	0.019	0.021	0.057	0.016	0.016	< 0.010	0.011	0.61	0.42	0.015	0.017	0.074
Pyrene	10	EH	100	EH	7.7	100	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.098	0.022	< 0.020	< 0.020	< 0.020
2-methylnaphthalene	60	HH	950	HH	-	-	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	1.6	3	< 0.020	< 0.020	0.32
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	-	-	< 0.050	< 0.050	0.057	< 0.050	< 0.050	< 0.050	< 0.050	4.5	5	< 0.050	< 0.050	0.57
PAH, High Molecular Weight	-		-		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.14	< 0.050	< 0.050	< 0.050	< 0.050
PAH, Total	-		-		-	-	-	-	< 0.050	< 0.050	0.057	< 0.050	< 0.050	< 0.050	< 0.050	4.7	5.1	< 0.050	< 0.050	0.57
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	-	-	0.041	0.041	0.041	0.041	0.042	0.041	0.041	0.041	0.041	0.042	0.041	0.041
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	-	-	0.31	0.31	0.31	0.31	0.38	0.31	0.31	0.31	0.31	0.39	0.31	0.31
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 200	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100	4800	1300	< 100	< 100	1000
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	4800	1200	< 100	< 100	1000
EPH (C19-C32)	1000 *		5000 *		-	-	< 200	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100	370	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	370	< 100	< 100	< 100	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	250	76	< 10	18	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	250	76	< 10	18	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 50	< 50	< 10	< 10	13	< 10	< 10	< 10	< 10	4300	1200	< 10	< 10	1000
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	70	< 50	22	28	140	25	20	20	30	930	320	22	27	200
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 50	< 50	< 10	< 10	36	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	11
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	TP16-12	TP16-12	TP16-13	TP16-13	TP16-13	TP16-14	TP16-14	TP16-14	TP16-15	TP16-15	TP16-15	TP16-16	TP16-16	TP16-16
Sample Control Number	Soil		Soil		Soil		02028-11	02028-12	02029-01	02029-02	02029-04	02029-05	02029-06	02029-07	TP16-15-S1	TP16-15-S2	TP16-15-S2	TP16-16-S1	TP16-16-S2	TP16-16-S3
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential		7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16
Depth of Sample (mbgs)	MCS		MCS		MCS		0.5-0.5 m	1.5-1.5 m	0.5-0.5 m	1.5-1.5 m	2.5-2.5 m	0.5-0.5 m	1.5-1.5 m	2.5-2.5 m	1-1.2 m	2.3-2.5 m	2.3-2.5 m	0.8-1 m	3-3.2 m	5.2-5.4 m
QA/QC	Residential		Industrial		Residential		FD													
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.010	< 0.010	< 0.010	0.15	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	-	0.011	< 0.010	< 0.010
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	-	< 0.030	< 0.030	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	< 0.020	< 0.020	0.033	0.051	0.045	0.034	< 0.020	< 0.020	< 0.020	< 0.020	-	0.042	< 0.020	< 0.020
m,p-Xylenes	-		-		-	-	< 0.040	0.05	< 0.040	0.26	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	-	0.056	< 0.040	0.071
o-Xylene	-		-		-	-	< 0.040	0.077	< 0.040	0.11	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	-	< 0.040	< 0.040	0.049
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	0.13	< 0.040	0.36	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	-	0.056	< 0.040	0.12
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	-	< 0.10	< 0.10	< 0.10
VH (C6-C10)	-		-		-	-	< 10	< 10	< 10	31	< 10	< 10	< 10	< 10	< 10	< 10	-	< 10	< 10	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	< 10	30	< 10	< 10	< 10	< 10	< 10	< 10	-	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	0.069	< 0.0050	< 0.0050	0.01	< 0.0050	0.011	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	0.0076
Acenaphthylene	-		-		320	320	0.023	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050
Anthracene	2.5	T	30	T	2.5	32	0.0087	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	-	< 0.0040	< 0.0040	< 0.0040
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	0.022
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	0.031
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	< 0.020	0.023	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.023	-	0.023	0.032	0.057
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	0.087
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020
Chrysene	40	HH	900	HH	6.2	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	0.032
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050
Fluoranthene	50	T	200	T	15.4	180	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	0.044
Fluorene	600	HH	9500	HH	0.25	0.25	0.1	< 0.020	< 0.020	0.028	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	0.14	0.028	< 0.010	0.25	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	-	< 0.010	0.013	0.15
Phenanthrene	5	EH	50	EH	0.046	0.046	0.11	0.018	0.01	0.028	< 0.010	< 0.010	0.012	0.017	0.017	0.024	-	0.02	0.03	0.19
Pyrene	10	EH	100	EH	7.7	100	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	0.065
2-methylnaphthalene	60	HH	950	HH	-	-	0.78	0.074	< 0.020	0.37	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	< 0.020	0.3
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	1.2	0.12	< 0.050	0.69	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	0.65
PAH, High Molecular Weight	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	0.34
PAH, Total	-		-		-	-	1.2	0.14	< 0.050	0.69	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	0.075	0.99
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.041	0.042	0.041	0.041	0.041	0.041	0.041	0.041	0.041	0.042	-	0.042	0.043	0.068
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.31	0.39	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.39	-	0.39	0.45	0.71
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	1300	< 100	< 100	200	< 100	100	< 100	< 100	< 100	< 100	-	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	1300	< 100	< 100	200	< 100	100	< 100	< 100	< 100	< 100	-	< 100	< 100	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	110	< 100	110	< 100	< 100	170	< 100	< 100	390	< 100	-	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	110	< 100	110	< 100	< 100	170	< 100	< 100	390	< 100	-	< 100	< 100	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 10	31	< 10	< 10	< 10	< 10	< 10	< 10	-	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	< 10	< 10	< 10	30	< 10	< 10	< 10	< 10	< 10	< 10	-	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	45	11	11	180	< 10	55	< 10	28	14	-	< 10	< 10	< 10	30
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	290	31	150	61	25	300	16	59	610	-	17	26	37	100
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	27	< 10	37	12	< 10	25	< 10	< 10	93	-	< 10	< 10	15	21
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	TP16-17	TP16-17	TP16-17	TP16-18	TP16-18	TP16-19	TP16-19	TP16-19	TP16-20	TP16-20	TP16-20	TP16-21	TP16-21	TP16-22
Sample Control Number	Soil Low Density Residential		Soil Industrial		Soil Residential	Soil Industrial	TP16-17-S1	TP16-17-S2	TP16-17-S2	TP16-18-S1	TP16-18-S2	TP16-19-S1	TP16-19-S2	TP16-19-S2	TP16-20-S1	TP16-20-S1	TP16-20-S3	TP16-21-S1	TP16-21-S2	TP16-22-S1
Sample Date (Day-Month-Year)							6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16
Depth of Sample (mbgs)							0.9-1.1 m	4.2-4.4 m	4.2-4.4 m	1-1.2 m	2.3-2.5 m	1.3-1.5 m	2.3-2.5 m	2.3-2.5 m	1.1-1.3 m	1.1-1.3 m	4.1-4.3 m	1-1.2 m	2-2.2 m	1-1.2 m
QA/QC																				
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	0.014	0.037	-	< 0.010	< 0.010	< 0.010	0.033	-	0.012	-	0.025	< 0.010	< 0.010	< 0.010
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.030	-	< 0.030	< 0.030	< 0.030	< 0.030	-	< 0.030	-	< 0.030	< 0.030	< 0.030	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	0.049	0.069	-	0.035	< 0.020	0.026	0.067	-	0.04	-	0.066	0.022	< 0.020	< 0.020
m,p-Xylenes	-		-		-	-	< 0.040	0.19	-	< 0.040	< 0.040	< 0.040	0.17	-	0.055	-	0.12	< 0.040	< 0.040	< 0.040
o-Xylene	-		-		-	-	< 0.040	0.073	-	< 0.040	< 0.040	< 0.040	0.079	-	< 0.040	-	0.055	< 0.040	< 0.040	< 0.040
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	0.26	-	< 0.040	< 0.040	< 0.040	0.25	-	0.055	-	0.18	< 0.040	< 0.040	< 0.040
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.10	-	< 0.10	< 0.10	< 0.10	< 0.10	-	< 0.10	-	< 0.10	< 0.10	< 0.10	< 0.10
VH (C6-C10)	-		-		-	-	< 10	< 10	-	< 10	< 10	< 10	< 10	-	< 10	-	< 10	< 10	< 10	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	-	< 10	< 10	< 10	< 10	-	< 10	-	< 10	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Acenaphthylene	-		-		320	320	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	< 0.0040	-	< 0.0040	< 0.0040	0.011	< 0.0040	-	< 0.0040	-	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	0.027	-	< 0.020	-	< 0.020	< 0.020	0.052	< 0.020
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020
Chrysene	40	HH	900	HH	6.2	-	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	-	< 0.020	< 0.020	0.035	< 0.020
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050
Fluoranthene	50	T	200	T	15.4	180	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020	-	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	-	< 0.050	< 0.050	< 0.050	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.010	< 0.010	-	< 0.010	< 0.010	0.014	< 0.010	-	< 0.010	-	< 0.010	< 0.010	0.021	< 0.010
Phenanthrene	5	EH	50	EH	0.046	0.046	< 0.010	< 0.010	-	0.017	0.019	0.029	0.025	-	0.012	-	0.021	0.018	0.038	< 0.010
Pyrene	10	EH	100	EH	7.7	100	< 0.020	< 0.020	-	0.025	< 0.020	0.14	< 0.020	-	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020
2-methylnaphthalene	60	HH	950	HH	-	-	< 0.020	< 0.020	-	< 0.020	< 0.020	0.03	< 0.020	-	< 0.020	-	< 0.020	< 0.020	< 0.020	< 0.020
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	< 0.050	< 0.050	-	< 0.050	< 0.050	0.084	< 0.050	-	< 0.050	-	< 0.050	< 0.050	0.059	< 0.050
PAH, High Molecular Weight	-		-		-	-	< 0.050	< 0.050	-	< 0.050	< 0.050	0.14	< 0.050	-	< 0.050	-	< 0.050	< 0.050	0.087	< 0.050
PAH, Total	-		-		-	-	< 0.050	< 0.050	-	< 0.050	< 0.050	0.23	0.052	-	< 0.050	-	< 0.050	< 0.050	0.15	< 0.050
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.041	0.041	-	0.041	0.041	0.041	0.043	-	0.041	-	0.041	0.041	0.045	0.041
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.31	0.31	-	0.31	0.31	0.31	0.42	-	0.31	-	0.31	0.31	0.58	0.31
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	< 100	-	100	< 100	1100	< 100	-	< 100	-	< 100	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	< 100	-	100	< 100	1100	< 100	-	< 100	-	< 100	< 100	< 100	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	140	< 100	-	910	< 100	12000	120	-	210	-	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	140	< 100	-	910	< 100	12000	120	-	210	-	< 100	< 100	< 100	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	-	< 10	< 10	< 10	< 10	-	< 10	-	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	< 10	< 10	-	< 10	< 10	< 10	< 10	-	< 10	-	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 10	-	< 10	13	< 10	420	-	12	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	71	-	13	1100	20	12000	-	610	-	250	82	< 10	22	58
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	11	-	< 10	300	< 10	7400	-	230	-	100	71	< 10	< 10	12
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	TP16-22	TP16-23	TP16-23	TP16-24	TP16-24	TP16-25	TP16-25	TP16-26	TP16-26	TP16-27	TP16-27	TP16-28	TP16-28	TP16-29
Sample Control Number	Soil Low Density Residential		Soil Industrial		Soil Residential	Soil Industrial	TP16-22-S2	TP16-23-S1	TP16-23-S2	TP16-24-S1	TP16-24-S2	TP16-25-S1	TP16-25-S2	TP16-26-S1	TP16-26-S2	TP16-27-S1	TP16-27-S2	TP16-28-S1	TP16-28-S2	TP16-29-S1
Sample Date (Day-Month-Year)							6-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16
Depth of Sample (mbgs)							2.1-2.3 m	0.8-1 m	1.8-2 m	0.8-1 m	1.7-1.9 m	0.8-1 m	1.6-1.8 m	0.9-1.1 m	2.6-2.8 m	0.9-1.1 m	3.9-4.1 m	1.5-1.7 m	3.7-3.9 m	1-1.2 m
QA/QC																				
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.0050	0.013	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.010	< 0.010	0.058	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.01	< 0.010
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030
Toluene	0.3	AW	0.3	AW	0.08	0.08	0.026	< 0.020	0.073	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.023	< 0.020	0.034	0.021	0.033	< 0.020
m,p-Xylenes	-		-		-	-	< 0.040	< 0.040	0.3	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
o-Xylene	-		-		-	-	< 0.040	< 0.040	0.1	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	< 0.040	0.4	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
VH (C6-C10)	-		-		-	-	< 10	18	15	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	18	14	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.033	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Acenaphthylene	-		-		320	320	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.0073	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	0.027	< 0.020	< 0.020	< 0.020	0.021	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Chrysene	40	HH	900	HH	6.2	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.024	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Fluoranthene	50	T	200	T	15.4	180	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.035	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.026	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.012	0.1	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	5	EH	50	EH	0.046	0.046	0.019	0.029	0.016	< 0.010	0.029	0.017	0.02	0.02	0.092	< 0.010	0.021	< 0.010	0.014	< 0.010
Pyrene	10	EH	100	EH	7.7	100	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.027	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
2-methylnaphthalene	60	HH	950	HH	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.046	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.31	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
PAH, High Molecular Weight	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.11	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
PAH, Total	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	0.055	< 0.050	< 0.050	< 0.050	0.41	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.041	0.041	0.041	0.041	0.043	0.041	0.041	0.041	0.042	0.041	0.041	0.041	0.041	0.041
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.31	0.31	0.31	0.31	0.41	0.31	0.31	0.31	0.38	0.31	0.31	0.31	0.31	0.31
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	19	14	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	< 10	19	13	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	54	49	24	40	42	27	19	58	49	30	36	16	25	34
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 10	16	< 10	12	< 10	< 10	< 10	25	46	11	< 10	< 10	< 10	< 10
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	TP16-29	TP16-29	TP16-30	TP16-30	TP16-33	TP16-33	TP16-34	TP16-34	TP-17	TP-18	TP-19	TP-21	TP-22	TP-23
Sample Control Number	Soil		Soil		Soil		TP16-29-S3	TP16-29-S3 FD	TP16-30-S1	TP16-30-S2	TP16-33/S1	TP16-33/S3	TP16-34/S1	TP16-34/S2	SB-17-01	SB-18-02	SB-19-01	SB-21-01	SB-22-02	SB-23-02
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential		7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	13-Aug-01	13-Aug-01	13-Aug-01	13-Aug-01	13-Aug-01	13-Aug-01
Depth of Sample (mbgs)	MCS		MCS		MCS	MCS	3-3.2 m	3-3.2 m	2.1-2.2 m	3.7-3.9 m	1-1.2 m	2.8-3 m	1-1.2 m	1.8-2 m	0.8 m	3.6 m	1 m	3.0 m	3.5 m	3.1 m
QA/QC	Residential						FDA	FD												
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	-	-	-	-	-
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.010	< 0.010	< 0.010	0.03	< 0.010	< 0.010	< 0.010	< 0.010	-	-	-	-	-	-
Styrene	5	EH	50	EH	5	50	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	-	-	-	-	-	-
Toluene	0.3	AW	0.3	AW	0.08	0.08	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
m,p-Xylenes	-		-		-	-	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	-	-	-	-	-	-
o-Xylene	-		-		-	-	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	-	-	-	-	-	-
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	-	-	-	-	-	-
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	-	-	-	-	-	-
VH (C6-C10)	-		-		-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	-	-	-	-	-
Acenaphthylene	-		-		320	320	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	-	-	-	-	-
Anthracene	2.5	T	30	T	2.5	32	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	-	-	-	-	-	-
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	0.023	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
Benzo(g,h,i)perylene	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
Chrysene	40	HH	900	HH	6.2	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-
Fluoranthene	50	T	200	T	15.4	180	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	-	-	-	-	-	-
Phenanthrene	5	EH	50	EH	0.046	0.046	< 0.010	< 0.010	0.027	0.02	< 0.010	0.02	< 0.010	< 0.010	-	-	-	-	-	-
Pyrene	10	EH	100	EH	7.7	100	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
2-methylnaphthalene	60	HH	950	HH	-	-	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	-
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-
PAH, High Molecular Weight	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-
PAH, Total	-		-		-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	0.041	0.041	0.042	0.041	0.041	0.041	0.041	0.041	-	-	-	-	-	-
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	0.31	0.31	0.39	0.31	0.31	0.31	0.31	0.31	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 200	< 200	< 200	< 200	< 200
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	-	-	-	-	-	-
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	< 100	< 100	< 100	< 100	< 100	210	< 100	< 200	< 200	< 200	< 200	< 200	< 200
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	< 100	< 100	< 100	< 100	< 100	210	< 100	-	-	-	-	-	-
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 50	< 50	< 50	< 50	< 50
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	35	15	34	15	48	20	260	110	200	< 50	146	< 50	102	52
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 10	< 10	< 10	< 10	11	< 10	110	11	121	< 50	< 50	< 50	< 50	< 50
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
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CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	URS-BH01	URS-BH01	URS-BH01	URS-BH02	URS-BH03	URS-BH03	URS-BH04	URS-BH04	URS-BH04	URS-BH05	URS-BH06	URS-BH07	URS-BH07	URS-BH08
Sample Control Number	Soil	MCS	Soil	MCS	MCS	MCS	URS BH01-0.8	URS BH01-1.7	URS BH01-3.5	URS BH02-0.9	URS BH03-0.7	URS BH03-2.2	URS BH04-0.7	URSBH04-1.8	URS BH DUP2	URS BH05-0.8	URS BH06-0.8	URSBH07-1.1	URS BH DUP3	URS BH08-0.2
Sample Date (Day-Month-Year)	Low Density		Industrial				23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05
Depth of Sample (mbgs)	Residential						0.7-0.9 m	1.6-1.8 m	3.4-3.6 m	0.8-1 m	0.6-0.8 m	2.1-2.3 m	0.6-0.8 m	1.7-1.9 m	1.7-1.9 m	0.7-0.9 m	0.7-0.9 m	1-1.2 m	1-1.2 m	0.1-0.3 m
QA/QC														FDA	FD			FDA	FD	
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	0.003	0.003	0.003	0.011	0.003	0.002	0.003	0.01	0.003	0.002	0.004	0.004	0.003	0.004
Ethylbenzene	10	DW	10	DW	0.018	0.018	0.005	0.012	0.003	0.006	0.004	< 0.003	0.004	0.015	0.003	0.003	0.005	0.005	0.003	0.005
Styrene	5	EH	50	EH	5	50	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.3	AW	0.3	AW	0.08	0.08	0.02	0.02	0.02	0.01	0.01	< 0.01	0.01	0.05	0.02	0.01	0.02	0.02	0.01	0.02
m,p-Xylenes	-		-		-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	-	< 0.1
o-Xylene	-		-		-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	-	< 0.1
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VH (C6-C10)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	-		-		320	320	< 0.01	< 0.02	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	2.5	T	30	T	2.5	32	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.01	0.04	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.01	0.02	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	0.01	0.06	-	0.02	0.03	0.01	0.03	-	-	< 0.01	0.02	0.02	0.02	0.03
Benzo(g,h,i)perylene	-		-		-	-	< 0.02	0.03	-	< 0.02	0.02	< 0.02	0.03	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.01	0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	40	HH	900	HH	6.2	-	< 0.01	0.05	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Fluoranthene	50	T	200	T	15.4	180	< 0.01	0.1	-	0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.01	0.04	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	0.01	0.07	-	< 0.02	0.02	0.01	0.01	-	-	< 0.01	0.02	0.01	0.03	0.03
Phenanthrene	5	EH	50	EH	0.046	0.046	0.04	< 0.07	-	0.04	< 0.03	0.01	0.02	-	-	< 0.01	0.03	0.03	0.03	0.03
Pyrene	10	EH	100	EH	7.7	100	0.01	0.16	-	0.01	0.05	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-methylnaphthalene	60	HH	950	HH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	0.05	0.12	-	0.04	<0.03	0.02	0.03	-	-	<0.01	0.05	0.04	0.05	0.04
PAH, High Molecular Weight	-		-		-	-	0.02	0.48	-	0.04	0.1	<0.02	0.05	-	-	<0.02	<0.02	0.02	0.02	0.03
PAH, Total	-		-		-	-	0.07	0.59	-	0.08	0.12	0.03	0.09	-	-	<0.02	0.07	0.06	0.07	0.07
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	537	-	< 100	< 100	< 100	< 100	-	-	< 100	< 100	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	537	-	< 100	< 100	< 100	< 100	-	-	< 100	< 100	< 100	< 100	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	< 100	-	< 100	401	< 100	< 100	-	-	< 100	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	< 100	-	< 100	401	< 100	< 100	-	-	< 100	< 100	< 100	< 100	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	18	< 10	11	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 50	676	< 50	370	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	349	427	60	97	702	< 50	< 50	53	57	99	< 50	< 50	< 50	< 50
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	89	< 50	< 50	< 50	230	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	URS-BH09	URS-BH09	URS-BH09	URS-BH09	URS-BH09	URS-BH10	URS-BH10	URS-BH11	URS-BH12	URS-BH12	URS-BH13	URS-BH13	URS-BH14	URS-BH14
Sample Control Number	Soil	MCS	Soil	MCS	MCS	MCS	URS BH 09-0.3	URSBH DUP4	URS BH 09-0.9	URSBH 09- 1.5	URS BH09 2.8	URS BH 10 0.9	URSBH 10 0.4	URS BH 11-1.7	URS BH12-0.2	URS BH12-1.8	URS BH13-1.4	URS BH13-3.3	URS BH 14-1.7	URSBH 14-3.5
Sample Date (Day-Month-Year)	Low Density		Industrial				24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05
Depth of Sample (mbgs)	Residential						0.2-0.4 m	0.2-0.4 m	0.8-1 m	1.4-1.6 m	2.7-2.9 m	0.8-1 m	0.3-0.5 m	1.6-1.8 m	0.1-0.3 m	1.7-1.9 m	1.3-1.5 m	3.2-3.4 m	1.6-1.8 m	3.4-3.6 m
QA/QC							FDA	FD												
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	0.002	0.006	0.01	0.0092	0.006	0.004	0.002	0.002	0.006	0.005	0.004	0.004	0.002	0.003
Ethylbenzene	10	DW	10	DW	0.018	0.018	0.008	0.016	0.68	0.53	0.37	0.007	0.005	0.003	0.012	0.007	0.007	0.005	0.004	0.004
Styrene	5	EH	50	EH	5	50	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.3	AW	0.3	AW	0.08	0.08	< 0.01	0.03	0.06	0.02	0.01	0.02	0.01	< 0.01	0.01	0.01	0.03	0.02	0.01	< 0.03
m,p-Xylenes	-		-		-	-	< 0.1	-	3.3	14	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
o-Xylene	-		-		-	-	< 0.1	-	1	0.2	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.1	< 0.1	4.3	1.6	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-	-	-	-	< 0.1
VH (C6-C10)	-		-		-	-	-	-	-	180	-	-	-	-	-	-	-	-	-	< 10
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	-	-	-	180	-	-	-	-	-	-	-	-	-	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.01	< 0.01	-	< 0.3	< 0.06	-	< 0.01	< 0.01	< 0.03	< 0.01	< 0.01	-	-	< 0.01
Acenaphthylene	-		-		320	320	< 0.01	< 0.01	-	< 0.07	< 0.02	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01
Anthracene	2.5	T	30	T	2.5	32	< 0.01	< 0.01	-	< 0.09	< 0.03	-	< 0.01	< 0.01	< 0.03	< 0.01	< 0.01	-	-	< 0.01
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.02
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	0.01
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	0.01	0.01	-	0.02	< 0.01	-	< 0.01	< 0.01	0.02	< 0.03	< 0.01	-	-	0.06
Benzo(g,h,i)perylene	-		-		-	-	< 0.02	< 0.02	-	0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	0.03	< 0.02	-	-	0.08
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01
Chrysene	40	HH	900	HH	6.2	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.02
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	-	-	< 0.02
Fluoranthene	50	T	200	T	15.4	180	< 0.01	< 0.01	-	0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	0.02
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.01	< 0.01	-	0.61	0.17	-	< 0.01	< 0.01	0.07	< 0.01	< 0.01	-	-	< 0.01
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	-	-	< 0.02
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	0.02	0.02	-	1.7	0.64	-	0.01	< 0.01	< 0.07	0.02	0.01	-	-	0.05
Phenanthrene	5	EH	50	EH	0.046	0.046	0.02	0.02	-	1.1	0.28	-	0.02	0.01	0.06	0.04	0.02	-	-	0.1
Pyrene	10	EH	100	EH	7.7	100	< 0.01	< 0.01	-	0.06	< 0.01	-	< 0.01	< 0.01	0.08	0.01	< 0.01	-	-	0.02
2-methylnaphthalene	60	HH	950	HH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	0.04	0.04	-	3.4	1.1	-	0.03	0.01	0.13	0.05	0.03	-	-	0.15
PAH, High Molecular Weight	-		-		-	-	< 0.02	< 0.02	-	0.11	< 0.02	-	< 0.02	< 0.02	0.1	0.05	< 0.02	-	-	0.18
PAH, Total	-		-		-	-	0.05	0.05	-	3.5	1.1	-	0.03	< 0.02	0.23	0.1	0.03	-	-	0.34
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	< 100	-	969	< 100	-	< 100	< 100	189	< 100	< 100	-	-	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	< 100	-	966	< 100	-	< 100	< 100	189	< 100	< 100	-	-	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	< 100	-	143	< 100	-	< 100	< 100	< 100	< 100	118	-	-	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	< 100	-	143	< 100	-	< 100	< 100	< 100	< 100	< 100	-	-	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	11	< 10	190	120	120	< 10	< 10	< 10	20	17	< 10	14	12	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	96	< 50	1700	1010	520	< 50	< 50	< 50	826	67	< 50	< 50	< 50	< 50
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	179	125	873	526	276	107	< 50	63	735	84	210	< 50	< 50	60
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	153	< 50	< 50	< 50
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	URS-BH15	URS-BH16	URS-BH17	URS-BH18	URS-BH18	UTP-A	UTP-A	UTP-A	UTP-A	UTP-B	UTP-B	UTP-C	UTP-D	UTP-E
Sample Control Number	Soil	MCS	Soil	MCS	MCS	MCS	URSBH 15-1.7	URSBH 16-1.7	URSBH 17-2.4	URSBH 18-0.3	URSBH 18-0.8	UTP-A 0.3	UTP-A 0.9	UTP-A 1.7	UTP-A 2.6	UTP-B 0.7	UTP-B 1.5	UTP-C 0.9	UTP-D 0.8	UTP-E 0.7
Sample Date (Day-Month-Year)	Low Density		Industrial				24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	24-Nov-05	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	2-Aug-06	3-Aug-06	2-Aug-06
Depth of Sample (mbgs)	Residential						1.6-1.8 m	1.6-1.8 m	2.3-2.5 m	0.2-0.4 m	0.7-0.9 m	0.2-0.4 m	0.8-1 m	1.6-1.8 m	2.5-2.7 m	0.6-0.8 m	1.4-1.6 m	0.8-1 m	0.7-0.9 m	0.6-0.8 m
QA/QC																				
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	0.003	0.005	0.005	0.004	0.003	< 0.005	< 0.005	0.009	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Ethylbenzene	10	DW	10	DW	0.018	0.018	0.004	0.007	0.006	0.007	0.006	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	5	EH	50	EH	5	50	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.3	AW	0.3	AW	0.08	0.08	0.02	0.03	0.02	0.02	0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
m,p-Xylenes	-		-		-	-	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
o-Xylene	-		-		-	-	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
VH (C6-C10)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	-	-	-	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	-	-	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-
Acenaphthylene	-		-		320	320	-	-	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-
Anthracene	2.5	T	30	T	2.5	32	-	-	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-
Benzo(a)anthracene	1	EH	10	EH	1	10	-	-	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	-	-	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	-	-	0.02	-	0.02	-	0.03	0.04	-	< 0.01	-	0.02	0.02	-
Benzo(g,h,i)perylene	-		-		-	-	-	-	0.05	-	0.04	-	0.02	0.03	-	< 0.02	-	< 0.02	< 0.02	-
Benzo(k)fluoranthene	1	EH	10	EH	1	10	-	-	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-
Chrysene	40	HH	900	HH	6.2	-	-	-	< 0.01	-	< 0.01	-	< 0.03	< 0.03	-	< 0.01	-	< 0.02	< 0.01	-
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	-	-	< 0.02	-	< 0.02	-	< 0.02	< 0.02	-	< 0.02	-	< 0.02	< 0.02	-
Fluoranthene	50	T	200	T	15.4	180	-	-	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-
Fluorene	600	HH	9500	HH	0.25	0.25	-	-	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	-	-	< 0.02	-	< 0.02	-	< 0.02	< 0.02	-	< 0.02	-	< 0.02	< 0.02	-
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	-	-	0.02	-	0.01	-	0.01	0.02	-	< 0.01	-	< 0.01	< 0.01	-
Phenanthrene	5	EH	50	EH	0.046	0.046	-	-	0.06	-	0.03	-	0.03	0.04	-	< 0.01	-	0.02	0.01	-
Pyrene	10	EH	100	EH	7.7	100	-	-	0.01	-	< 0.01	-	0.02	0.01	-	< 0.01	-	0.03	< 0.01	-
2-methylnaphthalene	60	HH	950	HH	-	-	-	-	-	-	-	-	0.02	0.02	-	<0.01	-	<0.01	0.01	-
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	-	-	0.08	-	0.04	-	0.07	0.08	-	<0.01	-	0.02	0.01	-
PAH, High Molecular Weight	-		-		-	-	-	-	0.09	-	0.06	-	0.07	0.07	-	<0.02	-	0.04	<0.02	-
PAH, Total	-		-		-	-	-	-	0.17	-	0.11	-	0.14	0.15	-	<0.02	-	0.07	0.03	-
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	-	-	< 100	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	-	-	< 100	-	< 100	-	< 100	< 100	-	< 100	-	< 100	< 100	-
EPH (C19-C32)	1000 *		5000 *		-	-	-	-	< 100	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	-	-	< 100	-	< 100	-	< 100	< 100	-	< 100	-	< 100	< 100	-
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	11	11	11	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	< 50	< 50	< 50	< 50	< 50	141	118	< 50	< 50	< 50	< 50	74	< 50	< 50
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME Soil Residential	CCME Soil Industrial	UTP-E 1.5	UTP-E 2.0	UTP-F 1.5	UTP-F 2.8	DUP-UTP-F 2.8	UTP-G 1.6	UTP-H 1.5	UTP-I 0.3	UTP-I 0.9	UTP-I 1.5	UTP-I 2.8	UTP-J 1.5	DUP-UTP-J 1.5	UTP-J 0.8
Sample Control Number	Soil	MCS	Soil	MCS	Soil Residential	MCS	2-Aug-06 1.4-1.6 m	2-Aug-06 1.9-2.1 m	2-Aug-06 1.4-1.6 m	2-Aug-06 2.7-2.9 m FDA	2-Aug-06 2.7-2.9 m FD	2-Aug-06 1.5-1.7 m	2-Aug-06 1.4-1.6 m	3-Aug-06 0.2-0.4 m	3-Aug-06 0.8-1 m	3-Aug-06 1.4-1.6 m	3-Aug-06 2.7-2.9 m	3-Aug-06 1.4-1.6 m FDA	3-Aug-06 1.4-1.6 m FDA	3-Aug-06 0.7-0.9 m
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential															
Depth of Sample (mbgs)	Residential																			
QA/QC																				
Volatile Petroleum Hydrocarbons																				
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.005	< 0.005	< 0.005	0.038	< 0.005	< 0.005	< 0.005	< 0.005	0.3	0.007	< 0.005	< 0.005	< 0.005	< 0.005
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	46	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	5	EH	50	EH	5	50	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.3	AW	0.3	AW	0.08	0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	3.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
m,p-Xylenes	-		-		-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
o-Xylene	-		-		-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	190	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
VH (C6-C10)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	7700	< 10	< 10	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	950	HH	15000	HH	0.28	0.28	< 0.01	-	-	< 0.01	< 0.01	-	< 0.01	-	3.8	< 0.01	-	-	-	< 0.01
Acenaphthylene	-		-		320	320	< 0.01	-	-	< 0.01	< 0.01	-	< 0.01	-	< 1	< 0.01	-	-	-	< 0.01
Anthracene	2.5	T	30	T	2.5	32	< 0.01	-	-	< 0.01	< 0.01	-	< 0.01	-	< 0.4	< 0.01	-	-	-	< 0.01
Benzo(a)anthracene	1	EH	10	EH	1	10	< 0.01	-	-	< 0.01	< 0.01	-	< 0.01	-	< 0.02	< 0.01	-	-	-	< 0.01
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	< 0.01	-	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	-	-	< 0.01
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	0.04	-	-	0.03	0.04	-	0.02	-	< 0.01	0.02	-	-	-	0.03
Benzo(g,h,i)perylene	-		-		-	-	0.03	-	-	0.07	0.07	-	< 0.02	-	< 0.02	< 0.02	-	-	-	0.02
Benzo(k)fluoranthene	1	EH	10	EH	1	10	< 0.01	-	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01	-	-	-	< 0.01
Chrysene	40	HH	900	HH	6.2	-	< 0.01	-	-	< 0.04	< 0.04	-	< 0.01	-	< 0.02	< 0.01	-	-	-	< 0.01
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	< 0.02	-	-	< 0.02	< 0.02	-	< 0.02	-	< 0.02	< 0.02	-	-	-	< 0.02
Fluoranthene	50	T	200	T	15.4	180	< 0.01	-	-	< 0.01	< 0.01	-	< 0.01	-	0.08	< 0.01	-	-	-	< 0.01
Fluorene	600	HH	9500	HH	0.25	0.25	< 0.01	-	-	< 0.01	< 0.01	-	< 0.01	-	4	< 0.01	-	-	-	< 0.01
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	< 0.02	-	-	< 0.02	< 0.02	-	< 0.02	-	< 0.02	< 0.02	-	-	-	< 0.02
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	0.02	-	-	0.03	0.02	-	< 0.01	-	52	< 0.01	-	-	-	0.01
Phenanthrene	5	EH	50	EH	0.046	0.046	0.03	-	-	0.06	0.06	-	0.02	-	2.7	0.03	-	-	-	0.05
Pyrene	10	EH	100	EH	7.7	100	< 0.01	-	-	0.01	0.01	-	< 0.01	-	0.2	< 0.01	-	-	-	< 0.01
2-methylnaphthalene	60	HH	950	HH	-	-	0.01	-	-	0.03	0.02	-	< 0.01	-	79	0.01	-	-	-	0.02
Total PAH and B(a)P Calculation																				
PAH, Low Molecular Weight	-		-		-	-	0.06	-	-	0.11	0.1	-	0.02	-	140	0.04	-	-	-	0.08
PAH, High Molecular Weight	-		-		-	-	0.07	-	-	0.11	0.12	-	< 0.02	-	0.28	0.02	-	-	-	0.05
PAH, Total	-		-		-	-	0.13	-	-	0.22	0.23	-	0.04	-	140	0.07	-	-	-	0.14
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Index of Additive Cancer Risk Calc.																				
Index of Additive Cancer Risk (IACR)	-		-		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																				
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	19600	< 100	< 100	< 100	< 100	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	< 100	-	-	< 100	< 100	-	< 100	-	19600	< 100	-	-	-	< 100
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	746	< 100	< 100	< 100	< 100	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	< 100	-	-	< 100	< 100	-	< 100	-	745	< 100	-	-	-	< 100
CCME Hydrocarbon Fractions																				
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	7400	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	23900	< 50	< 50	< 50	< 50	< 50
Petroleum Hydrocarbons - F2 (C10-C16) less Naphthalene	1000 *	G	2000 *	G	150	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	3700	< 50	< 50	73	< 50	69
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	108	< 50	< 50	< 50	< 50	< 50
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B2 Results of Soil Analyses - Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR		BC CSR		CCME		UTP-K	UTP-L	UTP-L	UTP-L
Sample Control Number	Soil	MCS	Soil	MCS	Soil		UTP-K0.7	DUP4	UTP-L 0.3	UTP-L 0.8
Sample Date (Day-Month-Year)	Low Density		Industrial		Residential		3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06
Depth of Sample (mbgs)	Residential					Industrial	0.6-0.8 m	0.2-0.4 m	0.2-0.4 m	0.7-0.9 m
QA/QC										
Volatile Petroleum Hydrocarbons										
Benzene	0.03	DW	0.03	DW	0.0068	0.0068	< 0.005	< 0.005	< 0.005	< 0.005
Ethylbenzene	10	DW	10	DW	0.018	0.018	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	5	EH	50	EH	5	50	<0.1	< 0.1	< 0.1	< 0.1
Toluene	0.3	AW	0.3	AW	0.08	0.08	< 0.05	< 0.05	< 0.05	< 0.05
m,p-Xylenes	-		-		-	-	< 0.1	< 0.1	< 0.1	< 0.1
o-Xylene	-		-		-	-	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes, Total	4.5	DW	4.5	DW	2.4	2.4	< 0.1	< 0.1	< 0.1	< 0.1
Methyl tert-Butyl Ether	800	HH	3500	HH	-	-	< 0.1	< 0.1	< 0.1	< 0.1
VH (C6-C10)	-		-		-	-	-	-	-	-
VPH (C6-C10)	200	EH/HH	200	EH/HH	-	-	< 10	< 10	< 10	< 10
Total Polychlorinated Biphenyls	1.5		35		1.3	33	-	-	-	-
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	950	HH	15000	HH	0.28	0.28	-	-	< 0.01	-
Acenaphthylene	-		-		320	320	-	-	< 0.01	-
Anthracene	2.5	T	30	T	2.5	32	-	-	< 0.03	-
Benzo(a)anthracene	1	EH	10	EH	1	10	-	-	< 0.02	-
Benzo(a)pyrene	5	INT	50	INT	0.6	1.4	-	-	< 0.03	-
Benzo(b)fluoranthene	1	EH	10	EH	1	10	-	-	-	-
Benzo(b,j) fluoranthene	1	EH	10	EH	1	10	-	-	0.04	-
Benzo(g,h,i)perylene	-		-		-	-	-	-	0.03	-
Benzo(k)fluoranthene	1	EH	10	EH	1	10	-	-	< 0.01	-
Chrysene	40	HH	900	HH	6.2	-	-	-	< 0.02	-
Dibenzo(a,h)anthracene	1	EH	10	EH	1	10	-	-	< 0.02	-
Fluoranthene	50	T	200	T	15.4	180	-	-	< 0.03	-
Fluorene	600	HH	9500	HH	0.25	0.25	-	-	< 0.01	-
Indeno(1,2,3-c,d)pyrene	1	EH	10	EH	1	10	-	-	< 0.02	-
Naphthalene	0.6	TOX	20	TOX	0.013	0.013	-	-	< 0.01	-
Phenanthrene	5	EH	50	EH	0.046	0.046	-	-	< 0.02	-
Pyrene	10	EH	100	EH	7.7	100	-	-	0.11	-
2-methylnaphthalene	60	HH	950	HH	-	-	-	-	<0.01	-
Total PAH and B(a)P Calculation										
PAH, Low Molecular Weight	-		-		-	-	-	-	<0.03	-
PAH, High Molecular Weight	-		-		-	-	-	-	0.17	-
PAH, Total	-		-		-	-	-	-	0.17	-
Benzo(a)pyrene Total Potency Equivalence (TPE)	-		-		0.60	0.60	-	-	-	-
Index of Additive Cancer Risk Calc.										
Index of Additive Cancer Risk (IACR)	-		-		1	1	-	-	-	-
Extractable Petroleum Hydrocarbons										
EPH (C10-C19)	1000 *		2000 *		-	-	< 100	1300	1020	< 100
LEPH (C10-C19) Less PAHs	1000	EH/HH	2000	EH/HH	-	-	-	-	1020	-
EPH (C19-C32)	1000 *		5000 *		-	-	< 100	3000	2310	< 100
HEPH (C19-C32) Less PAHs	1000	EH/HH	5000	EH/HH	-	-	-	-	2310	-
CCME Hydrocarbon Fractions										
Petroleum Hydrocarbons - F1 (C6-C10)	200 *	G	200 *	G	30	170	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F1 (C6-C10)-BTEx	200 *	G	200 *	G	30	170	-	-	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	1000 *	G	2000 *	G	150	230	< 50	275	333	< 50
Petroleum Hydrocarbons - F2 (C10-C16) less Napthalene	1000 *	G	2000 *	G	150	230	-	-	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	1000 *	G	5000 *	G	300	1700	< 50	3100	4010	< 50
Petroleum Hydrocarbons - F3 (C16-C34) less PAHs	1000 *	G	5000 *	G	300	1700	-	-	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	-		-		2800	3300	< 50	1100	1440	< 50
Petroleum Hydrocarbon 4G-SG (BHH+SG)	-		-		-	-	-	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
ppm = parts per million; m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
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* The standard for LEPH and HEPH was conservatively screened against EPH (C10-19) and EPH (C19-32) values respectively; The standard for VPH(C6-C10, LEPH, HEPH was conservatively screened against F1, F2 and F3 petroleum hydrocarbon fractions respectively.
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
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Italics = indicates that the detection limit exceeds one or more criteria.
Low Molecular Weight PAHs includes those with less than four rings (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene). For non-detect PAHs, the detection limit was used in the sum.
High Molecular Weight PAHs includes those with four or more rings (benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene and pyrene). For non-detect PAHs, the detection limit was used in the sum.

