

TABLES

Soil - Analytical Results

TABLE 7-1A: Analytical Results for Metals in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	AEC 1	AEC 1	AEC 1	AEC 1	AEC 1	AEC 2	AEC 2
Station ID			AEC1-TP09-1	AEC1-TP09-1	AEC1-TP09-3	AEC1-TP09-4	AEC1-TP09-5	AEC2-TP09-1	AEC2-TP09-2
Field label			AEC1-TP09-1-1	AEC1-TP09-1-2	AEC1-TP09-3-1	AEC1-TP09-4-1	AEC1-TP09-5-1	AEC2-TP09-1	AEC2-TP09-2
Duplicate ID									TP09-DUP2
Date			16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09
Lab report ID			A9C4508	A9C4508	A9C4508	A9C4508	A9C4508	A9C4508	A9C4508
Depth (m)			0.0 – 0.33	0.8 – 1.3	0.0 – 1.0			0.0	0.0 – 0.2
Aluminum	-	-	2600	4900	3700	4800	4700	5100	4700
Antimony	20	40	<0.2	<0.2	<0.2	<0.2	2.0	0.9	1.1
Arsenic	12 ^a	12 ^a	1	<1	2	<1	1	1	1
Barium	500	2000	17.0	31.0	20.0	33.0	27.0	35.0	36.0
Beryllium	4 ^a	8 ^a	<0.2	<0.2	<0.2	<0.2	0.3	0.3	<0.2
Cadmium	10	22	<0.1	<0.1	<0.1	<0.1	0.2	0.4	0.7
Calcium	-	-	7700	2200	2000	2400	2300	2600	2200
Chromium	64	87	21	20	19	24	21	20	20
Chromium (VI)	0.4	1.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4
Cobalt	50 ^a	300 ^a	4.3	3.8	3.3	5.4	5.9	5.1	4.4
Copper	63	91	11.0	6.7	5.9	9.0	14.0	20.0	93.0
Iron	-	-	20000	24000	22000	28000	27000	23000	20000
Lead	140	260	2	3	3	4	150	49	83
Magnesium	-	-	1800	2600	2100	2300	2900	2400	2300
Manganese	-	-	130	88	92	240	250	210	180
Mercury	6.6	24	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum	10 ^a	40 ^a	<0.5	<0.5	<0.5	0.7	0.6	1.1	1.0
Nickel	50	50	6.1	6.4	5.5	7.7	8.0	7.6	6.7
Phosphorus	-	-	630	780	630	650	590	680	650
Potassium	-	-	460	810	530	670	600	720	590
Selenium	1	2.9	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5
Silver	20 ^a	40 ^a	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sodium	-	-	120	110	<100	<100	<100	170	130
Strontium	-	-	14	4	5	5	7	7	6
Thallium	1	1	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	0.05
Vanadium	130	130	38	52	49	68	58	43	41
Zinc	200	360	26	28	22	30	58	63	74

All units in ug/g, unless otherwise noted.

Notes:

1 =

CCME (2007), Canadian Soil Quality Guidelines,
Update 7.0, Table 1. Canadian Soil Quality Guidelines,
Residential / Parkland Use, coarse-grained soils.

2 =

CCME (2007), Canadian Soil Quality Guidelines,
Update 7.0, Table 1. Canadian Soil Quality Guidelines,
Commercial Use, coarse-grained soils.

a =

CCME (2007), Canadian Soil Quality Guidelines,
Update 7.0, Table 2. Interim remediation criteria for soil.

* =

See Methodologies section for Scenario

Rationale

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference
over the average of the two values and is only calculated
when both concentrations are greater than 5 times the
method detection limit.

- = No Guideline

NC = Not calculated

"-" indicates that there is no applicable regulation or
analyses were not performed.

20 = Denotes exceedance of CCME residential/Parkland
Use guidelines

20 = Denotes exceedance of CCME Commercial Use
guidelines

TABLE 7-1A: Analytical Results for Metals in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	AEC 2	RDL	Duplicate Evaluation				AEC 3	AEC 3	AEC 3	AEC 3	AEC 4	AEC 4
Station ID			AEC2-TP09-2		Scenario*	RPD (%)	Value (ug/L)	Acceptable (Y/N)	AEC3-TP09-4	AEC3-TP09-5	AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1	AEC4-TP09-2
Field label			TP09-DUP2						AEC3-TP09-4	AEC3-TP09-5	AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1	AEC4-TP09-2
Duplicate ID			AEC2-TP09-2						AEC3-TP09-4	AEC3-TP09-5	AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1	AEC4-TP09-2
Date			16/Sep/09						17/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09
Lab report ID	Depth (m)		A9C4508						A9C4508	A9C4508	A9C4508	A9C4508	A9C4508	A9C4508
			0.0 – 0.2						0.0 – 0.2	0.0 – 0.2	0.0 – 0.38	0.0 – 0.4	0.0 – 0.3	0.0 – 0.35
Aluminum	-	-	3900	50.0	C	4.7	NC	Y	3700	4800	4800	4700	4300	4300
Antimony	20	40	0.8	0.2	D	NC	0.3	Y	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arsenic	12 ^a	12 ^a	1	1	D	NC	0.0	Y	2	2	2	2	2	2
Barium	500	2000	28.0	0.5	C	6.3	NC	Y	22.0	26.0	28.0	28.0	29.0	22.0
Beryllium	4 ^a	8 ^a	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	10	22	0.6	0.1	C	3.8	NC	Y	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Calcium	-	-	2100	50	C	1.2	NC	Y	2300	1900	2300	2400	2200	2500
Chromium	64	87	18	1	C	2.6	NC	Y	16	25	19	19	15	14
Chromium (VI)	0.4	1.4	<0.2	<0.2	B	NC	0.3	Y	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cobalt	50 ^a	300 ^a	3.7	0.1	C	4.3	NC	Y	2.5	3.7	2.6	2.4	2.2	3.4
Copper	63	91	18.0	0.5	C	33.8	NC	Y	4.0	5.0	6.2	6.0	5.8	6.0
Iron	-	-	19000	50	C	1.3	NC	Y	21000	29000	19000	21000	16000	9900
Lead	140	260	66	1	C	5.7	NC	Y	4	3	4	3	3	2
Magnesium	-	-	1900	50	C	4.8	NC	Y	2100	3100	2700	2700	2400	2600
Manganese	-	-	140	1	C	6.3	NC	Y	45	95	55	50	63	54
Mercury	6.6	24	<0.05	<0.05	A	NC	NC	Y	0.09	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum	10 ^a	40 ^a	0.9	0.5	D	NC	0.1	Y	1.8	1.4	1.8	1.5	1.4	5.6
Nickel	50	50	5.7	0.5	C	4.0	NC	Y	4.5	5.9	5.0	4.7	4.5	6.5
Phosphorus	-	-	520	50	C	5.6	NC	Y	570	770	830	850	710	820
Potassium	-	-	470	200	D	NC	120	Y	640	920	930	960	960	890
Selenium	1	2.9	<0.5	<0.5	A	NC	NC	Y	<0.5	<0.5	<0.5	<0.5	0.6	<0.5
Silver	20 ^a	40 ^a	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sodium	-	-	120	100	D	NC	10.0	Y	110	130	140	140	120	280
Strontium	-	-	6	1	C	0.0	NC	Y	9	8	7	7	7	8
Thallium	1	1	<0.05	<0.05	A	NC	NC	Y	<0.05	<0.05	<0.05	0.05	0.05	<0.05
Vanadium	130	130	38	5	C	1.9	NC	Y	44	64	47	47	39	29
Zinc	200	360	69	5	C	1.7	NC	Y	31	44	27	27	36	36

All units in ug/g, unless otherwise noted.

Notes:

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analyses were not performed.

20 =

Denotes exceedance of CCME residential/Parkland
Use guidelines

20 =

Denotes exceedance of CCME Commercial Use
guidelines

TABLE 7-1B: Analytical Results for Metals in Soil - 2008

Parameters			CCME Soil CL	CCME Soil PL	APEC 1				APEC 2			APEC 3		
					A1-TP08-1	A1-TP08-2	A1-DUP 3	RPD	A1-TP08-3	A2-TP08-1	A2-TP08-2	A3-TP08-1	A3-TP08-2	A3-TP08-3
					0.0 - 0.8	0.0 - 1.0			0.0 - 0.5	0.0 - 0.1	0.0 - 0.1	0.0 - 0.2	0.0 - 0.12	0.0 - 0.25
					L682335-1	L682335-2	L682335-4		L682335-3	L681311-1	L681311-2	L681400-1	L681400-2	L681400-3
					08-SEP-08	08-SEP-08	08-SEP-08		08-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08
Sample Depth (m)			Lab ID #	Sample Date	Prepared by:	Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz	
Sample Depth (m)						Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz
Sample Depth (m)						Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz
Physical Tests														
% Moisture	---	---	-	-	-		4.94	20	18.6	-	47.3	53.7		
pH	6 to 8 ²	6 to 8 ²	6.82	6.66	6.72	1%	6.7	6.03	6.3	7.79	5.9	6		
Total Metals														
Antimony (Sb)	40 ²	20 ²	<10	<10	<10	NC	<10	<10	<10	<10	<10	<10		
Arsenic (As)	12 ¹	12 ¹	<5.0	<5.0	<5.0	NC	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
Barium (Ba)	2000 ¹	500 ¹	40.7	23	26.2	13%	21.6	134	17.7	24.8	425	18.6		
Beryllium (Be)	8 ²	4 ²	<0.50	<0.50	<0.50	NC	<0.50	<0.50	1.02	<0.50	0.79	<0.50		
Cadmium (Cd)	22 ¹	10 ¹	<0.50	<0.50	<0.50	NC	<0.50	22.4	<0.50	<0.50	<0.50	<0.50		
Chromium (Cr)	87 ¹	64 ¹	20.4	10	12.2	20%	12	22.1	6.4	15.6	8.4	12		
Cobalt (Co)	300 ²	50 ²	5.9	3.9	4.1	5%	3.4	5.3	2.1	4	2.6	2.4		
Copper (Cu)	91 ¹	63 ¹	103	8.7	9.2	6%	6.3	29.2	6.4	14.9	18.3	15.1		
Lead (Pb)	260 ¹	140 ¹	190	<30	<30	NC	<30	100	<30	<30	<30	<30		
Mercury (Hg)	24 ¹	6.6 ¹	0.0054	<0.0050	<0.0050	NC	<0.0050	0.0258	0.0474	0.0099	0.0691	0.105		
Molybdenum (Mo)	40 ²	10 ²	<4.0	<4.0	<4.0	NC	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0		
Nickel (Ni)	50 ¹	50 ¹	8	5.1	5.5	8%	<5.0	7.2	<5.0	5.6	<5.0	<5.0		
Selenium (Se)	2.9 ¹	1 ¹	<0.5	<0.5	<0.5	NC	0.5	<2.0	<2.0	<0.5	<0.5	0.51		
Silver (Ag)	40 ²	20 ²	<2.0	<2.0	<2.0	NC	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Thallium (Tl)	1 ¹	1 ¹	<1.0	<1.0	<1.0	NC	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Tin (Sn)	300 ²	50 ²	<5.0	<5.0	<5.0	NC	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
Vanadium (V)	130 ¹	130 ¹	44.2	32.3	33.4	3%	35.5	40.3	17.9	38	13.9	25.9		
Zinc (Zn)	360 ¹	200 ¹	122	36.8	37.6	2%	24.8	92.1	39.2	46.9	126	34.3		

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME CL Guideline
10	value is greater than the CCME PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-1B: Analytical Results for Metals in Soil - 2008

				APEC 3										
Parameters		CCME Soil CL	CCME Soil PL	A3-TP08-4	A3-TP08-5	A3-DUP-1	RPD	A3-TP08-6	A3-TP08-7	A3-TP08-9	A3-TP08-10	A3-TP08-11	A3-TP08-12	
				0.0 - 0.05	0.0 - 0.3			0.0 - 0.30	0.0 - 0.25	0.01 - 0.2	0.0 - 0.15	0.0 - 0.2	0.0 - 0.1	
				L681400-4	L681400-5	L681400-9		L681400-6	L681400-7	L681268-3	L681400-10	L681268-10	L681268-2	
				06-SEP-08	06-SEP-08	06-SEP-08		06-SEP-08	06-SEP-08	07-Sep-08	06-SEP-08	07-Sep-08	07-Sep-08	
				Franz	Franz	Franz			Franz	Franz	Franz	Franz	Franz	Franz
Sample Depth (m)														
Lab ID #														
Sample Date														
Prepared by:														
Physical Tests														
% Moisture	---	---	-	10.9	9.54	13%	20.4	27.7	27.5	17.3	10.7	7.73		
pH	6 to 8 ²	6 to 8 ²	<u>5.03</u>	6	6.16	3%	<u>5.31</u>	<u>5.8</u>	6.28	<u>5.98</u>	<u>5.81</u>	6.37		
Total Metals														
Antimony (Sb)	40 ²	20 ²	<10	<10	<10	NC	<10	<10	<10	<10	<10	<10		
Arsenic (As)	12 ¹	12 ¹	<5.0	<5.0	<5.0	NC	5.3	<5.0	<5.0	<5.0	<5.0	<5.0		
Barium (Ba)	2000 ¹	500 ¹	24.5	33.6	36.9	9%	44.3	55.9	51	50.3	22.5	25		
Beryllium (Be)	8 ²	4 ²	<0.50	<0.50	<0.50	NC	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		
Cadmium (Cd)	22 ¹	10 ¹	0.64	<0.50	<0.50	NC	<0.50	<0.50	<0.50	0.76	<0.50	1.53		
Chromium (Cr)	87 ¹	64 ¹	15.6	24	25.5	6%	23.1	24	25.2	23.8	15.2	18.7		
Cobalt (Co)	300 ²	50 ²	3.2	3	3.6	18%	3.2	3	3.8	3.7	2.7	4.4		
Copper (Cu)	91 ¹	63 ¹	17.9	5.8	5.7	2%	4.7	6.1	13.9	3.9	3.9	<u>82</u>		
Lead (Pb)	260 ¹	140 ¹	52	<30	<30	NC	<30	<30	60	<30	<30	<u>256</u>		
Mercury (Hg)	24 ¹	6.6 ¹	0.0953	<0.0050	<0.0050	NC	0.0104	0.0104	0.019	0.0073	0.0056	0.285		
Molybdenum (Mo)	40 ²	10 ²	<4.0	<4.0	<4.0	NC	4.9	<4.0	<4.0	4.9	<4.0	<4.0		
Nickel (Ni)	50 ¹	50 ¹	6.3	<5.0	5.3	NC	5.7	6.1	6.4	<5.0	<5.0	8.2		
Selenium (Se)	2.9 ¹	1 ¹	<0.5	<0.5	<0.5	NC	<0.5	<0.5	<2.0	<0.5	<2.0	<2.0		
Silver (Ag)	40 ²	20 ²	<2.0	<2.0	<2.0	NC	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Thallium (Tl)	1 ¹	1 ¹	<1.0	<1.0	<1.0	NC	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Tin (Sn)	300 ²	50 ²	8.7	<5.0	<5.0	NC	<5.0	<5.0	<5.0	<5.0	<5.0	9.8		
Vanadium (V)	130 ¹	130 ¹	32.5	53.6	55.7	4%	56.2	23.4	42.1	55.9	36.9	16.9		
Zinc (Zn)	360 ¹	200 ¹	38.7	28.3	30.3	NC	25.8	51	34.4	47.3	34.3	<u>488</u>		