TABLE B3 Results of Soil Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location						AH16-01	AH16-01	AH16-02	AH16-02	AH16-03	AH16-03	AH16-04	AH16-05	AH16-05	AH16-06	AH16-07	AH16-08	BH10-04	BH10-05	BH10-06
Sample Control Number		BC CSR		BC CSR		AH16-01/S1	AH16-01/S2	AH16-02/S1	AH16-02/S2	AH16-03/S1	AH16-03/S2	AH16-04/S1	AH16-05/S1	AH16-05/S2	AH16-06/S1	AH16-07/S1	AH16-08/S1	21694-03	21694-10	21695-03
Sample Date (Day-Month-Year)		Soil		Soil	CCME	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	5-Nov-16	10-Oct-10	10-Oct-10	11-Oct-10
Depth of Sample (mbgs)		Low Density		Industrial	Soil Residential	0.2-0.3 m	0.9-1 m	0.5-0.6 m	0.8-0.9 m	0.5-0.6 m	0.8-0.9 m	0.45-0.5 m	0.35-0.45 m	0.75-0.85 m	0.85-0.95 m	0.8-0.9 m	0.3-0.4 m	0.9-1.2 m	1.5-1.8 m	0.9-1.1 m
QA/QC	Units	Residential	MCS	Industrial	MCS															
Volatile Organic Compounds																				
Bromodichloromethane (BDCM)	mg/kg	20	HH	100	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Bromomethane (Methyl bromide)	mg/kg	20	HH	300	HH	-	-	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	-	-	-
Bromoform (Tribromomethane)	mg/kg	200	HH	800	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Carbon Tetrachloride	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
Chlorobenzene	mg/kg	1	EH	10	EH	1	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
Chloroethane	mg/kg	-		-		-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloroform	mg/kg	5	EH	50	EH	5	50	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.10
Chloromethane	mg/kg	-		-		-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dichloromethane (DCM) (Methylene Chloride)	mg/kg	5	EH	50	EH	5	50	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.15	< 0.10	0.29	0.27	< 0.10	< 0.30	< 0.30	< 0.30
Dibromochloromethane (DBCM)	mg/kg	15	HH	80	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,2-dibromoethane (Ethylene Dibromide) (EDB)	mg/kg	0.7	HH	3	HH	-	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	-	-
1,2-dichlorobenzene	mg/kg	1	EH	10	EH	1	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,3-dichlorobenzene	mg/kg	1	EH	10	EH	1	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,4-dichlorobenzene	mg/kg	1	EH	10	EH	1	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,1-dichloroethane	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,2-dichloroethane	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,1-dichloroethene	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,2-dichloropropane (Propylene Dichloride)	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,3-dichloropropene (Cis)	mg/kg	5	HH	50	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,3-dichloropropene (Trans)	mg/kg	5	HH	50	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,1,1,2-tetrachloroethane	mg/kg	55	HH	250	HH	-	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,1,2,2-tetrachloroethane	mg/kg	7	HH	30	HH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.80	< 0.10	< 0.30
Tetrachloroethylene (PCE/PERC)	mg/kg	2.5	AW	2.5	AW	0.2	0.6	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,1,1-trichloroethane	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050
1,1,2-trichloroethane	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.30	< 0.40	< 0.20
Trichloroethylene (TCE)	mg/kg	0.3	AW	0.3	AW	0.01	0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	< 0.015	< 0.015
Trichlorofluoromethane (Freon 11)	mg/kg	4500	AW	70000	AW	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10	< 0.10	< 0.10
Vinyl Chloride (Chloroethene)	mg/kg	0.2	HH	9	HH	-	-	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	mg/kg	2	EH	10	EH	2	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	-	-
1,2,4-Trichlorobenzene	mg/kg	2	EH	10	EH	2	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	-	-
Hexachlorobutadiene	mg/kg	15	HH	85	HH	2	10	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	-	-	-

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.

TABLE B3 Results of Soil Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location							BH10-07	BH16-01	BH16-01	BH16-02	BH16-02	BH16-03	BH16-03	BH16-03	BH16-03	BH16-04	BH16-04	BH16-04	BH16-05	BH16-05	BH16-06
Sample Control Number		BC CSR		BC CSR		CCME	21695-09	02022-01	02022-02	02022-05	02022-07	02022-09	02022-10	02022-11	02023-01	02023-03	02023-04	02023-06	02023-08	02023-11	02021-01
Sample Date (Day-Month-Year)		Soil		Soil		Soil	11-Oct-10	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16
Depth of Sample (mbgs)		Low Density		Industrial		Residential	0.7-0.9 m	0.3-0.61 m	1.21-1.52 m	0.3-0.61 m	1.82-2.12 m	0.15-0.45 m	0.15-0.45 m	0.91-1.21 m	3.94-4.24 m	0.3-0.61 m	1.52-1.82 m	3.94-4.24 m	1.06-1.36 m	3.03-3.18 m	0.3-0.61 m
QA/QC	Units		MCS		MCS							FDA	FD								
Volatile Organic Compounds																					
Bromodichloromethane (BDCM)	mg/kg	20	HH	100	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Bromomethane (Methyl bromide)	mg/kg	20	HH	300	HH	-	-	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Bromoform (Tribromomethane)	mg/kg	200	HH	800	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Carbon Tetrachloride	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Chlorobenzene	mg/kg	1	EH	10	EH	1	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Chloroethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloroform	mg/kg	5	EH	50	EH	5	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Chloromethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dichloromethane (DCM) (Methylene Chloride)	mg/kg	5	EH	50	EH	5	< 0.30	< 0.10	< 0.10	< 0.10	< 0.10	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.10	< 0.10	< 0.10	< 0.10	0.1
Dibromochloromethane (DBCM)	mg/kg	15	HH	80	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,2-dibromoethane (Ethylene Dibromide) (EDB)	mg/kg	0.7	HH	3	HH	-	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,4-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethene	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloropropane (Propylene Dichloride)	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichloropropene (Cis)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,3-dichloropropene (Trans)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,1,1,2-tetrachloroethane	mg/kg	55	HH	250	HH	-	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2,2-tetrachloroethane	mg/kg	7	HH	30	HH	5	< 0.30	< 0.025	< 0.025	< 0.025	< 0.025	0.03	< 0.025	< 0.025	< 0.025	0.03	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Tetrachloroethylene (PCE/PERC)	mg/kg	2.5	AW	2.5	AW	0.2	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,1-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.30	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Trichloroethylene (TCE)	mg/kg	0.3	AW	0.3	AW	0.01	< 0.015	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	mg/kg	4500	AW	70000	AW	-	< 0.10	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vinyl Chloride (Chloroethene)	mg/kg	0.2	HH	9	HH	-	< 0.10	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060
1,2,3-Trichlorobenzene	mg/kg	2	EH	10	EH	2	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2,4-Trichlorobenzene	mg/kg	2	EH	10	EH	2	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Hexachlorobutadiene	mg/kg	15	HH	85	HH	2	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.

TABLE B3 Results of Soil Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location							BH16-06	BH16-07	BH16-07	BH16-08	BH16-08	BH16-09	BH16-09	BH16-10	BH16-10	BH16-10	BH16-11	BH16-11	BH16-12	BH16-12	BH16-15
Sample Control Number		BC CSR		BC CSR		CCME	02021-03	02021-04	02021-06	02021-07	02021-09	02021-10	02021-11	02026-01	02026-02	02026-03	02026-04	02026-06	02026-07	02026-10	01133-01
Sample Date (Day-Month-Year)		Soil		Soil		Soil	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16
Depth of Sample (mbgs)	Units	Low Density Residential	MCS	Industrial	MCS	Residential	2.12-2.42 m	0.15-0.45 m	2.27-2.58 m	0.05-0.35 m	1.82-2.12 m	0.15-0.45 m	1.06-1.36 m	0-0.3 m	0.9-1.3 m	0.9-1.3 m	0.16-0.46 m	2.12-2.42 m	0.3-0.6 m	2.72-3.03 m	0-0.3 m
QA/QC															FDA	FD					
Volatile Organic Compounds																					
Bromodichloromethane (BDCM)	mg/kg	20	HH	100	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050
Bromomethane (Methyl bromide)	mg/kg	20	HH	300	HH	-	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.60	< 0.30	< 0.30	< 0.30	< 0.30
Bromoform (Tribromomethane)	mg/kg	200	HH	800	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050
Carbon Tetrachloride	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
Chlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
Chloroethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10
Chloroform	mg/kg	5	EH	50	EH	5	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050
Chloromethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10
Dichloromethane (DCM) (Methylene Chloride)	mg/kg	5	EH	50	EH	5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10
Dibromochloromethane (DBCM)	mg/kg	15	HH	80	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050
1,2-dibromoethane (Ethylene Dibromide) (EDB)	mg/kg	0.7	HH	3	HH	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,4-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethene	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloropropane (Propylene Dichloride)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichloropropene (Cis)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050
1,3-dichloropropene (Trans)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050
1,1,1,2-tetrachloroethane	mg/kg	55	HH	250	HH	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2,2-tetrachloroethane	mg/kg	7	HH	30	HH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
Tetrachloroethylene (PCE/PERC)	mg/kg	2.5	AW	2.5	AW	0.2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,1,1-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
Trichloroethylene (TCE)	mg/kg	0.3	AW	0.3	AW	0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	mg/kg	4500	AW	70000	AW	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20	< 0.20	< 0.20	< 0.20
Vinyl Chloride (Chloroethene)	mg/kg	0.2	HH	9	HH	-	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.12	< 0.060	< 0.060	< 0.060	< 0.060
1,2,3-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
1,2,4-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025
Hexachlorobutadiene	mg/kg	15	HH	85	HH	2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20	< 0.20	< 0.20	< 0.20

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
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CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.

TABLE B3 Results of Soil Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location							BH16-15	BH16-15	BH16-16	BH16-16	BH16-17	BH16-17	MW09-03	MW09-03	MW09-04	MW09-05	MW10-01S	MW10-02	MW10-03	MW16-02	MW16-02
Sample Control Number		BC CSR		BC CSR		CCME	01133-02	01133-04	01133-05	01133-07	01133-08	01133-09	09-020143-09	09-020143-10	09-020144-01	09-020144-04	24418-01	24418-04	24419-02	MW16-02/SA2	MW16-02/SA3
Sample Date (Day-Month-Year)		Soil		Soil		Soil	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	9-Sep-16	6-Oct-09	6-Oct-09	7-Oct-09	8-Oct-09	20-Sep-10	22-Sep-10	27-Sep-10	1-Sep-16	1-Sep-16
Depth of Sample (mbgs)	Units	Low Density Residential	MCS	Industrial	MCS	Residential	0.91-1.21 m	4.85-5.15 m	0-0.3 m	2.27-2.58 m	0.15-0.45 m	1.21-1.52 m	1.5-2 m FDA	1.5-2 m FD	1.8-2.1 m	1.2-1.5 m	0.8-1.1 m	1.5-1.8m	1.5-1.8m	0.99-1.32 m	1.97-2.3 m
QA/QC																					
Volatile Organic Compounds																					
Bromodichloromethane (BDCM)	mg/kg	20	HH	100	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Bromomethane (Methyl bromide)	mg/kg	20	HH	300	HH	-	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	-	-	-	-	-	-	-	< 0.30	< 0.30
Bromoform (Tribromomethane)	mg/kg	200	HH	800	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Carbon Tetrachloride	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
Chlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
Chloroethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloroform	mg/kg	5	EH	50	EH	5	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.050	< 0.050
Chloromethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dichloromethane (DCM) (Methylene Chloride)	mg/kg	5	EH	50	EH	5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.45	< 0.30	0.17	< 0.10
Dibromochloromethane (DBCM)	mg/kg	15	HH	80	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,2-dibromoethane (Ethylene Dibromide) (EDB)	mg/kg	0.7	HH	3	HH	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	< 0.025	< 0.025
1,2-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,3-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,4-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,1-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,2-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,1-dichloroethene	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,2-dichloropropane (Propylene Dichloride)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,3-dichloropropene (Cis)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,3-dichloropropene (Trans)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,1,1,2-tetrachloroethane	mg/kg	55	HH	250	HH	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,1,2,2-tetrachloroethane	mg/kg	7	HH	30	HH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
Tetrachloroethylene (PCE/PERC)	mg/kg	2.5	AW	2.5	AW	0.2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,1,1-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
1,1,2-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025
Trichloroethylene (TCE)	mg/kg	0.3	AW	0.3	AW	0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	mg/kg	4500	AW	70000	AW	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.20
Vinyl Chloride (Chloroethene)	mg/kg	0.2	HH	9	HH	-	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.060	< 0.060
1,2,3-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	< 0.025	< 0.025
1,2,4-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	< 0.025	< 0.025
Hexachlorobutadiene	mg/kg	15	HH	85	HH	2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	-	-	-	-	-	-	-	< 0.20	< 0.20

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.

TABLE B3 Results of Soil Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location							MW16-05	MW16-05	MW16-06	MW16-06	MW16-06	MW16-07	MW16-07	MW16-08	MW16-08	MW16-08	SB-BH-07	SS10	SS11	TP16-01	TP16-01
Sample Control Number		BC CSR		BC CSR		CCME	MW16-05/SA2	MW16-05/SA4	MW16-06/SA4	MW16-06/SA4 (FD)	MW16-06/SA5	MW16-07/SA3	MW16-07/SA5	MW16-08/SA2	MW16-08/SA4	MW16-08/SA4 (FD)	SBBH-07-03	02026-12	02026-11	02025-01	02025-03
Sample Date (Day-Month-Year)		Soil		Soil		Soil	3-Sep-16	3-Sep-16	4-Sep-16	4-Sep-16	4-Sep-16	4-Sep-16	4-Sep-16	5-Sep-16	5-Sep-16	5-Sep-16	3-Feb-03	9-Sep-16	9-Sep-16	6-Sep-16	6-Sep-16
Depth of Sample (mbgs)	Units	Low Density Residential	MCS	Industrial	MCS	Residential	1.15-1.48 m	3.78-4.11 m	2.8-3.13 m	2.8-3.13 m	3.95-4.28 m	2.63-2.96 m	4.93-5.39 m	0.82-1.15 m	1.97-2.3 m	1.97-2.3 m	3.3-3.4 m	0.15-0.45 m	0.15-0.45 m	0.5-0.5 m	2.5-2.5 m
QA/QC									FDA	FD					FDA	FD					
Volatile Organic Compounds																					
Bromodichloromethane (BDCM)	mg/kg	20	HH	100	HH	-	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.2	< 0.050	< 0.050	< 0.050	< 0.050
Bromomethane (Methyl bromide)	mg/kg	20	HH	300	HH	-	< 0.60	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.60	< 0.30	< 0.30	< 0.30	-	< 0.30	< 0.30	< 0.30	< 0.30
Bromoform (Tribromomethane)	mg/kg	200	HH	800	HH	-	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.2	< 0.050	< 0.050	< 0.050	< 0.050
Carbon Tetrachloride	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
Chlorobenzene	mg/kg	1	EH	10	EH	1	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
Chloroethane	mg/kg	-		-		-	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.2	< 0.10	< 0.10	< 0.10	< 0.10
Chloroform	mg/kg	5	EH	50	EH	5	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.2	< 0.050	< 0.050	< 0.050	< 0.050
Chloromethane	mg/kg	-		-		-	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.2	< 0.10	< 0.10	< 0.10	< 0.10
Dichloromethane (DCM) (Methylene Chloride)	mg/kg	5	EH	50	EH	5	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.44	< 0.10	< 0.10	< 0.10	< 1	< 0.10	< 0.10	< 0.10	< 0.10
Dibromochloromethane (DBCM)	mg/kg	15	HH	80	HH	-	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.2	< 0.050	< 0.050	< 0.050	< 0.050
1,2-dibromoethane (Ethylene Dibromide) (EDB)	mg/kg	0.7	HH	3	HH	-	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	-	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,4-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethene	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloropropane (Propylene Dichloride)	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichloropropene (Cis)	mg/kg	5	HH	50	HH	-	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.2	< 0.050	< 0.050	< 0.050	< 0.050
1,3-dichloropropene (Trans)	mg/kg	5	HH	50	HH	-	< 0.10	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.050	< 0.050	< 0.050	< 0.2	< 0.050	< 0.050	< 0.050	< 0.050
1,1,1,2-tetrachloroethane	mg/kg	55	HH	250	HH	-	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2,2-tetrachloroethane	mg/kg	7	HH	30	HH	5	< 0.050	4	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	0.2	0.76	0.49	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
Tetrachloroethylene (PCE/PERC)	mg/kg	2.5	AW	2.5	AW	0.2	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	0.3	< 0.025	< 0.025	< 0.025	< 0.025
1,1,1-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	0.067	0.033	< 0.2	< 0.025	< 0.025	< 0.025	< 0.025
Trichloroethylene (TCE)	mg/kg	0.3	AW	0.3	AW	0.01	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.2	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	mg/kg	4500	AW	70000	AW	-	< 0.40	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20	< 0.20	< 0.20	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20
Vinyl Chloride (Chloroethene)	mg/kg	0.2	HH	9	HH	-	< 0.12	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.12	< 0.060	< 0.060	< 0.060	< 0.2	< 0.060	< 0.060	< 0.060	< 0.060
1,2,3-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	-	< 0.025	< 0.025	< 0.025	< 0.025
1,2,4-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.050	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.050	< 0.025	< 0.025	< 0.025	-	< 0.025	< 0.025	< 0.025	< 0.025
Hexachlorobutadiene	mg/kg	15	HH	85	HH	2	< 0.40	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20	< 0.20	< 0.20	-	< 0.20	< 0.20	< 0.20	< 0.20

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.

TABLE B3 Results of Soil Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location							TP16-02	TP16-02	TP16-03	TP16-03	TP16-03	TP16-08	TP16-08	TP16-11	TP16-11	TP16-12	TP16-12	TP16-12	TP16-13	TP16-13	TP16-13
Sample Control Number		BC CSR		BC CSR		CCME	02025-04	02025-06	02025-09	02025-10	02025-11	02028-02	02028-04	02028-08	02028-09	02028-10	02028-11	02028-12	02029-01	02029-02	02029-04
Sample Date (Day-Month-Year)		Soil		Soil		Soil	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	6-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16	7-Sep-16
Depth of Sample (mbgs)		Low Density		Industrial		Residential	0.5-0.5 m	2.5-2.5 m	1.5-1.5 m	2.5-2.5 m	3.5-3.5 m	1.5-1.5 m	3.4-3.4 m	2-2 m	3-3 m	0.5-0.5 m	0.5-0.5 m	1.5-1.5 m	0.5-0.5 m	1.5-1.5 m	2.5-2.5 m
QA/QC	Units	Residential	MCS	Industrial	MCS											FDA	FD				
Volatile Organic Compounds																					
Bromodichloromethane (BDCM)	mg/kg	20	HH	100	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.11	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Bromomethane (Methyl bromide)	mg/kg	20	HH	300	HH	-	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Bromoform (Tribromomethane)	mg/kg	200	HH	800	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Carbon Tetrachloride	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Chlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Chloroethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloroform	mg/kg	5	EH	50	EH	5	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Chloromethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dichloromethane (DCM) (Methylene Chloride)	mg/kg	5	EH	50	EH	5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibromochloromethane (DBCM)	mg/kg	15	HH	80	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,2-dibromoethane (Ethylene Dibromide) (EDB)	mg/kg	0.7	HH	3	HH	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,4-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethene	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloropropane (Propylene Dichloride)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichloropropene (Cis)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,3-dichloropropene (Trans)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,1,1,2-tetrachloroethane	mg/kg	55	HH	250	HH	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2,2-tetrachloroethane	mg/kg	7	HH	30	HH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	8.3	0.56	< 0.025	< 0.025	< 0.025	0.041	0.05	< 0.025	0.44	< 0.025
Tetrachloroethylene (PCE/PERC)	mg/kg	2.5	AW	2.5	AW	0.2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,1-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.093	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Trichloroethylene (TCE)	mg/kg	0.3	AW	0.3	AW	0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	mg/kg	4500	AW	70000	AW	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vinyl Chloride (Chloroethene)	mg/kg	0.2	HH	9	HH	-	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060
1,2,3-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.11	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2,4-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Hexachlorobutadiene	mg/kg	15	HH	85	HH	2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
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Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.

TABLE B3 Results of Soil Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location							TP16-14	TP16-14	TP16-14	TP16-15	TP16-15	TP16-16	TP16-16	TP16-16	TP16-17	TP16-17	TP16-18	TP16-18	TP16-19	TP16-19	TP16-20
Sample Control Number		BC CSR		BC CSR		CCME	02029-05	02029-06	02029-07	TP16-15-S1	TP16-15-S2	TP16-16-S1	TP16-16-S2	TP16-16-S3	TP16-17-S1	TP16-17-S2	TP16-18-S1	TP16-18-S2	TP16-19-S1	TP16-19-S2	TP16-20-S1
Sample Date (Day-Month-Year)		Soil		Soil		Soil	7-Sep-16	7-Sep-16	7-Sep-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16	6-Nov-16
Depth of Sample (mbgs)	Units	Low Density Residential	MCS	Industrial	MCS	Residential	0.5-0.5 m	1.5-1.5 m	2.5-2.5 m	1-1.2 m	2.3-2.5 m	0.8-1 m	3-3.2 m	5.2-5.4 m	0.9-1.1 m	4.2-4.4 m	1-1.2 m	2.3-2.5 m	1.3-1.5 m	2.3-2.5 m	1.1-1.3 m
QA/QC																					
Volatile Organic Compounds																					
Bromodichloromethane (BDCM)	mg/kg	20	HH	100	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Bromomethane (Methyl bromide)	mg/kg	20	HH	300	HH	-	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Bromoform (Tribromomethane)	mg/kg	200	HH	800	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Carbon Tetrachloride	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Chlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Chloroethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloroform	mg/kg	5	EH	50	EH	5	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Chloromethane	mg/kg	-		-		-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dichloromethane (DCM) (Methylene Chloride)	mg/kg	5	EH	50	EH	5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.21	< 0.10	< 0.10	0.23	1.3	< 0.10	< 0.10	< 0.10	0.49	0.62
Dibromochloromethane (DBCM)	mg/kg	15	HH	80	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,2-dibromoethane (Ethylene Dibromide) (EDB)	mg/kg	0.7	HH	3	HH	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,4-dichlorobenzene	mg/kg	1	EH	10	EH	1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1-dichloroethene	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2-dichloropropane (Propylene Dichloride)	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,3-dichloropropene (Cis)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,3-dichloropropene (Trans)	mg/kg	5	HH	50	HH	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1,1,1,2-tetrachloroethane	mg/kg	55	HH	250	HH	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2,2-tetrachloroethane	mg/kg	7	HH	30	HH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Tetrachloroethylene (PCE/PERC)	mg/kg	2.5	AW	2.5	AW	0.2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,1-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,1,2-trichloroethane	mg/kg	5	EH	50	EH	5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Trichloroethylene (TCE)	mg/kg	0.3	AW	0.3	AW	0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	mg/kg	4500	AW	70000	AW	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vinyl Chloride (Chloroethene)	mg/kg	0.2	HH	9	HH	-	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060
1,2,3-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2,4-Trichlorobenzene	mg/kg	2	EH	10	EH	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Hexachlorobutadiene	mg/kg	15	HH	85	HH	2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.

TABLE B3 Results of Soil Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location							TP16-28	TP16-28	TP16-29	TP16-29	TP16-29	TP16-29	TP16-30	TP16-30	TP16-33	TP16-33	TP16-34	TP16-34	URS-BH09	URS-BH14
Sample Control Number		BC CSR		BC CSR		CCME	TP16-28-S1	TP16-28-S2	TP16-29-S1	TP16-29-S3	TP16-29-S3 FD	TP16-30-S1	TP16-30-S2	TP16-33/S1	TP16-33/S3	TP16-34/S1	TP16-34/S2	URSBH 09- 1.5	URSBH 14-3.5	
Sample Date (Day-Month-Year)		Soil		Soil		Soil	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	7-Nov-16	24-Nov-05	24-Nov-05	
Depth of Sample (mbgs)		Low Density		Industrial		Residential	1.5-1.7 m	3.7-3.9 m	1-1.2 m	3-3.2 m	3-3.2 m	2.1-2.2 m	3.7-3.9 m	1-1.2 m	2.8-3 m	1-1.2 m	1.8-2 m	1.4-1.6 m	3.4-3.6 m	
QA/QC	Units	Residential	MCS		MCS						FDA									
Volatile Organic Compounds																				
	Bromodichloromethane (BDCM)	mg/kg	20	HH	100	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.05	< 0.05	
	Bromomethane (Methyl bromide)	mg/kg	20	HH	300	HH	-	-	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.3	< 0.3	
	Bromoform (Tribromomethane)	mg/kg	200	HH	800	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.05	< 0.05	
	Carbon Tetrachloride	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03	
	Chlorobenzene	mg/kg	1	EH	10	EH	1	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03	
	Chloroethane	mg/kg	-		-		-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1	0.1	
	Chloroform	mg/kg	5	EH	50	EH	5	50	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.05	0.08	
	Chloromethane	mg/kg	-		-		-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1	< 0.1	
	Dichloromethane (DCM) (Methylene Chloride)	mg/kg	5	EH	50	EH	5	50	0.56	0.62	< 0.10	< 0.10	< 0.10	0.15	< 0.10	0.59	0.54	< 0.10	< 0.1	
	Dibromochloromethane (DBCM)	mg/kg	15	HH	80	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.05	< 0.05	
	1,2-dibromoethane (Ethylene Dibromide) (EDB)	mg/kg	0.7	HH	3	HH	-	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,2-dichlorobenzene	mg/kg	1	EH	10	EH	1	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,3-dichlorobenzene	mg/kg	1	EH	10	EH	1	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,4-dichlorobenzene	mg/kg	1	EH	10	EH	1	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,1,1-dichloroethane	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,2-dichloroethane	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,1,1-dichloroethene	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,2-dichloroethylene (Cis) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,2-dichloroethylene (Trans) (1,2-dichloroethene)	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,2-dichloropropane (Propylene Dichloride)	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,3-dichloropropene (Cis)	mg/kg	5	HH	50	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.03	< 0.03
	1,3-dichloropropene (Trans)	mg/kg	5	HH	50	HH	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.1
	1,1,1,2-tetrachloroethane	mg/kg	55	HH	250	HH	-	-	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,1,2,2-tetrachloroethane	mg/kg	7	HH	30	HH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	Tetrachloroethylene (PCE/PERC)	mg/kg	2.5	AW	2.5	AW	0.2	0.6	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,1,1-trichloroethane	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	1,1,2-trichloroethane	mg/kg	5	EH	50	EH	5	50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.03	< 0.03
	Trichloroethylene (TCE)	mg/kg	0.3	AW	0.3	AW	0.01	0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.03	< 0.03
	Trichlorofluoromethane (Freon 11)	mg/kg	4500	AW	70000	AW	-	-	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.2	< 0.2
	Vinyl Chloride (Chloroethene)	mg/kg	0.2	HH	9	HH	-	-	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.08	< 0.08
	1,2,3-Trichlorobenzene	mg/kg	2	EH	10	EH	2	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	-
	1,2,4-Trichlorobenzene	mg/kg	2	EH	10	EH	2	10	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	-
Hexachlorobutadiene	mg/kg	15	HH	85	HH	2	10	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	-	-	

Notes:
Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.
m bgs = metres below ground surface
FDA = field duplicate available; FD = field duplicate; QA/QC = quality assurance/quality control
MCS = most conservative standard based on applicable site-specific standards
CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.
CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW), Ecological Health (EH) or Human Health (HH)
Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).
CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).
Italics = indicates that the detection limit exceeds one or more criteria.