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME CL Guideline
<u>10</u>	value is greater than the CCME PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-1B: Analytical Results for Metals in Soil - 2008

Parameters		CCME Soil CL	CCME Soil PL	APEC 3								APEC 4		TP-BK-1	TP-BK-2	
				A3-TP08-13	A3-TP08-DUP2	RPD	A3-TP08-14	A3-TP08-15	A3-TP08-16	A3-TP08-17	A3-TP08-18	A4-TP08-1	A4-TP08-2			
				0.0 - 0.2			0.0 - 0.4	0.0 - 0.3	0.0 - 0.3	0 - 0.35	0.0 - 0.35	0.37 - 0.80	0.0 - 0.3			
				L681268-4	L681268-5		L681268-6	L681268-7	L681268-8	L681268-1	L681268-9	L682335-5	L682335-6			
				07-Sep-08	07-Sep-08		07-Sep-08	07-Sep-08	07-Sep-08	07-Sep-08	07-Sep-08	08-SEP-08	08-SEP-08			
Sample Depth (m)		Lab ID #	Sample Date	Prepared by:	Franz	Franz		Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz	
Lab ID #																
Sample Date																
Prepared by:																
Physical Tests																
% Moisture	---	---	---	9.73	13.4	32%	20.2	29.8	22.4	-	42.3	13.1	28.8		-	
pH	6 to 8	2	6 to 8	2	6.57	6.56	0%	6.59	6.22	5.9	5.23	5.4	6.13	5.15	6.93	6.28
Total Metals																
Antimony (Sb)	40	2	20	2	<10	<10	NC	<10	<10	<10	<10	<10	<10	<10	<10	<10
Arsenic (As)	12	1	12	1	<5.0	<5.0	NC	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Barium (Ba)	2000	1	500	1	32.3	27.2	17%	43.3	35.5	43	43.8	31.8	30.7	35	29.8	23.5
Beryllium (Be)	8	2	4	2	<0.50	<0.50	NC	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cadmium (Cd)	22	1	10	1	0.52	0.93	57%	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chromium (Cr)	87	1	64	1	22.4	22.2	1%	21.6	20.3	16.8	24.9	19	14.2	18.3	21.8	10.2
Cobalt (Co)	300	2	50	2	3.9	3.9	0%	3.7	3.8	3.7	3.2	2.9	3	3.6	5.2	3.2
Copper (Cu)	91	1	63	1	24.5	33.8	32%	8.3	12.3	5.8	9.1	6.7	6.1	7.5	8.8	5.2
Lead (Pb)	260	1	140	1	41	34	19%	<30	<30	<30	<30	<30	<30	<30	<30	<30
Mercury (Hg)	24	1	6.6	1	0.0356	0.0534	40%	0.0107	0.0122	<0.0050	0.0058	<0.0050	0.0061	<0.0050	<0.0050	<0.0050
Molybdenum (Mo)	40	2	10	2	<4.0	<4.0	NC	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Nickel (Ni)	50	1	50	1	8	8.8	10%	6.6	7.2	6	6.4	5.6	<5.0	6.8	6.2	<5.0
Selenium (Se)	2.9	1	1	1	<2.0	<2.0	NC	<2.0	<2.0	<2.0	<2.0	<2.0	<0.5	<0.5	<0.5	<0.5
Silver (Ag)	40	2	20	2	<2.0	<2.0	NC	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Thallium (Tl)	1	1	1	1	<1.0	<1.0	NC	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tin (Sn)	300	2	50	2	9.1	7.4	21%	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vanadium (V)	130	1	130	1	41.3	45.3	9%	48.8	46.8	34.1	60	40.2	39.9	39.1	55.0	24.2
Zinc (Zn)	360	1	200	1	205	277	30%	74.9	33.5	33.8	36.1	35.2	33.6	35.7	35.6	21.1

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME CL Guideline
<u>10</u>	value is greater than the CCME PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-2A: Analytical Results for PHCs in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	CWS Soil PL ³	CWS Soil CL ⁴	AEC 1	AEC 1	AEC 1	Duplicate Evaluation				AEC 1	AEC 1
Station ID					AEC1-TP09-1	AEC1-TP09-3	AEC1-TP09-3					AEC1-TP09-4	AEC1-TP09-5
Field label					AEC1-TP09-1-1	AEC1-TP09-3-2	TP09-DUP1					AEC1-TP09-4-1	AEC1-TP09-5-2
Duplicate ID					16/Sep/09	16/Sep/09	16/Sep/09					16/Sep/09	16/Sep/09
Date					A9C4508	A9C4508	A9C4508					A9C4508	A9C4508
Lab report ID					0.0 – 0.33	1.0 – 1.5	1.0 – 1.5	Scenario*	RPD (%)	Value (ug/L)	Acceptable (Y/N)		
Depth (m)					11.0	6.5	9.5						
Moisture content	-	-	-	-	<0.002	<0.002	<0.002					6.3	14.0
Benzene	0.03	0.03	-	-	<0.002	<0.002	<0.002					<0.002	<0.002
Ethylbenzene	0.082	0.082	-	-	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002
Toluene	0.37	0.37	-	-	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002
m+p-Xylene	-	-	-	-	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002
o-Xylene	-	-	-	-	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002
Xylenes (total)	11	11	-	-	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002
F1 (C6-C10)	-	-	-	-	<10	180	<10	B	NC	175	N	<10	<10
F1 (C6-C10) minus BTEX	-	-	30	240	<10	180	<10	B	NC	175	N	<10	<10
F2 (C10-C16)	-	-	150	260	<10	1100	90	C	42.4	NC	N	<10	<10
F3 (C16-C34)	-	-	300	1700	<10	3900	730	C	34.2	NC	Y	<10	<10
F4 (C34-C50)	-	-	2800	3300	<10	830	220	C	29.0	NC	Y	<10	<10
Reached Baseline at C50	-	-	-	-	Yes	Yes	Yes					Yes	Yes

All units in ug/g, unless otherwise noted.

Notes:

1 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1.
Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.

2 =

CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1.
Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.

3 =

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

4 =

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

* = See Methodologies section for Scenario

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

- = No Guideline

NC = Not Calculated

"-" indicates that there is no applicable regulation or analyses were not performed.

20 = Denotes exceedance of CCME Residential/Parkland Use guidelines

20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-2A: Analytical Results for PHCs in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	CWS Soil PL ³	CWS Soil CL ⁴	AEC 2	AEC 2	Duplicate Evaluation				AEC 3	AEC 3	AEC 3	AEC 3	AEC 4	AEC 4
Station ID					AEC2-TP09-1	AEC2-TP09-2					AEC3-TP09-1	AEC3-TP09-3	AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1	AEC4-TP09-2
Field label					AEC2-TP09-1	AEC2-TP09-2					AEC3-TP09-1	AEC3-TP09-3	AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1	AEC4-TP09-2
Duplicate ID					TP09-DUP2	TP09-DUP2					AEC3-TP09-1	AEC3-TP09-3	AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1	AEC4-TP09-2
Date	Lab report ID				16/Sep/09	16/Sep/09	Scenario*	RPD (%)	Value (ug/L)	Acceptable (Y/N)	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09
Lab report ID					A9C4508	A9C4508					A9C4508	A9C4508	A9C4508	A9C4508	A9C4508	A9C4508
Depth (m)					0.0	0.0 – 0.2					0.0 – 0.25	0.0 – 0.1	0.0 – 0.38	0.0 – 0.4	0.0 – 0.3	0.0 – 0.35
Moisture content					9.8	13.0					8.6	10.0	16.0	20.0	6.9	34.0
Benzene	0.03	0.03	-	-	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	0.082	0.082	-	-	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene	0.37	0.37	-	-	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
m+p-Xylene	-	-	-	-	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
o-Xylene	-	-	-	-	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Xylenes (total)	11	11	-	-	<0.002	<0.002	A	NC	NC	Y	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
F1 (C6-C10)	-	-	-	-	<10	<10	A	NC	NC	Y	<10	<10	<10	<10	<10	<10
F1 (C6-C10) minus BTEX	-	-	30	240	<10	<10	A	NC	NC	Y	<10	<10	<10	<10	<10	<10
F2 (C10-C16)	-	-	150	260	<10	<10	A	NC	NC	Y	<10	<10	<10	<10	<10	<10
F3 (C16-C34)	-	-	300	1700	77	240	C	25.7	NC	Y	<10	<10	<10	<10	<10	100
F4 (C34-C50)	-	-	2800	3300	70	160	C	19.6	NC	Y	<10	<10	<10	<10	<10	51
Reached Baseline at C50	-	-	-	-	Yes	Yes					Yes	Yes	Yes	Yes	Yes	Yes

All units in ug/g, unless otherwise noted.

Notes:

1 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1.
Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.

2 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1.
Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.

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

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

* = See Methodologies section for Scenario

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

- = No Guideline

NC = Not Calculated

"-" indicates that there is no applicable regulation or analyses were not performed.

20 = Denotes exceedance of CCME Residential/Parkland Use guidelines

20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-2B: Analytical Results for PHCs in Soil - 2008

						APEC 1	APEC 2		APEC 3				
Parameters	Sample Depth (m) Lab ID # Sample Date Prepared by:	CCME Soil CL (Coarse)	CCME Soil PL (Coarse)	CWS Soil CL (Coarse)	CWS Soil PL (Coarse)	A1-TP08-3	A2-TP08-1	A2-TP08-2	A3-TP08-2	A3-TP08-3	A3-TP08-5	A3-DUP-1	RPL
						0.5 - 1.6	0.0 - 0.1	0.0 - 0.1	0.0 - 0.12	0.0 - 0.25	0.0 - 0.3		
						L682335-3	L681311-1	L681311-2	L681400-2	L681400-3	L681400-5	L681400-9	
						08-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	
						Franz	Franz	Franz	Franz	Franz	Franz	Franz	
Volatiles													
Benzene		0.03 ¹	0.03 ¹	---	---	<0.03	<0.040	<0.040	<0.03	<0.03	<0.03	<0.03	NC
Ethylbenzene		0.082 ¹	0.082 ¹	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC
Methyl t-butyl ether (MTBE)		---	---	---	---	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NC
Styrene		50 ²	5 ²	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC
Toluene		0.37 ¹	0.37 ¹	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC
o-Xylene		---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC
m & p-Xylene		---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC
Xylenes (Total)		11 ¹	11 ¹	---	---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NC
Extractable Petroleum Hydrocrabons													
F4SG (Heavy Hydrocarbons-SilicaGel)		---	---	---	---	-	<500	-	-	<500	-	-	NC
CWS F2 (C10-C16)		---	---	260 ³	150 ³	<30	<30	<30	<u>450</u>	35	<30	<30	NC
CWS F3 (C16-C34)		---	---	1700 ³	300 ³	<50	180	80	<u>44400</u>	<u>343</u>	<50	<50	NC
CWS F4 (C34-C50)		---	---	3300 ³	2800 ³	<50	93	51	<u>6960</u>	213	<50	<50	NC
F1-BTEX		---	---	---	---	<10	<10	<10	<10	<10	<10	<10	NC
CWS F1 (C06-C10)		---	---	320 ³	30 ³	<10	<10	<10	<10	<10	<10	<10	NC

(all units mg/kg unless otherwise stated)

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME or CWS CL Guideline
<u>10</u>	value is greater than the CCME or CWS PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-2B: Analytical Results for PHCs in Soil - 2008

Parameters						APEC 3						
						A3-TP08-6	A3-TP08-7	A3-TP08-8	A3-TP08-9	A3-TP08-10	A3-TP08-11	A3-TP08-12
						0.0 - 0.30	0.0 - 0.25	0.0 - 0.3	0.01 - 0.2	0.0 - 0.15	0.0 - 0.2	0.0 - 0.1
						L681400-6	L681400-7	L681400-8	L681268-3	L681400-10	L681268-10	L681268-2
						06-SEP-08	06-SEP-08	06-SEP-08	07-Sep-08	06-SEP-08	07-Sep-08	07-Sep-08
Prepared by:						Franz	Franz	Franz	Franz	Franz	Franz	Franz
Volatiles												
Benzene		0.03 ¹	0.03 ¹	---	---	<0.03	<0.03	<0.03	<0.040	<0.03	<0.040	<0.040
Ethylbenzene		0.082 ¹	0.082 ¹	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl t-butyl ether (MTBE)		---	---	---	---	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Styrene		50 ²	5 ²	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene		0.37 ¹	0.37 ¹	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
o-Xylene		---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
m & p-Xylene		---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Xylenes (Total)		11 ¹	11 ¹	---	---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Extractable Petroleum Hydrocarbons												
F4SG (Heavy Hydrocarbons-SilicaGel)		---	---	---	---	-	-	-	-	-		680
CWS F2 (C10-C16)		---	---	260 ³	150 ³	<30	<30	<30	<30	<30	<30	51
CWS F3 (C16-C34)		---	---	1700 ³	300 ³	<50	<50	<50	<50	<50	<50	244
CWS F4 (C34-C50)		---	---	3300 ³	2800 ³	<50	<50	<50	<50	<50	<50	239
F1-BTEX		---	---	---	---	<10	<10	<10	<10	<10	<10	<10
CWS F1 (C06-C10)		---	---	320 ³	30 ³	<10	<10	<10	<10	<10	<10	<10

(all units mg/kg unless otherwise stated)

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME or CWS CL Guideline
<u>10</u>	value is greater than the CCME or CWS PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-2B: Analytical Results for PHCs in Soil - 2008

						APEC 3							APEC 4	
Parameters	Sample Depth (m) Lab ID # Sample Date Prepared by:	CCME Soil CL (Coarse)	CCME Soil PL (Coarse)	CWS Soil CL (Coarse)	CWS Soil PL (Coarse)	A3-TP08-13	A3-TP08-DUP2		A3-TP08-14	A3-TP08-15	A3-TP08-16	A3-TP08-18	A4-TP08-1	A4-TP08-2
						0.0 - 0.2		RPD	0.0 - 0.4	0.0 - 0.3	0.0 - 0.3	0.0 - 0.35	0.37 - 0.80	0.0 - 0.3
						L681268-4	L681268-5		L681268-6	L681268-7	L681268-8	L681268-9	L682335-5	L682335-6
						07-Sep-08	07-Sep-08		07-Sep-08	07-Sep-08	07-Sep-08	07-Sep-08	08-SEP-08	08-SEP-08
						Franz	Franz		Franz	Franz	Franz	Franz	Franz	Franz
Volatiles														
Benzene	0.03 ¹	0.03 ¹	---	---	<0.040	<0.040	NC	<0.040	<0.040	<0.040	<0.040	<0.03	<0.03	
Ethylbenzene	0.082 ¹	0.082 ¹	---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Methyl t-butyl ether (MTBE)	---	---	---	---	<0.20	<0.20	NC	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Styrene	50 ²	5 ²	---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Toluene	0.37 ¹	0.37 ¹	---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
o-Xylene	---	---	---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
m & p-Xylene	---	---	---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Xylenes (Total)	11 ¹	11 ¹	---	---	<0.10	<0.10	NC	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Extractable Petroleum Hydrocrabons														
F4SG (Heavy Hydrocarbons-SilicaGel)	---	---	---	---	-	<500	NC					-	-	
CWS F2 (C10-C16)	---	---	260 ³	150 ³	<30	<30	NC	<30	<30	<30	<30	<30	<40	
CWS F3 (C16-C34)	---	---	1700 ³	300 ³	69	240	111%	<50	<50	<50	<50	<50	<50	
CWS F4 (C34-C50)	---	---	3300 ³	2800 ³	<50	82	NC	<50	<50	<50	<50	<50	<50	
F1-BTEX	---	---	---	---	<10	<10	NC	<10	<10	<10	<10	<10	<10	
CWS F1 (C06-C10)	---	---	320 ³	30 ³	<10	<10	NC	<10	<10	<10	<10	<10	<10	

(all units mg/kg unless otherwise stated)

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME or CWS CL Guideline
<u>10</u>	value is greater than the CCME or CWS PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-3A: Analytical Results for PAHs in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	AEC 1	AEC 1	AEC 1	Duplicate Evaluation			AEC 3	AEC 3	AEC 4
Station ID			AEC1-TP09-1	AEC1-TP09-3	AEC1-TP09-3				AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1
Field label			AEC1-TP09-1-1	AEC1-TP09-3-2	TP09-DUP1				AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1
Duplicate ID				TP09-DUP1	AEC1-TP09-3-2						
Date			16/Sep/09	16/Sep/09	16/Sep/09	Scenario*	Value (ug/L)	Acceptable (Y/N)	16/Sep/09	16/Sep/09	16/Sep/09
Lab report ID			A9C4508	A9C4508	A9C4508				A9C4508	A9C4508	A9C4508
Depth (m)			0.0 – 0.33	1.0 – 1.5	1.0 – 1.5				0.0 – 0.38	0.0 – 0.4	0.0 – 0.3
Acenaphthene	-	-	<0.01	<0.1	<0.01	A	NC	Y	<0.01	<0.01	<0.01
Acenaphthylene	-	-	<0.005	<0.05	<0.005	A	NC	Y	<0.005	<0.005	<0.005
Anthracene	-	-	<0.005	<0.05	<0.005	A	NC	Y	<0.005	<0.005	<0.005
Benzo(a)anthracene	1	10	<0.01	<0.1	<0.01	A	NC	Y	<0.01	<0.01	<0.01
Benzo(a)pyrene	0.7 ^a	0.7 ^b	<0.005	<0.05	<0.005	A	NC	Y	<0.005	<0.005	<0.005
Benzo(g,h,i)perylene	-	-	<0.02	<0.2	<0.02	A	NC	Y	<0.02	<0.02	<0.02
Benzo(k)fluoranthene	1	10	<0.01	<0.1	<0.01	A	NC	Y	<0.01	<0.01	<0.01
Chrysene	-	-	<0.01	<0.1	<0.01	A	NC	Y	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	1	10	<0.02	<0.2	<0.02	A	NC	Y	<0.02	<0.02	<0.02
Fluoranthene	-	-	<0.005	<0.05	<0.005	A	NC	Y	<0.005	<0.005	<0.005
Fluorene	-	-	<0.005	<0.05	<0.005	A	NC	Y	<0.005	<0.005	<0.005
Indeno(1,2,3-cd)pyrene	1	10	<0.02	<0.2	<0.02	A	NC	Y	<0.02	<0.02	<0.02
2-Methylnaphthalene	-	-	<0.005	<0.05	<0.005	A	NC	Y	<0.005	<0.005	<0.005
Naphthalene	0.6 ^a	22 ^b	<0.005	<0.05	<0.005	A	NC	Y	<0.005	<0.005	<0.005
Phenanthrene	5	50	<0.005	0.09	<0.005	B	0.0875	N	<0.005	<0.005	<0.005
Pyrene	10	100	<0.005	<0.05	0.005	A	NC	Y	<0.005	<0.005	<0.005

All units in ug/g, unless otherwise noted.

Notes:

- 1 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 2. Interim remediation criteria for soil, Residential/Parkland Use.
2 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 2. Interim remediation criteria for soil, Commercial Use.
a = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
b = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
* = See Methodologies section for Scenario

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

-' = No Guideline

NC = Not Calculated

"-" indicates that there is no applicable regulation or analyses were not performed.

20 = Denotes exceedance of CCME Residential/Parkland Use guidelines

20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-3B: Analytical Results for PAHs in Soil - 2008

Parameters		CCME Soil CL	CCME Soil PL	APEC 2		APEC 3						
				A2-TP08-1	A2-TP08-2	A3-TP08-5	A3-TP08-7	A3-TP08-10	A3-TP08-13	A3-TP08-DUP2	RPD	A3-TP08-14
				0.0 - 0.1	0.0 - 0.1	0.0 - 0.3	0.0 - 0.25	0.0 - 0.15	0.0 - 0.2			0.0 - 0.4
				L682370-20	L682370-21	L681400-5	L681400-7	L681400-10	L681268-4	L681268-5		L681268-6
				09-SEP-08	09-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	07-Sep-08	07-Sep-08		07-Sep-08
Sample Depth (m)		Franz		Franz	Franz	Franz	Franz	Franz	Franz		Franz	
Lab ID #												
Sample Date												
Prepared by:												
Polycyclic Aromatic Hydrocarbons												
Acenaphthene	---	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	NC	<0.040	
Acenaphthylene	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Anthracene	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.10	NC	<0.050	
Benz(a)anthracene	10 ²	1 ²	<0.050	0.068	<0.050	<0.050	<0.050	<0.050	1.14	NC	<0.050	
Benzo(a)pyrene	0.7 ¹	0.7 ¹	<0.050	0.072	<0.050	<0.050	<0.050	<0.050	1.31	NC	<0.050	
Benzo(b)fluoranthene	10 ²	1 ²	<0.050	0.13	<0.050	<0.050	<0.050	<0.050	1.78	NC	<0.050	
Benzo(g,h,i)perylene	---	---	<0.050	0.054	<0.050	<0.050	<0.050	<0.050	0.73	NC	<0.050	
Benzo(k)fluoranthene	10 ²	1 ²	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.66	NC	<0.050	
Chrysene	---	---	<0.050	0.086	<0.050	<0.050	<0.050	<0.050	1.04	NC	<0.050	
Dibenz(a,h)anthracene	10 ²	1 ²	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.24	NC	<0.050	
Fluoranthene	---	---	0.067	0.129	<0.050	<0.050	<0.050	<0.050	1.07	NC	<0.050	
Fluorene	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Indeno(1,2,3-c,d)pyrene	10 ²	1 ²	<0.050	<0.080	<0.050	<0.050	<0.050	<0.050	0.88	NC	<0.050	
2-Methylnaphthalene	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Naphthalene	22 ¹	0.6 ¹	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Phenanthrene	50 ²	5 ²	<0.050	0.091	<0.050	<0.050	<0.050	<0.050	0.17	NC	<0.050	
Pyrene	100 ²	10 ²	0.055	0.105	<0.050	<0.050	<0.050	<0.050	1.04	NC	<0.050	

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME CL Guideline
10	value is greater than the CCME PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-4A: Analytical Results for PCBs in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	AEC 1	AEC 1	AEC 1	Duplicate Evaluation		AEC 1	AEC 1	AEC 2	AEC 2	Duplicate Evaluation			AEC 3
Station ID			AEC1-TP09-1	AEC1-TP09-3	AEC1-TP09-3			AEC1-TP09-4	AEC1-TP09-5	AEC2-TP09-1	AEC2-TP09-2				AEC3-TP09-1
Field label			AEC1-TP09-1-1	AEC1-TP09-3-2	TP09-DUP1			AEC1-TP09-4-1	AEC1-TP09-5-2	AEC2-TP09-1	AEC2-TP09-2				
Duplicate ID				TP09-DUP1	AEC1-TP09-3-2	Scenario*	Acceptable (Y/N)					Scenario*	RPD (%)	Acceptable (Y/N)	
Date			16/Sep/09	16/Sep/09	16/Sep/09			16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09				16/Sep/09
Lab report ID			A9C4508	A9C4508	A9C4508			A9C4508	A9C4508	A9C4508	A9C4508				A9C4508
Depth (m)			0.0 – 0.33	1.0 – 1.5	1.0 – 1.5					0.0	0.0 – 0.2				0.0 – 0.25
Aroclor 1016	-	-	<0.01	<0.02	<0.02	A	Y	<0.01	<0.01	<1	<1	A	NC	Y	<0.01
Aroclor 1221	-	-	<0.01	<0.03	<0.03	A	Y	<0.01	<0.01	<1	<1	A	NC	Y	<0.01
Aroclor 1232	-	-	<0.01	<0.02	<0.02	A	Y	<0.01	<0.01	<1	<1	A	NC	Y	<0.01
Aroclor 1242	-	-	<0.01	<0.02	<0.02	A	Y	<0.01	<0.01	<1	<1	A	NC	Y	<0.01
Aroclor 1248	-	-	<0.01	<0.02	<0.02	A	Y	<0.01	<0.01	<1	<1	A	NC	Y	<0.01
Aroclor 1254	-	-	<0.01	<0.02	<0.02	A	Y	<0.01	<0.01	<1	<1	A	NC	Y	<0.01
Aroclor 1260	-	-	<0.01	<0.02	<0.02	A	Y	<0.01	<0.01	12	9	C	7.1	Y	<0.01
Aroclor 1262	-	-	<0.01	<0.02	<0.02	A	Y	<0.01	<0.01	<1	<1	A	NC	Y	<0.01
Aroclor 1268	-	-	<0.01	<0.02	<0.02	A	Y	<0.01	<0.01	<1	<1	A	NC	Y	<0.01
Polychlorinated biphenyls	1.3	33	<0.01	<0.03	<0.03	A	Y	<0.01	<0.01	12	9	C	7.1	Y	<0.01

All units in ug/g, unless otherwise noted.

Notes:

1 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.

2 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.

* = See Methodologies section for Scenario

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

- = No Guideline

NC = Not Calculated

“-” indicates that there is no applicable regulation or analyses were not performed.