TABLE B4 Results of Soil Analyses - Glycols
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Sample Date (Day-Month-Year) Depth of Sample (mbgs) QA/QC	Units	BC CSR Soil Low Density Residential MCS	BC CSR Soil Industrial MCS	CCME Soil Residential MCS	CCME Soil Industrial MCS	URS-BH14 URSBH 14-3.5 24-Nov-05 3.4-3.6 m
Glycol						
Ethylene Glycol	mg/kg	10	10	960	960	<2.1
Diethylene Glycol	mg/kg					<3.2
Triethylene Glycol	mg/kg	30000	45000			<6.3
Tetraethylene Glycol	mg/kg					<11
Propylene Glycol	mg/kg					<11

Notes:

Results are expressed in micrograms per gram (ug/g), unless otherwise indicated.

m bgs = metres below ground surface

MCS = most conservative standard based on applicable site-specific standards

CSR Standards shown from the Ministerial Order No. M426. This order outlines amendments to the Contaminated Sites Regulation, B.C. Reg. 375/96 that are to be effective November 1, 2017.

CSR Standards reflect the most conservative value of generic (G), intake of contaminated soil (I), toxicity to soil invertebrates and plants (T), aquatic life (AW) and drinking water (DW),

Ecological Health (EH) or Human Health (HH)

Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for residential or park land (RL/PL), and industrial land (IL).

CCME guidelines reflect the most conservative value of aquatic life (AW), interim or provisional (int), environmental ingestion (EI), soil contact (SC), coarse soil (C), fine soil (F), potable water (P).

TABLE B5 Results of Soil Analyses - TCLP Testing
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location		MW16-08	MW16-08	TP16-04	TP16-07
Sample Name		MW16-08/SA4	MW16-08/SA4 (FD)	01129-02	01129-06
Sample Date		9/5/2016	9/5/2016	9/7/2016	9/7/2016
Sample Depth		1.97-2.3 m	1.97-2.3 m	1.65-1.65 m	0.5-0.5 m
Parameter	Unit				
Barium	mg/L	-	-	4.45	2.80
1,1,1,2-Tetrachloroethane	ug/L	< 10	< 10	-	-
1,1,1-Trichloroethane	ug/L	< 10	< 10	-	-
1,1,2,2-Tetrachloroethane	ug/L	< 10	< 10	-	-
1,1,2-Trichloroethane	ug/L	< 10	< 10	-	-
1,1-Dichloroethane	ug/L	< 10	< 10	-	-
1,1-Dichloroethene	ug/L	< 10	< 10	-	-
1,2,3-Trichlorobenzene	ug/L	< 10	< 10	-	-
1,2,4-Trichlorobenzene	ug/L	< 10	< 10	-	-
1,2,4-Trimethylbenzene	ug/L	28	18	-	-
1,2-Dibromoethane	ug/L	< 10	< 10	-	-
1,2-Dichlorobenzene	ug/L	< 10	< 10	-	-
1,2-Dichloroethane	ug/L	< 10	< 10	-	-
1,2-Dichloropropane	ug/L	< 10	< 10	-	-
1,3,5-Trichlorobenzene	ug/L	< 10	< 10	-	-
1,3,5-Trimethylbenzene	ug/L	< 10	< 10	-	-
1,3-Dichlorobenzene	ug/L	< 10	< 10	-	-
1,4-Dichlorobenzene	ug/L	< 10	< 10	-	-
2-Methylnaphthalene	ug/L	3.8	4.9	-	-
Acenaphthene	ug/L	< 0.10	0.10	-	-
Acenaphthylene	ug/L	< 0.10	< 0.10	-	-
Acridine	ug/L	< 0.50	< 0.50	-	-
Anthracene	ug/L	< 0.10	< 0.10	-	-
Benzene	ug/L	< 10	< 10	-	-
Benzo [b,j] fluoranthene	ug/L	< 0.10	< 0.10	-	-
Benzo[a]anthracene	ug/L	< 0.10	< 0.10	-	-
Benzo[a]pyrene	ug/L	< 0.10	< 0.10	-	-
Benzo[g,h,i]perylene	ug/L	< 0.20	< 0.20	-	-
Benzo[k]fluoranthene	ug/L	< 0.10	< 0.10	-	-
Bromodichloromethane	ug/L	< 10	< 10	-	-
Bromoform	ug/L	< 10	< 10	-	-
Bromomethane	ug/L	< 10	< 10	-	-
Carbon Tetrachloride	ug/L	< 10	< 10	-	-
Chlorobenzene	ug/L	< 10	< 10	-	-
Chloroethane	ug/L	< 10	< 10	-	-
Chloroform	ug/L	< 10	< 10	-	-
Chloromethane	ug/L	< 10	< 10	-	-
Chrysene	ug/L	< 0.10	< 0.10	-	-
cis-1,2-Dichloroethene	ug/L	< 10	< 10	-	-
cis-1,3-Dichloropropene	ug/L	< 10	< 10	-	-
Dibenzo[a,h]anthracene	ug/L	< 0.20	< 0.20	-	-
Dibromochloromethane	ug/L	< 10	< 10	-	-
Ethylbenzene	ug/L	< 10	< 10	-	-
Extractable Petroleum Hydrocarbons (C10-C19)	mg/L	< 0.20	0.20	-	-
Extractable Petroleum Hydrocarbons (C19-C32)	mg/L	< 0.20	< 0.20	-	-
Fluoranthene	ug/L	< 0.10	< 0.10	-	-
Fluorene	ug/L	0.26	0.15	-	-
Heavy Extractable Petroleum Hydrocarbons (C19-C32) Less F	mg/L	< 0.20	< 0.20	-	-
Indeno[1,2,3-cd]pyrene	ug/L	< 0.20	< 0.20	-	-
Light Extractable Petroleum Hydrocarbons (C10-C19) Less PA	mg/L	< 0.20	< 0.20	-	-
m,p-Xylenes	ug/L	< 20	< 20	-	-
Methyl Methacrylate	ug/L	< 10	< 10	-	-
Methyl tert-Butyl Ether	ug/L	< 10	< 10	-	-
Methylene Chloride	ug/L	< 10	< 10	-	-
Naphthalene	ug/L	3.2	4.3	-	-
o-Xylene	ug/L	< 10	< 10	-	-
Petroleum Hydrocarbons - F2 (C10-C16)	mg/L	< 0.20	< 0.20	-	-
Petroleum Hydrocarbons - F3 (C16-C34)	mg/L	< 0.20	< 0.20	-	-
Petroleum Hydrocarbons - F4 (C34-C50)	mg/L	< 3.0	< 3.0	-	-
Phenanthrene	ug/L	0.15	< 0.10	-	-
Polycyclic Aromatic Hydrocarbons, High Molecular Weight	ug/L	< 0.20	< 0.20	-	-
Polycyclic Aromatic Hydrocarbons, Low Molecular Weight	ug/L	7.4	9.4	-	-
Polycyclic Aromatic Hydrocarbons, Total	ug/L	7.4	9.4	-	-
Pyrene	ug/L	< 0.10	< 0.10	-	-
Quinoline	ug/L	< 0.50	< 0.50	-	-
Styrene	ug/L	< 10	< 10	-	-
Tetrachloroethene	ug/L	< 10	< 10	-	-
Toluene	ug/L	< 10	< 10	-	-
trans-1,2-Dichloroethene	ug/L	< 10	< 10	-	-
trans-1,3-Dichloropropene	ug/L	< 10	< 10	-	-
Trichloroethene	ug/L	< 10	< 10	-	-
Trichlorofluoromethane	ug/L	< 10	< 10	-	-
Vinyl Chloride	ug/L	< 10	< 10	-	-
Xylenes, Total	ug/L	< 10	< 10	-	-

All parameter units in milligrams per kilogram (mg/kg), unless otherwise noted.

FDA = Field Duplicate Available; FD = Field Duplicate.

SCN = Sample Control Number; MCS = Most Conservative Standard

TABLE B6 Results of Groundwater Analyses - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Sample Control Number Date Sampled QA/QC	Location	Omnibus Standards for Drinking Water	Notes	Omnibus Standards for Aquatic Life	Notes	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW10-01S 24412-05 25-Sep-10	MW10-01S 22795-01 26-Sep-11	MW10-01S 23259-03 7-Jun-12	MW10-01S 283695-01 24-Jul-13	MW10-01S 17813-02 18-Sep-14	MW10-01S 01123-07 21-Oct-15	MW10-01D 24412-06 25-Sep-10	MW16-01 MW16-01 8-Sep-16	MW16-01 MW16-01 7-Nov-16	MW16-06 MW16-06 8-Sep-16			
Physical Tests																						
pH (field)						6.5-9.0	FW	6.5 to 8.5	AO	6.2	6.76	6.46	5.47	5.58	5.75	6.45	7.84	6.3	7.09			
Hardness (as CaCO3)										30.9	51.9	133	95.7	58.2	34.3	74.7	320	351	274			
Anions and Nutrients																						
Bromide (Br)										-	<0.050	<0.050	-	-	-	-	-	-	-			
Chloride (Cl)	250	1500				120	FW	250	AO	20.6	37.0	124	111	63.1	-	3.32	39	70	230			
Fluoride (F)	1.5	2, 3				0.12	FW	1.5		-	0.116	0.14	-	-	-	-	-	-	-			
Nitrate (as N)	10	400				13	FW	10		-	<0.0050	0.204	-	-	-	-	-	-	-			
Nitrite (as N)	1	0.2-2				0.06	FW	1		-	<0.0010	<0.0010	-	-	-	-	-	-	-			
Sulfate (SO4)	500	1280-4290	H			100	FW	500		-	5.23	6.03	-	-	-	-	-	-	-			
Cyanides																						
Cyanide, Total	0.2	0.05				0.005	FW			-	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-			
Cyanide, Free										-		<0.0050	<0.0050	-	-	-	-	-	-			
Total Metals										12.2	-	-	-	-	-	22.6	7.75	6.69	90.6			
Total Sodium (Na)																						
Dissolved Metals																						
Aluminum	9.5					0.005 - 0.1	pH	0.1/0.2	AO/Tr	0.113	0.107	0.173	0.099	0.093	0.0967	0.014	0.0073	< 0.0030	0.0547			
Antimony	0.006	0.09				2	FW	0.006		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	< 0.00050	< 0.00050	0.00058			
Arsenic	0.01	0.05				0.005	FW	0.01		0.0039	<0.00050	0.00052	0.0026	<0.0010	0.00028	<0.0010	0.00018	0.00015	0.00115			
Barium	1	10				2.9	FW	1		0.679	1.25	2.49	2.29	1.3	0.945	0.279	0.169	0.205	0.558			
Beryllium	0.008	0.0015				0.0053	FW			<0.0050	<0.0010	<0.0010	<0.0050	<0.0050	<0.00010	<0.0050	< 0.00010	< 0.00010	< 0.00010			
Bismuth										-	-	<0.20	-	-	<0.0010	-	< 0.0010	< 0.0010	< 0.0010			
Boron	5	12						5		<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	0.33	0.172	0.158	< 0.05			
Cadmium	0.005	0.0005-0.004	H,pH			0.000017	FW	0.005		0.000209	0.00018	0.000354	0.000183	0.000166	0.000095	0.000077	0.00001	< 0.000010	0.000125			
Calcium										8.45	14.6	39.1	25.7	16.7	9.50	20.6	87.5	99.1	80.2			
Chromium	0.05, 6	0.01, 0.09	V			0.0089	FW	0.05		<0.00050	<0.0010	<0.0010	<0.00050	<0.00050	<0.0010	<0.00050	< 0.0010	< 0.0010	< 0.0010			
Cobalt	0.001	0.04								0.0108	0.00559	0.011	0.0123	0.00439	0.00318	0.00328	< 0.00050	< 0.00050	0.00464			
Copper	1.5	0.02-0.09	H			0.002 - 0.004	H	1	AO	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	0.00108	0.0015	0.00032	0.00035	0.00191			
Iron						0.3	FW	0.3	AO	6.29	0.441	3.71	13.7	0.089	0.120	<0.030	0.0409	0.404	0.193			
Lead	0.01	0.04 - 0.16	H			0.001 - 0.007	H	0.01		<0.0010	<0.00050	<0.00050	<0.0010	<0.0010	<0.00020	<0.0010	< 0.00020	< 0.00020	< 0.00020			
Lithium	0.008									<0.050	<0.0050	<0.0050	<0.050	<0.050	<0.0050	0.077	0.0522	0.052	0.0254			
Magnesium										2.38	3.75	8.69	7.64	4.03	2.57	5.67	24.5	25.2	17.9			
Manganese								0.05	AO	0.459	0.191	0.391	0.648	0.166	0.115	0.417	0.0913	0.113	0.366			
Mercury	0.001	0.00025				0.000026	FW	0.001		<0.00020	<0.000010	<0.000010	<0.00020	<0.00020	<0.000010	<0.00020	< 0.000010	< 0.000010	< 0.000010			
Molybdenum	0.25	10				0.073	FW			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	< 0.0010	< 0.0010	0.0012			
Nickel	0.08	0.25 - 1.5	H			0.025 - 0.150	H			0.0104	0.0109	0.0199	0.0187	0.0094	0.0071	0.0086	< 0.0010	< 0.0010	0.009			
Phosphorus										-	-	<0.30	-	-	-	-	-	-	-			
Potassium										-	<2.0	<2.0	-	-	0.690	-	2.44	2.33	3.55			
Selenium	0.01	0.02				0.001	FW	0.05		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.00017	<0.0010	< 0.00010	< 0.00010	0.00032			
Silicon										-	-	2.64	-	-	4.00	-	4.53	5.13	4.13			
Silver	0.02	0.0005, 0.015	H			0.0001	FW			<0.000050	<0.000020	<0.000020	<0.000050	<0.000050	0.000051	<0.000050	< 0.000020	< 0.000020	< 0.000020			
Sodium	200							200	AO	12.2	19.5	40.3	32.6	31.0	20.5	30.6	7.49	6.69	84.9			
Strontium	2.5									-	-	0.189	-	-	0.0560	-	0.856	1.12	0.496			
Sulphur										-	-	-	-	-	<3.0	-	7.7	7.3	<3.0			
Thallium	0.00004	0.003				0.0008	FW			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.000050	<0.00020	< 0.000050	< 0.000050	< 0.000050			
Tin	2.5									-	<0.00050	<0.00050	-	-	<0.0050	-	< 0.0050	< 0.0050	< 0.0050			
Titanium		1				0.1	FW			<0.050	<0.010	<0.010	<0.050	<0.050	<0.0050	<0.050	< 0.0050	< 0.0050	< 0.0050			
Uranium	0.02	0.085				0.015	FW	0.02		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00010	0.00058	< 0.00010	< 0.00010	0.00123			
Vanadium	0.02									<0.030	<0.0010	<0.0010	<0.030	<0.030	<0.0050	<0.030	< 0.0050	< 0.0050	< 0.0050			
Zinc	3	0.075 - 2.4	H			0.03	FW	5	AO	0.02	0.0180	0.0318	0.0353	0.0129	0.0099	0.0726	< 0.0050	< 0.0050	0.0075			
Zirconium	0.0003									-	-	-	-	-	<0.00050	-	< 0.00050	< 0.00050	< 0.00050			

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.

a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines

b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.

c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014). Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.

FDA = Field Duplicate Available; FD = Field Duplicate.

Italics - indicates that the detection limit exceeds one or more criteria.

AO = Aesthetic Objective

pH = pH-dependent guideline; V = Valence-dependant guideline; H = Hardness-dependent guideline

S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011

FW = Freshwater life; Cl = Chloride dependant; tot = Total; P = protocol 10;

* Applied the Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life, Update 7.1, December 2007.

St 8 - Refer to CSR Schedule 6 footnotes 58, 59, 60, and 61 for the application of iron and manganese standards.

TABLE B6 Results of Groundwater Analyses - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

[illegible]

Notes:

All parameter units in milligrams per litre (mg/L), unless otherwise noted.

a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.

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TABLE B6 Results of Groundwater Analyses - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	Omnibus Standards for Drinking Water	Notes	Omnibus Standards for Aquatic Life	Notes	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW09-04 283695-04 24-Jul-13 FD	MW09-04 17811-02 17-Sep-14 N	MW09-04 01123-02 20-Oct-15 FDA	MW09-04 01123-03 20-Oct-15 FD	MW09-04 MW09-04 2-Sep-16 N	MW09-05 09-020146- 11-Oct-09 N	MW09-05 24412-03 24-Sep-10 FDA	MW09-05 24412-04 24-Sep-10 FD	MW09-05 22795-02 26-Sep-11 N	MW09-05 23259-01 7-Jun-12 N	MW09-05 283696-01 23-Jul-13 N	MW09-05 17811-03 17-Sep-14 N	MW09-05 01123-05 20-Oct-15 N	MW09-06 09-020146- 11-Oct-09 N	MW09-06 24412-02 24-Sep-10 N	MW09-06 23259-05 7-Jun-12 N	MW09-06 283695-02 24-Jul-13 N	MW09-06 17814-01 19-Sep-14 FD	MW09-06 17814-02 19-Sep-14 FDA	MW09-06 01123-04 21-Oct-15 N	MW09-06 MW09-06 2-Sep-16 N
Physical Tests					6.5-9.0	FW	6.5 to 8.5	AO	4.86 1500	4.85 1220	4.58 2160	4.58 2330	5.36 1030	6.74 778	6.37 1390	6.37 1630	6.66 812	6.98 600	- 712	6.77 623	7.28 727	6.63 2650	6.36 2740	7.40 415	6.84 641	6.86 1640	6.86 1620	6.74 3130	6.84 201
Hardness (as CaCO3)																													
Anions and Nutrients																													
Bromide (Br)									-		-	-	-	-	-	-	<1.0	<1.0	-	-	-	-	-	<2.5	-	-	-	-	-
Chloride (Cl)	250		1500		120	FW	250	AO	5420	5060			2900	745	296	633	618	504	723	551		7790	5300	1800	2060	4900	4830		850
Fluoride (F)	1.5		2.3		0.12	FW	1.5		-	-	-	-	-	-	-	-	<0.40	<0.40	-	-	-	-	<1.0	-	-	-	-	-	-
Nitrate (as N)	10		400		13	FW	10		-	-	-	-	-	-	-	-	0.29	0.21	-	-	-	-	-	3.27	-	-	-	-	-
Nitrite (as N)	1		0.2-2		0.06	FW	1		-	-	-	-	-	-	-	-	<0.020	<0.020	-	-	-	-	0.060	-	-	-	-	-	-
Sulfate (SO4)	500		1280-4290	H	100	FW	500		-	-	-	-	-	-	-	-	<10	<10	-	-	-	-	-	<25	-	-	-	-	-
Cyanides																													
Cyanide, Total	0.2		0.05		0.005	FW			<0.0050	-	-	-	-	-	-	-	<0.0050	<0.0050	<0.0050	-	-	-	-	<0.0050	<0.0050	-	-	-	-
Cyanide, Free									<0.0050	-	-	-	-	-	-	-	-	<0.0050	<0.0050	-	-	-	-	<0.0050	<0.0050	-	-	-	-
Total Metals																													
Total Sodium (Na)									-	-	-	-	-	-	162	165	-	-	-	-	-	-	4340	-	-	-	-	-	-
Dissolved Metals																													
Aluminum	9.5				0.005 - 0.1	pH	0.1/0.2	AO/Tr	13.2	8.41	12.8	14.0	4.06	0.474	<0.050	<0.050	0.549	<0.0050	<0.010	<0.010	0.0096	<0.50	<0.50	<0.050	<0.015	<0.030	<0.030	0.0074	0.0086
Antimony	0.006		0.09		2	FW	0.006		<0.0010	<0.0010	<0.00050	<0.00050	<0.00050	<0.0025	<0.0025	<0.0025	<0.0025	<0.00050	<0.00050	<0.00050	<0.00050	<0.050	<0.025	<0.0050	<0.00050	<0.0010	<0.0010	<0.00050	<0.00050
Arsenic	0.01		0.05		0.005	FW	0.01		<0.0010	<0.0010	0.00048	0.00048	<0.00010	<0.0025	<0.0050	<0.0050	<0.0025	<0.00050	<0.0010	<0.0010	0.00026	<0.050	<0.050	<0.0050	<0.0010	<0.0010	0.00060	0.00031	
Barium	1		10		2.9	FW	1		36.7	27.8	47.4	50.8	15.1	2.42	3.14	3.5	2.18	1.66	2.2	1.88	1.65	20.5	15.3	1.63	2.63	7.18	7.16	11.6	0.813
Beryllium	0.008		0.0015		0.0053	FW			<0.025	<0.015	0.00290	0.00321	0.00112	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.0050	<0.0050	<0.00010	<0.10	<0.025	<0.010	<0.010	<0.025	<0.025	<0.00010	<0.00010
Bismuth									-	-	<0.0010	<0.0010	<0.0010	-	-	-	-	<0.20	-	-	<0.0010	-	-	<0.40	-	-	<0.0010	<0.0010	
Boron	5		12				5		<0.50	<0.30	<0.050	<0.050	<0.05	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.066	<0.50	<0.50	<0.20	<0.20	<0.50	<0.50	<0.050	<0.05
Cadmium	0.005		0.0005-0.004	H,pH	0.000017	FW	0.005		0.0132	0.0109	0.0196	0.0213	0.00698	0.000386	<0.00025	<0.00025	0.000181	0.000089	0.000101	0.00023	0.000190	0.0043	0.0046	0.00022	0.00075	0.00238	0.00243	0.00416	0.000129
Calcium									429	340	608	665	297	217	379	444	219	163	191	174	197	948	978	135	227	584	577	1130	70.3
Chromium	0.05 , 6	V	0.01 , 0.09	V	0.0089	FW	0.05		<0.0050	<0.0050	<0.0010	<0.0010	<0.0010	<0.0050	<0.0025	<0.0025	<0.0050	<0.0010	<0.00050	<0.00050	<0.0010	<0.10	<0.025	<0.010	<0.0025	<0.0050	<0.0050	0.00313	<0.0010
Cobalt	0.001		0.04						0.0364	0.0286	0.0603	0.0668	0.0311	<0.0015	0.0071	0.0107	0.0016	0.00102	<0.00050	0.00144	0.00100	<0.030	<0.025	<0.0030	<0.00050	<0.0010	<0.0010	0.00082	<0.00050
Copper	1.5		0.02-0.09	H	0.002 - 0.004	H	1	AO	<0.0050	<0.0050	0.00462	0.00469	0.00193	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.0010	0.00102	<0.10	<0.050	<0.010	<0.0025	<0.0050	<0.0050	0.00102	0.00115	
Iron					0.3	FW	0.3	AO	<0.15	<0.090	0.0611	0.110	0.0134	0.065	0.532	0.579	0.337	0.283	0.140	<0.030	0.313	<0.15	<0.15	<0.060	<0.060	<0.15	<0.15	0.0207	0.0082
Lead	0.01		0.04 - 0.16	H	0.001 - 0.007	H	0.01		0.0023	0.0014	0.00413	0.00502	0.00059	<0.0025	<0.0050	<0.0050	<0.0025	<0.00050	<0.0010	<0.0010	<0.00020	<0.050	<0.050	<0.0050	<0.0010	<0.0010	<0.0010	<0.00020	<0.00020
Lithium	0.008								<0.050	<0.050	0.0676	0.0776	0.0379	0.032	0.055	0.061	0.04	0.0299	<0.050	<0.050	0.0346	<0.50	<0.25	<0.050	<0.050	<0.050	<0.050	0.0879	0.0127
Magnesium									105	89.8	157	163	70.3	57.3	107	126	64.4	47.0	57.3	45.8	56.9	69.0	71.5	19.2	18.0	43.6	43.5	77.5	6.19
Manganese							0.05	AO	2.08	1.59	2.66	2.79	1.96	0.121	2.97	6.29	0.286	0.208	0.091	0.216	0.245	0.270	0.297	0.0353	0.095	0.2240	0.226	0.479	0.0177
Mercury	0.001		0.00025		0.000026	FW	0.001		<0.00020	<0.00020	0.000018	0.000011	<0.000010	<0.000020	<0.00020	<0.00020	<0.000010	<0.000010	<0.00020	<0.000010	<0.000020	<0.000010	<0.000020	<0.000010	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010
Molybdenum	0.25		10		0.073	FW			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.050	<0.010	0.0040	0.0018	0.0017	0.0017	0.0034	
Nickel	0.08		0.25 - 1.5	H	0.025 - 0.150	H			0.386	0.313	0.506	0.541	0.184	<0.0050	<0.025	<0.025	<0.0050	0.0021	<0.0050	<0.0050	0.0022	<0.10	<0.25	<0.010	0.0086	0.0207	0.0208	0.0498	0.0030
Phosphorus									-	-				-	-	-	-	<0.30	-	-	-	-	-	<0.60	-	-	-	-	-
Potassium									-	-	12.9	14.8	6.89	6.8	-	-	6.8	5.7	-	-	6.49	20	-	7.2	-	-	-	25.1	4.85
Selenium	0.01		0.02		0.001	FW	0.05		<0.010	<0.010	0.00025	0.00032	0.00029	<0.0050	<0.010	<0.010	<0.0050	<0.0010	<0.0010	<0.0010	0.00054	<0.10	<0.050	<0.010	<0.0050	<0.010	<0.010	0.00049	0.00019
Silicon									-	-	8.72	8.68	5.35	-	-	-	4.37	-	-	-	6.11	-	2.46	-	-	-	-	6.56	3.73
Silver	0.02		0.0005 , 0.015	H	0.0001	FW			0.00491	0.0045	0.00480	0.00488	0.000066	<0.00010	<0.00025	<0.00025	<0.00010	<0.000020	<0.000050	<0.000050	0.000187	<0.00020	0.0046	<0.00020	0.000523	0.00182	0.00172	0.00443	0.000026
Sodium	200						200	AO	2650	2370	2770	2780	1370	167	270	311	125	105	181	124	104	3780	4310	1100	1230	2540	2530	3990	589
Strontium	2.5								-	-	3.72	4.03	1.68	-	-	-	-	1.04	-	-	1.21	-	-	0.569	-	-	-	6.38	0.394
Sulphur									-	-	<3.0	<3.0	<3.0	-	-	-	-	-	-	-	4.4	-	-	-	-	-	-	5.3	<3.0
Thallium	0.00004		0.003		0.0008	FW			<0.0010	<0.0010	0.000185	0.000206	0.000071	<0.0010	<0.0010	<0.0010	<0.0010	<0.00020	<0.00020	<0.00020	<0.000050	<0.020	<0.010	<0.0020	<0.00050	<0.0010	<0.0010	0.000110	<0.000050
Tin	2.5								-	-	<0.0050	<0.0050	<0.0050	<0.0025	-	-	<0.0025	<0.00050	-	-	<0.0050	<0.050	-	<0.0050	-	-	<0.0050	<0.0050	
Titanium			1		0.1	FW			<0.050	<0.050	<0.0050	<0.0050	<0.0050	<0.010	<0.050	<0.050	0.023	0.018	<0.050	<0.050	0.072	<0.25	<0.020	<0.050	<0.059	0.064	0.064	<0.050	<0.050
Uranium	0.02		0.085		0.015	FW	0.02		<0.00020	<0.00020	0.00022	0.00028	<0.00010	<0.0010	0.0011	0.0013	<0.0010	0.00060	0.00041	0.00044	0.00076	<0.020	<0.010	<0.0020	0.00217	0.0033	0.00334	0.00446	0.00137
Vanadium	0.02								<0.15	<0.090	<0.0050	<0.0050																	

Notes:

All parameter units in milligrams per litre (mg/L), unless otherwise noted.

a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines

b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time

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FW = Freshwater life; Cl = Chloride dependant; tot = Total; P = protocol 10;

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St 8 - Refer to CSR Schedule 6 footnotes 58, 59, 60, and 61 for the application of iron and manganese standards.

TABLE B6 Results of Groundwater Analyses - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

	Location	Omnibus Standards for Drinking Water	Notes	Omnibus Standards for Aquatic Life	Notes	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW10-02 24412-08 25-Sep-10	N	MW10-02 22795-06 27-Sep-11	N	MW10-02 23259-06 7-Jun-12	FDA	MW10-02 23259-07 7-Jun-12	FD	MW10-02 23701-01 25-Jul-12	N	MW10-02 283695-05 24-Jul-13	N	MW10-02 17811-01 17-Sep-14	N	MW10-02 01123-01 20-Oct-15	N	MW10-02 2-Sep-16	N	MW10-03 24412-09 25-Sep-10	N	MW10-03 22795-07 29-Sep-11	N	MW10-03 23259-04 7-Jun-12	N	MW16-02 8-Sep-16	N
Physical Tests						6.5-9.0	FW	6.5 to 8.5	AO	5.99	4.39	5.34	5.34	4.39	5.55	5.94		6.67		5.78	6.46		6.75	7.00	7.18										
	pH (field)									1470	2270	691	691	-	1330	1560		1920		1080	199		1200	105	2170										
Hardness (as CaCO3)																																			
Anions and Nutrients										-	<2.5	<2.5	<2.5		-	-		-		-	-		<1.0	<0.050	-										
	Bromide (Br)					120	FW	250	AO	3770	4960	1850	1870	-	2690	2990		2300		89.6		1240	28.8	4500											
	Chloride (Cl)	250		1500		0.12	FW	1.5		-	1	<1.0	<1.0	-	-	-		-		-	-	<0.40	0.141	-											
	Fluoride (F)	1.5		2 , 3		13	FW	10		-	9.13	1.69	1.74	-	-	-		-		-	-	1.27	0.0345	-											
	Nitrate (as N)	10		400		0.06	FW	1		-	0.158	<0.050	<0.050	-	-	-		-		-	-	0.028	0.0011	-											
	Nitrite (as N)	1		0.2-2		100	FW	500		-	<25	<25	<25	-	-	-		-		-	-	<10	2.96	-											
Sulfate (SO4)	500		1280-4290	H																															
Cyanides						0.005	FW			-	0.102	<0.0050	<0.0050	<0.0050	<0.0050	-	-		-	-		<0.0050	<0.0050	-											
	Cyanide, Total	0.2		0.05						-	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-		-	-		<0.0050	<0.0050	-											
Cyanide, Free																																			
Total Metals										1960	-	-	-	-	-	-	-	-	-	-	-	27.9	-	-	1700										
	Total Sodium (Na)																																		
Dissolved Metals						0.005 - 0.1	pH	0.1/0.2	AO/Tr	7.36	9.92	1.56	1.62	-	0.792	0.432	0.370	0.322	0.016		<0.025	0.0618	0.0098												
	Aluminum	9.5				2	FW	0.006		<0.010	<0.025	<0.0025	<0.0025	-	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0025	<0.00050	<0.00050												
	Antimony	0.006		0.09		0.005	FW	0.01		<0.020	<0.025	<0.0025	<0.0025	-	<0.0010	<0.0010	0.00019	0.00024	<0.0010	<0.0025	<0.00050	0.00036													
	Arsenic	0.01		0.05		2.9	FW	1		35.1	58.3	13.7	13.8	-	35.5	38.5	44.4	30.5	0.141	5.03	0.307	12.2													
	Barium	1		10		0.0053	FW			<0.010	<0.050	<0.0050	<0.0050	-	<0.010	<0.010	0.00018	0.00010	<0.0050	<0.0050	<0.0010	<0.00010													
	Beryllium	0.008		0.0015						-	-	<0.20	<0.20	-	-	-	<0.0010	<0.0010	-	-	<0.20	<0.0010													
	Bismuth					5		5		<0.20	<0.50	<0.10	<0.10	-	<0.20	<0.20	<0.050	<0.05	<0.10	<0.10	<0.10	<0.05													
	Boron	5		12		0.000017	FW	0.005		0.0109	0.0168	0.00498	0.00507	-	0.00895	0.0111	0.0116	0.00848	0.000056	<0.000085	<0.000017	0.00107													
	Cadmium	0.005		0.0005-0.004	H,pH					423	644	193	194	-	385	443	558	316	56.1	351	30.0	668													
	Calcium					0.0089	FW	0.05		<0.010	<0.050	<0.0050	<0.0050	-	<0.0050	<0.0025	<0.0010	<0.0010	<0.00050	<0.0050	<0.0010	<0.0010													
	Chromium	0.05 , 6	V	0.01 , 0.09	V					0.051	0.057	0.0244	0.0247	-	0.0243	0.0291	0.0326	0.0197	0.00126	0.0019	<0.00030	0.00288													
	Cobalt	0.001		0.04		0.002 - 0.004	H	1	AO	<0.020	<0.050	<0.0050	<0.0050	-	<0.0050	<0.0025	0.00089	0.00126	<0.0010	<0.0050	0.0010	0.00214													
	Copper	1.5		0.02-0.09	H	0.3	FW	0.3	AO	0.142	<0.15	0.175	0.033	-	<0.060	<0.060	0.0197	0.0467	0.032	<0.030	0.126	0.0671													
	Iron					0.001 - 0.007	H	0.01		<0.020	<0.025	<0.0025	<0.0025	-	0.0021	<0.0010	0.00037	0.00025	<0.0010	<0.0025	<0.00050	<0.00020													
	Lead	0.01		0.04 - 0.16	H					<0.10	<0.25	<0.025	0.025	-	<0.050	<0.050	0.0321	0.0307	<0.050	0.052	0.0075	0.0739													
	Lithium	0.008								101	162	50.4	50.3	-	88.6	110	127	70.9	14.4	77.8	7.34	122													
	Magnesium					0.05	AO	0.05		1.97	2.41	0.878	0.905	-	1.06	1.13	1.19	0.751	0.11	0.623	0.0241	0.356													
	Manganese					0.001				<0.00020	<0.000010	<0.000010	<0.000010	-	<0.00020	<0.00020	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010												
	Mercury	0.001		0.00025		0.000026	FW	0.001		<0.020	<0.050	<0.0050	<0.0050	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050	<0.0010	0.0026													
	Molybdenum	0.25		10		0.073	FW			0.31	0.35	0.131	0.134	-	0.177	0.197	0.203	0.146	<0.0050	0.0087	0.0015	0.0126													
	Nickel	0.08		0.25 - 1.5	H	0.025 - 0.150	H			-	-	<0.30	<0.30	-	-	-	-	-	-	-	<0.30	-													
	Phosphorus									-	23	9.9	9.9	-	-	-	18.3	11.2	-	8.0	<2.0	24.1													
	Potassium						0.001	FW	0.05	<0.020	<0.050	<0.0050	<0.0050	-	<0.010	<0.0050	0.00036	0.00033	<0.0020	<0.0050	<0.0010	0.00062													
	Selenium	0.01		0.02		0.001				-	-	3.53	3.50	-	-	-	5.27	4.85	-	-	3.39	4.8													
	Silicon					0.0001	FW			0.0017	0.0054	0.00092	0.0008		0.00189	0.00183	0.00132	0.000050	<0.000050	<0.000010	<0.000020	<0.000020													
	Silver	0.02		0.0005 , 0.015	H					1960	2170	841	854	-	1170	1200	1220	828	22.5	299	10.7	1620													
	Sodium	200								-	-	1.10	1.11	-	-	-	2.83	1.85	-	-	0.167	3.84													
	Strontium	2.5								-	-	-	-	-	-	-	<3.0	<3.0	-	-	-	16.7													
	Sulphur									<0.0040	<0.010	<0.0010	<0.0010	-	<0.0010	<0.00050	0.000094	0.000072	<0.00020	<0.0010	<0.00020	<0.000050													
	Thallium	0.00004		0.003		0.0008	FW			-	<0.025	<0.0025	<0.0025	-	-	-	<0.0050	<0.0050	-	<0.0025	<0.00050	<0.0050													
	Tin	2.5				0.1	FW			<0.10	0.089	0.019	0.019	-	<0.050	<0.050	<0.0050	<0.0050	<0.050	<0.010	<0.010	<0.0050													
	Titanium			1		0.015	FW	0.02		<0.0040	<0.010	<0.0010	<0.0010	-	<0.00020	<0.00020	0.00013	0.00020	0.00068	0.0041	<0.00020	0.00461													
	Uranium	0.02		0.085						<0.060	<0.050	<0.0050	<0.0050	-	0.060	<0.060	<0.0050	<0.0050	<0.030	<0.0050	<0.0010	<0.0050													
	Vanadium	0.02				0.03	FW	5	AO	0.272	0.482	0.156	0.156	-	0.204	0.251	0.281	0.241	<0.0050	<0.0050	<0.0050	0.0159													
Zinc	3		0.075 - 2.4	H					-	-	-	-	-	-	-	<0.00050	0.00053	-	-	-	<0.00050														
Zirconium	0.0003																																		

All parameter units in milligrams per litre (mg/L), unless otherwise noted.

a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines

b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.

c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014). Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.