20 = Denotes exceedance of CCME Residential/Parkland Use guidelines

20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-4B: Analytical Results for PCBs in Soil - 2008

			APEC 1	APEC 2	APEC 3						
Parameters	Sample Depth (m) Lab ID # Sample Date Prepared by:	CCME Soil CL	CCME Soil PL	A1-TP08-3	A2-TP08-1	A3-TP08-2	A3-TP08-5	A3-TP08-6	A3-TP08-7	A3-TP08-9	A3-TP08-10
				0.5 - 1.6	0.0 - 0.1	0.0 - 0.12	0.0 - 0.3	0.0 - 0.30	0.0 - 0.25	0.01 - 0.2	0.0 - 0.15
				L682335-3	L681311-1	L681400-2	L681400-5	L681400-6	L681400-7	L681268-3	L681400-10
				08-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	07-Sep-08	06-SEP-08
				Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz
Polychlorinated Biphenyls											
PCB-1016	---	---	---	<0.050	<0.50	<1.5	<0.050	<0.050	<0.060	<0.060	<0.050
PCB-1221	---	---	---	<0.050	<0.50	<1.5	<0.050	<0.050	<0.060	<0.060	<0.050
PCB-1232	---	---	---	<0.050	<0.50	<1.5	<0.050	<0.050	<0.060	<0.060	<0.050
PCB-1242	---	---	---	<0.050	<0.50	<1.5	<0.050	<0.050	<0.060	<0.060	<0.050
PCB-1248	---	---	---	<0.050	<0.50	<1.5	<0.050	<0.050	<0.060	<0.060	<0.050
PCB-1254	---	---	---	<0.050	<0.50	<1.5	<0.050	<0.050	<0.060	<0.060	<0.050
PCB-1260	---	---	---	<0.050	4.76	17.1	<0.050	<0.050	<0.060	<0.060	<0.050
PCB-1262	---	---	---	<0.050	<0.50	<1.5	<0.050	<0.050	<0.060	<0.060	<0.050
PCB-1268	---	---	---	<0.050	<0.50	<1.5	<0.050	<0.050	<0.060	<0.060	<0.050
Total Polychlorinated Biphenyls	33	¹	1.3	¹	<0.050	<u>4.76</u>	<u>17.1</u>	<0.050	<0.050	<0.060	<0.060

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME CL Guideline
<u>10</u>	value is greater than the CCME PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-4B: Analytical Results for PCBs in Soil - 2008

			APEC 3						APEC 4			
Parameters	Sample Depth (m) Lab ID # Sample Date Prepared by:	CCME Soil CL	CCME Soil PL	A3-TP08-13	A3-TP08-DUP2		A3-TP08-14	A3-TP08-16	A3-TP08-18	A4-TP08-1	A4-TP08-	
				0.0 -0.2				0.0 - 0.4	0.0 - 0.3	0.0 - 0.35	0.37 - 0.80	0.0 - 0.3
				L681268-4	L681268-5	RPD	L681268-6	L681268-8	L681268-9	L682335-5	L682335-6	
				07-Sep-08	07-Sep-08		07-Sep-08	07-Sep-08	07-Sep-08	08-SEP-08	08-SEP-08	
				Franz	Franz		Franz	Franz	Franz	Franz	Franz	
Polychlorinated Biphenyls												
PCB-1016		---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.080	<0.050	<0.050	
PCB-1221		---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.080	<0.050	<0.050	
PCB-1232		---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.080	<0.050	<0.050	
PCB-1242		---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.080	<0.050	<0.050	
PCB-1248		---	---	<0.050	0.21	NC	<0.050	<0.050	<0.080	<0.050	<0.050	
PCB-1254		---	---	<0.050	0.104	NC	<0.050	<0.050	<0.080	<0.050	<0.050	
PCB-1260		---	---	0.162	0.127	24%	<0.050	<0.050	<0.080	<0.050	<0.050	
PCB-1262		---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.080	<0.050	<0.050	
PCB-1268		---	---	<0.050	<0.050	NC	<0.050	<0.050	<0.080	<0.050	<0.050	
Total Polychlorinated Biphenyls		33 ¹	1.3 ¹	0.162	0.441	93%	<0.050	<0.050	<0.080	<0.050	<0.050	

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME CL Guideline
<u>10</u>	value is greater than the CCME PL Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-5A: Analytical Results for Pesticides in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	AEC 1	AEC 1	Duplicate Evaluation		
Station ID			AEC1-TP09-3	AEC1-TP09-3	Scenario*	Value (ug/L)	Acceptable (Y/N)
Field label			AEC1-TP09-3-2	TP09-DUP1			
Duplicate ID			TP09-DUP1	AEC1-TP09-3-2			
Date			16/Sep/09	16/Sep/09			
Lab report ID			A9C4508	A9C4508			
Depth (m)			1.0 – 1.5	1.0 – 1.5			
Aldrin	-	-	<0.03	<0.002	A	NC	Y
Chlordane	-	-	<0.003	<0.002	A	NC	Y
alpha-Chlordane	-	-	<0.002	<0.002	A	NC	Y
trans-Chlordane	-	-	<0.003	<0.002	A	NC	Y
2,4'-DDD	-	-	<0.002	<0.002	A	NC	Y
4,4'-DDD	-	-	<0.002	<0.002	A	NC	Y
DDD (total)	-	-	<0.002	<0.002	A	NC	Y
2,4'-DDE	-	-	<0.003	<0.002	A	NC	Y
4,4'-DDE	-	-	<0.002	<0.002	A	NC	Y
DDE (total)	-	-	<0.003	<0.002	A	NC	Y
2,4'-DDT	-	-	<0.002	<0.002	A	NC	Y
4,4'-DDT	-	-	0.003	<0.002	B	0.002	Y
DDT plus metabolites	-	-	0.003	<0.002	B	0.002	Y
DDT (total)	0.7	12	0.003	<0.002	B	0.002	Y
Dieldrin	-	-	<0.004	<0.002	A	NC	Y
Endosulfan	-	-	<0.006	<0.002	A	NC	Y
alpha-Endosulfan	-	-	<0.002	<0.002	A	NC	Y
beta-Endosulfan	-	-	<0.006	<0.002	A	NC	Y
Endrin	-	-	<0.002	<0.002	A	NC	Y
gamma-HCH	-	-	<0.002	<0.002	A	NC	Y
Heptachlor	-	-	<0.03	<0.002	A	NC	Y
Heptachlor epoxide	-	-	<0.01	<0.002	A	NC	Y
Hexachlorobenzene	2 ^a	10 ^a	<0.003	<0.002	A	NC	Y
Methoxychlor	-	-	<0.008	<0.008	A	NC	Y

All units in ug/g, unless otherwise noted.

Notes:

- 1 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- 2 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- a = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 2. Interim remediation criteria for soil.
- * = See Methodologies section for Scenario

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

-' = No Guideline

NC = Not Calculated

"-" indicates that there is no applicable regulation or analyses were not performed.

20 = Denotes exceedance of CCME Residential/Parkland Use guidelines

20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-5B: Analytical Results for Pesticides in Soil - 2008

				APEC 1	APEC 2		APEC 3			
Parameters	Sample Depth (m) Lab ID # Sample Date Prepared by:	CCME Soil CL	CCME Soil PL	A1-TP08-3	A2-TP08-1	A2-TP08-2	A3-TP08-10	A3-TP08-13	A3-TP08-DUP2	RPD
				0.5 - 1.6	0.0 - 0.1	0.0 - 0.1	0.0 - 0.15	0.0-0.2		
				L682335-3	L682370-20	L682370-21	L681400-10	L681268-4	L681268-5	
				08-SEP-08	09-SEP-08	09-SEP-08	06-SEP-08	07-Sep-08	07-Sep-08	
				Franz	Franz	Franz	Franz	Franz	Franz	
Organochlorine Pesticides										
Aldrin	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
alpha-BHC	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
beta-BHC	---	---		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	NC
Lindane (gamma - BHC)	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
delta-BHC	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
cis-Chlordane (alpha)	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
trans-Chlordane (gamma)	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
2,4'-DDD	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
4,4'-DDD	---	---		0.0037	0.044	0.0045	<0.0015	0.0028	<0.0020	NC
2,4'-DDE	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
4,4'-DDE	---	---		<0.0010	<0.0010	0.0049	<0.0015	0.0024	<0.0020	NC
2,4'-DDT	12 ^{1a}	0.7 ^{1a}		0.0062	0.0586	0.0053	<0.0020	<0.0020	<0.0020	NC
4,4'-DDT	12 ^{1a}	0.7 ^{1a}		0.0275	0.247	0.0307	<0.0020	0.007	<0.0020	NC
Dieldrin	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
Endosulfan I	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
Endosulfan II	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
Endosulfan Sulfate	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
Endrin	---	---		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NC
Heptachlor	---	---		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	NC
Heptachlor Epoxide	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
Methoxychlor	---	---		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NC
Mirex	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
cis-Nonachlor	---	---		<0.0010	<0.020	<0.0010	<0.0015	<0.0020	<0.0020	NC
trans-Nonachlor	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC
Oxychlordane	---	---		<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.0020	NC

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME CL Guideline
<u>10</u>	value is greater than the CCME PL Guideline

--- No Guideline.

NC - Not calculated

a - Standard for DDT (Total)

TABLE 7-6A: Analytical Results for VOCs in Soil - 2009

Area ID Station ID Field label Duplicate ID Date Lab report ID Depth (m)	CCME Soil PL ¹	CCME Soil CL ²	AEC 1	AEC 1	AEC 1	Duplicate Evaluation		
			AEC1-TP09-1	AEC1-TP09-3	AEC1-TP09-3	Scenario*	Value (ug/L)	Acceptable (Y/N)
			AEC1-TP09-1-1	AEC1-TP09-3-2	TP09-DUP1			
			16/Sep/09	16/Sep/09	16/Sep/09			
			A9C4508	A9C4508	A9C4508			
			0.0 – 0.33	1.0 – 1.5	1.0 – 1.5			
Acetone	-	-	<0.1	0.1	<0.1	B	0.05	Y
Benzene	0.03	0.03	<0.002	<0.002	<0.002	A	NC	Y
Bromodichloromethane	-	-	<0.002	<0.002	<0.002	A	NC	Y
Bromodichloromethane	-	-	<0.002	<0.002	<0.002	A	NC	Y
Bromomethane	-	-	<0.003	<0.003	<0.003	A	NC	Y
Carbon tetrachloride	5	50	<0.002	<0.002	<0.002	A	NC	Y
Chlorobenzene	1 ^a	10 ^a	<0.002	<0.002	<0.002	A	NC	Y
Chlorodibromomethane	-	-	<0.002	<0.002	<0.002	A	NC	Y
Chloroform	5	50	<0.002	<0.002	<0.002	A	NC	Y
1,2-Dichlorobenzene	1 ^a	10 ^a	<0.002	<0.002	<0.002	A	NC	Y
1,3-Dichlorobenzene	1 ^a	10 ^a	<0.002	<0.002	<0.002	A	NC	Y
1,4-Dichlorobenzene	1 ^a	10 ^a	<0.002	<0.002	<0.002	A	NC	Y
1,1-Dichloroethane	5	50	<0.002	<0.002	<0.002	A	NC	Y
1,2-Dichloroethane	5	50	<0.002	<0.002	<0.002	A	NC	Y
1,1-Dichloroethene	5	50	<0.002	<0.002	<0.002	A	NC	Y
cis-1,2-Dichloroethene	-	-	<0.002	<0.002	<0.002	A	NC	Y
trans-1,2-Dichloroethene	-	-	<0.002	<0.002	<0.002	A	NC	Y
Dichloromethane	5	50	<0.003	<0.003	<0.003	A	NC	Y
1,2-Dichloropropane	5	50	<0.002	<0.002	<0.002	A	NC	Y
cis-1,3-Dichloropropene	-	-	<0.002	<0.002	<0.002	A	NC	Y
trans-1,3-Dichloropropene	-	-	<0.002	<0.002	<0.002	A	NC	Y
Ethylbenzene	0.082	0.082	<0.002	<0.002	<0.002	A	NC	Y
Ethylene dibromide	-	-	<0.002	<0.002	<0.002	A	NC	Y
Hexachlorobenzene	2	10	-	<0.003	<0.002	A	NC	Y
Hexachlorobutadiene	-	-	-	<0.01	<0.01	A	NC	Y
Methyl ethyl ketone	-	-	<0.03	<0.03	<0.03	A	NC	Y
Methyl isobutyl ketone	-	-	<0.03	<0.03	<0.03	A	NC	Y
Methyl-tert-butylether	-	-	<0.002	<0.002	<0.002	A	NC	Y
Styrene	5 ^a	50 ^a	<0.002	<0.002	<0.002	A	NC	Y
1,1,1,2-Tetrachloroethane	-	-	<0.002	<0.002	<0.002	A	NC	Y
1,1,2,2-Tetrachloroethane	5	50	<0.002	<0.002	<0.002	A	NC	Y
Tetrachloroethene	0.2	0.5	<0.002	<0.002	<0.002	A	NC	Y
Toluene	0.37	0.37	<0.002	<0.002	<0.002	A	NC	Y
1,1,1-Trichloroethane	5	50	<0.002	<0.002	<0.002	A	NC	Y
1,1,2-Trichloroethane	5	50	<0.002	<0.002	<0.002	A	NC	Y
Trichloroethene	0.01	0.01	<0.002	<0.002	<0.002	A	NC	Y
Vinyl chloride	-	-	<0.002	<0.002	<0.002	A	NC	Y
m+p-Xylene	-	-	<0.002	<0.002	<0.002	A	NC	Y
o-Xylene	-	-	<0.002	<0.002	<0.002	A	NC	Y
Xylenes (total)	2.4	11	<0.002	<0.002	<0.002	A	NC	Y

All units in ug/g, unless otherwise noted.

Notes:

¹ = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.

² = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.

^a = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 2. Interim remediation criteria for soil.

* = See Methodologies section for Scenario

RDL = Reportable Detection Limit

RDP = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

.- = No Guideline

NC = Not Calculated

.- indicates that there is no applicable regulation or analyses were not performed.

20 = Denotes exceedance of CCME Residential/Parkland Use guidelines

20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-6A: Analytical Results for VOCs in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	AEC 1	AEC 1	AEC 2	AEC 2	Duplicate Evaluation	
Station ID			AEC1-TP09-4	AEC1-TP09-5	AEC2-TP09-1	AEC2-TP09-2	Scenario*	Acceptable (Y/N)
Field label			AEC1-TP09-4-1	AEC1-TP09-5-2	AEC2-TP09-1	AEC2-TP09-2		
Duplicate ID						TP09-DUP2		
Date			16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09		
Lab report ID			A9C4508	A9C4508	A9C4508	A9C4508		
Depth (m)					0.0	0.0 – 0.2		
Acetone	-	-	-	-	-	-	-	-
Benzene	0.03	0.03	<0.002	<0.002	<0.002	<0.002	A	Y
Bromodichloromethane	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-
Bromomethane	-	-	-	-	-	-	-	-
Carbon tetrachloride	5	50	-	-	-	-	-	-
Chlorobenzene	1 ^a	10 ^a	-	-	-	-	-	-
Chlorodibromomethane	-	-	-	-	-	-	-	-
Chloroform	5	50	-	-	-	-	-	-
1,2-Dichlorobenzene	1 ^a	10 ^a	-	-	-	-	-	-
1,3-Dichlorobenzene	1 ^a	10 ^a	-	-	-	-	-	-
1,4-Dichlorobenzene	1 ^a	10 ^a	-	-	-	-	-	-
1,1-Dichloroethane	5	50	-	-	-	-	-	-
1,2-Dichloroethane	5	50	-	-	-	-	-	-
1,1-Dichloroethene	5	50	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-
Dichloromethane	5	50	-	-	-	-	-	-
1,2-Dichloropropane	5	50	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-
Ethylbenzene	0.082	0.082	<0.002	<0.002	<0.002	<0.002	A	Y
Ethylene dibromide	-	-	-	-	-	-	-	-
Hexachlorobenzene	2	10	-	-	-	-	-	-
Hexachlorobutadiene	-	-	-	-	-	-	-	-
Methyl ethyl ketone	-	-	-	-	-	-	-	-
Methyl isobutyl ketone	-	-	-	-	-	-	-	-
Methyl-tert-butylether	-	-	-	-	-	-	-	-
Styrene	5 ^a	50 ^a	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	5	50	-	-	-	-	-	-
Tetrachloroethene	0.2	0.5	-	-	-	-	-	-
Toluene	0.37	0.37	<0.002	<0.002	<0.002	<0.002	A	Y
1,1,1-Trichloroethane	5	50	-	-	-	-	-	-
1,1,2-Trichloroethane	5	50	-	-	-	-	-	-
Trichloroethene	0.01	0.01	-	-	-	-	-	-
Vinyl chloride	-	-	-	-	-	-	-	-
m+p-Xylene	-	-	<0.002	<0.002	<0.002	<0.002	A	Y
o-Xylene	-	-	<0.002	<0.002	<0.002	<0.002	A	Y
Xylenes (total)	2.4	11	<0.002	<0.002	<0.002	<0.002	A	Y

All units in ug/g, unless otherwise noted.

Notes:

- ¹ = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- ² = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- ^a = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 2. Interim remediation criteria for soil.
- * = See Methodologies section for Scenario
- RDL = Reportable Detection Limit
- RDP = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- = No Guideline
- NC = Not Calculated
- "-" indicates that there is no applicable regulation or analyses were not performed.

20 =	Denotes exceedance of CCME Residential/Parkland Use guidelines
20 =	Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-6A: Analytical Results for VOCs in Soil - 2009

Area ID	CCME Soil PL ¹	CCME Soil CL ²	AEC 3	AEC 3	AEC 3	AEC 3	AEC 4	AEC 4
Station ID			AEC3-TP09-1	AEC3-TP09-3	AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1	AEC4-TP09-2
Field label			AEC3-TP09-1	AEC3-TP09-3	AEC3-TP09-6	AEC3-TP09-7	AEC4-TP09-1	AEC4-TP09-2
Duplicate ID								
Date			16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09
Lab report ID			A9C4508	A9C4508	A9C4508	A9C4508	A9C4508	A9C4508
Depth (m)			0.0 – 0.25	0.0 – 0.1	0.0 – 0.38	0.0 – 0.4	0.0 – 0.3	0.0 – 0.35
Acetone	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Benzene	0.03	0.03	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Bromodichloromethane	-	-	-	-	<0.002	<0.002	<0.002	<0.002
Bromoform	-	-	-	-	<0.002	<0.002	<0.002	<0.002
Bromomethane	-	-	-	-	<0.003	<0.003	<0.003	<0.003
Carbon tetrachloride	5	50	-	-	<0.002	<0.002	<0.002	<0.002
Chlorobenzene	1 ^a	10 ^a	-	-	<0.002	<0.002	<0.002	<0.002
Chlorodibromomethane	-	-	-	-	<0.002	<0.002	<0.002	<0.002
Chloroform	5	50	-	-	<0.002	<0.002	<0.002	<0.002
1,2-Dichlorobenzene	1 ^a	10 ^a	-	-	<0.002	<0.002	<0.002	<0.002
1,3-Dichlorobenzene	1 ^a	10 ^a	-	-	<0.002	<0.002	<0.002	<0.002
1,4-Dichlorobenzene	1 ^a	10 ^a	-	-	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethane	5	50	-	-	<0.002	<0.002	<0.002	<0.002
1,2-Dichloroethane	5	50	-	-	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethene	5	50	-	-	<0.002	<0.002	<0.002	<0.002
cis-1,2-Dichloroethene	-	-	-	-	<0.002	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene	-	-	-	-	<0.002	<0.002	<0.002	<0.002
Dichloromethane	5	50	-	-	<0.003	<0.003	<0.003	<0.003
1,2-Dichloropropane	5	50	-	-	<0.002	<0.002	<0.002	<0.002
cis-1,3-Dichloropropene	-	-	-	-	<0.002	<0.002	<0.002	<0.002
trans-1,3-Dichloropropene	-	-	-	-	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	0.082	0.082	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylene dibromide	-	-	-	-	<0.002	<0.002	<0.002	<0.002
Hexachlorobenzene	2	10	-	-	-	-	-	-
Hexachlorobutadiene	-	-	-	-	-	-	-	-
Methyl ethyl ketone	-	-	-	-	<0.03	<0.03	<0.03	<0.03
Methyl isobutyl ketone	-	-	-	-	<0.03	<0.03	<0.03	<0.03
Methyl-tert-butylether	-	-	-	-	<0.002	<0.002	<0.002	<0.002
Styrene	5 ^a	50 ^a	-	-	<0.002	<0.002	<0.002	<0.002
1,1,1,2-Tetrachloroethane	-	-	-	-	<0.002	<0.002	<0.002	<0.002
1,1,2,2-Tetrachloroethane	5	50	-	-	<0.002	<0.002	<0.002	<0.002
Tetrachloroethene	0.2	0.5	-	-	0.033	<0.002	<0.002	0.057
Toluene	0.37	0.37	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1,1-Trichloroethane	5	50	-	-	<0.002	<0.002	<0.002	<0.002
1,1,2-Trichloroethane	5	50	-	-	<0.002	<0.002	<0.002	<0.002
Trichloroethene	0.01	0.01	-	-	<0.002	<0.002	<0.002	0.005
Vinyl chloride	-	-	-	-	<0.002	<0.002	<0.002	<0.002
m+p-Xylene	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
o-Xylene	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Xylenes (total)	2.4	11	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

All units in ug/g, unless otherwise noted.

Notes:

- 1 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- 2 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- ^a = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 2. Interim remediation criteria for soil.
- * = See Methodologies section for Scenario
- RDL = Reportable Detection Limit
- RDP = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- = No Guideline
- NC = Not Calculated
- "-" indicates that there is no applicable regulation or analyses were not performed.

20 =	Denotes exceedance of CCME Residential/Parkland Use guidelines
20 =	Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-6B: Analytical Results for VOCs in Soil - 2008

Parameters		Sample Depth (m)	Lab ID #	Sample Date	Prepared by:	CCME Soil CL (Coarse)	CCME Soil PL (Coarse)	APEC 2		APEC 3				
								A2-TP08-1	A2-TP08-2	A3-TP08-10	A3-TP08-13	A3-TP08-DUP2	RPD	A3-TP08-15
								0.0 - 0.1	0.0 - 0.1	0.0 - 0.15	0.0 - 0.2			L681268-5
								L682370-20	L682370-21	L681400-10	L681268-4			
								09-SEP-08	09-SEP-08	06-SEP-08	07-Sep-08	07-Sep-08		
								Franz	Franz	Franz	Franz	Franz		Franz
Volatile Organic Compounds														
Benzene		0.03	1	0.03	1	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	NC	<0.040	
Bromodichloromethane		---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Bromoform		---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Carbon Tetrachloride	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Chlorobenzene	10	2	2	2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Dibromochloromethane	---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Chloroethane	10	2	1	2	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	
Chloroform (a)	50	2a	5	2a	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	
Chloromethane	---	---	---	---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	
1,2-Dichlorobenzene	10	2	1	2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,3-Dichlorobenzene	10	2	1	2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,4-Dichlorobenzene	10	2	1	2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,1-Dichloroethane	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,2-Dichloroethane	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,1-Dichloroethylene	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
cis-1,2-Dichloroethylene	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
trans-1,2-Dichloroethylene	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Dichloromethane	50	2a	5	2a	<0.30	<0.80	<0.60	<0.30	<0.30	<0.30	<0.30	NC	<0.60	
1,2-Dichloropropane	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
cis-1,3-Dichloropropylene	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
trans-1,3-Dichloropropylene	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Ethylbenzene	0.082	1	0.082	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Methyl t-butyl ether (MTBE)	---	---	---	---	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NC	<0.20	
Styrene	50	2	5	2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,1,1,2-Tetrachloroethane	---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,1,2,2-Tetrachloroethane	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Tetrachloroethylene	0.5	1	0.2	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Toluene	0.37	1	0.37	1	<0.050	0.116	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,1,1-Trichloroethane	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
1,1,2-Trichloroethane	50	2a	5	2a	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Trichloroethylene	0.01	1	0.01	1	<0.01	<0.01	<0.01	<0.015	<0.015	<0.015	<0.015	NC	<0.015	
Trichlorofluoromethane	---	---	---	---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	
Vinyl Chloride	---	---	---	---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	
ortho-Xylene	---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
meta- & para-Xylene	---	---	---	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	NC	<0.050	
Xylenes	11	1	11	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME CL Guideline
10	value is greater than the CCME PL Guideline

--- No Guideline.

NC - Not calculated

(a) - Aliphatic chlorinated hydrocarbons include: chloroform; dichloroethane (1,1-1,2-); dichloroethene (1,1-1,2-); dichloromethane; 1,2-dichloropropane; 1,2-dichloropropene (cis and trans); 1,1,2,2-tetrachloroethane; tetrachloroethene; carbon tetrachloride; trichloroethane (1,1,1-1,1,2-); trichloroethene

General, CWS, and CCME Endnotes for Soil

General Endnotes:

All values are reported as mg/kg unless otherwise indicated.

10	= value is greater than the CCME CL Guideline
3	= value is greater than the CCME PL Guideline

'---' = No guideline

- = Not analyzed

NC = Not calculated

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

Laboratory Notes

Refer to Laboratory reports for sample specific notes

< = less than method detection limit (mdl)

General Canadian Council of Ministers of the Environment (CCME) Endnotes

*Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health
CCME, 1999, updated 2001, updated 2002, updated 2004, updated 2007.*

- 1 Table 1 - Soil Quality Guideline, Parkland (PL) and Commercial (CL), Coarse Grained Soils
- 2 Table 2 - Interim remediation criteria for soil, Parkland (PL) and Commercial (CL),

General CWS for Petroleum Hydrocarbons (PHC) in Soil

- 3 *Canadian-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in Soil*,
Endorsed by CCME Council of Ministers, April 30-May 1, 2001, Winnipeg, Revised January 2008
 - (i) PHC are considered to be comprised of 4 fractions
 - (ii) PHC exclude known carcinogens such as benzene and benzo(a)pyrene, which are addressed as target compounds.
 - (iii) PHC exclude toluene, ethylbenzene, and xylenes (TEX), which are addressed as target compounds.

PHC sub-fractions

The relative composition of each carbon (equivalent) range sub-fraction within each fraction, and the relative composition of aliphatics and aromatics within each sub-fraction.