FDA = Field Duplicate Available; FD = Field Duplicate.

Italics - indicates that the detection limit exceeds one or more criteria.

AO = Aesthetic Objective

pH = pH-dependant guideline; V = Valence-dependant guideline; H = Hardness-dependant guideline

S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011

FW = Freshwater life; Cl = Chloride dependant; tot = Total; P = protocol 10.

* Applied the Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life, Update 7.1, December 2007.

St 8 - Refer to CSR Schedule 6 footnotes 58, 59, 60, and 61 for the application of iron and manganese standards.

TABLE B6 Results of Groundwater Analyses - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Notes	Omnibus Standards for Aquatic Life	Notes	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW16-02A	MW16-02B	MW16-03	MW16-03	MW16-04	MW16-04	MW16-04	MW16-05	MW16-05	MW16-07	MW16-07	MW16-08	MW16-08
									MW16-02A	MW16-02B	MW16-03	MW16-03	MW16-04	MW16-04	MW16-05	MW16-05	MW16-07	MW16-07	MW16-08A	MW16-08B	
									6-Nov-16	6-Nov-16	8-Sep-16	7-Nov-16	8-Sep-16	5-Nov-16	8-Sep-16	7-Nov-16	8-Sep-16	5-Nov-16	8-Sep-16	FDA	FD
									FDA	FD	N	N	N	N	N	N	N	N	FDA	FD	
Physical Tests																					
pH (field)					6.5-9.0	FW	6.5 to 8.5	AO	8.60	7.30	7.55	6.60	7.09	7.80	7.05	6.70	6.99	6.3	7.02	7.02	
Hardness (as CaCO3)									2250	2390	428	414	316	377	141	357	992	2460	557	554	
Anions and Nutrients																					
Bromide (Br)											-			-	-	-	-	-	-	-	
Chloride (Cl)	250		1500		120	FW	250	AO	6800	6700	41	33		200	170	210	360	960	2800	740	770
Fluoride (F)	1.5		2, 3		0.12	FW	1.5		-	-	-	-	-	-	-	-	-	-	-	-	
Nitrate (as N)	10		400		13	FW	10		-	-	-	-	-	-	-	-	-	-	-	-	
Nitrite (as N)	1		0.2-2		0.06	FW	1		-	-	-	-	-	-	-	-	-	-	-	-	
Sulfate (SO4)	500		1280-4290	H	100	FW	500		-	-	-	-	-	-	-	-	-	-	-	-	
Cyanides																					
Cyanide, Total	0.2		0.05		0.005	FW			-	-	-	-		-	-	-	-	-	-	-	
Cyanide, Free													140								
Total Metals																					
Total Sodium (Na)									2600	2700	11.2	7.37	70.7	56.9	120	123	208	480	248	250	
Dissolved Metals																					
Aluminum	9.5				0.005 - 0.1	pH	0.1/0.2	AO/Tr	0.0082	0.0077	0.0063	< 0.0030		0.0171	0.0068	0.126	0.0349	0.125	0.003	0.0467	0.0444
Antimony	0.006		0.09		2	FW	0.006		< 0.0010	< 0.0010	0.00117	0.00132	0.00096	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	0.01		0.05		0.005	FW	0.01		0.00024	0.0003	0.00089	0.00087	0.00399	0.00234	0.00205	0.00179	0.00069	0.00033	0.0003	0.00033	
Barium	1		10		2.9	FW	1		16.8	18.7	0.146	0.0737	2.12	3.01	2.98	4.81	1.38	0.648	3.46	3.36	
Beryllium	0.008		0.0015		0.0053	FW			< 0.00020	< 0.00020	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	
Bismuth									< 0.0020	< 0.0020	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
Boron	5		12				5		< 0.1	< 0.1	0.216	0.178	0.057	< 0.05	< 0.05	< 0.05	< 0.05	0.057	< 0.05	< 0.05	
Cadmium</																					

All parameter units in milligrams per litre (mg/L), unless otherwise noted.

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S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011

FW = Freshwater life; Cl = Chloride dependant; tot = Total; P = protocol 10;

* Applied the Canadian Council of Ministers of the Environment (CCME) W

December 2007.

St 8 - Refer to C:

[illegible]

TABLE B7 Results of Groundwater Analyses - Hydrocarbons and Glycols
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW10-01S 24412-05 25-Sep-10 N	MW10-01S 22795-01 26-Sep-11 N	MW10-01S 23259-03 7-Jun-12 N	MW10-01S 283695-01 24-Jul-13 N	MW10-01S 17813-02 18-Sep-14 N	MW10-01S 01123-07 21-Oct-15 N	MW10-01D 24412-06 25-Sep-10 N	MW10-02 MW10-02 2-Sep-16 N	MW16-01 MW16-01 8-Sep-16 N	MW16-01 MW16-01 7-Nov-16 N	MW16-06 MW16-06 8-Sep-16 N
Hydrocarbons																	
EPH10-19	5	5					<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	< 0.20	< 0.20	< 0.20	< 0.20
EPH19-32							<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	< 0.20	< 0.20	< 0.20	< 0.20
LEPH		0.5					<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	< 0.20	< 0.20	< 0.20	< 0.20
HEPH							<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	< 0.20	< 0.20	< 0.20	< 0.20
Volatile Hydrocarbons (VH6-10)	15	15					<0.10	-	-	<0.10	<0.10	<0.30	<0.10	< 0.3	< 0.3	< 0.3	< 0.3
VPH (C6-C10)		1.5					<0.10	-	-	<0.10	<0.10	<0.30	<0.10	< 0.3	< 0.3	< 0.3	< 0.3
Polycyclic Aromatic Hydrocarbons																	
Acenaphthene	0.25	0.06	0.0058	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Acenaphthylene			0.046	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Acridine		0.0005	0.00005	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Anthracene	1	0.001	0.000012	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	<0.000050	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Benz(a)anthracene	0.00007	0.001	0.000018	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	<0.000050	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Benzo(a)pyrene	0.00001	0.0001	0.000015	FW	0.00001		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.0000090	<0.000010	< 0.0000090	< 0.0000090	< 0.0000090	< 0.0000090
Benzo(b)fluoranthene			0.00048	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	-	-	< 0.000050	-
Benzo(b,j) fluoranthene	0.00007		0.00048	FW			-	-	-	-	-	-	-	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Benzo(g,h,i)perylene			0.00017	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Benzo(k)fluoranthene			0.00048	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Chrysene	0.007	0.001	0.0014	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Dibenz(a,h)anthracene	0.000007		0.00026	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Fluoranthene	0.15	0.002	0.00004	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000020	<0.000050	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Fluorene	0.15	0.12	0.003	FW			<0.000050	<0.000010	0.000028	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Indeno(1,2,3-c,d)pyrene			0.00021	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Naphthalene	0.08	0.01	0.0011	FW			<0.000080	<0.000030	<0.000080	0.000078	<0.000050	<0.00010	0.000116	< 0.00010	< 0.00010	< 0.00010	0.00020
Phenanthrene		0.003	0.0004	FW			<0.000050	<0.000020	<0.000020	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	0.000066
Pyrene	0.1	0.0002	0.000025	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000020	<0.000050	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Quinoline	0.00005	0.034	0.0034	FW			<0.000050	<0.000030	0.000056	<0.000080	<0.000050	<0.00024	<0.000050	< 0.00024	< 0.00024	< 0.00024	< 0.00024
2-methylnaphthalene	0.015						-	-	-	-	-	-	-	< 0.00010	< 0.00010	< 0.00010	0.00027
PAH, Low Molecular Weight							-	-	-	-	-	-	-	< 0.00024	< 0.00024	< 0.00024	0.00053
PAH, High Molecular Weight							-	-	-	-	-	-	-	< 0.000050	< 0.000050	< 0.000050	< 0.000050
PAH, Total							-	-	-	-	-	-	-	< 0.00024	< 0.00024	< 0.00024	0.00053
Glycols																	
Ethylene Glycol	8	1920	190	FW			-	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol							-	-	-	-	-	-	-	-	-	-	-
Triethylene Glycol	8						-	-	-	-	-	-	-	-	-	-	-
Tetraethylene Glycol							-	-	-	-	-	-	-	-	-	-	-
Propylene Glycol	80	5000	500	FW			-	-	-	-	-	-	-	-	-	-	-

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014).
Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

TABLE B7 Results of Groundwater Analyses - Hydrocarbons and Glycols
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	Water Well Steamboat 24-Nov-05 FDA	Water Well Water Dup 24-Nov-05 FD	MW09-01 09-020146-01 11-Oct-09 FDA	MW09-01 09-020146-07 11-Oct-09 FD	MW09-01 24412-07 25-Sep-10 N	MW09-01 22795-03 26-Sep-11 FDA	MW09-01 22795-04 26-Sep-11 FD	MW09-01 23259-02 7-Jun-12 N	MW09-01 283695-06 24-Jul-13 N	MW09-01 17813-01 18-Sep-14 N	MW09-01 00123-06 21-Oct-15 N	MW09-01A MW09-01A 3-Sep-16 FDA	MW09-01B MW09-01B 3-Sep-16 FD	MW09-02 09-020146-02 11-Oct-09 N	
Hydrocarbons																					
EPH10-19	5	5					<0.08	<0.08	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	< 0.20	< 0.20	<0.25
EPH19-32							<0.08	<0.08	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	< 0.20	< 0.20	0.64
LEPH		0.5					<0.08	<0.08	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	< 0.20	< 0.20	<0.25
HEPH							<0.08	<0.08	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	< 0.20	< 0.20	0.64
Volatile Hydrocarbons (VH6-10)	15	15					<0.1	<0.1	<0.10	<0.10	<0.10	-	-	-	<0.10	<0.10	<0.30	< 0.3	< 0.3	< 0.3	<0.10
VPH (C6-C10)		1.5					<0.1	<0.1	<0.10	<0.10	<0.10	-	-	-	<0.10	<0.10	<0.30	< 0.3	< 0.3	< 0.3	<0.10
Polycyclic Aromatic Hydrocarbons																					
Acenaphthene	0.25	0.06	0.0058	FW			<0.00001	<0.00001	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000010
Acenaphthylene			0.046	FW			<0.00001	<0.00001	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000010
Acridine		0.0005	0.00005	FW			<0.00005	<0.00005	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000010
Anthracene	1	0.001	0.000012	FW			<0.00001	<0.00001	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	< 0.000010	< 0.000010	<0.000010
Benz(a)anthracene	0.00007	0.001	0.000018	FW			<0.00001	<0.00001	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	< 0.000010	< 0.000010	<0.000020
Benzo(a)pyrene	0.00001	0.0001	0.000015	FW	0.00001		<0.00001	<0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000090	< 0.000090	< 0.000090	<0.000020
Benzo(b)fluoranthene			0.00048	FW			<0.00001	<0.00001	<0.000010	<0.000010	<0.000050	0.000022	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	-	-	0.000037
Benzo(b,j) fluoranthene	0.00007		0.00048	FW			-	-	-	-	-	-	-	-	-	-	-	-	< 0.000050	< 0.000050	-
Benzo(g,h,i)perylene			0.00017	FW			<0.00002	<0.00002	<0.000010	<0.000010	<0.000050	0.000011	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000040
Benzo(k)fluoranthene			0.00048	FW			<0.00001	<0.00001	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000010
Chrysene	0.007	0.001	0.0014	FW			<0.00001	<0.00001	<0.000020	<0.000030	<0.000050	0.000012	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000050
Dibenz(a,h)anthracene	0.000007		0.00026	FW			<0.00002	<0.00002	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000010
Fluoranthene	0.15	0.002	0.00004	FW			<0.00001	<0.00001	<0.000010	<0.000010	<0.000050	0.000038	0.000013	<0.000010	<0.000050	<0.000050	<0.000020	< 0.000020	< 0.000020	< 0.000020	<0.000040
Fluorene	0.15	0.12	0.003	FW			<0.00001	<0.00001	<0.000010	<0.000010	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000010
Indeno(1,2,3-c,d)pyrene			0.00021	FW			<0.00002	<0.00002	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	< 0.000050	< 0.000050	<0.000020
Naphthalene	0.08	0.01	0.0011	FW			0.00001	0.00001	<0.000020	<0.000020	<0.000050	<0.000020	<0.000020	<0.000020	<0.000050	<0.000050	<0.000050	<0.00010	< 0.00010	< 0.00010	<0.000050
Phenanthrene		0.003	0.0004	FW			<0.00001	<0.00001	<0.000020	<0.000020	<0.000050	0.000024	<0.000020	<0.000020	<0.000020	<0.000050	<0.000050	< 0.000050	< 0.000050	< 0.000050	0.000210
Pyrene	0.1	0.0002	0.000025	FW			<0.00001	<0.00001	<0.000010	<0.000010	<0.000050	0.000028	0.000011	<0.000010	<0.000050	<0.000050	<0.000020	< 0.000020	< 0.000020	< 0.000020	<0.000060
Quinoline	0.00005	0.034	0.0034	FW			<0.00005	<0.00005	<0.000010	<0.000010	<0.000050	<0.000010	0.000022	<0.000010	<0.000050	<0.000050	<0.00024	< 0.00024	< 0.00024	< 0.00024	<0.000010
2-methylnaphthalene	0.015						-	-	-	-	-	-	-	-	-	-	-	< 0.00010	< 0.00010	< 0.00010	-
PAH, Low Molecular Weight							-	-	-	-	-	-	-	-	-	-	-	< 0.00024	< 0.00024	< 0.00024	-
PAH, High Molecular Weight							-	-	-	-	-	-	-	-	-	-	-	< 0.000050	< 0.000050	< 0.000050	-
PAH, Total							-	-	-	-	-	-	-	-	-	-	-	< 0.00024	< 0.00024	< 0.00024	-
Glycols																					
Ethylene Glycol	8	1920	190	FW			<0.002	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol							<0.003	<0.003	-	-	-	-	-	-	-	-	-	-	-	-	-
Triethylene Glycol	8						<0.0061	<0.0061	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraethylene Glycol							<0.01	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-
Propylene Glycol	80	5000	500	FW			<0.01	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014).
Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
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AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
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TABLE B7 Results of Groundwater Analyses - Hydrocarbons and Glycols
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW09-02 23259-09 8-Jun-12 N	MW09-03 09-020146-03 11-Oct-09 N	MW09-04 09-020146-04 11-Oct-09 N	MW09-04 24412-01 24-Sep-10 N	MW09-04 22795-05 29-Sep-11 N	MW09-04 23259-08 7-Jun-12 N	MW09-04 283695-03 24-Jul-13 FDA	MW09-04 283695-04 24-Jul-13 FD	MW09-04 17811-02 17-Sep-14 N	MW09-04 01123-02 20-Oct-15 FDA	MW09-04 01123-03 20-Oct-15 FD	MW09-04 MW09-04 2-Sep-16 N	MW09-05 09-020146-05 11-Oct-09 N	MW09-05 24412-03 24-Sep-10 FDA
Hydrocarbons																				
EPH10-19	5	5					<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.20	< 0.20	<0.25	<0.25
EPH19-32							<0.25	0.31	0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.20	< 0.20	<0.25	<0.25
LEPH		0.5					<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.20	< 0.20	<0.25	<0.25
HEPH							<0.25	0.31	0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.20	< 0.20	<0.25	<0.25
Volatile Hydrocarbons (VH6-10)	15	15					-	<0.10	<0.10	<0.10	-	-	<0.10	<0.10	<0.10	<0.30	<0.30	< 0.3	<0.10	<0.10
VPH (C6-C10)		1.5					-	<0.10	<0.10	<0.10	-	-	<0.10	<0.10	<0.10	<0.30	<0.30	< 0.3	<0.10	<0.10
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	0.25	0.06	0.0058	FW			<0.000010	<0.000020	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000010	<0.000050
Acenaphthylene			0.046	FW			<0.000010	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000010	<0.000050
Acridine		0.0005	0.00005	FW			<0.000010	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000010	<0.000050
Anthracene	1	0.001	0.000012	FW			<0.000010	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000010	<0.000010	<0.000050
Benz(a)anthracene	0.00007	0.001	0.000018	FW			<0.000010	<0.000030	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000010	<0.000010	<0.000050
Benzo(a)pyrene	0.00001	0.0001	0.000015	FW	0.00001		<0.000010	<0.000030	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.0000090	<0.0000090	< 0.0000090	<0.000010	<0.000010
Benzo(b)fluoranthene			0.00048	FW			<0.000010	<0.000060	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	-	<0.000020	<0.000050
Benzo(b,j) fluoranthene	0.00007		0.00048	FW			-	-	-	-	-	-	-	-	-	-	-	< 0.000050	-	-
Benzo(g,h,i)perylene			0.00017	FW			<0.000010	0.000040	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000010	<0.000050
Benzo(k)fluoranthene			0.00048	FW			<0.000010	<0.000010	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000010	<0.000050
Chrysene	0.007	0.001	0.0014	FW			<0.000010	<0.000060	<0.000020	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000030	<0.000050
Dibenz(a,h)anthracene	0.000007		0.00026	FW			<0.000010	<0.000020	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000010	<0.000050
Fluoranthene	0.15	0.002	0.00004	FW			<0.000010	0.000038	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000020	<0.000020	< 0.000020	<0.000010	<0.000050
Fluorene	0.15	0.12	0.003	FW			<0.000010	0.000012	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000010	<0.000050
Indeno(1,2,3-c,d)pyrene			0.00021	FW			<0.000010	<0.000030	<0.000010	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000010	<0.000050
Naphthalene	0.08	0.01	0.0011	FW			<0.000050	0.000063	<0.000020	<0.000050	<0.000020	<0.000050	<0.000050	<0.000050	<0.000050	<0.00010	<0.00010	< 0.00010	<0.000040	<0.000050
Phenanthrene		0.003	0.0004	FW			0.000040	0.000264	<0.000030	<0.000050	0.0000280	<0.000020	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050	<0.000020	<0.000050
Pyrene	0.1	0.0002	0.000025	FW			0.000011	<0.000080	<0.000030	<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000020	<0.000020	< 0.000020	<0.000030	<0.000050
Quinoline	0.00005	0.034	0.0034	FW			<0.000010	<0.000010	<0.000030	<0.000050	<0.000070	<0.000040	<0.000080	<0.000080	<0.000070	<0.00024	<0.00024	< 0.00024	<0.000010	<0.000050
2-methylnaphthalene	0.015						-	-	-	-	-	-	-	-	-	-	-	< 0.00010	-	-
PAH, Low Molecular Weight							-	-	-	-	-	-	-	-	-	-	-	< 0.00024	-	-
PAH, High Molecular Weight							-	-	-	-	-	-	-	-	-	-	-	< 0.000050	-	-
PAH, Total							-	-	-	-	-	-	-	-	-	-	-	< 0.00024	-	-
Glycols																				
Ethylene Glycol	8	1920	190	FW			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol							-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triethylene Glycol	8						-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraethylene Glycol							-	-	-	-	-	-	-	-	-	-	-	-	-	-
Propylene Glycol	80	5000	500	FW			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
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Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
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Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW09-05 24412-04 24-Sep-10 FD	MW09-05 22795-02 26-Sep-11 N	MW09-05 23259-01 7-Jun-12 N	MW09-05 283696-01 23-Jul-13 N	MW09-05 17811-03 17-Sep-14 N	MW09-05 01123-05 20-Oct-15 N	MW09-06 09-020146-06 11-Oct-09 N	MW09-06 24412-02 24-Sep-10 N	MW09-06 23259-05 7-Jun-12 N	MW09-06 283695-02 24-Jul-13 N	MW09-06 17814-01 19-Sep-14 FD	MW09-06 17814-02 19-Sep-14 FDA	MW09-06 01123-04 20-Oct-15 N	MW09-06 MW09-06 2-Sep-16 N
Hydrocarbons																				
EPH10-19	5	5					<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	< 0.20
EPH19-32							<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	0.28	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	< 0.20
LEPH		0.5					<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	< 0.20
HEPH							<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	0.28	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	< 0.20
Volatile Hydrocarbons (VH6-10)	15	15					<0.10	-	-	<0.10	<0.10	<0.30	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.30	< 0.3
VPH (C6-C10)		1.5					<0.10	-	-	<0.10	<0.10	<0.30	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.30	< 0.3
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	0.25	0.06	0.0058	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Acenaphthylene			0.046	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Acridine		0.0005	0.00005	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Anthracene	1	0.001	0.000012	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	< 0.000010
Benz(a)anthracene	0.00007	0.001	0.000018	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	< 0.000010
Benzo(a)pyrene	0.00001	0.0001	0.000015	FW	0.00001		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.0000090	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.0000090	< 0.0000090
Benzo(b)fluoranthene			0.00048	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	-
Benzo(b,j) fluoranthene	0.00007		0.00048	FW			-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.000050
Benzo(g,h,i)perylene			0.00017	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Benzo(k)fluoranthene			0.00048	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Chrysene	0.007	0.001	0.0014	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	0.000015	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Dibenz(a,h)anthracene	0.000007		0.00026	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Fluoranthene	0.15	0.002	0.00004	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000020	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000020	< 0.000020
Fluorene	0.15	0.12	0.003	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000020	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Indeno(1,2,3-c,d)pyrene			0.00021	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Naphthalene	0.08	0.01	0.0011	FW			<0.000050	<0.000020	<0.000050	<0.000050	<0.000050	<0.00010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00010	< 0.00010
Phenanthrene		0.003	0.0004	FW			<0.000050	<0.000020	<0.000020	<0.000050	<0.000050	<0.000050	<0.000040	<0.000050	0.000024	<0.000050	<0.000050	<0.000050	<0.000050	< 0.000050
Pyrene	0.1	0.0002	0.000025	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.000020	<0.000020	<0.000050	0.000011	<0.000050	<0.000050	<0.000050	<0.000020	< 0.000020
Quinoline	0.00005	0.034	0.0034	FW			<0.000050	<0.000010	<0.000010	<0.000050	<0.000050	<0.00024	<0.000010	<0.000050	<0.000010	<0.000050	<0.000050	<0.000050	<0.00024	< 0.00024
2-methylnaphthalene	0.015						-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00010
PAH, Low Molecular Weight							-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00024
PAH, High Molecular Weight							-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.000050
PAH, Total							-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.00024
Glycols																				
Ethylene Glycol	8	1920	190	FW			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol							-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triethylene Glycol	8						-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraethylene Glycol							-	-	-	-	-	-	-	-	-	-	-	-	-	-
Propylene Glycol	80	5000	500	FW			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014).
Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

TABLE B7 Results of Groundwater Analyses - Hydrocarbons and Glycols
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW10-02 24412-08 25-Sep-10 N	MW10-02 22795-06 27-Sep-11 N	MW10-02 23259-06 7-Jun-12 FDA	MW10-02 23259-07 7-Jun-12 FD	MW10-02 283695-05 24-Jul-13 N	MW10-02 17811-01 17-Sep-14 N	MW10-02 01123-01 20-Oct-15 N	MW10-03 24412-09 25-Sep-10 N	MW10-03 22795-07 27-Sep-11 N	MW10-03 23259-04 7-Jun-12 N	MW16-02 MW16-02 8-Sep-16 N	MW16-02A MW16-02A 6-Nov-16 N	MW16-02B MW16-02B 6-Nov-16 FD	MW16-03 MW16-03 8-Sep-16 N
Hydrocarbons																				
EPH10-19	5	5					<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	<0.25	<0.25	< 0.20	< 0.20	< 0.20	0.36
EPH19-32							<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	<0.25	<0.25	0.24	< 0.20	< 0.20	0.69
LEPH		0.5					<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	<0.25	<0.25	< 0.20	< 0.20	< 0.20	0.36
HEPH							<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.20	<0.25	<0.25	<0.25	0.24	< 0.20	< 0.20	0.69
Volatile Hydrocarbons (VH6-10)	15	15					<0.10	-	-	-	<0.10	<0.10	<0.30	<0.10	-	-	< 0.3	< 0.3	< 0.3	< 0.3
VPH (C6-C10)		1.5					<0.10	-	-	-	<0.10	<0.10	<0.30	<0.10	-	-	< 0.3	< 0.3	< 0.3	< 0.3
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	0.25	0.06	0.0058	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	0.000079
Acenaphthylene			0.046	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Acridine		0.0005	0.00005	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Anthracene	1	0.001	0.000012	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Benz(a)anthracene	0.00007	0.001	0.000018	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000010	<0.000050	<0.000010	<0.000010	< 0.000010	< 0.000010	< 0.000010	0.000023
Benzo(a)pyrene	0.00001	0.0001	0.000015	FW	0.00001		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.0000090	0.00002	<0.000010	<0.000010	< 0.0000090	< 0.0000090	< 0.0000090	0.000024
Benzo(b)fluoranthene			0.00048	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	-	< 0.000050	< 0.000050	-
Benzo(b,j) fluoranthene	0.00007		0.00048	FW			-	-	-	-	-	-	-	-	-	-	< 0.000050	< 0.000050	< 0.000050	0.000052
Benzo(g,h,i)perylene			0.00017	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	0.000073
Benzo(k)fluoranthene			0.00048	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Chrysene	0.007	0.001	0.0014	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	0.00014
Dibenz(a,h)anthracene	0.000007		0.00026	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Fluoranthene	0.15	0.002	0.00004	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000020	<0.000050	<0.000010	<0.000010	0.000020	< 0.000020	< 0.000020	0.000063
Fluorene	0.15	0.12	0.003	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	0.00014
Indeno(1,2,3-c,d)pyrene			0.00021	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000050	<0.000050	<0.000010	<0.000010	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Naphthalene	0.08	0.01	0.0011	FW			<0.000050	<0.000020	<0.000050	<0.000050	<0.000050	<0.000050	<0.00010	0.000067	0.000037	<0.000050	0.00020	0.00012	0.00010	0.00032
Phenanthrene		0.003	0.0004	FW			<0.000050	<0.000020	<0.000020	<0.000020	<0.000050	<0.000050	<0.000050	<0.000050	0.000023	<0.000020	0.00011	0.00011	0.00010	0.00026
Pyrene	0.1	0.0002	0.000025	FW			<0.000050	<0.000010	<0.000010	<0.000010	<0.000050	<0.000050	<0.000020	<0.000050	<0.000010	<0.000010	0.000026	0.000029	0.000026	0.000067
Quinoline	0.00005	0.034	0.0034	FW			<0.000050	<0.000050	<0.000030	<0.000030	<0.000050	<0.000050	<0.000024	<0.000050	<0.000010	<0.000010	< 0.00024	< 0.00024	< 0.00024	< 0.00024
2-methylnaphthalene	0.015						-	-	-	-	-	-	-	-	-	-	0.00024	0.00019	0.00017	0.00075
PAH, Low Molecular Weight							-	-	-	-	-	-	-	-	-	-	0.00055	0.00041	0.00037	0.0015
PAH, High Molecular Weight							-	-	-	-	-	-	-	-	-	-	< 0.000050	< 0.000050	< 0.000050	0.00044
PAH, Total							-	-	-	-	-	-	-	-	-	-	0.00059	0.00044	0.00040	0.0020
Glycols																				
Ethylene Glycol	8	1920	190	FW			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol							-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triethylene Glycol	8						-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraethylene Glycol							-	-	-	-	-	-	-	-	-	-	-	-	-	-
Propylene Glycol	80	5000	500	FW			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014).
Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

TABLE B7 Results of Groundwater Analyses - Hydrocarbons and Glycols
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW16-03 MW16-03 7-Nov-16 N	MW16-04 MW16-04 8-Sep-16 N	MW16-04 MW16-04 5-Nov-16 N	MW16-05 MW16-05 8-Sep-16 N	MW16-05 MW16-05 7-Nov-16 N	MW16-07 MW16-07 8-Sep-16 N	MW16-07 MW16-07 5-Nov-16 N	MW16-08A MW16-08A 8-Sep-16 FDA	MW16-08B MW16-08B 8-Sep-16 FD
Hydrocarbons															
EPH10-19	5	5					< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
EPH19-32							< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
LEPH		0.5					< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
HEPH							< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Volatile Hydrocarbons (VH6-10)	15	15					< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
VPH (C6-C10)		1.5					< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Polycyclic Aromatic Hydrocarbons															
Acenaphthene	0.25	0.06	0.0058	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Acenaphthylene			0.046	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Acridine		0.0005	0.00005	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Anthracene	1	0.001	0.000012	FW			< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Benz(a)anthracene	0.00007	0.001	0.000018	FW			< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Benzo(a)pyrene	0.00001	0.0001	0.000015	FW	0.00001		< 0.0000090	< 0.0000090	< 0.0000090	< 0.0000090	< 0.0000090	< 0.0000090	< 0.0000090	< 0.0000090	< 0.0000090
Benzo(b)fluoranthene			0.00048	FW			< 0.000050	-	< 0.000050	-	< 0.000050	-	< 0.000050	-	-
Benzo(b,j) fluoranthene	0.00007		0.00048	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Benzo(g,h,i)perylene			0.00017	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Benzo(k)fluoranthene			0.00048	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Chrysene	0.007	0.001	0.0014	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Dibenz(a,h)anthracene	0.000007		0.00026	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Fluoranthene	0.15	0.002	0.00004	FW			< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Fluorene	0.15	0.12	0.003	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Indeno(1,2,3-c,d)pyrene			0.00021	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Naphthalene	0.08	0.01	0.0011	FW			< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Phenanthrene		0.003	0.0004	FW			< 0.000050	< 0.000050	< 0.000050	< 0.000050	0.000053	< 0.000050	0.00010	< 0.000050	< 0.000050
Pyrene	0.1	0.0002	0.000025	FW			< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	0.000023	< 0.000020	< 0.000020	< 0.000020
Quinoline	0.00005	0.034	0.0034	FW			< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024
2-methylnaphthalene	0.015						< 0.00010	0.00011	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00013	0.00013
PAH, Low Molecular Weight							< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024
PAH, High Molecular Weight							< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
PAH, Total							< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024	< 0.00024
Glycols															
Ethylene Glycol	8	1920	190	FW			-	-	-	-	-	-	-	-	-
Diethylene Glycol							-	-	-	-	-	-	-	-	-
Triethylene Glycol	8						-	-	-	-	-	-	-	-	-
Tetraethylene Glycol							-	-	-	-	-	-	-	-	-
Propylene Glycol	80	5000	500	FW			-	-	-	-	-	-	-	-	-

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014).
Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

TABLE B8 Results of Groundwater Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW10-01S 24412-05 25-Sep-10 N	MW10-01S 283695-01 24-Jul-13 N	MW10-01S 17813-02 18-Sep-14 N	MW10-01S 01123-07 21-Oct-15 N	MW10-01D 24412-06 25-Sep-10 N	MW16-01 MW16-01 8-Sep-16 N	MW16-01 MW16-01 7-Nov-16 N	MW16-06 MW16-06 8-Sep-16 N	Water Well Steamboat 24-Nov-05 FDA	Water Well Water Dup 24-Nov-05 FD	MW09-01 09-020146-01 11-Oct-09 FDA	MW09-01 09-020146-07 11-Oct-09 FD	MW09-01 24412-07 25-Sep-10 N
Volatile Organic Compounds																			
Benzene	1-20	0.4	0.14	I	0.005		<0.00050	<0.00050	<0.00050	<0.00040	<0.00050	< 0.00040	< 0.00040	< 0.00040	<0.0005	<0.0005	<0.00050	<0.00050	<0.00050
Bromodichloromethane	0.1		8.5	FW			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	<0.0010	<0.0010	<0.0010
Bromoform	0.1		0.38	I			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	<0.0010	<0.0010	<0.0010
Bromomethane	0.0055		0.0056	I			-	-	-	<0.0010	-	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	-	-	-
Carbon Tetrachloride	0.002	0.13	0.00056	I	0.002		<0.0010	<0.00050	<0.00050	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.003	<0.003	<0.0010	<0.0010	<0.0010
Chlorobenzene	0.08	0.013	0.0013	FW	0.03	AO	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
Dibromochloromethane	0.1		1.1	I			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	<0.0010	<0.0010	<0.0010
Chloroethane							<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	<0.0010	<0.0010	<0.0010
Chloroform	0.1	0.02	0.0018	FW			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	<0.0010	<0.0010	<0.0010
Chloromethane							<0.0050	<0.0050	<0.0050	<0.0010	<0.0050	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	<0.0050	<0.0050	<0.0050
1,2-Dichlorobenzene	0.2	0.007	0.0007	FW	0.003	AO	<0.0010	<0.00070	<0.00070	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
1,3-Dichlorobenzene		1.5	0.15	FW			<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	0.005	0.26	0.026	FW	0.001	AO	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	0.03		0.32	I			<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	0.005	1	0.01	I	0.005		<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
1,1-Dichloroethylene	0.014	0.72	0.039	I	0.014		<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
cis-1,2-Dichloroethylene	0.008		0.0016	FW			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	<0.0010	<0.0010	<0.0010
trans-1,2-Dichloroethylene	0.08		0.0016	FW			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	<0.001	<0.001	<0.0010	<0.0010	<0.0010
Dichloromethane	0.05	0.98	0.098	FW	0.05		<0.0050	<0.0050	<0.0050	<0.0020	<0.0050	< 0.0020	< 0.0020	< 0.0020	<0.002	<0.002	<0.0050	<0.0050	<0.0050
1,2-Dichloropropane	0.0045		0.016	I			<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	0.0015		0.0052	I, *			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	<0.0001	<0.0001	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	0.0015		0.0052	I, *			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010	-	-	<0.0010	<0.0010	<0.0010
Ethylbenzene	0.14	2	16	I	0.0016	AO	<0.00050	<0.00050	<0.00050	<0.00040	<0.00050	< 0.00040	< 0.00040	< 0.00040	<0.0005	<0.0005	<0.00050	<0.00050	<0.00050
Methyl t-butyl ether (MTBE)	0.095	34	0.34	I	0.015	AO	<0.0010	<0.00050	<0.00050	<0.0040	<0.0010	< 0.0040	< 0.0040	< 0.0040	<0.004	<0.004	<0.0010	<0.0010	<0.0010
Styrene	0.8		0.072	FW			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.00050	<0.00050	<0.00050
1,1,1,2-Tetrachloroethane	0.006		0.0034	I			<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	0.0008		0.0032	I			<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
Tetrachloroethylene	0.03	1.1	0.11	FW	0.03		<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
Toluene	0.06	0.005	0.083	FW	0.024	AO	<0.0010	<0.00050	<0.00050	<0.00040	<0.0010	0.0021	< 0.00040	< 0.00040	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	8		0.64	I			<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	-	-	<0.0010	<0.0010	<0.0010
1,1,2-Trichloroethane	0.003		0.0047	I			<0.0015	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
Trichloroethylene	0.005	0.2	0.02	I	0.005		<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	1						<0.0010	<0.0010	<0.0010	<0.0040	<0.0010	< 0.0040	< 0.0040	< 0.0040	<0.004	<0.004	<0.0010	<0.0010	<0.0010
Vinyl Chloride	0.002		0.0011	I	0.002		<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	< 0.00050	< 0.00050	< 0.00050	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010
ortho-Xylene							<0.00050	<0.00050	<0.00050	<0.00040	<0.00050	< 0.00040	< 0.00040	< 0.00040	-	-	<0.00050	<0.00050	<0.00050
meta- & para-Xylene							<0.00050	<0.00050	<0.00050	<0.00040	<0.00050	< 0.00040	< 0.00040	< 0.00040	-	-	<0.00050	<0.00050	<0.00050
Xylenes	0.09	0.3	3.9	I	0.02	AO	<0.00071	<0.00075	<0.00075	<0.00040	<0.00071	< 0.00040	< 0.00040	< 0.00040	<0.001	<0.001	<0.0010	<0.0010	<0.00071
1,2-dibromoethane (Ethylene Dibromide) (EDB)	0.00008						-	-	-	-	-	-	< 0.00020	-	-	-	-	-	-
1,2,3-Trichlorobenzene	0.003	0.08					-	-	-	-	-	-	< 0.0020	-	-	-	-	-	-
1,2,4-Trichlorobenzene	0.0055	0.24					-	-	-	-	-	-	< 0.0020	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	0.8						-	-	-	-	-	-	< 0.0020	-	-	-	-	-	-
Hexachlorobutadiene	0.002	0.015					-	-	-	-	-	-	< 0.00050	-	-	-	-	-	-
Freon 113	100						-	-	-	-	-	-	< 0.0020	-	-	-	-	-	-

Notes:
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b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014). Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

TABLE B8 Results of Groundwater Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW09-01 283695-06 24-Jul-13 N	MW09-01 17813-01 18-Sep-14 N	MW09-01 00123-06 21-Oct-15 N	MW09-01A MW09-01A 3-Sep-16 FDA	MW09-01B MW09-01B 3-Sep-16 FD	MW09-02 09-020146-02 11-Oct-09 N	MW09-03 09-020146-03 11-Oct-09 N	MW09-04 09-020146-04 11-Oct-09 N	MW09-04 24412-01 24-Sep-10 N	MW09-04 283695-03 24-Jul-13 FDA	MW09-04 283695-04 24-Jul-13 FD	MW09-04 17811-02 17-Sep-14 N
Volatile Organic Compounds																		
Benzene	1-20	0.4	0.14	I	0.005		<0.00050	<0.00050	<0.00040	< 0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bromodichloromethane	0.1		8.5	FW			<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromoform	0.1		0.38	I			<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	0.0055		0.0056	I			-	-	<0.0010	< 0.0010	< 0.0010	-	-	-	-	-	-	-
Carbon Tetrachloride	0.002	0.13	0.00056	I	0.002		<0.00050	<0.00050	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.00050	<0.00050
Chlorobenzene	0.08	0.013	0.0013	FW	0.03	AO	<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromochloromethane	0.1		1.1	I			<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane							<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroform	0.1	0.02	0.0018	FW			<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane							<0.0050	<0.0050	<0.0010	< 0.0010	< 0.0010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichlorobenzene	0.2	0.007	0.0007	FW	0.003	AO	<0.00070	<0.00070	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.00070	<0.00070	<0.00070
1,3-Dichlorobenzene		1.5	0.15	FW			<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	0.005	0.26	0.026	FW	0.001	AO	<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	0.03		0.32	I			<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	0.005	1	0.01	I	0.005		<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethylene	0.014	0.72	0.039	I	0.014		<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
cis-1,2-Dichloroethylene	0.008		0.0016	FW			<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,2-Dichloroethylene	0.08		0.0016	FW			<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichloromethane	0.05	0.98	0.098	FW	0.05		<0.0050	<0.0050	<0.0020	< 0.0020	< 0.0020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dichloropropane	0.0045		0.016	I			<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	0.0015		0.0052	I, *			<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	0.0015		0.0052	I, *			<0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	0.14	2	16	I	0.0016	AO	<0.00050	<0.00050	<0.00040	< 0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Methyl t-butyl ether (MTBE)	0.095	34	0.34	I	0.015	AO	<0.00050	<0.00050	<0.0040	< 0.0040	< 0.0040	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.00050	<0.00050
Styrene	0.8		0.072	FW			<0.00050	<0.00050	<0.00050	< 0.00050	< 0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
1,1,1,2-Tetrachloroethane	0.006		0.0034	I			<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1,2,2-Tetrachloroethane	0.0008		0.0032	I			<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethylene	0.03	1.1	0.11	FW	0.03		<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	0.06	0.005	0.083	FW	0.024	AO	<0.00050	<0.00050	<0.00040	< 0.00040	< 0.00040	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.00050	<0.00050
1,1,1,1-Trichloroethane	8		0.64	I			<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1,2-Trichloroethane	0.003		0.0047	I			<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichloroethylene	0.005	0.2	0.02	I	0.005		<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	1						<0.0010	<0.0010	<0.0040	< 0.0040	< 0.0040	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl Chloride	0.002		0.0011	I	0.002		<0.0010	<0.0010	<0.00050	< 0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
ortho-Xylene							<0.00050	<0.00050	<0.00040	< 0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
meta- & para-Xylene							<0.00050	<0.00050	<0.00040	< 0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Xylenes	0.09	0.3	3.9	I	0.02	AO	<0.00075	<0.00075	<0.00040	< 0.00040	< 0.00040	<0.0010	<0.0010	<0.0010	<0.00071	<0.00075	<0.00075	<0.00075
1,2-dibromoethane (Ethylene Dibromide) (EDB)	0.00008						-	-	-	< 0.00020	< 0.00020	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	0.003	0.08					-	-	-	< 0.0020	< 0.0020	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	0.0055	0.24					-	-	-	< 0.0020	< 0.0020	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	0.8						-	-	-	< 0.0020	< 0.0020	-	-	-	-	-	-	-
Hexachlorobutadiene	0.002	0.015					-	-	-	< 0.00050	< 0.00050	-	-	-	-	-	-	-
Freon 113	100						-	-	-	< 0.0020	< 0.0020	-	-	-	-	-	-	-

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014). Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

TABLE B8 Results of Groundwater Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW09-04 01123-02 20-Oct-15 FDA	MW09-04 01123-03 20-Oct-15 FD	MW09-04 MW09-04 2-Sep-16 N	MW09-05 09-020146-05 11-Oct-09 N	MW09-05 24412-03 24-Sep-10 FDA	MW09-05 24412-04 24-Sep-10 FD	MW09-05 283696-01 23-Jul-13 N	MW09-05 17811-03 17-Sep-14 N	MW09-05 01123-05 20-Oct-15 N	MW09-06 09-020146-06 11-Oct-09 N	MW09-06 24412-02 24-Sep-10 N	MW09-06 283695-02 24-Jul-13 N
Volatile Organic Compounds																		
Benzene	1-20	0.4	0.14	I	0.005		<0.00040	<0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00040	<0.00050	<0.00050	<0.00050
Bromodichloromethane	0.1		8.5	FW			<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromoform	0.1		0.38	I			<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	0.0055		0.0056	I			<0.0010	<0.0010	< 0.0010	-	-	-	-	-	<0.0010	-	-	-
Carbon Tetrachloride	0.002	0.13	0.00056	I	0.002		<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	<0.00050	<0.00050	<0.0010	<0.0010	<0.00050
Chlorobenzene	0.08	0.013	0.0013	FW	0.03	AO	<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
Dibromochloromethane	0.1		1.1	I			<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane							<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroform	0.1	0.02	0.0018	FW			<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane							<0.0010	<0.0010	< 0.0010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.0050	<0.0050	<0.0050
1,2-Dichlorobenzene	0.2	0.007	0.0007	FW	0.003	AO	<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00070	<0.00070	<0.00050	<0.0010	<0.0010	<0.00070
1,3-Dichlorobenzene		1.5	0.15	FW			<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	0.005	0.26	0.026	FW	0.001	AO	<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	0.03		0.32	I			<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	0.005	1	0.01	I	0.005		<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
1,1-Dichloroethylene	0.014	0.72	0.039	I	0.014		<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
cis-1,2-Dichloroethylene	0.008		0.0016	FW			<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,2-Dichloroethylene	0.08		0.0016	FW			<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichloromethane	0.05	0.98	0.098	FW	0.05		<0.0020	<0.0020	< 0.0020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0020	<0.0050	<0.0050	<0.0050
1,2-Dichloropropane	0.0045		0.016	I			<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	0.0015		0.0052	I, *			<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	0.0015		0.0052	I, *			<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	0.14	2	16	I	0.0016	AO	<0.00040	<0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00040	<0.00050	<0.00050	<0.00050
Methyl t-butyl ether (MTBE)	0.095	34	0.34	I	0.015	AO	<0.0040	<0.0040	< 0.0040	<0.0010	<0.0010	<0.0010	<0.00050	<0.00050	<0.0040	<0.0010	<0.0010	<0.00050
Styrene	0.8		0.072	FW			<0.00050	<0.00050	< 0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
1,1,1,2-Tetrachloroethane	0.006		0.0034	I			<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
1,1,1,2,2-Tetrachloroethane	0.0008		0.0032	I			<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
Tetrachloroethylene	0.03	1.1	0.11	FW	0.03		<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
Toluene	0.06	0.005	0.083	FW	0.024	AO	<0.00040	<0.00040	< 0.00040	<0.0010	<0.0010	<0.0010	<0.00050	<0.00050	<0.00040	<0.0010	<0.0010	<0.00050
1,1,1,1-Trichloroethane	8		0.64	I			<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
1,1,1,2-Trichloroethane	0.003		0.0047	I			<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
Trichloroethylene	0.005	0.2	0.02	I	0.005		<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	1						<0.0040	<0.0040	< 0.0040	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0040	<0.0010	<0.0010	<0.0010
Vinyl Chloride	0.002		0.0011	I	0.002		<0.00050	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0010	<0.0010
ortho-Xylene							<0.00040	<0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00040	<0.00050	<0.00050	<0.00050
meta- & para-Xylene							<0.00040	<0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00040	<0.00050	<0.00050	<0.00050
Xylenes	0.09	0.3	3.9	I	0.02	AO	<0.00040	<0.00040	< 0.00040	<0.0010	<0.00071	<0.00071	<0.00075	<0.00075	<0.00040	<0.0010	<0.00071	<0.00075
1,2-dibromoethane (Ethylene Dibromide) (EDB)	0.00008						-	-	< 0.00020	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	0.003	0.08					-	-	< 0.0020	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	0.0055	0.24					-	-	< 0.0020	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	0.8						-	-	< 0.0020	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	0.002	0.015					-	-	< 0.00050	-	-	-	-	-	-	-	-	-
Freon 113	100						-	-	< 0.0020	-	-	-	-	-	-	-	-	-

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014). Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

TABLE B8 Results of Groundwater Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW09-06 17814-01 19-Sep-14 FD	MW09-06 17814-02 19-Sep-14 FDA	MW09-06 01123-04 20-Oct-15 N	MW09-06 MW09-06 2-Sep-16 N	MW10-02 24412-08 25-Sep-10 N	MW10-02 283695-05 24-Jul-13 N	MW10-02 17811-01 17-Sep-14 N	MW10-02 01123-01 20-Oct-15 N	MW10-02 MW10-02 2-Sep-16 N	MW10-03 24412-09 25-Sep-10 N	MW16-02 MW16-02 8-Sep-16 N	MW16-02A MW16-02A 6-Nov-16 N
Volatile Organic Compounds																		
Benzene	1-20	0.4	0.14	I	0.005		<0.00050	<0.00050	<0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00040	< 0.00040	<0.00050	< 0.00040	< 0.00040
Bromodichloromethane	0.1		8.5	FW			<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010
Bromoform	0.1		0.38	I			<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	< 0.0010	< 0.0010
Bromomethane	0.0055		0.0056	I			-	-	<0.0010	< 0.0010	-	-	-	<0.0010	< 0.0010	-	< 0.0010	< 0.0010
Carbon Tetrachloride	0.002	0.13	0.00056	I	0.002		<0.00050	<0.00050	<0.00050	< 0.00050	<0.0010	<0.00050	<0.00050	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
Chlorobenzene	0.08	0.013	0.0013	FW	0.03	AO	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
Dibromochloromethane	0.1		1.1	I			<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	< 0.0010	< 0.0010
Chloroethane							<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	< 0.0010	< 0.0010
Chloroform	0.1	0.02	0.0018	FW			<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	< 0.0010	< 0.0010
Chloromethane							<0.0050	<0.0050	<0.0010	< 0.0010	<0.0050	<0.0050	<0.0050	<0.0010	< 0.0010	<0.0050	< 0.0010	0.0013
1,2-Dichlorobenzene	0.2	0.007	0.0007	FW	0.003	AO	<0.00070	<0.00070	<0.00050	< 0.00050	<0.0010	<0.00070	<0.00070	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
1,3-Dichlorobenzene		1.5	0.15	FW			<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
1,4-Dichlorobenzene	0.005	0.26	0.026	FW	0.001	AO	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
1,1-Dichloroethane	0.03		0.32	I			<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
1,2-Dichloroethane	0.005	1	0.01	I	0.005		<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
1,1-Dichloroethylene	0.014	0.72	0.039	I	0.014		<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
cis-1,2-Dichloroethylene	0.008		0.0016	FW			<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	< 0.0010	< 0.0010
trans-1,2-Dichloroethylene	0.08		0.0016	FW			<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	< 0.0010	< 0.0010
Dichloromethane	0.05	0.98	0.098	FW	0.05		<0.0050	<0.0050	<0.0020	< 0.0020	<0.0050	<0.0050	<0.0050	<0.0020	< 0.0020	<0.0050	< 0.0020	0.0028
1,2-Dichloropropane	0.0045		0.016	I			<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
cis-1,3-Dichloropropene	0.0015		0.0052	I, *			<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	< 0.0010	< 0.0010
trans-1,3-Dichloropropene	0.0015		0.0052	I, *			<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	<0.0010	<0.0010	<0.0010	< 0.0010	<0.0010	< 0.0010	< 0.0010
Ethylbenzene	0.14	2	16	I	0.0016	AO	<0.00050	<0.00050	<0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00040	< 0.00040	<0.00050	< 0.00040	< 0.00040
Methyl t-butyl ether (MTBE)	0.095	34	0.34	I	0.015	AO	<0.00050	<0.00050	<0.0040	< 0.0040	<0.0010	<0.00050	<0.00050	<0.0040	< 0.0040	<0.0010	< 0.0040	< 0.0040
Styrene	0.8		0.072	FW			<0.00050	<0.00050	<0.00050	< 0.00050	<0.00050	<0.00050	<0.00050	<0.00050	< 0.00050	<0.00050	< 0.00050	< 0.00050
1,1,1,2-Tetrachloroethane	0.006		0.0034	I			<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
1,1,1,2,2-Tetrachloroethane	0.0008		0.0032	I			<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
Tetrachloroethylene	0.03	1.1	0.11	FW	0.03		<0.0010	<0.0010	0.00058	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
Toluene	0.06	0.005	0.083	FW	0.024	AO	<0.00050	<0.00050	<0.00040	< 0.00040	<0.0010	<0.00050	<0.00050	<0.00040	< 0.00040	<0.0010	< 0.00040	< 0.00040
1,1,1,1-Trichloroethane	8		0.64	I			<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
1,1,1,2-Trichloroethane	0.003		0.0047	I			<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
Trichloroethylene	0.005	0.2	0.02	I	0.005		<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
Trichlorofluoromethane	1						<0.0010	<0.0010	<0.0040	< 0.0040	<0.0010	<0.0010	<0.0010	<0.0040	< 0.0040	<0.0010	< 0.0040	< 0.0040
Vinyl Chloride	0.002		0.0011	I	0.002		<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	<0.0010	<0.0010	<0.00050	< 0.00050	<0.0010	< 0.00050	< 0.00050
ortho-Xylene							<0.00050	<0.00050	<0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00040	< 0.00040	<0.00050	< 0.00040	< 0.00040
meta- & para-Xylene							<0.00050	<0.00050	<0.00040	< 0.00040	<0.00050	<0.00050	<0.00050	<0.00040	0.0015	<0.00050	< 0.00040	< 0.00040
Xylenes	0.09	0.3	3.9	I	0.02	AO	<0.00075	<0.00075	<0.00040	< 0.00040	<0.00071	<0.00075	<0.00075	<0.00040	0.0015	<0.00071	< 0.00040	< 0.00040
1,2-dibromoethane (Ethylene Dibromide) (EDB)	0.00008						-	-	-	< 0.00020	-	-	-	-	< 0.00020	-	-	< 0.00020
1,2,3-Trichlorobenzene	0.003	0.08					-	-	-	< 0.0020	-	-	-	-	< 0.0020	-	-	< 0.0020
1,2,4-Trichlorobenzene	0.0055	0.24					-	-	-	< 0.0020	-	-	-	-	< 0.0020	-	-	< 0.0020
Dichlorodifluoromethane (Freon 12)	0.8						-	-	-	< 0.0020	-	-	-	-	< 0.0020	-	-	< 0.0020
Hexachlorobutadiene	0.002	0.015					-	-	-	< 0.00050	-	-	-	-	< 0.00050	-	-	< 0.00050
Freon 113	100						-	-	-	< 0.0020	-	-	-	-	< 0.0020	-	-	< 0.0020

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014). Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

TABLE B8 Results of Groundwater Analyses - Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location Sample Control Number Date Sampled QA/QC	Omnibus Standards for Drinking Water	Omnibus Standards for Fresh Water Aquatic Life	Federal Interim Groundwater Quality Guidelines Residential	Notes	Health Canada Guidelines for Drinking Water	Notes	MW16-02B MW16-02B 6-Nov-16 FD	MW16-03 MW16-03 8-Sep-16 N	MW16-03 MW16-03 7-Nov-16 N	MW16-04 MW16-04 8-Sep-16 N	MW16-04 MW16-04 5-Nov-16 N	MW16-05 MW16-05 8-Sep-16 N	MW16-05 MW16-05 7-Nov-16 N	MW16-07 MW16-07 8-Sep-16 N	MW16-07 MW16-07 5-Nov-16 N	MW16-08A MW16-08A 8-Sep-16 FDA	MW16-08B MW16-08B 8-Sep-16 FD
Volatile Organic Compounds																	
Benzene	1-20	0.4	0.14	I	0.005		< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Bromodichloromethane	0.1		8.5	FW			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Bromoform	0.1		0.38	I			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Bromomethane	0.0055		0.0056	I			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Carbon Tetrachloride	0.002	0.13	0.00056	I	0.002		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Chlorobenzene	0.08	0.013	0.0013	FW	0.03	AO	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Dibromochloromethane	0.1		1.1	I			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Chloroethane							< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Chloroform	0.1	0.02	0.0018	FW			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Chloromethane							< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.2	0.007	0.0007	FW	0.003	AO	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,3-Dichlorobenzene		1.5	0.15	FW			< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,4-Dichlorobenzene	0.005	0.26	0.026	FW	0.001	AO	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1-Dichloroethane	0.03		0.32	I			< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,2-Dichloroethane	0.005	1	0.01	I	0.005		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1-Dichloroethylene	0.014	0.72	0.039	I	0.014		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
cis-1,2-Dichloroethylene	0.008		0.0016	FW			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
trans-1,2-Dichloroethylene	0.08		0.0016	FW			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Dichloromethane	0.05	0.98	0.098	FW	0.05		< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
1,2-Dichloropropane	0.0045		0.016	I			< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
cis-1,3-Dichloropropene	0.0015		0.0052	I, *			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
trans-1,3-Dichloropropene	0.0015		0.0052	I, *			< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Ethylbenzene	0.14	2	16	I	0.0016	AO	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Methyl t-butyl ether (MTBE)	0.095	34	0.34	I	0.015	AO	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Styrene	0.8		0.072	FW			< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1,1,2-Tetrachloroethane	0.006		0.0034	I			< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1,2,2-Tetrachloroethane	0.0008		0.0032	I			< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Tetrachloroethylene	0.03	1.1	0.11	FW	0.03		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Toluene	0.06	0.005	0.083	FW	0.024	AO	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
1,1,1-Trichloroethane	8		0.64	I			< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1,2-Trichloroethane	0.003		0.0047	I			< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Trichloroethylene	0.005	0.2	0.02	I	0.005		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Trichlorofluoromethane	1						< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Vinyl Chloride	0.002		0.0011	I	0.002		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
ortho-Xylene							< 0.00040	0.00090	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
meta- & para-Xylene							< 0.00040	0.0016	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Xylenes	0.09	0.3	3.9	I	0.02	AO	< 0.00040	0.0024	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
1,2-dibromoethane (Ethylene Dibromide) (EDB)	0.00008						< 0.00020	-	< 0.00020	-	< 0.00020	-	< 0.00020	-	< 0.00020	-	-
1,2,3-Trichlorobenzene	0.003	0.08					< 0.0020	-	< 0.0020	-	< 0.0020	-	< 0.0020	-	< 0.0020	-	-
1,2,4-Trichlorobenzene	0.0055	0.24					< 0.0020	-	< 0.0020	-	< 0.0020	-	< 0.0020	-	< 0.0020	-	-
Dichlorodifluoromethane (Freon 12)	0.8						< 0.0020	-	< 0.0020	-	< 0.0020	-	< 0.0020	-	< 0.0020	-	-
Hexachlorobutadiene	0.002	0.015					< 0.00050	-	< 0.00050	-	< 0.00050	-	< 0.00050	-	< 0.00050	-	-
Freon 113	100						< 0.0020	-	< 0.0020	-	< 0.0020	-	< 0.0020	-	< 0.0020	-	-

Notes:
All parameter units in milligrams per litre (mg/L), unless otherwise noted.
a. Guidelines shown are from the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines
b. Standards shown are from the Contaminated Sites Regulation (CSR), enacted in 1997, and updated from time to time.
c. Guidelines are from "Guidance document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites" (March 2014). Most conservative of inhalation, soil contact and freshwater life pathways was chosen for each parameter.
FDA = Field Duplicate Available; FD = Field Duplicate.
* = Standard is for cis and trans is applied
Italics - indicates that the detection limit exceeds one or more criteria.
AO = Aesthetic Objective; + = standard is specific to total trihalomethane
S = Schedule 10 of the BC CSR; int = Director's Interim Standard (CSR) effective May 31, 2011
FW = Freshwater life; I = Inhalation

**TABLE B9 Results of Soil Vapour Analyses Including Historical Data
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC**

Sample Control Number Date Sampled Probe Depth (meters) QA/QC	Probe ID	BC CSR Vapour Standards RL	Notes	BC CSR Vapour Standards IL	Notes	SV09-01 09-020145-01 9-Oct-09 1.0			SV09-02 09-020145-02 10-Oct-09 1.0			SV09-03 09-020145-03 10-Oct-09 1.00 FDA			SV09-03 09-020145-04 10-Oct-09 1.0 FD			SV09-04 09-020145-05 10-Oct-09 1.0			SV09-05 09-020145-06 10-Oct-09 1.0			SV10-01 24413-01 26-Sep-10 1.0			SV10-02 24413-02 26-Sep-10 1.0				
						Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²
Applied Attenuation Factor (α)																															
Volatile Organic Compounds																															
Acetone	2500			25000		66.3	1.3	0.0066	8940	179	0.89	78.5	1.60	0.0079	81.3	1.60	0.0081	55.3	1.10	0.0055	216	4.3	0.022	<100	<2	<0.01	129	2.60	0.013		
Benzene	1.5			10		45	0.9	0.0045	246	4.9	0.025	52.4	1.00	0.0052	49.4	0.99	0.0049	21	0.42	0.0021	17.8	0.36	0.0018	14.5	0.29	0.0015	22.6	0.45	0.0023		
Benzyl chloride	0.2			2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	50			550		<0.30	<0.006	<0.00003	996	20	0.1	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<2.7	<0.054	<0.00027	<2.7	<0.054	<0.00027		
Bromoform	9			85		<0.40	<0.008	<0.00004	<0.40	<0.008	<0.00004	<0.40	<0.008	<0.00004	<0.40	<0.008	<0.00004	<0.40	<0.008	<0.00004	<0.40	<0.008	<0.00004	<0.41	<0.0082	<0.000041	<0.41	<0.0082	<0.000041		
Bromomethane	5			45		<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	0.47	0.0094	0.000047	<0.16	<0.0032	<0.000016		
1,3-Butadiene	2			3		<0.090	<0.0018	<0.000009	<0.090	<0.0018	<0.000009	<0.090	<0.0018	<0.000009	<0.090	<0.0018	<0.000009	<0.090	<0.0018	<0.000009	<0.090	<0.0018	<0.000009	<0.88	<0.018	<0.000088	<4.9	<0.098	<0.000049		
n-Butane	-			-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	700			6,500		4.1	0.082	0.00041	32.3	0.65	0.0032	12.1	0.24	0.0012	10.6	0.21	0.0011	3.9	0.08	0.00039	15.8	0.32	0.0016	2.1	0.042	0.000021	4.1	0.08	0.00041		
Carbon Tetrachloride	1.5			15		0.25	0.005	0.000025	0.31	0.0062	0.000031	0.25	0.01	0.000025	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.25	<0.005	<0.000025	<0.25	<0.005	<0.000025		
Chlorobenzene	10			90		14	0.28	0.0014	49	0.98	0.0049	7.83	0.16	0.00178	7.64	0.15	0.00076	10.5	0.21	0.0011	5.99	0.12	0.0006	123	2.5	0.012	76.6	1.50	0.0077		
Chloroethane	10,000			90,000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	100			900		<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	1.12	0.02	0.00011	1.12	0.02	0.00011	0.63	0.01	0.000063	1.22	0.024	0.00012	0.44	0.0088	0.000044	1.07	0.02	0.00011		
Chloromethane	90			800		0.929	0.019	0.000093	1.53	0.031	0.00015	6.34	0.13	0.00063	7.23	0.14	0.00072	1.78	0.04	0.00018	1.16	0.023	0.00012	15.0	0.3	0.0015	12.3	0.25	0.0012		
Cumene	400			3,500		0.88	0.018	0.000088	249	5	0.025	0.69	0.01	0.000069	0.54	0.01	0.000054	0.44	0.01	0.000044	0.29	0.0058	0.000029	0.79	0.016	0.000079	<0.20	<0.004	<0.00002		
Cyclohexane	-			-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	50			550		<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.34	<0.0068	<0.000034	<0.34	<0.0068	<0.000034		
Decane	2,500			25,000		34.8	0.7	0.0035	883	17.66	0.088	30.4	0.61	0.003	29.9	0.60	0.003	34.1	0.68	0.0034	17.5	0.35	0.0018	14.3	0.29	0.0014	9.66	0.19	0.00097		
1,2-Dibromoethane	0.5			0.5		<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.30	<0.006	<0.00003	<0.31	<0.0062	<0.000031	<0.31	<0.0062	<0.000031		
1,2-Dichlorobenzene	200			2,000		<0.20	<0.004	<0.00002	0.48	0.0096	0.000048	0.6	0.01	0.00006	0.9	0.02	0.00009	0.78	0.02	0.000078	0.54	0.011	0.000054	2.71	0.054	0.000027	1.38	0.03	0.00014		
1,3-Dichlorobenzene	80			850		<0.20	<0.004	<0.00002	0.9	0.018	0.00009	0.42	0.01	0.000042	0.42	0.01	0.000042	0.54	0.01	0.000054	0.54	0.011	0.000054	0.54	0.011	0.000054	0.24	0.00	0.000024		
1,4-Dichlorobenzene	800			7,500		<0.20	<0.004	<0.00002	0.24	0.0048	0.000024	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	0.24	0.00	0.000024	<0.20	<0.004	<0.00002	8.42	0.17	0.00084	4.75	0.10	0.00048		
1,1-Dichloroethane	500			4,500		<0.010	<0.0002	<0.000001	<0.010	<0.0002	<0.000001	<0.010	<0.0002	<0.000001	<0.010	<0.0002	<0.000001	<0.010	<0.0002	<0.000001	<0.010	<0.0002	<0.000001	<0.015	<0.0003	<0.0000015	<0.015	<0.0003	<0.0000015		
1,2-Dichloroethane	5			45		<0.20	<0.004	<0.00002	38.8	0.78	0.0039	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	0.32	0.0064	0.000032	<0.16	<0.0032	<0.000016	<0.16	<0.0032	<0.000016		
1,1-Dichloroethene	200			2000		<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.16	<0.0032	<0.000016	<0.16	<0.0032	<0.000016		
cis-1,2-Dichloroethylene	60			550		<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.16	<0.0032	<0.000016	<0.16	<0.0032	<0.000016		
trans-1,2-Dichloroethene	60			550		<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.16	<0.0032	<0.000016	<0.16	<0.0032	<0.000016		
Dichlorodifluoromethane	100			900		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	600			5500		6.2	0.12	0.00062	95.5	1.9	0.0096	33.9	0.68	0.0034	25	0.50	0.0025	18.2	0.36	0.0018	79.8	1.6	0.008	<1.4	<0.028	<0.00014	<1.4	<0.028	<0.00014		
1,2-Dichloropropane	4			35		<0.20	<0.004	<0.00002	6.05	0.12	0.00061	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.18	<0.0036	<0.000018	<0.18	<0.0036	<0.000018		
cis-1,3-Dichloropropene	2.5			25		<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.18	<0.0036	<0.000018	<0.18	<0.0036	<0.000018		
trans-1,3-Dichloropropene	2.5			25		<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.20	<0.004	<0.00002	<0.18	<0.0036	<0.000018	<0.18	<0.0036	<0.000018		
1,2-Dichlorotetrafluoroethane	-			-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dioxane	-			-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethanol (ethyl alcohol)	-			-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl Acetate	70			650		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl Benzene	1,000			9,000		6.11	0.12	0.00061	488	9.8	0.049	3.73	0.08	0.00037	3.03	0.06	0.0003	2.25	0.05	0.00023	2.51	0.05	0.00025	4.68	0.094	0.00047	2.08	0.04	0.00021		
Ethyl Chloride	10,000			90,000		0.9	0.018	0.00009	0.42	0.0084	0.000042	0.4	0.01	0.00004	0.32	0.01	0.000032	<0.10	<0.002	<0.00001	1.27	0.025	0.00013	<0.11	<0.0022	<0.000011	<0.11	<0.0022	<0.000011		
Ethyl Dibromide	0.5			0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-ethyltoluene	-			-		-	-	-	-	-																					

Notes:
Results are expressed as micrograms per cubic metre ($\mu\text{g}/\text{m}^3$), unless otherwise specified.
BC Ministry of Environment: Contaminated Sites Regulation, Schedule 11 (includes amendments up to B.C. Reg. 286/2010, updated time to time)
Italics indicates the method detection limit exceeds one or more standards
* = Standard for VPH (C6-10) conservatively applied to F1 (C6-10)
FD - Field duplicate; FDA - Field duplicate available