- | | |
|----|---|
| F1 | 35% >C ₅ to C ₆ (100% aliphatics); 35% >C ₆ to C ₈ (100% aliphatics); 30% >C ₈ to C ₁₀ (80% aliphatics, 20% aromatics); |
| F2 | 45% C _{>10} to C ₁₂ (80% aliphatics, 20% aromatics); 55% >C ₁₂ to C ₁₆ (80% aliphatics, 20% aromatics); |
| F3 | 70% >C ₁₆ to C ₂₁ (80% aliphatics, 20% aromatics); 30% >C ₂₁ to C ₃₄ (80% aliphatics, 20% aromatics); and |
| F4 | 100% >C ₃₄ (80% aliphatics, 20% aromatics). |

Surface Water – Analytical Results

TABLE 7-7A: Analytical Results for Metals in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW ** Marine ²	AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	Duplicate Evaluation			
Station ID			AEC1-SW09-1	AEC2-SW09-1	AEC2-SW09-2	AEC2-SW09-3	AEC2-SW09-4	AEC2-SW09-5	AEC2-SW09-6	AEC2-SW09-7	AEC2-SW09-8	AEC2-SW09-9	AEC2-SW09-9				
Field label			AEC1-SW09-1	AEC2-SW09-1	AEC2-SW09-2	AEC2-SW09-3	AEC2-SW09-4	AEC2-SW09-5	AEC2-SW09-6	AEC2-SW09-7	AEC2-SW09-8	AEC2-SW09-9	SW09-DUP1	Scenario ^A	RPD (%)	Value (ug/L)	Acceptable (Y/N)
Duplicate ID													AEC2-SW09-9				
Date			17/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09				
Lab report ID			A9C4118	A9C2507	A9C2507	A9C2507	A9C2507	A9C2507	A9C2507	A9C2507	A9C2507	A9C2507	A9C2507				
Aluminum	-	-															
pH<6.5	5 ^a	-	9	6	6	6	45	<5	<5	5	<5	<5	<5	A	NC	NC	Y
pH>6.5	100 ^a	-															
Antimony	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	A	NC	NC	Y
Arsenic	5	12.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	A	NC	NC	Y
Beryllium	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	A	NC	NC	Y
Boron	-	-	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	11	C	10.7	NC	Y
Cadmium	0.017	0.12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	A	NC	NC	Y
Chromium	-	56	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	A	NC	NC	Y
Chromium (VI)	1	1.5	2.8	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	B	NC	2.25	N
Cobalt	-	-	0.6	<0.5	<0.5	<0.5	<0.5	1.3	0.6	<0.5	<0.5	<0.5	<0.5	A	NC	NC	Y
Copper	-	-															
H: 0 - 120,000 ug/L	2 ^b	-	<1	<1	1	1	<1	1	<1	<1	<1	<1	<1	A	NC	NC	Y
H: >180,000 ug/L	4 ^b	-															
Iron	300	-	2200	400	620	320	1400	8900	1700	560	810	710	1700	C	20.5	NC	Y
Lead	-	-															
H: 0 - 60,000 ug/L	1 ^b	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	0.7	B	NC	0.45	Y
H: 60 - 120,000 ug/L	2 ^b	-															
Mercury	0.026	0.016	<0.02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	A	NC	NC	Y
Molybdenum	73	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	A	NC	NC	Y
Nickel	-	-															
H: 0 - 60,000 ug/L	25 ^b	-	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	A	NC	NC	Y
H: 60 - 120,000 ug/L	65 ^b	-															
Phosphorus	-	-	72	16	60	14	220	58	24	6	6	7	15	D	NC	8	N
Selenium	1	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	A	NC	NC	Y
Silver	0.1	-	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	A	NC	NC	Y
Thallium	0.8	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	A	NC	NC	Y
Tungsten	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	A	NC	NC	Y
Uranium	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	A	NC	NC	Y
Vanadium	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	B	NC	0.5	Y
Zinc	30	-	<5	11	14	8	6	9	6	<5	<5	<5	6	B	NC	3.5	Y
Zirconium	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	A	NC	NC	Y
Hardness			9400	51000	7200	5500	4800	3900	3900	3700	3800	3900	3700				
pH (field)	6.5-9	7-8.7	7.3	7.47	7.28	7.21	7.02	6.86	7.01	7.02	7.21	7.24	7.24				

All units in ug/L, unless otherwise noted.

Notes

- 1 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Candaian water quality guidelines for the protection of aquatic life. Freshwater.
- 2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Candaian water quality guidelines for the protection of aquatic life. Marine.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies section for Scenario Rationale
- indicates that there is no applicable regulation or analyses were not performed.
- RDL = Reportable Detection Limit
- RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- NC = Not Calculated
- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME freshwater guidelines
- 20 = Denotes exceedance of CCME marine guidelines

TABLE 7-7A: Analytical Results for Metals in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW ** Marine ²	AEC 2	AEC 2	AEC 3	AEC 3	AEC 3	AEC 4	AEC 4	AEC 4	AEC 4	AEC 4	AEC 4	AEC 4	AEC 4
Station ID			AEC2-SW09-10	AEC2-SW09-11	AEC3-SW09-1	AEC3-SW09-2	AEC3-SW09-3	AEC4-SW09-1	AEC4-SW09-2	AEC4-SW09-3	AEC4-SW09-4	AEC4-SW09-5	AEC4-SW09-6	AEC4-SW09-7	AEC4-SW09-8
Field label			AEC2-SW09-10	AEC2-SW09-11	AEC3-SW09-1	AEC3-SW09-2	AEC3-SW09-3	AEC4-SW09-1	AEC4-SW09-2	AEC4-SW09-3	AEC4-SW09-4	AEC4-SW09-5	AEC4-SW09-6	AEC4-SW09-7	AEC4-SW09-8
Duplicate ID															
Date			15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09
Lab report ID			A9C2507	A9C2507	A9C2507	A9C2507	A9C2507	A9C4118	A9C4118	A9C4118	A9C4118	A9C4118	A9C4118	A9C4118	A9C4118
Aluminum	-	-													
pH<6.5	5 ^a	-	<5	<5	<5	<5	<5	<5	<5	27	<5	<5	<5	<5	<5
pH>6.5	100 ^a	-													
Antimony	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5
Arsenic	5	12.5	<1	<1	<5	<5	<5	<1	<1	<1	<1	<10	<5	<1	<1
Beryllium	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5
Boron	-	-	22	21	1100	1100	1000	130	220	140	200	1800	210	130	200
Cadmium	0.017	0.12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1
Chromium	-	56	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
Chromium (VI)	1	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5
Copper	-	-													
H: 0 - 120,000 ug/L	2 ^b	-	<1	<1	1	1	<1	<1	<1	3	<1	<10	<1	<1	<1
H: >180,000 ug/L	4 ^b	-													
Iron	300	-	790	420	330	270	430	220	330	610	210	<1000	<100	<100	170
Lead	-	-													
H: 0 - 60,000 ug/L	1 ^b	-	<0.5	<0.5	0.9	0.7	1.0	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5
H: 60 - 120,000 ug/L	2 ^b	-													
Mercury	0.026	0.016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Molybdenum	73	-	<1	<1	3	3	3	<1	<1	1	<1	<10	<1	<1	<1
Nickel	-	-													
H: 0 - 60,000 ug/L	25 ^b	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1
H: 60 - 120,000 ug/L	65 ^b	-													
Phosphorus	-	-	8	7	9	9	15	16	15	13	7	16	3	14	11
Selenium	1	-	<2	<2	<2	<10	<2	<2	<2	<2	<2	<20	<2	<2	<2
Silver	0.1	-	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1
Thallium	0.8	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.06	0.09	0.05	0.8	<0.05	<0.05	0.05
Tungsten	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1
Uranium	-	-	<0.1	<0.1	0.6	0.7	0.7	<0.1	0.1	0.2	0.1	1	0.1	<0.1	0.1
Vanadium	-	-	<1	<1	<5	<5	<5	<1	<1	1	<1	<10	<5	2	2
Zinc	30	-	7	<5	<5	<5	<5	<5	<5	9	6	<50	<5	<5	<5
Zirconium	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1
Hardness			3800	3900	2500	2500	2500	3900	3700	4000	3700	1800	900	800	1200
pH (field)	6.5-9	7-8.7	7.14	7.24	6.94	7.85	7.69	8.07	8.2	7.99	8.05	8.01	8.16	7.95	7.86

All units in ug/L, unless otherwise noted.

Notes

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- 2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Candaian water quality guidelines for the protection of aquatic life. Marine.
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- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME freshwater guidelines
- 20 = Denotes exceedance of CCME marine guidelines

TABLE 7-7A: Analytical Results for Metals in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW ** Marine ²	AEC 4	AEC 4	AEC 4	AEC 4	Duplicate Evaluation				AEC 4	AEC 4	AEC 4	AEC 4	AEC 4
Station ID			AEC4-SW09-9	AEC4-SW09-10	AEC4-SW09-11	AEC4-SW09-11					AEC4-SW09-12	AEC4-SW09-13	AEC4-SW09-14	AEC4-SW09-15	AEC4-SW09-16
Field label			AEC4-SW09-9	AEC4-SW09-10	AEC4-SW09-11	AEC4-SW09-DUP2	Scenario ^A	RPD (%)	Value (ug/L)	Acceptable (Y/N)	AEC4-SW09-12	AEC4-SW09-13	AEC4-SW09-14	AEC4-SW09-15	AEC4-SW09-16
Duplicate ID					AEC4-SW09-DUP2	AEC4-SW09-11									
Date			17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09					17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09
Lab report ID			A9C4118	A9C4118	A9C4118	A9C4118					A9C4118	A9C4118	A9C4118	A9C4118	A9C4118
Aluminum	-	-													
pH<6.5	5 ^a	-	<5	<5	<5	<5	A	NC	NC	Y	<5	<5	<5	<5	<5
pH>6.5	100 ^a	-													
Antimony	-	-	<0.5	<0.5	<0.5	<0.5	A	NC	NC	Y	<0.5	<0.5	<0.5	<0.5	<0.5
Arsenic	5	12.5	<5	<1	<5	<5	A	NC	NC	Y	<5	<1	<5	<5	<1
Beryllium	-	-	<0.5	<0.5	<0.5	<0.5	A	NC	NC	Y	<0.5	<0.5	<0.5	<0.5	<0.5
Boron	-	-	430	<10	480	470	C	0.5	NC	Y	400	96	320	330	250
Cadmium	0.017	0.12	<0.1	<0.1	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	-	56	<5	<5	<5	<5	A	NC	NC	Y	<5	<5	<5	<5	<5
Chromium (VI)	1	1.5	<0.5	<0.5	<0.5	<0.5	A	NC	NC	Y	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	-	-	<0.5	<0.5	<0.5	0.5	B	NC	0.25	Y	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	-	-													
H: 0 - 120,000 ug/L	2 ^b	-	<1	<1	<1	<1	A	NC	NC	Y	<1	<1	1	1	<1
H: >180,000 ug/L	4 ^b	-													
Iron	300	-	170	<100	1400	1400	C	0.0	NC	Y	<100	310	390	210	10000
Lead	-	-													
H: 0 - 60,000 ug/L	1 ^b	-	<0.5	<0.5	<0.5	<0.5	A	NC	NC	Y	<0.5	<0.5	<0.5	<0.5	<0.5
H: 60 - 120,000 ug/L	2 ^b	-													
Mercury	0.026	0.016	<0.02	<0.02	<0.02	<0.02	A	NC	NC	Y	<0.02	<0.02	<0.02	<0.02	<0.02
Molybdenum	73	-	1	<1	1	<1	B	NC	0.5	Y	1	<1	1	1	<1
Nickel	-	-													
H: 0 - 60,000 ug/L	25 ^b	-	<1	<1	3	1	D	NC	2	N	<1	<1	<1	<1	2
H: 60 - 120,000 ug/L	65 ^b	-													
Phosphorus	-	-	10	<2	12	22	C	14.7	NC	Y	4	98	7	9	20
Selenium	1	-	<2	<2	<2	<2	A	NC	NC	Y	<2	<2	<2	<2	<2
Silver	0.1	-	<0.1	<0.1	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	0.8	-	<0.05	0.07	<0.05	<0.05	A	NC	NC	Y	<0.05	<0.05	<0.05	<0.05	0.07
Tungsten	-	-	<1	<1	<1	<1	A	NC	NC	Y	<1	<1	<1	<1	<1
Uranium	-	-	0.3	<0.1	0.2	0.2	D	NC	0	Y	0.2	<0.1	0.2	0.2	<0.1
Vanadium	-	-	<5	<1	<5	<5	A	NC	NC	Y	<5	2	<5	<5	5
Zinc	30	-	<5	<5	<5	<5	A	NC	NC	Y	<5	<5	5	<5	<5
Zirconium	-	-	<1	<1	<1	<1	A	NC	NC	Y	<1	<1	<1	<1	<1
Hardness			1000	800	2100	2000					1200	1300	2400	2600	5500
pH (field)	6.5-9	7-8.7	7.71	8.1	9.07	9.07					8.17	8.71	8.09	8.18	6.99

All units in ug/L, unless otherwise noted.

Notes

- 1 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Candaian water quality guidelines for the protection of aquatic life. Freshwater.
- 2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Candaian water quality guidelines for the protection of aquatic life. Marine.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies section for Scenario Rationale
- indicates that there is no applicable regulation or analyses were not performed.
- RDL = Reportable Detection Limit
- RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- NC = Not Calculated
- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME freshwater guidelines
- 20 = Denotes exceedance of CCME marine guidelines

TABLE 7-7B: Analytical Results for Metals in Surface Water - 2008

				APEC 1	APEC 2				APEC 3
Parameters	Lab ID # Sample Date Prepared by:	CCME Freshwater	A1-SW08-1	A2-SW08-1	A2-SW08-2	A2-SW08-3	A2-SW08-4	A3-SW08-1	
			L682329-1	L681303-1	L681303-2	L681303-3	L681303-4	L681064-5	
			08-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	07-SEP-08	
			Franz	Franz	Franz	Franz	Franz	Franz	
Physical Tests									
pH (Field)	---	-	6.11	6.43	6.4	6.35	6.38		
Hardness (as CaCO3)	---	91.6	54.2	41.8	39.6	40.1	79.7		
Total Metals									
Aluminum (Al)									
pH<6.5	0.005 ^a	0.0144	0.0288	0.0112	0.119	0.0247	0.0434		
pH>6.5	0.1 ^a								
Antimony (Sb)	---	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00062		
Arsenic (As)	0.005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		
Barium (Ba)	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		
Beryllium (Be)	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Boron (B)	---	<0.10	<0.10	<0.10	<0.10	<0.10	0.23		
Cadmium (Cd)	0.000017	<0.000017	0.000047	<0.000017	0.000087	0.000037	0.000129		
Calcium (Ca)	---	24.7	15.8	11.7	11.2	11.5	25.1		
Chromium (Cr)	0.0089 ^c	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Cobalt (Co)	---	<0.00030	<0.00030	0.00032	0.00115	0.00046	0.00286		
Copper (Cu)									
H: 0 - 120mg/L	0.002 ^b	0.0013	0.0037	0.0037	0.0071	0.0023	0.0047		
H: >180 mg/L	0.004 ^b								
Iron (Fe)	---	0.086	1.07	0.757	8.37	1.72	2.79		
Lead (Pb)									
H: 0 - 60mg/L	0.001 ^b		<0.00050	<0.00050	0.002	<0.00050			
H: 60 - 120mg/L	0.002 ^b	<0.00050					0.00277		
H: >180mg/L	0.007 ^b								
Lithium (Li)	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		
Magnesium (Mg)	---	7.25	3.58	3.05	2.82	2.8	4.14		
Manganese (Mn)	---	0.0198	0.0609	0.066	0.151	0.0755	0.0841		
Mercury (Hg)	0.000026	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020		
Molybdenum (Mo)	0.073	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Nickel (Ni)									
H: 0 - 60mg/L	0.025 ^b		<0.0010	<0.0010	<0.0010	<0.0010			
H: 60 - 120mg/L	0.065 ^b	<0.0010					0.0037		
H: >180mg/L	0.15 ^b								
Potassium (K)	---	3.1	<2.0	<2.0	<2.0	<2.0	2.5		
Selenium (Se)	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Silver (Ag)	0.0001	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020		
Sodium (Na)	---	16.9	5.4	5.7	5.2	5.3	8.7		
Thallium (Tl)	---	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		
Tin (Sn)	---	<0.00050	<0.00050	<0.00050	0.00057	<0.00050	<0.00050		
Titanium (Ti)	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Uranium (U)	---	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		
Vanadium (V)	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Zinc (Zn)	0.03	<0.0050	0.0191	<0.0050	0.0083	<0.0050	0.163		

Notes (Refer to endnotes for complete list)

10 value is greater than the CCME freshwater Guideline

--- No Guideline.

* a - Criteria is pH dependent

* b - Criteria is hardness dependent

* c - Criteria is value for Chromium III

TABLE 7-7B: Analytical Results for Metals in Surface Water - 2008

			APEC 3				APEC 4		
Parameters	Lab ID # Sample Date Prepared by:	CCME Freshwater	A3-SW08-2	DUP-1		A3-SW08-3	A3-SW08-4	A4- SW08-1	A4- SW08-2
			L681064-1	L681064-4	RPD	L681064-2	L681064-3	L682349-1	L682349-2
			07-SEP-08	07-SEP-08		07-SEP-08	07-SEP-08	08-SEP-08	08-SEP-08
			Franz	Franz			Franz	Franz	Franz
Physical Tests									
pH (Field)	---		6.77			6.55	6.91	6.98	6.82
Hardness (as CaCO3)	---		1260	1220	3%	42.2	40.2	471	1080
Total Metals									
Aluminum (Al)									
	pH<6.5	0.005 a							
	pH>6.5	0.1 a	<0.25	<0.25	NC	0.0191	0.0119	0.05	<0.10
Antimony (Sb)	---		<0.025	<0.025	NC	<0.00050	<0.00050	<0.0050	<0.010
Arsenic (As)	0.005		<0.025	<0.025	NC	<0.00050	<0.00050	<0.0050	<0.010
Barium (Ba)	---		<0.10	<0.10	NC	<0.020	<0.020	<0.020	<0.040
Beryllium (Be)	---		<0.050	<0.050	NC	<0.0010	<0.0010	<0.010	<0.020
Boron (B)	---		0.95	0.92	3%	<0.10	<0.10	0.34	0.64
Cadmium (Cd)	0.000017		<0.00085	<0.00085	NC	0.000024	0.000018	<0.00017	<0.00034
Calcium (Ca)	---		93.8	91.5	2%	11.6	11.5	35	117
Chromium (Cr)	0.0089 c		<0.050	<0.050	NC	<0.0010	<0.0010	<0.010	<0.020
Cobalt (Co)	---		<0.015	<0.015	NC	<0.00030	<0.00030	<0.0030	<0.0060
Copper (Cu)									
	H: 0 - 120mg/L	0.002 b				<0.0010	<0.0010		
	H: >180 mg/L	0.004 b	<0.050	<0.050	NC			<0.010	<0.020
Iron (Fe)		---	0.9	0.78	14%	0.709	0.809	0.263	1.5
Lead (Pb)									
	H: 0 - 60mg/L	0.001 b				<0.00050	<0.00050		
	H: 60 - 120mg/L	0.002 b							
	H: >180mg/L	0.007 b	<0.025	<0.025	NC			<0.0050	<0.010
Lithium (Li)		---	<0.25	<0.25	NC	<0.0050	<0.0050	<0.050	<0.10
Magnesium (Mg)		---	248	242	2%	3.2	2.8	93.1	190
Manganese (Mn)		---	0.103	0.104	1%	0.0622	0.0534	0.0157	0.381
Mercury (Hg)		0.000026	<0.000020	<0.000020	NC	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum (Mo)		0.073	<0.050	<0.050	NC	<0.0010	<0.0010	<0.010	<0.020
Nickel (Ni)									
	H: 0 - 60mg/L	0.025 b				<0.0010	<0.0010		
	H: 60 - 120mg/L	0.065 b							
	H: >180mg/L	0.15 b	<0.050	<0.050	NC			<0.010	<0.020
Potassium (K)		---	80	78	3%	<2.0	<2.0	27.4	50.4
Selenium (Se)		0.001	<0.050	<0.050	NC	<0.0010	<0.0010	<0.010	<0.020
Silver (Ag)		0.0001	<0.0010	<0.0010	NC	<0.000020	<0.000020	<0.00020	<0.00040
Sodium (Na)		---	2080	2040	2%	7.5	5.3	861	1090
Thallium (Tl)		---	<0.010	<0.010	NC	<0.00020	<0.00020	<0.0020	<0.0040
Tin (Sn)		---	<0.025	<0.025	NC	<0.00050	<0.00050	<0.0050	<0.010
Titanium (Ti)		---	<0.050	<0.050	NC	<0.010	<0.010	<0.010	<0.020
Uranium (U)		---	<0.010	<0.010	NC	<0.00020	<0.00020	<0.0020	<0.0040
Vanadium (V)		---	<0.050	<0.050	NC	<0.0010	<0.0010	<0.010	<0.020
Zinc (Zn)		0.03	<0.025	<0.025	NC	<0.0050	<0.0050	<0.0050	<0.010

Notes (Refer to endnotes for complete list)

10 value is greater than the CCME freshwater Guideline

--- No Guideline.

* a - Criteria is pH dependent

* b - Criteria is hardness dependent

* c - Criteria is value for Chromium III

Parameters		CCME Freshwater	APEC 4						SW-BK-1	SW-BK-2
			A4-SW08-3	A4- SW08-4	A4- SW08-5	A4-SW08-6	A4-SW08-7	A4-SW08-8		
			L682329-2	L682349-3	L682349-4	L682329-3	L682329-4	L682329-5		
			08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08		
Lab ID # Sample Date Prepared by:			Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz
Physical Tests										
pH (Field)		---	7.88	7.32	6.94	8.07	8.42	7.65	-	-
Hardness (as CaCO ₃)		---	105	14.6	480	23.6	22.5	27.2	31.9	15.9
Total Metals										
Aluminum (Al)										
pH<6.5		0.005 ^a								
pH>6.5		0.1 ^a	0.018	0.0222	<0.10	0.0327	0.0256	0.0275	0.0246	0.0261
Antimony (Sb)		---	<0.0010	<0.00050	<0.010	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Arsenic (As)		0.005	<0.0020	<0.00050	<0.010	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Barium (Ba)		---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Beryllium (Be)		---	<0.0020	<0.0010	<0.020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron (B)		---	<0.10	<0.10	0.49	<0.10	<0.10	<0.10	<0.10	<0.10
Cadmium (Cd)		0.000017	0.000146	0.000044	<0.00034	<0.000017	0.000082	<0.000017	<0.000017	<0.000017
Calcium (Ca)		---	14.4	4.18	33.3	4.67	4.58	4.72	9.75	5.03
Chromium (Cr)		0.0089 ^c	<0.0020	<0.0010	<0.020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt (Co)		---	<0.00060	<0.00030	<0.0060	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Copper (Cu)										
H: 0 - 120mg/L		0.002 ^b	0.0057	<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
H: >180 mg/L		0.004 ^b			<0.020					
Iron (Fe)		---	0.482	<0.030	0.219	0.038	0.04	0.043	0.054	0.037
Lead (Pb)										
H: 0 - 60mg/L		0.001 ^b		<0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
H: 60 - 120mg/L		0.002 ^b	<0.0010							
H: >180mg/L		0.007 ^b			<0.010					
Lithium (Li)		---	<0.010	<0.0050	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Magnesium (Mg)		---	16.9	1	96.3	2.9	2.68	3.75	1.84	0.81
Manganese (Mn)		---	0.0138	0.00075	0.0095	0.001	0.00116	0.00107	0.00212	0.00099
Mercury (Hg)		0.000026	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum (Mo)		0.073	<0.0020	<0.0010	<0.020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel (Ni)										
H: 0 - 60mg/L		0.025 ^b		<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
H: 60 - 120mg/L		0.065 ^b	<0.0020							
H: >180mg/L		0.15 ^b			<0.020					
Potassium (K)		---	6.8	<2.0	35	<2.0	<2.0	<2.0	<2.0	<2.0
Selenium (Se)		0.001	<0.0040	<0.0010	<0.020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Silver (Ag)		0.0001	<0.000040	<0.000020	<0.00040	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Sodium (Na)		---	153	6.9	1020	23.6	22	37.9	5.5	<2.0
Thallium (Tl)		---	<0.00040	<0.00020	<0.0040	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Tin (Sn)		---	<0.0010	<0.00050	<0.010	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Titanium (Ti)		---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)		---	<0.00040	<0.00020	<0.0040	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Vanadium (V)		---	<0.0020	<0.0010	<0.020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)		0.03	0.0061	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

Notes (Refer to endnotes for complete list)

10

value is greater than the CCME freshwater
Guideline

--- No Guideline.

* a - Criteria is pH dependent

* b - Criteria is hardness dependent

* c - Criteria is value for Chromium III

TABLE 7-8A: Analytical Results for PHCs in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW Marine ^{2**}	AEC 1	AEC 2	AEC 2	AEC 4	AEC 4	Duplicate Evaluation		AEC 4	AEC 4	AEC 4
Station ID			AEC1-SW09-1	AEC2-SW09-6	AEC2-SW09-8	AEC4-SW09-11	AEC4-SW09-11	Scenario ^A	RPD	AEC4-SW09-12	AEC4-SW09-15	AEC4-SW09-16
Field label			AEC1-SW09-1	AEC2-SW09-6	AEC2-SW09-8	AEC4-SW09-11	AEC4-SW09-DUP2			AEC4-SW09-12	AEC4-SW09-15	AEC4-SW09-16
Duplicate ID						AEC4-SW09-DUP2	AEC4-SW09-11					
Date			17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09			17/Sep/09	17/Sep/09	17/Sep/09
Lab report ID			A9C4118	A9C4118	A9C4118	A9C4118	A9C4118			A9C4118	A9C4118	A9C4118
Parameter (ug/L)												
Benzene	370	110	<0.1	<0.1	<0.1	<0.1	<0.1	A	NC	<0.1	<0.1	<1
Ethylbenzene	90	25	<0.1	<0.1	<0.1	<0.1	<0.1	A	NC	<0.1	<0.1	<1
Toluene	2	215	<0.2	<0.2	<0.2	<0.2	<0.2	A	NC	<0.2	<0.2	
m+p-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	A	NC	<0.1	<0.1	<1
o-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	A	NC	<0.1	<0.1	<1
Xylenes (total)	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	A	NC	<0.1	<0.1	<1
F1 (C6-C10)	-	-	<100	<100	<100	<100	<100	A	NC	-	<100	-
F1 (C6-C10) minus BTEX	-	-	<100	<100	<100	<100	<100	A	NC	-	<100	-
F2 (C10-C16)	-	-	<100	<100	<100	<100	<100	A	NC	-	<100	-
F3 (C16-C34)	-	-	550	<100	<100	<100	<100	A	NC	-	<100	-
F4 (C34-C50)	-	-	230	<100	<100	<100	<100	A	NC	-	<100	-
Reached Baseline at C50	-	-	No	Yes	Yes	Yes	Yes	A	NC	-	Yes	-

All units in ug/L, unless otherwise noted.

Notes

1 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Freshwater.

2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Marine.

** = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies section for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not performed.