TABLE B9 Results of Soil Vapour Analyses Including Historical Data
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Probe ID Sample Control Number Date Sampled Probe Depth (meters) QA/QC	BC CSR Vapour Standards RL	Notes	BC CSR Vapour Standards IL	Notes	SV10-03 Shallow 24413-03 26-Sep-10 1.0			SV10-03 Deep 24413-04 26-Sep-10 2.0			SV10-04 Subslab 24413-05 27-Sep-10 0.15			SV10-04 24413-06 27-Sep-10 0.88 FDA			SV10-04 24413-07 27-Sep-10 0.88 FD			SV11-01 22796-02 27-Sep-11 1.0 FDA			SV11-01 22796-03 27-Sep-11 1.0 FD			SV11-02 22796-06 29-Sep-11 1.0					
					Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴
Applied Attenuation Factor (α)																															
Volatile Organic Compounds	2500		25000		1540	31	0.15	<480	<9.6	<0.048	771	15.42	0.077	340	6.8	0.034	<57	<1.1	<0.0057	662	13.24	0.066	342	6.8	0.034	168	3.4	0.017			
	1.5		10		499	10	0.05	135	2.70	0.014	5.81	0.12	0.00058	180	3.6	0.018	20.5	0.41	0.0021	19.8	0.4	0.002	16.1	0.32	0.0016	116	2.3	0.012			
Benzyl chloride	0.2		2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bromodichloromethane	50		550		<12,000	<240	<1.2	<370	<7.4	<0.037	<4.0	<0.08	<0.0004	<170	<3.4	<0.017	<24	<0.48	<0.0024	<67	<1.3	<0.0067	<30	<0.6	<0.003	<1,500	<30	<0.15			
Bromoform	9		85		<110	<2.2	<0.011	<1.6	<0.032	<0.00016	<1.6	<0.032	<0.00016	<46	<0.92	<0.0046	<1.6	<0.032	<0.00016	21	0.42	0.0021	<11	<0.22	<0.0011	<11	<0.22	<0.0011			
Bromomethane	5		45		<43	<0.86	<0.0043	<0.62	<0.012	<0.000062	<0.62	<0.012	<0.000062	<17	<0.34	<0.0017	<0.62	<0.012	<0.000062	<4.3	<0.086	<0.00043	<4.3	<0.086	<0.00043	<4.3	<0.086	<0.00043			
1,3-Butadiene	2		3		<25	<0.5	<0.0025	<0.35	<0.007	<0.000035	<0.35	<0.007	<0.000035	<9.9	<0.2	<0.00099	<0.35	<0.007	<0.000035	<9.9	<0.2	<0.00099	<4.4	<0.088	<0.00044	<7.7	<1.5	<0.0077			
n-Butane	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Carbon Disulfide	700		6,500		840	17	0.084	<5.2	<0.1	<0.00052	<5.2	<0.1	<0.00052	360	7.2	0.036	<5.2	<0.1	<0.00052	95	1.9	0.0095	78	1.6	0.0078	397	7.9	0.04			
Carbon Tetrachloride	1.5		15		<70	<1.4	<0.007	<1.0	<0.02	<0.0001	<1.0	<0.02	<0.0001	<28	<0.56	<0.0028	<1.0	<0.02	<0.0001	<7.0	<0.14	<0.0007	<7.0	<0.14	<0.0007	<7.0	<0.14	<0.0007			
Chlorobenzene	10		90		<24,000	<480	<2.4	<450	<9	<0.045	<140	<2.8	<0.014	<2400	<48	<0.24	<530	<10.6	<0.053	<880	<17.6	<0.088	<690	<13.8	<0.069	<9,700	<194	<0.97			
Chloroethane	10,000		90,000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chloroform	100		900		<55	<1.1	<0.0055	<0.78	<0.016	<0.000078	<0.78	<0.016	<0.000078	<22	<0.44	<0.0022	<0.78	<0.016	<0.000078	<5.5	<0.11	<0.00055	<5.5	<0.11	<0.00055	<5.5	<0.11	<0.00055			
Chloromethane	90		800		63	1	0.0063	3.47	0.07	0.000033	<0.33	<0.0066	<0.000033	68.3	1.4	0.0068	2.91	0.058	0.00029	7.3	0.15	0.00073	<2.3	<0.046	<0.00023	18.6	0.37	0.0019			
Cumene	400		3,500		5030	101	0.5	85.0	1.70	0.0085	52.0	1	0.0052	707	14.14	0.071	126	2.5	0.013	63.0	1.3	0.0063	46.5	0.93	0.0047	1,160	23.2	0.12			
Cyclohexane	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dibromochloromethane	50		550		<95	<1.9	<0.0095	<1.4	<0.028	<0.00014	<1.4	<0.028	<0.00014	<38	<0.76	<0.0038	<1.4	<0.028	<0.00014	<9.5	<0.19	<0.00095	<9.5	<0.19	<0.00095	<9.5	<0.19	<0.00095			
Decane	2,500		25,000		56,000	1120	5.6	1,550	31.00	0.16	3890	77.8	0.39	42,600	852	4.3	11,800	236	1.2	5,990	119.8	0.6	5,130	102.6	0.51	443	8.9	0.044			
1,2-Dibromoethane	0.5		0.5		<86	<1.7	<0.0086	<1.2	<0.024	<0.00012	<1.2	<0.024	<0.00012	<34	<0.68	<0.0034	<1.2	<0.024	<0.00012	<8.6	<0.17	<0.00086	<8.6	<0.17	<0.00086	<8.6	<0.17	<0.00086			
1,2-Dichlorobenzene	200		2,000		<67	<1.3	<0.0067	<0.96	<0.019	<0.000096	<0.96	<0.019	<0.000096	44	0.88	0.0044	<0.96	<0.019	<0.000096	113	2.3	0.011	49.1	0.98	0.0049	23.2	0.46	0.0023			
1,3-Dichlorobenzene	80		850		<67	<1.3	<0.0067	<0.96	<0.019	<0.000096	29.9	0.6	0.003	33	0.66	0.0033	<0.96	<0.019	<0.000096	81.9	1.6	0.0082	39.6	0.79	0.004	15.9	0.32	0.0016			
1,4-Dichlorobenzene	800		7,500		126	3	0.013	<0.96	<0.019	<0.000096	1.20	0.024	0.00012	38	0.76	0.0038	1.44	0.029	0.00014	101	2	0.01	49.5	0.99	0.005	19.5	0.39	0.002			
1,1-Dichloroethane	500		4,500		<52	<1	<0.0052	<0.059	<0.0012	<0.0000059	<0.059	<0.0012	<0.0000059	<1.6	<0.032	<0.00016	<0.059	<0.0012	<0.0000059	<0.41	<0.0082	<0.000041	<0.41	<0.0082	<0.000041	<0.41	<0.0082	<0.000041			
1,2-Dichloroethane	5		45		197	4	0.02	11.8	0.24	0.0012	<0.65	<0.013	<0.000065	<18	<0.36	<0.0018	<0.65	<0.013	<0.000065	<4.5	<0.09	<0.00045	<4.5	<0.09	<0.00045	10.5	0.21	0.0011			
1,1-Dichloroethene	200		2000		<44	<0.88	<0.0044	<0.63	<0.013	<0.000063	<0.63	<0.013	<0.000063	<18	<0.36	<0.0018	<0.63	<0.013	<0.000063	<4.4	&										

TABLE B9 Results of Soil Vapour Analyses Including Historical Data
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Probe ID Sample Control Number Date Sampled Probe Depth (meters) QA/QC	BC CSR Vapour Standards RL	Notes	BC CSR Vapour Standards IL	Notes	SV11-03 22796-04 29-Sep-11 1.0			SV11-04 22796-05 29-Sep-11 0.15			SV12-01 22806-01 25-Jul-12 -			SV12-02 22806-02 24-Jul-12 1.05			SV12-03 22806-04 24-Jul-12 -			SV13-01 283694-02 26-Jul-13 0.3			SV13-02 283694-03 26-Jul-13 1			SV13-02 (DUP) 283694-04 26-Jul-13 1					
					Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴
Applied Attenuation Factor (α)																															
Volatile Organic Compounds	2500		25000		139	2.8	0.014	277	5.5	0.028	798	16	0.08	<800	<16	<0.08	439	9	0.044	185	4	0.019	<340	<6.8	<0.034	<340	<6.8	<0.034			
	1.5		10		24.4	0.49	0.0024	37.3	0.75	0.0037	14.0	0.28	0.0014	32.4	0.65	0.0032	165	3.3	0.017	8.59	0.17	0.00086	18.3	0.37	0.0018	23.9	0.48	0.0024			
	0.2		2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	50		550		<2.7	<0.054	<0.00027	<300	<6	<0.03	<20	<0.4	<0.002	<13	<0.26	<0.0013	<10	<0.2	<0.001	<3.3	<0.066	<0.00033	<15	<0.3	<0.0015	<15	<0.3	<0.0015			
	9		85		<0.41	<0.0082	<0.000041	<11	<0.22	<0.0011	<0.41	<0.0082	<0.000041	<0.41	<0.0082	<0.000041	<0.41	<0.0082	<0.000041	<0.41	<0.0082	<0.000041	<2.0	<0.04	<0.0002	<2.0	<0.04	<0.0002			
	5		45		0.17	0.0034	0.000017	<4.3	<0.086	<0.00043	0.17	0.0034	0.000017	<0.16	<0.0032	<0.000016	0.26	0.0052	0.000026	<0.16	<0.0032	<0.000016	<0.78	<0.016	<0.000078	<0.78	<0.016	<0.000078			
	2		3		<77	<1.5	<0.0077	<6.6	<0.13	<0.00066	<22	<0.44	<0.0022	<27	<0.54	<0.0027	<270	<5.4	<0.027	<2.0	<0.04	<0.0002	<2.2	<0.044	<0.00022	<2.2	<0.044	<0.00022			
	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	700		6,500		69.8	1.4	0.007	160	3.2	0.016	8.2	0.16	0.00082	19.3	0.39	0.0019	51.6	1	0.0052	3.9	0.078	0.00039	18.6	0.37	0.0019	20.0	0.4	0.002			
	1.5		15		0.28	0.0056	0.000028	<7.0	<0.14	<0.0007	<0.25	<0.005	<0.000025	0.32	0.0064	0.000032	0.35	0.007	0.000035	0.38	0.0076	0.000038	<1.3	<0.026	<0.00013	<1.3	<0.026	<0.00013			
10		90		<3.2	<0.064	<0.00032	<880	<17.6	<0.088	<37	<0.74	<0.0037	<300	<6	<0.03	<9.2	<0.18	<0.00092	14.5	0.29	0.0015	<100	<2	<0.01	113	2.3	0.011				
10,000		90,000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
100		900		42.2	0.84	0.0042	<5.5	<0.11	<0.00055	0.67	0.013	0.000067	1.75	0.035	0.000018	5.66	0.11	0.00057	1.23	0.025	0.00012	2.96	0.059	0.0003	3.72	0.074	0.00037				
90		800		441	8.8	0.044	6.8	0.14	0.00068	4.62	0.092	0.00046	1.06	0.021	0.00011	137	2.7	0.014	1.53	0.031	0.00015	1.95	0.039	0.0002	2.06	0.041	0.00021				
400		3,500		0.31	0.0062	0.000031	210	4.2	0.021	46.7	0.93	0.0047	11.5	0.23	0.0012	1.79	0.036	0.00018	7.57	0.15	0.00076	1.19	0.024	0.00012	1.40	0.028	0.00014				
-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
50		550		<0.34	<0.0068	<0.000034	<9.5	<0.19	<0.00095	<0.34	<0.0068	<0.000034	<0.34	<0.0068	<0.000034	<0.34	<0.0068	<0.000034	<0.34	<0.0068	<0.000034	<1.7	<0.034	<0.00017	<1.7	<0.034	<0.00017				
2,500		25,000		0.79	0.016	0.000079	4,070	81.4	0.41	4170	83.4	0.42	7270	145.4	0.73	51.4	1	0.0051	804	16.08	0.08	525	10.5	0.053	658	13.16	0.066				
0.5		0.5		<0.31	<0.0062	<0.000031	<8.6	<0.17	<0.00086	<0.31	<0.0062	<0.000031	<0.31	<0.0062	<0.000031	<0.31	<0.0062	<0.000031	<0.31	<0.0062	<0.000031	<1.5	<0.03	<0.00015	<1.5	<0.03	<0.00015				
200		2,000		<0.24	<0.0048	<0.000024	26.2	0.52	0.0026	<0.24	<0.0048	<0.000024	<0.24	<0.0048	<0.000024	<0.24	<0.0048	<0.000024	<0.24	<0.0048	<0.000024	<1.2	<0.024	<0.00012	<1.2	<0.024	<0.00012				
80		850		<0.24	<0.0048	<0.000024	20.7	0.41	0.0021	0.98	0.02	0.000098	0.24	<0.0048	<0.000024	0.26	0.0052	0.000026	0.94	0.019	0.000094	1.4	0.028	0.00014	1.9	0.038	0.00019				
800		7,500		<0.24	<0.0048	<0.000024	26.1	0.52	0.0026	0.76	0.015	0.000076	<0.24	<0.0048	<0.000024	<0.24	<0.0048	<0.000024	0.34	0.0068	0.000034	<1.2	<0.024	<0.00012	<1.2	<0.024	<0.00012				
500		4,500		<0.074	<0.0015	<0.0000074	<0.41	<0.0082	<0.000041	<0.015	<0.0003	<0.0000015	<0.074	<0.0015	<0.0000074	<0.074	<0.0015	<0.0000074	<0.11	<0.0022	<0.000011	<3.7	<0.074	<0.00037	<3.7	<0.074	<0.00037				
5		45		0.44	0.0088	0.000044	<4.5	<0.09	<0.00045	<0.16	<0.0032	<0.000016	0.31	0.0062	0.000031	<1.0	<0.02	<0.0001	<0.16	<0.0032	<0.000016	<0.81	<0.016	<0.000081	<0.81	<0.016	<0.000081				
200		2000		<1.6	<0.032	<0.00016	26.0	0.52	0.0026	<1.6	<0.32	<0.00																			

TABLE B9 Results of Soil Vapour Analyses Including Historical Data
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Probe ID Sample Control Number Date Sampled Probe Depth (meters) QA/QC	BC CSR Vapour Standards RL	Notes	BC CSR Vapour Standards IL	Notes	VP14-03 17812-02 19-Sep-14 0.15			VP14-01 17812-04 20-Sep-14 1 FDA			VP14-01 17812-05 20-Sep-14 1 FD			VP14-01 01124-01 20-Oct-15 1 FDA			VP14-01 01124-02 20-Oct-15 1 FD			VP15-01 01124-03 21-Oct-15 1			VP14-02 01135-01 20-Sep-14 1			MW16-04 01135-01 9-Sep-16 0.9						
					Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	Laboratory Result	Indoor Exposure α=2.0x10 ⁻²	Outdoor Exposure α=1.0x10 ⁻⁴	
Applied Attenuation Factor (α)																																
Volatile Organic Compounds																																
	2500		25000		271	5	0.027	<460	<9.2	<0.046	<1000	<20	<0.1	-	-	-	-	-	-	-	-	-	53.1	1	0.0053	-	-	-	-	-	-	
	1.5		10		35.1	0.7	0.0035	174	3.5	0.017	261.0	5.2	0.026	156	3.1	0.016	138	2.8	0.014	192	3.8	0.019	2.45	0.049	0.00025	7.45	0.15	0.00075	-	-	-	
	0.2		2		-	-	-	-	-	-	<120	<2.4	<0.012	<120	<2.4	<0.012	<120	<2.4	<0.012	<2.6	<0.052	<0.00026	-	-	-	<2.6	<0.052	<0.00026	-	-	-	
	50		550		<20	<0.4	<0.002	<1200	<24	<0.12	<1700	<34	<0.17	<62	<1.2	<0.0062	<62	<1.2	<0.0062	<1.3	<0.026	<0.00013	<1.3	<0.026	<0.00013	<1.3	<0.026	<0.00013	-	-	-	
	9		85		<4.1	<0.082	<0.00041	<4.1	<0.082	<0.00041	<57	<1.1	<0.0057	<95	<1.9	<0.0095	<95	<1.9	<0.0095	<2.1	<0.042	<0.00021	<0.41	<0.0082	<0.000041	<2.1	<0.042	<0.00021	-	-	-	
	5		45		<1.6	<0.032	<0.00016	<1.6	<0.032	<0.00016	<22	<0.44	<0.0022	<18	<0.36	<0.0018	<18	<0.36	<0.0018	<0.39	<0.0078	<0.000039	<0.16	<0.0032	<0.000016	<0.78	<0.016	<0.000078	-	-	-	
	2		3		<6.6	<0.13	<0.00066	<15	<0.3	<0.0015	<20	<0.4	<0.002	<51	<1	<0.0051	<51	<1	<0.0051	<150	<3	<0.015	<3.3	<0.066	<0.00033	<1.1	<0.022	<0.00011	-	-	-	
	-		-		-	-	-	-	-	-	-	3780	75.6	0.38	3510	70.2	0.35	3510	70.2	0.35	1170	23.4	0.12	-	-	-	-	-	-	-	-	-
	700		6,500		19.0	0.38	0.0019	<13	<0.26	<0.0013	420.0	8.4	0.042	<72	<1.4	<0.0072	<72	<1.4	<0.0072	57.7	1.2	0.0058	5.9	0.12	0.00059	9.3	0.19	0.00093	-	-	-	
1.5		15		<2.5	<0.05	<0.00025	<2.5	<0.05	<0.00025	<35	<0.7	<0.0035	<29	<0.58	<0.0029	<29	<0.58	<0.0029	<0.63	<0.013	<0.000063	0.47	0.0094	0.000047	<0.63	<0.013	<0.000063	-	-	-		
10		90		<60	<1.2	<0.006	<3500	<70	<0.35	<4100	<82	<0.41	<21	<0.42	<0.0021	<21	<0.42	<0.0021	<0.46	<0.0092	<0.000046	3.94	0.079	0.00039	<0.46	<0.0092	<0.000046	-	-	-		
10,000		90,000		-	-	-	-	-	-	-	-	-	<36	<0.72	<0.0036	<36	<0.72	<0.0036	1.80	0.036	0.00018	-	-	-	<0.79	<0.016	<0.000079	-	-	-		
100		900		2.00	0.04	0.0002	<1.9	<0.038	<0.00019	<27	<0.54	<0.0027	<90	<1.8	<0.009	<90	<1.8	<0.009	7.5	0.15	0.00075	0.28	0.0056	0.000028	<0.98	<0.02	<0.000098	-	-	-		
90		800		<0.83	<0.017	<0.000083	<0.83	<0.017	<0.000083	14	0.28	0.0014	<29	<0.58	<0.0029	<29	<0.58	<0.0029	5.02	0.1	0.0005	4.67	0.093	0.00047	<0.41	<0.0082	<0.000041	-	-	-		
400		3,500		8.7	0.17	0.00087	519	10.38	0.052	524	10.48	0.052	-	-	-	-	-	-	-	1.23	0.025	0.00012	<2.5	<0.05	<0.00025	<2.5	<0.05	<0.00025	-	-	-	
-		-		-	-	-	-	-	-	-	-	-	-	3830	76.6	0.38	3200	64	0.32	726	14.5	0.073	-	-	-	-	-	-	-	-	-	
50		550		<3.4	<0.068	<0.00034	<3.4	<0.068	<0.00034	<48	<0.96	<0.0048	<78	<1.6	<0.0078	<78	<1.6	<0.0078	<1.7	<0.034	<0.00017	<0.34	<0.0068	<0.000034	<1.7	<0.034	<0.00017	-	-	-		
2,500		25,000		<1300	<26	<0.13	10900	218	1.1	10700	214	1.1	<2900	<58	<0.29	<2700	<54	<0.27	49.7	0.99	0.005	65.6	1.3	0.006	59.8	1.2	0.006	-	-	-		
0.5		0.5		<3.1	<0.062	<0.00031	<3.1	<0.062	<0.00031	<43	<0.86	<0.0043	<35	<0.7	<0.0035	<35	<0.7	<0.0035	<0.77	<0.015	<0.000077	<0.31	<0.0062	<0.000031	-	-	-	-	-	-		
200		2,000		<2.4	<0.048	<0.00024	<2.4	<0.048	<0.00024	<34	<0.68	<0.0034	<28	<0.56	<0.0028	<28	<0.56	<0.0028	<0.60	<0.012	<0.00006	<0.24	<0.0048	<0.000024	<0.60	<0.012	<0.00006	-	-	-		
80		850		<2.4	<0.048	<0.00024	<2.4	<0.048	<0.00024	<34	<0.68	<0.0034	<110	<2.2	<0.011	<110	<2.2	<0.011	2.7	0.054	0.00027	<0.24	<0.0048	<0.000024	<2.4	<0.048	<0.000024	-	-	-		
800		7,500		<2.4	<0.048	<0.00024	<2.4	<0.048	<0.00024	<34	<0.68	<0.0034	<28	<0.56	<0.0028	<28	<0.56	<0.0028	1.11	0.022	0.00011	<0.24	<0.0048	<0.000024	<0.60	<0.012	<0.00006	-	-	-		
500		4,500		<0.15	<0.003	<0.000015	<0.55	<0.011	<0.000055	<2.1	<0.042	<0.00021	<19	<0.38	<0.0019	<19	<0.38	<0.0019	1.85	0.037	0.00019	<0.022	<0.00044	<0.0000022	<0.81	<0.016	<0.000081	-	-	-		
5		45		1.9	0.038																											

TABLE B9 Results of Soil Vapour Analyses Including Historical Data
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Probe ID Sample Control Number Date Sampled Probe Depth (meters) QA/QC	BC CSR Vapour Standards RL	Notes	BC CSR Vapour Standards IL	Notes	BH16-16 01135-02 9-Sep-16 0.9	BH16-08 01135-03 9-Sep-16 0.9
Applied Attenuation Factor (a)					Laboratory Result Indoor Exposure a=2.0x10 ⁻²	Laboratory Result Indoor Exposure a=2.0x10 ⁻²
					Outdoor Exposure a=1.0x10 ⁻⁴	Outdoor Exposure a=1.0x10 ⁻⁴
Volatile Organic Compounds						
Acetone	2500		25000		-	-
Benzene	1.5		10		173	3.5
Benzyl chloride	0.2		2		<10	<0.2
Bromodichloromethane	50		550		<5.4	<0.11
Bromoform	9		85		<8.3	<0.17
Bromomethane	5		45		<3.1	<0.062
1,3-Butadiene	2		3		<4.4	<0.088
n-Butane	-		-		-	-
Carbon Disulfide	700		6,500		27.7	0.55
Carbon Tetrachloride	1.5		15		<2.5	<0.05
Chlorobenzene	10		90		<1.8	<0.036
Chloroethane	10,000		90,000		<3.2	<0.064
Chloroform	100		900		<3.9	<0.078
Chloromethane	90		800		<1.7	<0.034
Cumene	400		3,500		136	2.7
Cyclohexane	-		-		-	-
Dibromochloromethane	50		550		<6.8	<0.14
Decane	2,500		25,000		493	9.9
1,2-Dibromoethane	0.5		0.5		-	-
1,2-Dichlorobenzene	200		2,000		<2.4	<0.048
1,3-Dichlorobenzene	80		850		<9.6	<0.19
1,4-Dichlorobenzene	800		7,500		<2.4	<0.048
1,1-Dichloroethane	500		4,500		<3.2	<0.064
1,2-Dichloroethane	5		45		<1.6	<0.032
1,1-Dichloroethene	200		2000		<3.2	<0.064
cis-1,2-Dichloroethylene	60		550		<3.2	<0.064
trans-1,2-Dichloroethene	60		550		<3.2	<0.064
Dichlorodifluoromethane	100		900		<4.0	<0.08
Methylene Chloride	600		5500		<5.6	<0.11
1,2-Dichloropropane	4		35		<1.8	<0.036
cis-1,3-Dichloropropene	2.5		25		<1.8	<0.036
trans-1,3-Dichloropropene	2.5		25		<1.8	<0.036
1,2-Dichlorotetrafluoroethane	-		-		-	-
1,4-Dioxane	-		-		-	-
Ethanol (ethyl alcohol)	-		-		-	-
Ethyl Acetate	70		650		<14	<0.28
Ethyl Benzene	1,000		9,000		702	14.04
Ethyl Chloride	10,000		90,000		-	-
Ethyl Dibromide	0.5		0.5		<1.5	<0.03
4-ethyltoluene	-		-		-	-
Halocarbon 11	700		6500		-	-
Halocarbon 12	100		900		-	-
Heptane	-		-		-	-
Hexachloro-1,3-butadiene	1		4		<21	<0.42
Hexane	700		6,500		317	6.3
Isopropyl Alcohol	-		-		-	-
Methyl Ethyl Ketone	5,000		45,000		-	-
Methyl Isobutyl Ketone	3,000		25,000		<16	<0.32
Methylcyclohexane	2,000		25,000		309	6.2
Methyl Butyl Ketone (2-Hexanone)	-		-		<210	<4.2
Methyl Tert-Butyl Ether	3,000		25,000		<2.9	<0.058
Naphthalene	3		25		2570	51.4
2-Propanone	-		-		159	3.2
Propene	2500		25000		-	-
Styrene	1,000		9,000		48.8	0.98
1,1,1,2-Tetrachloroethane	1.5		10		<2.7	<0.054
1,1,2,2-Tetrachloroethane	50		550		<2.7	<0.054
Tetrachloroethylene	40		350		<5.4	<0.11
Tetrahydrofuran	3.5		30		<4.7	<0.094
Toluene	500		45,000		864	17.28
Trichlorofluoromethane	700		6,500		<4.5	<0.09
Trichlorotrifluoroethane	30,000		250,000		<4.6	<0.092
1,2,3-Trimethylbenzene	-		-		-	-
1,2,4-Trichlorobenzene	7		65		<15	<0.3
1,1,1-Trichloroethane	5,000		45,000		<4.4	<0.088
1,1,2-Trichloroethane	0.5		2		<2.2	<0.044
Trichloroethylene	2		20		<1.9	<0.038
1,2,4-Trimethylbenzene	7		65		1370	27.4
1,3,5-Trimethylbenzene	4.5		45		580	11.6
2,2,4-Trimethylpentane	-		-		-	-
Vinyl Acetate	200		2,000		<25	<0.5
Vinyl Bromide	1		3		<3.5	<0.07
Vinyl Chloride	1		10		<2.0	<0.04
o-Xylene	-		-		952	19.04
m+p-Xylenes	-		-		1890	37.8
Xylenes (Total)	100		900		2840	56.8
Hydrocarbons						
F1 (C6-C10)	1,000	*	11,500	*	-	-
F2 (C10-C16)	-		-		-	-
VPHv (C6-C13)	1,000		11,500		30100	602

Notes:
Results are expressed as micrograms per cubic metre (µg/m³), unless otherwise specified.
BC Ministry of Environment: Contaminated Sites Regulation, Schedule 11 (includes amendments up to B.C. Reg. 286/2010, updated time to time)
Italics indicates the method detection limit exceeds one or more standards
* = Standard for VPH (C6-10) conservatively applied to F1 (C6-10)
FD - Field duplicate; FDA - Field duplicate available

TABLE B10 Results of Historical Indoor Air Analyses
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location	BC CSR Vapour Standards RL	BC CSR Vapour Standards IL	Indoor Air Workshop 09-020145-07 10-Oct-09	Indoor Air Workshop 22796-01 26-Sep-11	Indoor Air Workshop 22806-05 24-Jul-12	Indoor Air Workshop 283694-01 26-Jul-13	Indoor Air Workshop 17812-01 18-Sep-14	Indoor Air Workshop 01124-04 20-Oct-15
Sample Control Number Date Sampled								
Volatile Organic Compounds								
Acetone	2500	25000	329	1.94	29.4	<46	7.15	-
Benzene	1.5	10	3.51	0.57	4.77	3.59	16.3	3.22
Benzyl chloride	0.2	2	-	-	-	-	-	<2.6
Bromodichloromethane	50	550.0	<0.30	<0.27	<1.3	<0.27	<10	<1.3
Bromoform	9	85	<0.40	<0.41	<0.41	0.59	<0.41	<2.1
Bromomethane	5	45	<0.20	<0.16	<0.16	<0.16	<0.16	<0.39
1,3-Butadiene	2	3	<0.090	<0.66	<2.7	<0.22	<0.088	<1.1
n-Butane	-	-	-	-	-	-	-	82.6
Carbon Disulfide	700	6,500	20.1	<1.3	2.9	2.4	<1.3	<1.6
Carbon Tetrachloride	1.5	15	0.50	0.44	0.47	0.58	0.55	<0.63
Chlorobenzene	10	90	1.01	0.20	<0.18	0.27	<1.8	<0.46
Chloroethane	10,000	90,000	-	-	-	-	-	<0.79
Dibromochloromethane	50	550	<0.30	<0.34	<0.34	<0.34	<0.34	<1.7
Ethyl chloride	10,000	90,000	<0.10	<0.11	0.13	<0.11	<0.11	-
Chloroform	100	900	2.58	<0.19	<0.19	<0.19	<0.19	<0.49
Chloromethane	90	800	1.40	1.23	1.68	1.15	1.02	0.95
Cumene	400	3,500	0.44	0.25	<0.20	<0.20	1.18	-
Cyclohexane	-	-	-	-	-	-	-	0.73
Decane	2,500	25,000	32.5	5.18	2.24	2.84	18.1	20.0
1,2-Dibromoethane	0.5	0.5	<0.30	<0.31	<0.31	0.6	0.54	<0.77
1,2-Dichlorobenzene	200	2,000	<0.20	<0.24	<0.24	0.49	0.24	<0.60
1,3-Dichlorobenzene	80	850	0.78	<0.24	<0.24	0.52	0.31	<2.4
1,4-Dichlorobenzene	800	7,500	<0.20	<0.24	<0.24	0.58	0.32	<0.60
1,1-Dichloroethane	500	4,500	<0.010	<0.015	<0.015	<0.22	<0.074	<0.40
1,2-Dichloroethane	5	45	0.32	<0.16	<0.16	0.29	0.64	<0.40
1,1-Dichloroethene	200	2000	<0.20	<0.16	<0.16	<0.16	<0.16	<0.40
cis-1,2-Dichloroethylene	60	550	0.16	<0.16	<0.16	<0.16	<0.16	<0.40
trans-1,2-Dichloroethene	60	550	<0.20	<2.0	0.91	3.21	1.08	2.75
Dichlorodifluoromethane	100	900	-	-	-	-	-	2.79
Methylene Chloride	600	5500	189	<1.4	5.5	<1.4	2.6	<2.8
1,2-Dichloropropane	4	35	<0.20	<0.18	<0.18	<0.18	<0.18	<0.46
cis-1,3-Dichloropropene	2.5	25	<0.20	<0.18	<0.18	<0.18	0.27	<0.45
trans-1,3-Dichloropropene	2.5	25	<0.20	<0.18	<0.18	0.27	<0.46	<0.45
1,2-Dichlorotetrafluoroethane	-	-	-	-	-	-	-	<1.2
1,4-Dioxane	-	-	-	-	-	-	-	<3.6
Ethanol (ethyl alcohol)	-	-	-	-	-	-	-	<1.9
Ethyl Acetate	70	650	-	-	-	-	-	<3.6
Ethyl Benzene	1,000	9,000	3.25	1.37	6.63	1.87	14.3	27.0
Ethyl chloride	10,000	90,000	-	-	-	-	-	-
4-ethyltoluene	-	-	-	-	-	-	-	9.4
Halocarbon 11	700	6500	1.69	<1.7	<2.2	1.53	1.34	-
Halocarbon 12	100	900	2.77	3.34	2.83	3.10	2.45	-
Heptane	-	-	-	-	-	-	-	3.2
Hexachloro-1,3-butadiene	1	4	<0.40	<0.42	<0.42	0.82	<0.42	<5.3
Hexane	700	6,500	40.6	0.14	3.9	4.08	46.9	3.1
Isopropyl Alcohol	-	-	325	<0.98	1.31	4.13	2.79	<2.5
Methyl Ethyl Ketone	5,000	45,000	5.71	0.34	0.91	3.25	3.09	<2.9
Methyl Isobutyl Ketone	3,000	25,000	<0.020	<0.16	<0.16	0.35	<4.1	<4.1
Methylcyclohexane	2,000	25,000	1.73	<0.60	<2.4	0.69	31.2	-
Methyl Butyl Ketone (2-Hexanone)	-	-	-	-	-	-	-	<4.1
Methyl Tert-Butyl Ether	3,000	25,000	<0.10	<0.14	<0.14	<0.35	<0.14	<0.72
Naphthalene	3	25	<1.0	1.2	1.2	1.6	1.6	<2.6
2-Propanone	-	-	-	-	-	-	-	4.4
Propene	2500	25000	-	-	-	-	-	<6.9
Styrene	1,000	9,000	0.30	<0.17	<0.17	0.17	0.3	<0.43
1,1,1,2-Tetrachloroethane	1.5	10	-	-	-	-	-	<0.69
1,1,2,2-Tetrachloroethane	50	550	0.34	<0.27	<0.27	0.31	<3.4	<0.69
Tetrachloroethylene	40	350	14.2	<0.27	1.01	8.27	2.83	<0.68
Tetrahydrofuran	3.5	30	-	-	-	-	-	<1.2
Toluene	500	45,000	50.3	1.29	35.1	9.84	64.5	30.3
Trichlorofluoromethane	700	6,500	-	-	-	-	-	1.2
Trichlorotrifluoroethane	30,000	250,000	-	-	-	-	-	<1.2
1,2,3-Trimethylbenzene	-	-	-	-	-	-	-	7.6
1,2,4-Trimethylbenzene	7	65	<0.30	0.45	0.4	1.23	<0.30	<3.7
1,1,1-Trichloroethane	5,000	45,000	<0.20	<0.22	<0.22	<0.22	<0.22	<0.55
1,1,2-Trichloroethane	0.5	2	<0.20	<0.22	<0.22	<0.22	<0.22	<0.55
Trichloroethylene	2	20	<0.20	<0.21	0.81	<0.43	0.35	<0.54
1,2,4-Trimethylbenzene	7	65	3.49	3.58	4.17	2.30	34	28.3
1,3,5-Trimethylbenzene	4.5	45	17.7	1.16	1.05	0.41	9.71	8.5
2,2,4-Trimethylpentane	-	-	-	-	-	-	-	17.7
Vinyl Acetate	200	2,000	-	-	-	-	-	<1.1
Vinyl Bromide	1	3	-	-	-	-	-	<0.87
Vinyl Chloride	1	10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.26
o-Xylene	-	-	5.69	1.41	6.05	1.33	20.0	43.8
m+p-Xylenes	-	-	15.6	3.21	25.5	4.76	53.4	110
Xylenes (Total)	100	900	21.3	4.62	31.6	6.09	73.4	154
Hydrocarbons								
F1 (C6-C10)	1,000 *	11,500 *	417	<30	103	50	907	546
F2 (C10-C16)	-	-	425	44	<30	60	380	694

Notes:

Results are expressed as micrograms per cubic metre (ug/m³), unless otherwise specified.

BC Ministry of Environment: Contaminated Sites Regulation, Schedule 11 (includes amendment BC Reg. 4/2014)

Italics indicates the method detection limit exceeds one or more standards

* = Standard for VPH (C6-10) conservatively applied to F1 (C6-10)

TABLE B11 Results of Quality Control/Quality Assurance Analyses - Soil - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	BH16-03 S1 02022-09 - 0.15-0.45 m 6-Sep-16 FDA	BH16-03 S1 02022-10 - 0.15-0.45 m 6-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	BH16-10 S2 02026-02 - 0.9-1.3 m 9-Sep-16 FDA	BH16-10 S2 02026-03 - 0.9-1.3 m 9-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Ions by Sat Paste												
Chloride	15	15.7	2.7	15.35	4.56%	NA	2250	2190	20	2220	2.70%	NA
Sodium	21	22.9	2.7	21.95	8.66%	NA	1370	1390	195	1380	1.45%	NA
Metals												
Aluminum	7030	8070	100	7550	13.77%	NA	5070	5370	100	5220	5.75%	NA
Antimony	0.45	0.51	0.10	0.48	NA	0.60	0.72	1.10	0.10	0.91	41.76%	NA
Arsenic	7.97	5.60	0.50	6.785	34.93%	NA	5.51	5.15	0.50	5.33	6.75%	NA
Barium	169	162	0.10	165.5	4.23%	NA	313	327	0.10	320	4.38%	NA
Beryllium	< 0.40	< 0.40	0.40	NA	NA	NA	< 0.40	< 0.40	0.40	NA	NA	NA
Bismuth	0.12	0.11	0.10	0.115	NA	0.10	< 0.10	< 0.10	0.10	NA	NA	NA
Cadmium	0.288	0.184	0.050	0.236	NA	2.08	0.663	0.712	0.050	0.6875	7.13%	NA
Calcium	1430	2810	100	2120	65.09%	NA	54100	58600	100	56350	7.99%	NA
Chromium	9.2	10.1	1.0	9.65	9.33%	NA	11.0	12.7	1.0	11.85	14.35%	NA
Cobalt	2.57	2.65	0.30	2.61	3.07%	NA	4.46	4.46	0.30	4.46	0.00%	NA
Copper	5.14	5.55	0.50	5.345	7.67%	NA	10.0	10.8	0.50	10.4	7.69%	NA
Iron	16600	13800	100	15200	18.42%	NA	13900	14000	100	13950	0.72%	NA
Lead	9.41	8.89	0.10	9.15	5.68%	NA	6.60	6.74	0.10	6.67	2.10%	NA
Lithium	5.0	6.4	5.0	5.7	NA	0.28	9.4	10.5	5.0	9.95	NA	0.22
Magnesium	977	1840	100	1408.5	61.27%	NA	17100	18500	100	17800	7.87%	NA
Manganese	68.1	73.5	0.20	70.8	7.63%	NA	673	598	0.20	635.5	11.80%	NA
Mercury	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA
Molybdenum	1.09	0.92	0.10	1.005	16.92%	NA	1.78	1.81	0.10	1.795	1.67%	NA
Nickel	6.92	7.23	0.80	7.075	4.38%	NA	15.5	15.6	0.80	15.55	0.64%	NA
Phosphorus	495	341	10	418	36.84%	NA	1240	1270	10	1255	2.39%	NA
Potassium	628	615	100	621.5	2.09%	NA	968	1050	100	1009	8.13%	NA
Selenium	< 0.50	< 0.50	0.50	NA	NA	NA	< 0.50	< 0.50	0.50	NA	NA	NA
Silver	0.151	0.207	0.050	0.179	NA	1.12	0.061	0.074	0.050	0.0675	NA	0.26
Sodium	142	149	100	145.5	NA	0.07	2360	2310	100	2335	2.14%	NA
Strontium	11.6	11.7	0.10	11.65	0.86%	NA	55.2	60.3	0.10	57.75	8.83%	NA
Thallium	0.105	0.131	0.050	0.118	NA	0.52	0.143	0.142	0.050	0.1425	NA	0.02
Tin	0.37	0.39	0.10	0.38	NA	0.20	0.23	0.24	0.10	0.235	NA	0.10
Titanium	39.6	42.3	1.0	40.95	6.59%	NA	70.1	73.4	1.0	71.75	4.60%	NA
Uranium	0.413	0.369	0.050	0.391	11.25%	NA	1.02	0.974	0.050	0.997	4.61%	NA
Vanadium	35.5	32.9	2.0	34.2	7.60%	NA	28.9	31.8	2.0	30.35	9.56%	NA
Zinc	39.0	40.9	1.0	39.95	4.76%	NA	52.7	54.1	1.0	53.4	2.62%	NA
Zirconium	< 0.50	< 0.50	0.50	NA	NA	NA	1.67	1.77	0.50	1.72	NA	0.20

Notes:

Results are expressed in micrograms per gram (mg/kg).

SCN = sample control number

FDA = field duplicate available

FD = field duplicate

QA/QC = quality assurance/quality control

Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.

Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).

Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit; Golder's internal QA/QC target is less than 35%.

Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.

NA = not applicable

BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B11 Results of Quality Control/Quality Assurance Analyses - Soil - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	MW16-06-S4 MW16-06-S4 - 2.8-3.13 m 4-Sep-16 FDA	MW16-06-S4 MW16-06-S4 - 2.8-3.13 m 4-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW16-07-S1 MW16-07-S1 - 0.16-0.49 m 4-Sep-16 FDA	MW16-07-S1 MW16-07-S1 - 0.16-0.49 m 4-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Ions by Sat Paste												
Chloride	266	239	2.5	252.5	10.69%	NA	8.1	7	2.7	7.55	NA	0.41
Sodium	115	123	2.5	119	6.72%	NA	13	13.3	2.7	13.15	NA	0.11
Metals												
Aluminum	8170	9070	100	8620	10.44%	NA	7690	6680	100	7185	14.06%	NA
Antimony	0.46	0.45	0.10	0.455	NA	0.10	0.57	0.53	0.10	0.55	7.27%	NA
Arsenic	7.32	6.96	0.50	7.14	5.04%	NA	7.89	6.70	0.50	7.295	16.31%	NA
Barium	501	361	0.10	431	32.48%	NA	595	478	0.10	536.5	21.81%	NA
Beryllium	0.57	0.56	0.40	0.565	NA	0.02	0.68	0.52	0.40	0.6	NA	0.40
Bismuth	0.12	0.13	0.10	0.125	NA	0.10	0.11	0.10	0.10	0.105	NA	0.10
Cadmium	0.362	0.546	0.050	0.454	40.53%	NA	0.362	0.516	0.050	0.439	35.08%	NA
Calcium	2390	3660	100	3025	41.98%	NA	16800	25000	100	20900	39.23%	NA
Chromium	13.7	13.8	1.0	13.75	0.73%	NA	12.8	21.8	1.0	17.3	52.02%	NA
Cobalt	6.46	6.77	0.30	6.615	4.69%	NA	6.62	5.99	0.30	6.305	9.99%	NA
Copper	13.8	16.6	0.50	15.2	18.42%	NA	13.8	12.7	0.50	13.25	8.30%	NA
Iron	16100	17200	100	16650	6.61%	NA	17600	15600	100	16600	12.05%	NA
Lead	9.00	9.79	0.10	9.395	8.41%	NA	9.99	9.98	0.10	9.985	0.10%	NA
Lithium	8.7	9.4	5.0	9.05	NA	0.14	10.1	9.6	5.0	9.85	NA	0.10
Magnesium	1980	2690	100	2335	30.41%	NA	6090	9300	100	7695	41.72%	NA
Manganese	166	209	0.20	187.5	22.93%	NA	227	282	0.20	254.5	21.61%	NA
Mercury	0.061	0.063	0.050	0.062	NA	0.04	0.058	< 0.050	0.050	NA	NA	NA
Molybdenum	0.98	1.00	0.10	0.99	2.02%	NA	1.25	1.55	0.10	1.4	21.43%	NA
Nickel	18.5	21.4	0.80	19.95	14.54%	NA	18.2	16.7	0.80	17.45	8.60%	NA
Phosphorus	518	518	10	518	0.00%	NA	655	728	10	691.5	10.56%	NA
Potassium	1150	1270	100	1210	9.92%	NA	1120	996	100	1058	11.72%	NA
Selenium	< 0.50	< 0.50	0.50	NA	NA	NA	< 0.50	< 0.50	0.50	NA	NA	NA
Silver	0.148	0.169	0.050	0.1585	NA	0.42	0.096	0.101	0.050	0.0985	NA	0.10
Sodium	298	391	100	344.5	NA	0.93	192	131	100	161.5	NA	0.61
Strontium	27.0	28.0	0.10	27.5	3.64%	NA	31.8	35.2	0.10	33.5	10.15%	NA
Thallium	0.162	0.174	0.050	0.168	NA	0.24	0.144	0.139	0.050	0.1415	NA	0.10
Tin	0.35	0.37	0.10	0.36	NA	0.20	0.38	0.31	0.10	0.345	NA	0.70
Titanium	55.3	77.6	1.0	66.45	33.56%	NA	37.9	35.9	1.0	36.9	5.42%	NA
Uranium	0.836	0.906	0.050	0.871	8.04%	NA	0.820	0.765	0.050	0.7925	6.94%	NA
Vanadium	25.1	26.1	2.0	25.6	3.91%	NA	26.7	27.3	2.0	27	2.22%	NA
Zinc	77.2	71.8	1.0	74.5	7.25%	NA	89.5	110	1.0	99.75	20.55%	NA
Zirconium	3.81	5.36	0.50	4.585	33.81%	NA	2.42	2.03	0.50	2.225	NA	0.78

Notes:

Results are expressed in micrograms per gram (mg/kg).

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FDA = field duplicate available

FD = field duplicate

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Method Reporting Limit indicates the minimum

concentration that could be measured by laboratory

instrumentation for a specific sample.

Mean indicates the mean or average value calculated of a

field duplicate pair (the FDA and the FD).

Relative Percent Difference (RPD) is calculated when the

mean value is greater than five times the method reporting

limit; Golder's internal QA/QC target is less than 35%.

Difference Factor (DF) is calculated when the mean value is

less than five times the method reporting limit; Golder's

internal QA/QC target is less than 2.

NA = not applicable

BOLD font indicates the parameter analysed exceeds

Golder's internal QA/QC targets.

TABLE B11 Results of Quality Control/Quality Assurance Analyses - Soil - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	SS-4	SS-4	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	TP16-03 S1	TP16-03 S1	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
	SS-4A	SS-4B					02025-07	02025-08				
	-	-					-	-				
	0.5-0.5 m	0.5-0.5 m					0.5-0.5 m	0.5-0.5 m				
	31-Aug-16	31-Aug-16					6-Sep-16	6-Sep-16				
	FDA	FD					FDA	FD				
Ions by Sat Paste												
Chloride	7.9	10.6	2.5	9.25	NA	1.08	32	29.7	3.6	30.85	7.46%	NA
Sodium	10.9	2.9	2.5	6.9	NA	3.20	35.9	40.7	3.6	38.3	12.53%	NA
Metals												
Aluminum	3570	3740	100	3655	4.65%	NA	8890	9200	100	9045	3.43%	NA
Antimony	0.49	0.46	0.10	0.475	NA	0.30	0.58	0.61	0.10	0.595	5.04%	NA
Arsenic	4.30	4.82	0.50	4.56	11.40%	NA	8.72	9.65	0.50	9.185	10.13%	NA
Barium	207	249	0.10	228	18.42%	NA	471	474	0.10	472.5	0.63%	NA
Beryllium	< 0.40	< 0.40	0.40	NA	NA	NA	0.65	0.73	0.40	0.69	NA	0.20
Bismuth	< 0.10	< 0.10	0.10	NA	NA	NA	0.14	0.16	0.10	0.15	NA	0.20
Cadmium	0.783	0.710	0.050	0.7465	9.78%	NA	0.329	0.346	0.050	0.3375	5.04%	NA
Calcium	53400	53800	100	53600	0.75%	NA	2900	3160	100	3030	8.58%	NA
Chromium	10.1	8.9	1.0	9.5	12.63%	NA	12.6	14.0	1.0	13.3	10.53%	NA
Cobalt	3.81	3.88	0.30	3.845	1.82%	NA	10.0	9.22	0.30	9.61	8.12%	NA
Copper	10.7	11.0	0.50	10.85	2.76%	NA	17.2	19.5	0.50	18.35	12.53%	NA
Iron	10700	10600	100	10650	0.94%	NA	18400	19500	100	18950	5.80%	NA
Lead	5.39	5.50	0.10	5.445	2.02%	NA	12.4	13.4	0.10	12.9	7.75%	NA
Lithium	8.3	8.4	5.0	8.35	NA	0.02	10.3	10.8	5.0	10.55	NA	0.10
Magnesium	17500	18600	100	18050	6.09%	NA	2100	2280	100	2190	8.22%	NA
Manganese	456	401	0.20	428.5	12.84%	NA	213	210	0.20	211.5	1.42%	NA
Mercury	< 0.050	< 0.050	0.050	NA	NA	NA	0.066	0.061	0.050	0.0635	NA	0.10
Molybdenum	1.60	1.72	0.10	1.66	7.23%	NA	1.24	1.35	0.10	1.295	8.49%	NA
Nickel	14.6	14.9	0.80	14.75	2.03%	NA	21.6	22.5	0.80	22.05	4.08%	NA
Phosphorus	1160	1130	10	1145	2.62%	NA	547	549	10	548	0.36%	NA
Potassium	611	688	100	649.5	11.86%	NA	1050	1080	100	1065	2.82%	NA
Selenium	< 0.50	< 0.50	0.50	NA	NA	NA	< 0.50	< 0.50	0.50	NA	NA	NA
Silver	0.060	0.080	0.050	0.07	NA	0.40	0.103	0.104	0.050	0.1035	NA	0.02
Sodium	< 100	< 100	100	NA	NA	NA	1400	1890	100	1645	29.79%	NA
Strontium	54.5	53.8	0.10	54.15	1.29%	NA	19.2	20.6	0.10	19.9	7.04%	NA
Thallium	0.130	0.138	0.050	0.134	NA	0.16	0.135	0.144	0.050	0.1395	NA	0.18
Tin	0.30	0.26	0.10	0.28	NA	0.40	0.42	0.44	0.10	0.43	NA	0.20
Titanium	42.9	45.0	1.0	43.95	4.78%	NA	35.6	29.9	1.0	32.75	17.40%	NA
Uranium	0.814	0.848	0.050	0.831	4.09%	NA	0.929	1.01	0.050	0.9695	8.35%	NA
Vanadium	24.7	27.4	2.0	26.05	10.36%	NA	27.6	28.2	2.0	27.9	2.15%	NA
Zinc	63.6	66.2	1.0	64.9	4.01%	NA	163	139	1.0	151	15.89%	NA
Zirconium	0.76	0.78	0.50	0.77	NA	0.04	3.07	3.52	0.50	3.295	13.66%	NA

Notes:

Results are expressed in micrograms per gram (mg/kg).

SCN = sample control number

FDA = field duplicate available

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limit; Golder's internal QA/QC target is less than 35%.

Difference Factor (DF) is calculated when the mean value is

less than five times the method reporting limit; Golder's

internal QA/QC target is less than 2.

NA = not applicable

BOLD font indicates the parameter analysed exceeds

Golder's internal QA/QC targets.

TABLE B11 Results of Quality Control/Quality Assurance Analyses - Soil - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	TP16-06 S1 01129-04 - 0.5-0.5 m 7-Sep-16 FDA	TP16-06 S1 01129-05 - 0.5-0.5 m 7-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	TP16-12 S1 02028-10 - 0.5-0.5 m 7-Sep-16 FDA	TP16-12 S1 02028-11 - 0.5-0.5 m 7-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Ions by Sat Paste												
Chloride	14.2	5.7	2.3	9.95	NA	3.70	163	183	2.9	173	11.56%	NA
Sodium	16	6.9	2.3	11.45	NA	3.96	< 290	< 280	280	NA	NA	NA
Metals												
Aluminum	7980	7280	100	7630	9.17%	NA	8670	8650	100	8660	0.23%	NA
Antimony	0.60	0.52	0.10	0.56	14.29%	NA	0.48	0.49	0.10	0.485	NA	0.10
Arsenic	8.95	8.86	0.50	8.905	1.01%	NA	8.35	8.03	0.50	8.19	3.91%	NA
Barium	1130	1200	0.10	1165	6.01%	NA	194	190	0.10	192	2.08%	NA
Beryllium	0.69	0.62	0.40	0.655	NA	0.18	0.42	0.51	0.40	0.465	NA	0.23
Bismuth	0.11	0.12	0.10	0.115	NA	0.10	0.15	0.14	0.10	0.145	NA	0.10
Cadmium	0.297	0.256	0.050	0.2765	14.83%	NA	0.194	0.304	0.050	0.249	NA	2.20
Calcium	2270	2020	100	2145	11.66%	NA	4620	7560	100	6090	48.28%	NA
Chromium	11.3	10.5	1.0	10.9	7.34%	NA	12.2	12.8	1.0	12.5	4.80%	NA
Cobalt	9.99	9.78	0.30	9.885	2.12%	NA	5.82	6.06	0.30	5.94	4.04%	NA
Copper	15.5	14.7	0.50	15.1	5.30%	NA	13.4	15.2	0.50	14.3	12.59%	NA
Iron	18400	17300	100	17850	6.16%	NA	17000	17000	100	17000	0.00%	NA
Lead	11.2	11.1	0.10	11.15	0.90%	NA	11.1	10.9	0.10	11	1.82%	NA
Lithium	8.7	8.1	5.0	8.4	NA	0.12	9.0	10.1	5.0	9.55	NA	0.22
Magnesium	1640	1650	100	1645	0.61%	NA	2600	3780	100	3190	36.99%	NA
Manganese	203	211	0.20	207	3.86%	NA	127	177	0.20	152	32.89%	NA
Mercury	0.057	0.054	0.050	0.0555	NA	0.06	< 0.050	< 0.050	0.050	NA	NA	NA
Molybdenum	1.21	1.07	0.10	1.14	12.28%	NA	1.28	1.18	0.10	1.23	8.13%	NA
Nickel	24.9	24.0	0.80	24.45	3.68%	NA	13.5	14.9	0.80	14.2	9.86%	NA
Phosphorus	501	461	10	481	8.32%	NA	445	538	10	491.5	18.92%	NA
Potassium	1000	836	100	918	17.86%	NA	865	882	100	873.5	1.95%	NA
Selenium	< 0.50	< 0.50	0.50	NA	NA	NA	< 0.50	< 0.50	0.50	NA	NA	NA
Silver	0.077	0.090	0.050	0.0835	NA	0.26	0.085	0.080	0.050	0.0825	NA	0.10
Sodium	355	424	100	389.5	NA	0.69	769	778	100	773.5	1.16%	NA
Strontium	24.7	23.4	0.10	24.05	5.41%	NA	20.2	22.4	0.10	21.3	10.33%	NA
Thallium	0.139	0.133	0.050	0.136	NA	0.12	0.120	0.101	0.050	0.1105	NA	0.38
Tin	0.32	0.33	0.10	0.325	NA	0.10	0.36	0.36	0.10	0.36	NA	0.00
Titanium	39.4	34.0	1.0	36.7	14.71%	NA	37.6	33.0	1.0	35.3	13.03%	NA
Uranium	1.02	0.993	0.050	1.0065	2.68%	NA	0.799	0.962	0.050	0.8805	18.51%	NA
Vanadium	27.0	24.3	2.0	25.65	10.53%	NA	29.3	27.5	2.0	28.4	6.34%	NA
Zinc	102	96.7	1.0	99.35	5.33%	NA	70.1	75.7	1.0	72.9	7.68%	NA
Zirconium	2.69	2.46	0.50	2.575	8.93%	NA	1.24	1.42	0.50	1.33	NA	0.36

Notes:

Results are expressed in micrograms per gram (mg/kg).

SCN = sample control number

FDA = field duplicate available

FD = field duplicate

QA/QC = quality assurance/quality control

Method Reporting Limit indicates the minimum

concentration that could be measured by laboratory

instrumentation for a specific sample.

Mean indicates the mean or average value calculated of a

field duplicate pair (the FDA and the FD).

Relative Percent Difference (RPD) is calculated when the

mean value is greater than five times the method reporting

limit; Golder's internal QA/QC target is less than 35%.

Difference Factor (DF) is calculated when the mean value is

less than five times the method reporting limit; Golder's

internal QA/QC target is less than 2.

NA = not applicable

BOLD font indicates the parameter analysed exceeds

Golder's internal QA/QC targets.

TABLE B11 Results of Quality Control/Quality Assurance Analyses - Soil - Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	TP16-31	TP16-31	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	BH16-13 S2	BH16-13 S2	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
	TP16-31-S2	TP16-31-S2FD					01132-02	01132-03				
	1.8-1.9	1.8-1.9					-	-				
	7-Nov-16	7-Nov-16					0.91-1.22	0.91-1.22				
	FDA	FD					9-Sep-16	9-Sep-16				
							FDA	FD				
Ions by Sat Paste												
Chloride	1410	1370	35	1390	2.88%	NA	70.4	54.4	3.1	62.4	25.64%	NA
Sodium	760	791	3.5	775.5	4.00%	NA	16.3	13	3.1	14.65	NA	1.06
Metals												
Aluminum	7860	8620	100	8240	9.22%	NA	10600	11500	100	11050	8.14%	NA
Antimony	0.47	0.51	0.10	0.49	NA	0.40	0.60	0.55	0.10	0.575	8.70%	NA
Arsenic	7.78	8.36	0.50	8.07	7.19%	NA	9.30	9.76	0.50	9.53	4.83%	NA
Barium	304	304	0.10	304	0.00%	NA	737	732	0.10	734.5	0.68%	NA
Beryllium	0.63	0.63	0.40	0.63	NA	0.00	0.75	0.81	0.40	0.78	NA	0.15
Bismuth	0.18	0.19	0.10	0.185	NA	0.10	0.17	0.20	0.10	0.185	NA	0.30
Cadmium	0.498	0.437	0.050	0.4675	13.05%	NA	0.444	0.535	0.050	0.4895	18.59%	NA
Calcium	3410	3480	100	3445	2.03%	NA	2490	2730	100	2610	9.20%	NA
Chromium	15.6	16.7	1.0	16.15	6.81%	NA	17.2	19.1	1.0	18.15	10.47%	NA
Cobalt	9.98	9.27	0.30	9.625	7.38%	NA	9.07	10.1	0.30	9.585	10.75%	NA
Copper	21	21.7	0.50	21.35	3.28%	NA	19.8	23.1	0.50	21.45	15.38%	NA
Iron	18300	19700	100	19000	7.37%	NA	26800	21000	100	23900	24.27%	NA
Lead	11.6	11.9	0.10	11.75	2.55%	NA	12.4	13.4	0.10	12.9	7.75%	NA
Lithium	10.2	11.2	5.0	10.7	NA	0.20	11.6	11.8	5.0	11.7	NA	0.04
Magnesium	2820	3080	100	2950	8.81%	NA	2290	2570	100	2430	11.52%	NA
Manganese	383	322	0.20	352.5	17.30%	NA	346	298	0.20	322	14.91%	NA
Mercury	<0.050	0.05	0.050	NA	NA	NA	0.073	0.072	0.050	NA	NA	NA
Molybdenum	1.26	1.31	0.10	1.285	3.89%	NA	1.75	1.60	0.10	1.675	8.96%	NA
Nickel	34	34.5	0.80	34.25	1.46%	NA	29.7	31.0	0.80	30.35	4.28%	NA
Phosphorus	559	543	10	551	2.90%	NA	671	613	10	642	9.03%	NA
Potassium	1000	1150	100	1075	13.95%	NA	1490	1610	100	1550	7.74%	NA
Selenium	<0.50	<0.50	0.50	NA	NA	NA	0.56	0.51	0.50	NA	NA	NA
Silver	0.094	0.101	0.050	0.0975	NA	0.14	0.128	0.144	0.050	0.136	NA	0.32
Sodium	1470	1420	100	NA	NA	NA	< 100	111	100	NA	NA	NA
Strontium	30.6	31	0.10	30.8	1.30%	NA	33.1	38.0	0.10	35.55	13.78%	NA
Thallium	0.242	0.221	0.050	0.2315	NA	0.42	0.229	0.230	0.050	0.2295	NA	0.02
Tin	0.58	0.57	0.10	0.575	1.74%	NA	0.50	0.54	0.10	0.52	7.69%	NA
Titanium	34.6	47.8	1.0	41.2	32.04%	NA	41.6	45.9	1.0	43.75	9.83%	NA
Uranium	0.867	0.901	0.050	0.884	3.85%	NA	1.10	1.05	0.050	1.075	4.65%	NA
Vanadium	25.3	27.9	2.0	26.6	9.77%	NA	36.5	38.0	2.0	37.25	4.03%	NA
Zinc	73.4	78.4	1.0	75.9	6.59%	NA	106	105	1.0	105.5	0.95%	NA
Zirconium	5.39	5.11	0.50	5.25	5.33%	NA	3.86	4.70	0.50	4.28	19.63%	NA

Notes:

Results are expressed in micrograms per gram (mg/kg).

SCN = sample control number

FDA = field duplicate available

FD = field duplicate

QA/QC = quality assurance/quality control

Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.

Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).

Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit; Golder's internal QA/QC target is less than 35%.

Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.

NA = not applicable

BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B12 Results of Quality Control/Quality Assurance Analyses - Soil Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	BH16-03 S1 02022-09 - 0.15-0.45 m 6-Sep-16 FDA	BH16-03 S1 02022-10 - 0.15-0.45 m 6-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	BH16-10 S2 02026-02 - 0.9-1.3 m 9-Sep-16 FDA	BH16-10 S2 02026-03 - 0.9-1.3 m 9-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW16-06-S4 MW16-06-S4 - 2.8-3.13 m 4-Sep-16 FDA	MW16-06-S4 MW16-06-S4 - 2.8-3.13 m 4-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Polycyclic Aromatic Hydrocarbons																		
Acenaphthene	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA
Acenaphthylene	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA
Anthracene	< 0.0040	< 0.0040	0.004	NA	NA	NA	< 0.0040	< 0.0040	0.004	NA	NA	NA	< 0.0040	< 0.0040	0.004	NA	NA	NA
Benzo(a)anthracene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Benzo(a)pyrene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Benzo(g,h,i)perylene	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
Benzo(k)fluoranthene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Chrysene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Dibenzo(a,h)anthracene	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
Fluoranthene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Benzo(a)pyrene Total Potency Equivalence (TPE)	0.041	0.041	0.01	0.041	NA	0.00	0.041	0.041	0.01	0.041	NA	0.00	0.041	0.041	0.01	0.041	NA	0.00
Benzo(b,j) fluoranthene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Fluorene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Indeno(1,2,3-c,d)pyrene	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
Index of Additive Cancer Risk (IACR)	0.31	0.31	0.1	0.31	NA	0.00	0.31	0.31	0.1	0.31	NA	0.00	0.31	0.31	0.1	0.31	NA	0.00
Naphthalene	< 0.010	< 0.010	0.01	NA	NA	NA	< 0.010	< 0.010	0.01	NA	NA	NA	< 0.010	< 0.010	0.01	NA	NA	NA
Phenanthrene	0.010	< 0.010	0.01	NA	NA	NA	0.013	< 0.010	0.01	NA	NA	NA	< 0.010	< 0.010	0.01	NA	NA	NA
Pyrene	< 0.020	< 0.020	0.01	NA	NA	NA	< 0.020	0.026	0.01	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
2-methylnaphthalene	< 0.020	< 0.020	0.01	NA	NA	NA	< 0.020	< 0.020	0.01	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
PAH, Low Molecular Weight	< 0.050	< 0.050	0.04	NA	NA	NA	< 0.050	< 0.050	0.04	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
PAH, High Molecular Weight	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
PAH, Total	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
EPH (C10-C19)	< 100	< 100	100.0	NA	NA	NA	< 100	< 100	100.0	NA	NA	NA	< 100	< 100	100.0	NA	NA	NA
LEPH (C10-C19) Less PAHs	< 100	< 100	100.0	NA	NA	NA	< 100	< 100	100.0	NA	NA	NA	< 100	< 100	100.0	NA	NA	NA
EPH (C19-C32)	< 100	< 100	100.0	NA	NA	NA	< 100	160	100.0	NA	NA	NA	< 100	< 100	100.0	NA	NA	NA
HEPH (C19-C32) Less PAHs	< 100	< 100	100.0	NA	NA	NA	< 100	160	100.0	NA	NA	NA	< 100	< 100	100.0	NA	NA	NA
VPH (C6-C10)	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA
VHC (C6-C10)	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA
Petroleum Hydrocarbons - F1 (C6-C10)-BTEX	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA
Petroleum Hydrocarbons - F1 (C6-C10)	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA
Petroleum Hydrocarbons - F2 (C10-C16)	< 10	< 10	10.0	NA	NA	NA	15	< 10	10.0	NA	NA	NA	< 10	< 10	10.0	NA	NA	NA
Petroleum Hydrocarbons - F3 (C16-C34)	65	44	10.0	54.5	38.53%	NA	110	220	10.0	165	66.67%	NA	18	17	10.0	17.5	NA	0.10
Petroleum Hydrocarbons - F4 (C34-C50)	14	14	10.0	14	NA	0.00	43	29	10.0	36	NA	1.40	< 10	< 10	10.0	NA	NA	NA

Notes:
Results are expressed in micrograms per gram (mg/kg), unless otherwise indicated.
SCN = sample control number
FDA = field duplicate available
FD = field duplicate
QA/QC = quality assurance/quality control
Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.
Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).
Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit; Golder's internal QA/QC target is less than 35%.
Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.
NA = not applicable
BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B12 Results of Quality Control/Quality Assurance Analyses - Soil Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	MW16-08 MW16-08-S4 - 1.97-2.30 m 5-Sep-16 FDA	MW16-08 MW16-08-S4 - 1.97-2.30 m 5-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	TP16-12 S1 02028-10 - 0.5-0.5 m 7-Sep-16 FDA	TP16-12 S1 02028-11 - 0.5-0.5 m 7-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	TP16-29 TP16-29 TP16-29-S3 3.0-3.2 7-Nov-16 FDA	TP16-29 TP16-29 TP16-29-S3 FD 3.0-3.2 7-Nov-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Polycyclic Aromatic Hydrocarbons																		
Acenaphthene	0.015	0.0074	0.005	0.0112	NA	1.52	0.050	0.069	0.005	0.0595	31.93%	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA
Acenaphthylene	< 0.0050	< 0.0050	0.005	NA	NA	NA	0.018	0.023	0.005	0.0205	NA	1.00	< 0.0050	< 0.0050	0.005	NA	NA	NA
Anthracene	< 0.0040	< 0.0040	0.004	NA	NA	NA	0.0069	0.0087	0.004	0.0078	NA	0.45	< 0.0040	< 0.0040	0.004	NA	NA	NA
Benzo(a)anthracene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Benzo(a)pyrene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Benzo(g,h,i)perylene	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
Benzo(k)fluoranthene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Chrysene	0.023	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Dibenzo(a,h)anthracene	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
Fluoranthene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Benzo(a)pyrene Total Potency Equivalence (TPE)	0.041	0.041	0.01	0.041	NA	0.00	0.041	0.041	0.01	0.041	NA	0.00	0.041	0.041	0.01	0.041	NA	0.00
Benzo(b,j) fluoranthene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
Fluorene	0.022	< 0.020	0.02	NA	NA	NA	0.079	0.10	0.02	0.0895	NA	1.05	< 0.020	< 0.020	0.02	NA	NA	NA
Indeno(1,2,3-c,d)pyrene	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
Index of Additive Cancer Risk (IACR)	0.31	0.31	0.1	0.31	NA	0.00	0.31	0.31	0.1	0.31	NA	0.00	0.31	0.31	0.1	0.31	NA	0.00
Naphthalene	0.22	0.18	0.01	0.2	20.00%	NA	0.031	0.14	0.01	0.0855	127.49%	NA	< 0.010	< 0.010	0.01	NA	NA	NA
Phenanthrene	0.037	0.024	0.01	0.0305	NA	1.30	0.074	0.11	0.01	0.092	39.13%	NA	< 0.010	< 0.010	0.01	NA	NA	NA
Pyrene	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA
2-methylnaphthalene	0.42	0.31	0.02	0.365	30.14%	NA	0.32	0.78	0.02	0.55	83.64%	NA	< 0.020	< 0.020	0.02	NA	NA	NA
PAH, Low Molecular Weight	0.72	0.52	0.02	0.62	32.26%	NA	0.57	1.2	0.02	0.885	71.19%	NA	< 0.050	< 0.050	0.02	NA	NA	NA
PAH, High Molecular Weight	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA
PAH, Total	0.74	0.52	0.05	0.63	34.92%	NA	0.57	1.2	0.05	0.885	71.19%	NA	< 0.050	< 0.050	0.05	NA	NA	NA
EPH (C10-C19)	320	180	100	250	NA	1.40	1000	1300	100.0	1150	26.09%	NA	< 100	< 100	100	NA	NA	NA
LEPH (C10-C19) Less PAHs	320	180	100	250	NA	1.40	1000	1300	100.0	1150	26.09%	NA	< 100	< 100	100	NA	NA	NA
EPH (C19-C32)	190	140	100	165	NA	0.50	< 100	110	100.0	NA	NA	NA	< 100	< 100	100	NA	NA	NA
HEPH (C19-C32) Less PAHs	190	140	100	165	NA	0.50	< 100	110	100.0	NA	NA	NA	< 100	< 100	100	NA	NA	NA
VPH (C6-C10)	56	31	10	43.5	NA	2.50	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10	NA	NA	NA
VHC (C6-C10)	60	33	10	46.5	NA	2.70	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10	NA	NA	NA
Petroleum Hydrocarbons - F1 (C6-C10)-BTX	59	37	10	48	NA	2.20	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10	NA	NA	NA
Petroleum Hydrocarbons - F1 (C6-C10)	63	39	10	51	47.06%	NA	< 10	< 10	10.0	NA	NA	NA	< 10	< 10	10	NA	NA	NA
Petroleum Hydrocarbons - F2 (C10-C16)	280	150	10	215	60.47%	NA	1000	1300	10.0	1150	26.09%	NA	< 10	< 10	10	NA	NA	NA
Petroleum Hydrocarbons - F3 (C16-C34)	320	220	10	270	37.04%	NA	200	290	10.0	245	36.73%	NA	35	15	10	25	NA	2.00
Petroleum Hydrocarbons - F4 (C34-C50)	110	72	10	91	41.76%	NA	11	27	10.0	19	NA	1.60	< 10	< 10	10	NA	NA	NA

Notes:
Results are expressed in micrograms per gram (mg/kg), unless otherwise indicated.
SCN = sample control number
FDA = field duplicate available
FD = field duplicate
QA/QC = quality assurance/quality control
Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.
Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).
Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit;
Golder's internal QA/QC target is less than 35%.
Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.
NA = not applicable
BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B13 Results of Quality Control/Quality Assurance Analyses - Soil Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	BH16-03 S1 02022-09 - 0.15-0.45 m 6-Sep-16 FDA	BH16-03 S1 02022-10 - 0.15-0.45 m 6-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	BH16-10 S2 02026-02 - 0.9-1.3 m 9-Sep-16 FDA	BH16-10 S2 02026-03 - 0.9-1.3 m 9-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW16-06-S4 MW16-06-S4 - 2.8-3.13 m 4-Sep-16 FDA	MW16-06-S4 MW16-06-S4 - 2.8-3.13 m 4-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Volatile Organic Compounds																		
Bromodichloromethane (BDCM)	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA
Bromomethane (Methyl bromide)	< 0.30	< 0.30	0.300	NA	NA	NA	< 0.30	< 0.30	0.300	NA	NA	NA	< 0.30	< 0.30	0.300	NA	NA	NA
Bromoform (Tribromomethane)	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA
Carbon Tetrachloride	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
Chlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.0250	NA	NA	NA	< 0.025	< 0.025	0.0250	NA	NA	NA
Chloroethane	< 0.10	< 0.10	0.100	NA	NA	NA	< 0.10	< 0.10	0.100	NA	NA	NA	< 0.10	< 0.10	0.100	NA	NA	NA
Chloroform	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA
Chloromethane	< 0.10	< 0.10	0.100	NA	NA	NA	< 0.10	< 0.10	0.10	NA	NA	NA	< 0.10	< 0.10	0.10	NA	NA	NA
Dichloromethane (DCM) (Methylene Chloride)	< 0.30	< 0.30	0.300	NA	NA	NA	< 0.10	< 0.10	0.10	NA	NA	NA	< 0.10	< 0.10	0.10	NA	NA	NA
Dibromochloromethane (DBCM)	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA
1,2-dibromoethane (Ethylene Dibromide) (EDB)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,2-dichlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,3-dichlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,4-dichlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,1-dichloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,2-dichloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,1-dichloroethene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,2-dichloropropane (Propylene Dichloride)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,3-dichloropropene (Cis)	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA
1,3-dichloropropene (Trans)	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA
1,1,1,2-tetrachloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,1,2,2-tetrachloroethane	0.03	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
Tetrachloroethylene (PCE/PERC)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,1,1-trichloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,1,2-trichloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
Trichloroethylene (TCE)	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA
Trichlorofluoromethane (Freon 11)	< 0.20	< 0.20	0.20	NA	NA	NA	< 0.20	< 0.20	0.200	NA	NA	NA	< 0.20	< 0.20	0.200	NA	NA	NA
Vinyl Chloride (Chloroethene)	< 0.060	< 0.060	0.06	NA	NA	NA	< 0.060	< 0.060	0.060	NA	NA	NA	< 0.060	< 0.060	0.060	NA	NA	NA
Benzene	< 0.0050	< 0.0050	0.01	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA
Toluene	0.091	< 0.020	0.02	NA	NA	NA	1.5	0.48	0.020	0.99	103.03%	NA	< 0.020	< 0.020	0.020	NA	NA	NA
Ethylbenzene	< 0.010	< 0.010	0.01	NA	NA	NA	< 0.010	< 0.010	0.010	NA	NA	NA	< 0.010	< 0.010	0.010	NA	NA	NA
Xylenes, Total	0.097	0.052	0.05	0.0745	NA	0.87	< 0.040	< 0.040	0.040	NA	NA	NA	< 0.040	< 0.040	0.040	NA	NA	NA
o-Xylene	< 0.040	< 0.040	0.04	NA	NA	NA	< 0.040	< 0.040	0.040	NA	NA	NA	< 0.040	< 0.040	0.040	NA	NA	NA
Styrene	< 0.030	< 0.030	0.03	NA	NA	NA	< 0.030	< 0.030	0.030	NA	NA	NA	< 0.030	< 0.030	0.030	NA	NA	NA
Methyl tert-Butyl Ether	< 0.10	0.14	0.10	NA	NA	NA	< 0.10	< 0.10	0.100	NA	NA	NA	< 0.10	< 0.10	0.100	NA	NA	NA
m,p-Xylenes	0.097	0.052	0.04	0.0745	NA	1.13	< 0.040	< 0.040	0.040	NA	NA	NA	< 0.040	< 0.040	0.040	NA	NA	NA
1,2,3-Trichlorobenzene	< 0.025	< 0.025	0.03	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
1,2,4-Trichlorobenzene	< 0.025	< 0.025	0.03	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA
Hexachlorobutadiene	< 0.20	< 0.20	0.20	NA	NA	NA	< 0.20	< 0.20	0.200	NA	NA	NA	< 0.20	< 0.20	0.200	NA	NA	NA

Notes:
Results are expressed in micrograms per gram (mg/kg), unless otherwise indicated.
SCN = sample control number
FDA = field duplicate available
FD = field duplicate
QA/QC = quality assurance/quality control
Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.
Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).
Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit; Golder's internal QA/QC target is less than 35%.
Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.
NA = not applicable
BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B13 Results of Quality Control/Quality Assurance Analyses - Soil Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	MW16-08 MW16-08-S4 - 1.97-2.30 m 5-Sep-16 FDA	MW16-08 MW16-08-S4 - 1.97-2.30 m 5-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	TP16-12 S1 02028-10 - 0.5-0.5 m 7-Sep-16 FDA	TP16-12 S1 02028-11 - 0.5-0.5 m 7-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	TP16-29 TP16-29 TP16-29-S3 3.0-3.2 7-Nov-16 FDA	TP16-29 TP16-29 TP16-29-S3 3.0-3.2 7-Nov-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	BH16-13 S2 01132-02 - 0.91-1.22 9-Sep-16 FDA	BH16-13 S2 01132-03 - 0.91-1.22 9-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Volatile Organic Compounds																								
Bromodichloromethane (BDCM)	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	-	-	-	NA	NA	NA
Bromomethane (Methyl bromide)	< 0.30	< 0.30	0.3	NA	NA	NA	< 0.30	< 0.30	0.300	NA	NA	NA	< 0.30	< 0.30	0.3	NA	NA	NA	-	-	-	NA	NA	NA
Bromoform (Tribromomethane)	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	-	-	-	NA	NA	NA
Carbon Tetrachloride	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
Chlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.0250	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
Chloroethane	< 0.10	< 0.10	0.1	NA	NA	NA	< 0.10	< 0.10	0.100	NA	NA	NA	< 0.10	< 0.10	0.1	NA	NA	NA	-	-	-	NA	NA	NA
Chloroform	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	-	-	-	NA	NA	NA
Chloromethane	< 0.10	< 0.10	0.1	NA	NA	NA	< 0.10	< 0.10	0.10	NA	NA	NA	< 0.10	< 0.10	0.1	NA	NA	NA	-	-	-	NA	NA	NA
Dichloromethane (DCM) (Methylene Chloride)	< 0.10	< 0.10	0.1	NA	NA	NA	< 0.10	< 0.10	0.10	NA	NA	NA	< 0.10	< 0.10	0.1	NA	NA	NA	-	-	-	NA	NA	NA
Dibromochloromethane (DBCM)	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	-	-	-	NA	NA	NA
1,2-dibromoethane (Ethylene Dibromide) (EDB)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,2-dichlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,3-dichlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,4-dichlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,1-dichloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,2-dichloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,1-dichloroethene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,2-dichloroethylene (Cis) (1,2-dichloroethene)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,2-dichloroethylene (Trans) (1,2-dichloroethene)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,2-dichloropropane (Propylene Dichloride)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,3-dichloropropene (Cis)	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	-	-	-	NA	NA	NA
1,3-dichloropropene (Trans)	< 0.050	< 0.050	0.05	NA	NA	NA	< 0.050	< 0.050	0.050	NA	NA	NA	< 0.050	< 0.050	0.05	NA	NA	NA	-	-	-	NA	NA	NA
1,1,1,2-tetrachloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,1,2,2-tetrachloroethane	0.76	0.49	0.025	0.625	43.20%	NA	< 0.025	0.041	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
Tetrachloroethylene (PCE/PERC)	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,1,1-trichloroethane	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,1,2-trichloroethane	0.067	0.033	0.025	0.05	NA	1.36	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
Trichloroethylene (TCE)	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	-	-	-	NA	NA	NA
Trichlorofluoromethane (Freon 11)	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.200	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA	-	-	-	NA	NA	NA
Vinyl Chloride (Chloroethene)	< 0.060	< 0.060	0.06	NA	NA	NA	< 0.060	< 0.060	0.060	NA	NA	NA	< 0.060	< 0.060	0.06	NA	NA	NA	-	-	-	NA	NA	NA
Benzene	0.025	0.02	0.005	0.0225	NA	1.00	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	0.013	0.005	NA	NA	NA
Toluene	0.091	0.059	0.02	0.075	NA	1.60	0.22	< 0.020	0.020	NA	NA	NA	< 0.020	< 0.020	0.02	NA	NA	NA	0.022	0.044	0.020	0.033	NA	1.10
Ethylbenzene	0.72	0.33	0.01	0.525	74.29%	NA	< 0.010	< 0.010	0.010	NA	NA	NA	< 0.010	< 0.010	0.01	NA	NA	NA	< 0.010	0.015	0.010	NA	NA	NA
Xylenes, Total	3.3	1.7	0.04	2.5	64.00%	NA	< 0.040	< 0.040	0.040	NA	NA	NA	< 0.040	< 0.040	0.04	NA	NA	NA	< 0.040	0.057	0.040	NA	NA	NA
o-Xylene	1.5	0.77	0.04	1.135	64.32%	NA	< 0.040	< 0.040	0.040	NA	NA	NA	< 0.040	< 0.040	0.04	NA	NA	NA	< 0.040	< 0.040	0.040	NA	NA	NA
Styrene	< 0.030	< 0.030	0.03	NA	NA	NA	< 0.030	< 0.030	0.030	NA	NA	NA	< 0.030	< 0.030	0.03	NA	NA	NA	< 0.030	< 0.030	0.030	NA	NA	NA
Methyl tert-Butyl Ether	< 0.10	< 0.10	0.1	NA	NA	NA	< 0.10	< 0.10	0.100	NA	NA	NA	< 0.10	< 0.10	0.1	NA	NA	NA	< 0.10	< 0.10	0.100	NA	NA	NA
m,p-Xylenes	1.8	0.92	0.04	1.36	64.71%	NA	< 0.040	< 0.040	0.040	NA	NA	NA	< 0.040	< 0.040	0.04	NA	NA	NA	< 0.040	0.057	0.040	NA	NA	NA
1,2,3-Trichlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
1,2,4-Trichlorobenzene	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	< 0.025	< 0.025	0.025	NA	NA	NA	-	-	-	NA	NA	NA
Hexachlorobutadiene	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.200	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA	-	-	-	NA	NA	NA

Notes:
Results are expressed in micrograms per gram (mg/kg), unless otherwise indicated.
SCN = sample control number
FDA = field duplicate available
FD = field duplicate
QA/QC = quality assurance/quality control
Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.
Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).
Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit; Golder's internal QA/QC target is less than 35%.
Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.
NA = not applicable
BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B14 Results of Quality Control/Quality Assurance Analyses - Leachable Soil
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Depth (m bgs) Date Sampled QA/QC	MW16-08/SA4 (FD) 503297-10-01 PL6977 1.97-2.3 m 5-Sep-16 FDA	MW16-08/SA4 503297-10-01 PL6978 1.97-2.3 m 5-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Leachate F2 (C10-C16 Hydrocarbons)	<200	<200	200	NA	NA	NA
Leachate F3 (C16-C34 Hydrocarbons)	<200	<200	200	NA	NA	NA
Leachate F4 (C34-C50 Hydrocarbons)	<3000	<3000	3000	NA	NA	NA
Leachable Benzene	<10	<10	10.0	NA	NA	NA
Leachable Bromodichloromethane	<10	<10	10.0	NA	NA	NA
Leachable Bromoform	<10	<10	10.0	NA	NA	NA
Leachable Bromomethane	<10	<10	10.0	NA	NA	NA
Leachable Carbon tetrachloride	<10	<10	10.0	NA	NA	NA
Leachable Chlorobenzene	<10	<10	10.0	NA	NA	NA
Leachable Chlorodibromomethane	<10	<10	10.0	NA	NA	NA
Leachable Chloroethane	<10	<10	10.0	NA	NA	NA
Leachable Chloroform	<10	<10	10.0	NA	NA	NA
Leachable Chloromethane	<10	<10	10.0	NA	NA	NA
Leachable 1,2-dibromoethane	<10	<10	10.0	NA	NA	NA
Leachable 1,2-dichlorobenzene	<10	<10	10.0	NA	NA	NA
Leachable 1,3-dichlorobenzene	<10	<10	10.0	NA	NA	NA
Leachable 1,4-dichlorobenzene	<10	<10	10.0	NA	NA	NA
Leachable 1,1-dichloroethane	<10	<10	10.0	NA	NA	NA
Leachable 1,2-dichloroethane	<10	<10	10.0	NA	NA	NA
Leachable 1,1-dichloroethene	<10	<10	10.0	NA	NA	NA
Leachable cis-1,2-dichloroethene	<10	<10	10.0	NA	NA	NA
Leachable trans-1,2-dichloroethene	<10	<10	10.0	NA	NA	NA
Leachable Dichloromethane	<10	<10	10.0	NA	NA	NA
Leachable 1,2-dichloropropane	<10	<10	10.0	NA	NA	NA
Leachable cis-1,3-dichloropropene	<10	<10	10.0	NA	NA	NA
Leachable trans-1,3-dichloropropene	<10	<10	10.0	NA	NA	NA
Leachable Ethylbenzene	<10	<10	10.0	NA	NA	NA
Leachable Methyl methacrylate	<10	<10	10.0	NA	NA	NA
Leachable Methyl-tert-butylether (MTBE)	<10	<10	10.0	NA	NA	NA
Leachable Styrene	<10	<10	10.0	NA	NA	NA
Leachable 1,1,1,2-tetrachloroethane	<10	<10	10.0	NA	NA	NA
Leachable 1,1,1,2,2-tetrachloroethane	<10	<10	10.0	NA	NA	NA
Leachable Tetrachloroethene	<10	<10	10.0	NA	NA	NA
Leachable Toluene	<10	<10	10.0	NA	NA	NA
Leachable 1,2,3-trichlorobenzene	<10	<10	10.0	NA	NA	NA
Leachable 1,2,4-trichlorobenzene	<10	<10	10.0	NA	NA	NA
Leachable 1,3,5-trichlorobenzene	<10	<10	10.0	NA	NA	NA
Leachable 1,1,1-trichloroethane	<10	<10	10.0	NA	NA	NA
Leachable 1,1,2-trichloroethane	<10	<10	10.0	NA	NA	NA
Leachable Trichloroethene	<10	<10	10.0	NA	NA	NA
Leachable Trichlorofluoromethane	<10	<10	10.0	NA	NA	NA
Leachable 1,2,4-trimethylbenzene	18	28	10.0	23	NA	1.00
Leachable 1,3,5-trimethylbenzene	<10	<10	10.0	NA	NA	NA
Leachable Vinyl chloride	<10	<10	10.0	NA	NA	NA
Leachable Xylenes (Total)	<10	<10	10.0	NA	NA	NA
Leachable m & p-Xylene	<20	<20	20.00	NA	NA	NA
Leachable o-Xylene	<10	<10	10.0	NA	NA	NA
Leachate LEPH (C10-C19 less PAH)	<200	<200	200.00	NA	NA	NA
Leachate HEPH (C19-C32 less PAH)	<200	<200	200.00	NA	NA	NA
Leachate EPH (C10-C19)	200	<200	200.00	NA	NA	NA
Leachate EPH (C19-C32)	<200	<200	200.00	NA	NA	NA
Leachate Low Molecular Weight PAH's	9.4	7.4	0.50	8.4	23.81%	NA
Leachate High Molecular Weight PAH's	<0.20	<0.20	0.20	NA	NA	NA
Leachate Total PAH	9.4	7.4	0.5	8.4	23.81%	NA
Leachate Naphthalene	4.3	3.2	0.10	3.75	29.33%	NA
Leachate 2-Methylnaphthalene	4.9	3.8	0.10	4.35	25.29%	NA
Leachate Quinoline	<0.50	<0.50	0.50	NA	NA	NA
Leachate Acenaphthylene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Acenaphthene	0.1	<0.10	0.10	NA	NA	NA
Leachate Fluorene	0.15	0.26	0.26	0.205	NA	0.42
Leachate Phenanthrene	<0.10	0.15	0.15	NA	NA	NA
Leachate Anthracene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Acridine	<0.50	<0.50	0.5	NA	NA	NA
Leachate Fluoranthene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Pyrene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Benzo(a)anthracene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Chrysene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Benzo(b&j)fluoranthene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Benzo(k)fluoranthene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Benzo(a)pyrene	<0.10	<0.10	0.10	NA	NA	NA
Leachate Indeno(1,2,3-cd)pyrene	<0.20	<0.20	0.2	NA	NA	NA
Leachate Dibenz(a,h)anthracene	<0.20	<0.20	0.2	NA	NA	NA
Leachate Benzo(g,h,i)perylene	<0.20	<0.20	0.2	NA	NA	NA

Notes:

Results are expressed in micrograms per litre (ug/L), unless otherwise indicated.

SCN = sample control number

FDA = field duplicate available

FD = field duplicate

QA/QC = quality assurance/quality control

Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.

Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).

Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit; Golder's internal QA/QC target is less than 35%.

Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.

NA = not applicable

BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B15 Results of Quality Control/Quality Assurance Analyses - Groundwater Dissolved Metals
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Date Sampled QA/QC	MW16-08 MW16-08A MW16-08A 8-Sep-16 FDA	MW16-08 MW16-08B MW16-08B 8-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW09-01 MW09-01A MW09-01A 3-Sep-16 FDA	MW09-01 MW09-01B MW09-01B 3-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW16-02 MW16-02A MW16-02A 6-Nov-16 FDA	MW16-02 MW16-02B MW16-02B 6-Nov-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Anions and Nutrients																		
Chloride (Cl)	740	770	5.0	755	3.97%	NA	130	130	5.0	130	0.00%	NA	6800	6700	5.0	6750	1.48%	NA
Total Sodium (Na)	248	250	0.05	249	0.80%	NA	-	-	0.05	NA	NA	NA	2600	2700	0.05	NA	NA	NA
Dissolved Metals																		
Aluminum	0.0467	0.0444	0.003	0.04555	5.05%	NA	0.167	0.171	0.003	0.169	2.37%	NA	0.0082	0.0077	0.003	0.00795	NA	0.17
Antimony	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.0010	< 0.0010	0.0005	NA	NA	NA
Arsenic	0.00030	0.00033	0.0001	0.000315	NA	0.30	0.00019	0.00020	0.0001	0.000195	NA	0.10	0.00024	0.0003	0.0001	0.00027	NA	0.60
Barium	3.46	3.36	0.001	3.41	2.93%	NA	1.53	1.55	0.001	1.54	1.30%	NA	16.8	18.7	0.001	17.75	10.70%	NA
Beryllium	< 0.00010	< 0.00010	0.0001	NA	NA	NA	< 0.00010	< 0.00010	0.0001	NA	NA	NA	< 0.00020	< 0.00020	0.0001	NA	NA	NA
Bismuth	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0020	< 0.0020	0.001	NA	NA	NA
Boron	< 0.05	< 0.05	0.050	NA	NA	NA	< 0.05	< 0.05	0.050	NA	NA	NA	< 0.1	< 0.1	0.050	NA	NA	NA
Cadmium	0.00113	0.00109	0.00001	0.00111	3.60%	NA	0.000177	0.000189	0.00001	0.000183	6.56%	NA	0.00223	0.00237	0.00001	0.0023	6.09%	NA
Calcium	159	155	0.050	157	2.55%	NA	22.1	21.6	0.050	21.85	2.29%	NA	707	751	0.050	729	6.04%	NA
Chromium	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0020	< 0.0020	0.001	NA	NA	NA
Cobalt	0.0134	0.0136	0.001	0.0135	1.48%	NA	0.00078	0.00080	0.001	0.00079	NA	0.02	0.0029	0.0031	0.001	0.003	NA	0.20
Copper	0.00268	0.00273	0.0002	0.002705	1.85%	NA	0.00169	0.00168	0.0002	0.001685	0.59%	NA	0.00269	0.00293	0.0002	0.00281	8.54%	NA
Iron	0.212	0.204	0.005	0.208	3.85%	NA	0.0818	0.0829	0.005	0.08235	1.34%	NA	0.04	0.041	0.005	0.0405	2.47%	NA
Lead	< 0.00020	< 0.00020	0.0002	NA	NA	NA	< 0.00020	< 0.00020	0.0002	NA	NA	NA	< 0.00040	< 0.00040	0.0002	NA	NA	NA
Lithium	0.0260	0.0256	0.005	0.0258	1.55%	NA	0.0056	0.0058	0.005	0.0057	NA	0.04	0.072	0.077	0.005	0.0745	6.71%	NA
Magnesium	39.1	40.6	0.050	39.85	3.76%	NA	5.61	5.45	0.050	5.53	2.89%	NA	117	124	0.050	120.5	5.81%	NA
Manganese	1.08	1.13	0.001	1.105	4.52%	NA	0.0731	0.0720	0.001	0.07255	1.52%	NA	0.795	0.847	0.001	0.821	6.33%	NA
Mercury	< 0.000010	< 0.000010	0.00001	NA	NA	NA	< 0.000010	< 0.000010	0.00001	NA	NA	NA	< 0.000010	< 0.000010	0.00001	NA	NA	NA
Molybdenum	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	0.0023	0.0025	0.001	NA	NA	NA
Nickel	0.0460	0.0488	0.001	0.0474	5.91%	NA	0.0106	0.0111	0.001	0.01085	4.61%	NA	0.0197	0.0206	0.001	0.02015	4.47%	NA
Phosphorus	-	-	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-	-	NA	NA	NA
Potassium	8.06	8.31	0.050	8.185	3.05%	NA	2.56	2.52	0.050	2.54	1.57%	NA	27.7	28.8	0.050	28.25	3.89%	NA
Selenium	0.00020	0.00029	0.0001	0.000245	NA	0.90	0.00021	0.00019	0.0001	0.0002	NA	0.20	0.00047	0.00047	0.0001	0.00047	NA	0.00
Silicon	3.21	3.19	0.1	3.2	0.63%	NA	2.39	2.48	0.1	2.435	3.70%	NA	4.86	5.04	0.1	4.95	3.64%	NA
Silver	< 0.000020	< 0.000020	0.00002	NA	NA	NA	< 0.000020	< 0.000020	0.00002	NA	NA	NA	0.000145	0.00013	0.00002	NA	NA	NA
Sodium	236	246	0.050	241	4.15%	NA	84.1	81.1	0.050	82.6	3.63%	NA	2600	2700	0.050	2650	3.77%	NA
Strontium	0.887	0.904	0.001	0.8955	1.90%	NA	0.133	0.14	0.001	0.1365	5.13%	NA	4.98	5.15	0.001	5.065	3.36%	NA
Sulphur	< 3.0	< 3.0	3.0	NA	NA	NA	< 3.0	< 3.0	3.0	NA	NA	NA	< 6.0	7.1	3.0	NA	NA	NA
Thallium	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.00010	< 0.00010	0.00005	NA	NA	NA
Tin	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.01	< 0.01	0.005	NA	NA	NA
Titanium	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.01	< 0.01	0.005	NA	NA	NA
Uranium	0.00063	0.00066	0.0001	0.000645	4.65%	NA	0.00012	0.00012	0.0001	0.00012	NA	0.00	0.00468	0.00482	0.0001	0.00475	2.95%	NA
Vanadium	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.0050	< 0.0050	0.005	NA	NA	NA	< 0.01	< 0.01	0.005	NA	NA	NA
Zinc	0.0414	0.0415	0.005	0.04145	0.24%	NA	0.0160	0.0162	0.005	0.0161	NA	0.04	0.014	0.016	0.005	0.015	NA	0.40
Zirconium	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.0010	< 0.0010	0.0005	NA	NA	NA

Notes:
Results are expressed in micrograms per gram (mg/L), unless otherwise indicated.
SCN = sample control number
FDA = field duplicate available
FD = field duplicate
QA/QC = quality assurance/quality control
Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.
Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).
Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit; Golder's internal QA/QC target is less than 35%.
Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.
NA = not applicable
BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B16 Results of Quality Control/Quality Assurance Analyses - Groundwater Petroleum Hydrocarbons
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Date Sampled QA/QC	MW16-08 MW16-08A 8-Sep-16 FDA	MW16-08 MW16-08B 8-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW09-01 MW09-01A MW09-01A 3-Sep-16 FDA	MW09-01 MW09-01B MW09-01B 3-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW16-02 MW16-02A MW16-02A 6-Nov-16 FDA	MW16-02 MW16-02B MW16-02B 6-Nov-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Hydrocarbons																		
EPH10-19	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA
EPH19-32	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA
LEPH	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA
HEPH	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA	< 0.20	< 0.20	0.2	NA	NA	NA
Volatile Hydrocarbons (VH6-10)	< 0.3	< 0.3	0.3	NA	NA	NA	< 0.3	< 0.3	0.3	NA	NA	NA	< 0.3	< 0.3	0.3	NA	NA	NA
VPH (C6-C10)	< 0.3	< 0.3	0.3	NA	NA	NA	< 0.3	< 0.3	0.3	NA	NA	NA	< 0.3	< 0.3	0.3	NA	NA	NA
Polycyclic Aromatic Hydrocarbons																		
Acenaphthene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Acenaphthylene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Acridine	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Anthracene	< 0.000010	< 0.000010	0.00001	NA	NA	NA	< 0.000010	< 0.000010	0.00001	NA	NA	NA	< 0.000010	< 0.000010	0.00001	NA	NA	NA
Benz(a)anthracene	< 0.000010	< 0.000010	0.00001	NA	NA	NA	< 0.000010	< 0.000010	0.00001	NA	NA	NA	< 0.000010	< 0.000010	0.00001	NA	NA	NA
Benzo(a)pyrene	< 0.0000090	< 0.0000090	0.000009	NA	NA	NA	< 0.0000090	< 0.0000090	0.000009	NA	NA	NA	< 0.0000090	< 0.0000090	0.000009	NA	NA	NA
Benzo(b)fluoranthene	-	-	-	NA	NA	NA	-	-	-	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Benzo(b,j) fluoranthene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Benzo(g,h,i)perylene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Benzo(k)fluoranthene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Chrysene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Dibenz(a,h)anthracene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Fluoranthene	< 0.000020	< 0.000020	0.00002	NA	NA	NA	< 0.000020	< 0.000020	0.00002	NA	NA	NA	< 0.000020	< 0.000020	0.00002	NA	NA	NA
Fluorene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Indeno(1,2,3-c,d)pyrene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
Naphthalene	< 0.00010	< 0.00010	0.0001	NA	NA	NA	< 0.00010	< 0.00010	0.0001	NA	NA	NA	0.00012	0.00010	0.0001	0.00011	NA	0.20
Phenanthrene	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	0.00011	0.00010	0.00005	0.000105	NA	0.20
Pyrene	< 0.000020	< 0.000020	0.00002	NA	NA	NA	< 0.000020	< 0.000020	0.00002	NA	NA	NA	0.000029	0.000026	0.00002	0.0000275	NA	0.15
Quinoline	< 0.00024	< 0.00024	0.00024	NA	NA	NA	< 0.00024	< 0.00024	0.00024	NA	NA	NA	< 0.00024	< 0.00024	0.00024	NA	NA	NA
2-methylnaphthalene	0.00013	0.00013	0.0001	0.00013	NA	0.00	< 0.00010	< 0.00010	0.0001	NA	NA	NA	0.00019	0.00017	0.0001	0.00018	NA	0.20
PAH, Low Molecular Weight	< 0.00024	< 0.00024	0.00024	NA	NA	NA	< 0.00024	< 0.00024	0.00024	NA	NA	NA	0.00041	0.00037	0.00024	0.00039	NA	0.17
PAH, High Molecular Weight	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA	< 0.000050	< 0.000050	0.00005	NA	NA	NA
PAH, Total	< 0.00024	< 0.00024	0.00024	NA	NA	NA	< 0.00024	< 0.00024	0.00024	NA	NA	NA	0.00044	0.00040	0.00024	0.00042	NA	0.17

Notes:
Results are expressed in micrograms per gram (mg/L), unless otherwise indicated.
SCN = sample control number
FDA = field duplicate available
FD = field duplicate
QA/QC = quality assurance/quality control
Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.
Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).
Relative Percent Difference (RPD) is calculated when the mean value is greater than five times the method reporting limit; Golder's internal QA/QC target is less than 35%.
Difference Factor (DF) is calculated when the mean value is less than five times the method reporting limit; Golder's internal QA/QC target is less than 2.
NA = not applicable
BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.

TABLE B17 Results of Quality Control/Quality Assurance Analyses - Groundwater Volatile Organic Compounds
Steamboat Maintenance Camp, Kilometre 537.9, Alaska Highway, BC

Location SCN Laboratory ID Date Sampled QA/QC	MW16-08 MW16-08A 8-Sep-16 FDA	MW16-08 MW16-08B 8-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW09-01 MW09-01A MW09-01A 3-Sep-16 FDA	MW09-01 MW09-01B MW09-01B 3-Sep-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)	MW16-02 MW16-02A MW16-02A 6-Nov-16 FDA	MW16-02 MW16-02B MW16-02B 6-Nov-16 FD	Method Reporting Limit	Mean	Relative Percent Difference	Difference Factor (DF)
Volatile Organic Compounds																		
Benzene	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA
Bromodichloromethane	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
Bromoform	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
Bromomethane	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
Carbon Tetrachloride	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
Chlorobenzene	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
Dibromochloromethane	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
Chloroethane	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
Chloroform	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
Chloromethane	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	0.0013	< 0.0010	0.001	NA	NA	NA
1,2-Dichlorobenzene	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
1,3-Dichlorobenzene	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
1,4-Dichlorobenzene	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
1,1-Dichloroethane	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
1,2-Dichloroethane	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
1,1-Dichloroethylene	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
cis-1,2-Dichloroethylene	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
trans-1,2-Dichloroethylene	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
Dichloromethane	< 0.0020	< 0.0020	0.002	NA	NA	NA	< 0.0020	< 0.0020	0.002	NA	NA	NA	0.0028	< 0.0020	0.002	NA	NA	NA
1,2-Dichloropropane	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
cis-1,3-Dichloropropylene	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
trans-1,3-Dichloropropylene	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA	< 0.0010	< 0.0010	0.001	NA	NA	NA
Ethylbenzene	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA
Methyl t-butyl ether (MTBE)	< 0.0040	< 0.0040	0.0040	NA	NA	NA	< 0.0040	< 0.0040	0.0040	NA	NA	NA	< 0.0040	< 0.0040	0.0040	NA	NA	NA
Styrene	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
1,1,1,2-Tetrachloroethane	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
1,1,1,2,2-Tetrachloroethane	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
Tetrachloroethylene	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
Toluene	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA
1,1,1-Trichloroethane	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
1,1,2-Trichloroethane	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
Trichloroethylene	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
Trichlorofluoromethane	< 0.0040	< 0.0040	0.004	NA	NA	NA	< 0.0040	< 0.0040	0.004	NA	NA	NA	< 0.0040	< 0.0040	0.004	NA	NA	NA
Vinyl Chloride	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA	< 0.00050	< 0.00050	0.0005	NA	NA	NA
ortho-Xylene	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA
meta- & para-Xylene	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA
Xylenes	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA	< 0.00040	< 0.00040	0.0004	NA	NA	NA
1,2-dibromoethane (Ethylene Dibromide) (EDB)	-	-	-	-	-	-	< 0.00020	< 0.00020	0.00020000	NA	NA	NA	< 0.00020	< 0.00020	0.00020000	NA	NA	NA
1,2,3-Trichlorobenzene	-	-	-	-	-	-	< 0.0020	< 0.0020	0.00200000	NA	NA	NA	< 0.0020	< 0.0020	0.00200000	NA	NA	NA
1,2,4-Trichlorobenzene	-	-	-	-	-	-	< 0.0020	< 0.0020	0.00200000	NA	NA	NA	< 0.0020	< 0.0020	0.00200000	NA	NA	NA
Dichlorodifluoromethane (Freon 12)	-	-	-	-	-	-	< 0.0020	< 0.0020	0.00200000	NA	NA	NA	< 0.0020	< 0.0020	0.00200000	NA	NA	NA
Hexachlorobutadiene	-	-	-	-	-	-	< 0.00050	< 0.00050	0.00050000	NA	NA	NA	< 0.00050	< 0.00050	0.00050000	NA	NA	NA
Freon 113	-	-	-	-	-	-	< 0.0020	< 0.0020	0.00200000	NA	NA	NA	< 0.0020	< 0.0020	0.00200000	NA	NA	NA

Notes:
Results are expressed in micrograms per gram (mg/L), unless otherwise indicated.
SCN = sample control number
FDA = field duplicate available
FD = field duplicate
QA/QC = quality assurance/quality control
Method Reporting Limit indicates the minimum concentration that could be measured by laboratory instrumentation for a specific sample.
Mean indicates the mean or average value calculated of a field duplicate pair (the FDA and the FD).
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NA = not applicable
BOLD font indicates the parameter analysed exceeds Golder's internal QA/QC targets.