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5

NC = Not Calculated

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME freshwater guidelines

20 = Denotes exceedance of CCME marine guidelines

TABLE 7-8B: Analytical Results for PHCs in Surface Water - 2008

Parameters		CCME Freshwater	APEC 2		APEC 3					APEC 4			
			A2-SW08-3	A2-SW08-4	A3-SW08-1	A3-SW08-2	DUP-1	RPD	A3-SW08-3	A3-SW08-4	A4- SW08-1	A4- SW08-2	A4-SW08-3
			L681303-3	L681303-4	L681064-5	L681064-1	L681064-4		L681064-2	L681064-3	L682349-1	L682349-2	L682329-2
			06-SEP-08	06-SEP-08	07-SEP-08	07-SEP-08	07-SEP-08		07-SEP-08	07-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08
			Franz	Franz	Franz	Franz	Franz			Franz	Franz	Franz	Franz
Lab ID #													
Sample Date													
Prepared by:													
Volatiles													
Benzene		0.37	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	NC	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene		0.09	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	NC	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Methyl t-butyl ether (MTBE)		10	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Styrene		0.072	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	NC	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Toluene		0.002	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
o-Xylene		---	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	NC	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
m & p-Xylene		---	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	NC	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Xylenes (Total)		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Extractable Petroleum Hydrocrabons													
CWS F2 (C10-C16)		---	<0.30	<0.30	<0.30	<0.30	<0.30	NC	<0.30	<0.30	<0.30	<0.30	<0.30
CWS F3 (C16-C34)		---	<0.30	<0.30	<0.30	<0.30	<0.30	NC	<0.30	<0.30	<0.30	<0.30	<0.30
F1-BTEX		---	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	<0.10	<0.10	<0.10	<0.10
CWS F1 (C06-C10)		---	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	<0.10	<0.10	<0.10	<0.10

Notes (Refer to endnotes for complete list)

10 value is greater than the CCME freshwater
Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-9A: Analytical Results for PAHs in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW Marine ^{2**}	AEC 1	AEC 2	AEC 2	AEC 4	AEC 4	Duplicate Evaluation		AEC 4
Station ID			AEC1-SW09-1	AEC2-SW09-6	AEC2-SW09-8	AEC4-SW09-11	AEC4-SW09-11			AEC4-SW09-15
Field label			AEC1-SW09-1	AEC2-SW09-6	AEC2-SW09-8	AEC4-SW09-11	AEC4-SW09-DUP2	Scenario ^A	Acceptable (Y/N)	AEC4-SW09-15
Duplicate ID						AEC4-SW09-DUP2	AEC4-SW09-11			
Date			17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09			17/Sep/09
Lab report ID			A9C4118	A9C4118	A9C4118	A9C4118	A9C4118			A9C4118
Screen depth (m)										
Acenaphthene	5.8	-	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05
Acridine	4.4	-	<0.1	<0.1	<0.1	<0.1	<0.1	A	Y	<0.1
Anthracene	0.012	-	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05
Benzo(a)anthracene	0.018	-	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05
Benzo(a)pyrene	0.015	-	<0.005	<0.005	<0.005	0.005	<0.005	A	Y	<0.005
Fluoranthene	0.04	-	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05
Fluorene	3	-	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05
Naphthalene	1.1	1.4	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05
Phenanthrene	0.4	-	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05
Pyrene	0.025	-	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05

All units in ug/L, unless otherwise noted.

Notes

1 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Freshwater.

2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Marine.

** = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies section for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not performed.

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME freshwater guidelines

20 = Denotes exceedance of CCME marine guidelines

TABLE 7-9B: Analytical Results for PAHs in Surface Water - 2008

		APEC 4	
Parameters	Lab ID # Sample Date Prepared by:	CCME Freshwater	
		A4- SW08-2	A4-SW08-3
		L682349-2	L682329-2
		08-SEP-08	08-SEP-08
		Franz	Franz
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.0058	<0.000050	<0.000050
Acenaphthylene	---	<0.000050	<0.000050
Acridine	0.0044	<0.000050	<0.000050
Anthracene	0.000012	<0.000012	<0.000012
Benz(a)anthracene	0.000018	<0.000018	<0.000018
Benzo(a)pyrene	0.000015	<0.000010	<0.000010
Benzo(b)fluoranthene	---	<0.000050	<0.000050
Benzo(g,h,i)perylene	---	<0.000050	<0.000050
Benzo(k)fluoranthene	---	<0.000050	<0.000050
Chrysene	---	<0.000050	<0.000050
Dibenz(a,h)anthracene	---	<0.000050	<0.000050
Fluoranthene	0.00004	<0.00004	<0.000040
Fluorene	0.003	<0.000050	<0.000050
Indeno(1,2,3-c,d)pyrene	---	<0.000050	<0.000050
Naphthalene	0.0011	<0.000050	<0.000050
Phenanthrene	0.0004	<0.000050	<0.000050
Pyrene	0.000025	<0.000025	<0.000025
Quinoline	0.0034	<0.000050	<0.000050

Notes (Refer to endnotes for complete list)

10 value is greater than the CCME
freshwater Guideline

--- No Guideline.

TABLE 7-10A: Analytical Results for PCBs in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW Marine ^{2**}	AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	Duplicate Evaluation		AEC 2	AEC 3	AEC 4	AEC 4	AEC 4
Station ID			AEC1-SW09-1	AEC2-SW09-4	AEC2-SW09-6	AEC2-SW09-7	AEC2-SW09-9	AEC2-SW09-9			AEC2-SW09-11	AEC3-SW09-1	AEC4-SW09-1	AEC4-SW09-11	AEC4-SW09-15
Field label			AEC1-SW09-1	AEC2-SW09-4	AEC2-SW09-6	AEC2-SW09-7	AEC2-SW09-9	SW09-DUP1	Scenario ^A	Acceptable (Y/N)	AEC2-SW09-11	AEC3-SW09-1	AEC4-SW09-1	AEC4-SW09-11	AEC4-SW09-15
Duplicate ID							SW09-DUP1	AEC2-SW09-9						AEC4-SW09-DUP2	
Date			17/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09			15/Sep/09	15/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09
Lab report ID			A9C4118	A9C2507	A9C2507	A9C2507	A9C2507	A9C2507			A9C2507	A9C2507	A9C4118	A9C4118	A9C4118
Screen depth (m)															
Aroclor 1016	-	-	<0.3	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05	<0.05	<0.05	<0.05	<0.05
Aroclor 1221	-	-	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	A	Y	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	-	-	<0.3	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05	<0.05	<0.05	<0.05	<0.05
Aroclor 1242	-	-	<0.3	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05	<0.05	<0.05	<0.05	<0.05
Aroclor 1248	-	-	<0.3	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05	<0.05	<0.05	<0.05	<0.05
Aroclor 1254	-	-	<0.3	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05	<0.05	<0.05	<0.05	<0.05
Aroclor 1260	-	-	<0.3	<0.05	<0.05	<0.05	<0.05	<0.05	A	Y	<0.05	<0.05	<0.05	<0.05	<0.05
Aroclor 1262	-	-	<0.3	-	-	-	-	-	A	Y	-	-	<0.05	<0.05	<0.05
Aroclor 1268	-	-	<0.3	-	-	-	-	-	A	Y	-	-	<0.05	<0.05	<0.05
Polychlorinated biphenyls	0.001	0	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	A	Y	<0.1	<0.1	<0.1	<0.1	<0.1

All units in ug/L, unless otherwise noted.

Notes

1 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Freshwater.

2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Marine.

** = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies section for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not performed.

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME freshwater guidelines

20 = Denotes exceedance of CCME marine guidelines

TABLE 7-10B: Analytical Results for PCBs in Surface Water - 2008

			APEC 1	APEC 2		APEC 3					
Parameters		CCME Freshwater	A1-SW08-1	A2-SW08-3	A2-SW08-4	A3-SW08-1	A3-SW08-2	DUP-1		A3-SW08-3	A3-SW08-4
	Lab ID #		L682370-19	L681303-3	L681303-4	L681064-5	L681064-1	L681064-4	RPD	L681064-2	L681064-3
	Sample Date		09-SEP-08	06-SEP-08	06-SEP-08	07-SEP-08	07-SEP-08	07-SEP-08		07-SEP-08	07-SEP-08
	Prepared by:		Franz	Franz	Franz	Franz	Franz	Franz	Franz		Franz
Polychlorinated Biphenyls											
PCB-1016		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
PCB-1221		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
PCB-1232		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
PCB-1242		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
PCB-1248		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
PCB-1254		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
PCB-1260		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
PCB-1262		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
PCB-1268		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010
Total Polychlorinated Biphenyls		---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010

Notes (Refer to endnotes for complete list)

10 value is greater than the CCME freshwater Guideline

--- No Guideline.

NC - Not Calculated.

TABLE 7-10B: Analytical Results for PCBs in Surface Water - 2008

		APEC 4								
Parameters	Lab ID # Sample Date Prepared by:	CCME Freshwater	A4- SW08-1	A4- SW08-2	A4-SW08-3	A4- SW08-4	A4- SW08-5	A4-SW08-6	A4-SW08-7	A4-SW08-8
			L682349-1	L682349-2	L682329-2	L682349-3	L682349-4	L682329-3	L682329-4	L682329-5
			08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08
			Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz
Polychlorinated Biphenyls										
PCB-1016	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
PCB-1221	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
PCB-1232	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
PCB-1242	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
PCB-1248	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
PCB-1254	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
PCB-1260	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
PCB-1262	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
PCB-1268	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Polychlorinated Biphenyls	---		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Notes (Refer to endnotes for complete list)

10 value is greater than the CCME freshwater Guideline

--- No Guideline.

NC - Not Calculated.

TABLE 7-11A: Analytical Results for PCBs in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW Marine ^{2**}	AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	Duplicate Evaluation		AEC 2	AEC 3	AEC 4	AEC 4	AEC 4
Station ID			AEC1-SW09-1	AEC2-SW09-4	AEC2-SW09-6	AEC2-SW09-7	AEC2-SW09-9	AEC2-SW09-9			AEC2-SW09-11	AEC3-SW09-1	AEC4-SW09-1	AEC4-SW09-11	AEC4-SW09-15
Field label			AEC1-SW09-1	AEC2-SW09-4	AEC2-SW09-6	AEC2-SW09-7	AEC2-SW09-9	SW09-DUP1	Scenario ^A	Acceptable (Y/N)	AEC2-SW09-11	AEC3-SW09-1	AEC4-SW09-1	AEC4-SW09-11	AEC4-SW09-15
Duplicate ID							SW09-DUP1	AEC2-SW09-9						AEC4-SW09-DUP2	
Date			17/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09			15/Sep/09	15/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09
Lab report ID			A9C4118	A9C2507	A9C2507	A9C2507	A9C2507	A9C2507			A9C2507	A9C2507	A9C4118	A9C4118	A9C4118
Screen depth (m)															
Aldrin	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Chlordane	0.006	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
alpha-Chlordane	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
trans-Chlordane	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDD	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDD	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
DDD (total)	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDE	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDE	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
DDE (total)	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
2,4'-DDT	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
4,4'-DDT	0.001	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
DDT plus metabolites	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
DDT (total)	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Dieldrin	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan	0.02	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
alpha-Endosulfan	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
beta-Endosulfan	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan sulphate	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin	0.0023	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin aldehyde	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin ketone	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
alpha-HCH	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
beta-HCH	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
delta-HCH	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
gamma-HCH	0.01	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	0.01	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	-	-	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	A	Y	<0.01	<0.01	<0.01	<0.01	<0.01
Mirex	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Octachlorostyrene	-	-	<0.03	<0.005	<0.005	<0.005	<0.005	<0.005	A	Y	<0.005	<0.005	<0.005	<0.005	<0.005
Toxaphene	0.008	-	<1	<0.2	<0.2	<0.2	<0.2	<0.2	A	Y	<0.2	<0.2	<0.2	<0.2	<0.2

All units in ug/L, unless otherwise noted.

Notes

- 1 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Candaian water quality guidelines for the protection of aquatic life. Freshwater.
- 2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Candaian water quality guidelines for the protection of aquatic life. Marine.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies section for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed.
- RDL = Reportable Detection Limit
- RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater
- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME freshwater guidelines
- 20 = Denotes exceedance of CCME marine guidelines

		CCME Freshwater	APEC 2	APEC 4	
Parameters	Lab ID # Sample Date Prepared by:		A2-SW08-4	A4-SW08-3	A4- SW08-2
			L681303-4	L682329-2	L682349-2
			06-SEP-08	08-SEP-08	08-SEP-08
			Franz	Franz	Franz
Organochlorine Pesticides					
Aldrin	---	<0.000050	<0.000050	<0.000050	
alpha-BHC	---	<0.000050	<0.000050	<0.000050	
beta-BHC	---	<0.00010	<0.00010	<0.00010	
Lindane (gamma - BHC)	0.00001	<0.000050	<0.000050	<0.000050	
delta-BHC	---	<0.000050	<0.000050	<0.000050	
cis-Chlordane (alpha)	---	<0.000050	<0.000050	<0.000050	
trans-Chlordane (gamma)	---	<0.000050	<0.000050	<0.000050	
2,4'-DDD	---	<0.00010	<0.00010	<0.00010	
4,4'-DDD	---	<0.000050	<0.000050	<0.000050	
2,4'-DDE	---	<0.00010	<0.00010	<0.00010	
4,4'-DDE	---	<0.000050	<0.000050	<0.000050	
2,4'-DDT	---	<0.00010	<0.00010	<0.00010	
4,4'-DDT	---	<0.00010	<0.00010	<0.00010	
Dieldrin	---	<0.000050	<0.000050	<0.000050	
Endosulfan I	0.00002 ^a	<0.000050	<0.000050	<0.000050	
Endosulfan II	0.00002 ^a	<0.000050	<0.000050	<0.000050	
Endosulfan Sulfate	0.00002 ^a	<0.000050	<0.000050	<0.000050	
Endrin	---	<0.00020	<0.00020	<0.00020	
Heptachlor	---	<0.00010	<0.00010	<0.00010	
Heptachlor Epoxide	---	<0.000050	<0.000050	<0.000050	
Methoxychlor	---	<0.00020	<0.00020	<0.00020	
Mirex	---	<0.000050	<0.000050	<0.000050	
cis-Nonachlor	---	<0.000050	<0.000050	<0.000050	
trans-Nonachlor	---	<0.000050	<0.000050	<0.000050	
Oxychlordane	---	<0.000050	<0.000050	<0.000050	

Notes (Refer to endnotes for complete list)

10 value is greater than the CCME freshwater Guideline

--- No Guideline.

^a(a) Criteria is for Endosulfan

TABLE 7-12A: Analytical Results for VOCs in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW Marine ^{2**}	AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 3	AEC 4
Station ID			AEC1-SW09-1	AEC2-SW09-4	AEC2-SW09-6	AEC2-SW09-6	AEC2-SW09-7	AEC2-SW09-8	AEC2-SW09-9	AEC2-SW09-9	AEC2-SW09-11	AEC3-SW09-1	AEC4-SW09-1
Field label			AEC1-SW09-1	AEC2-SW09-4	AEC2-SW09-6	AEC2-SW09-6	AEC2-SW09-7	AEC2-SW09-8	AEC2-SW09-9	SW09-DUP1	AEC2-SW09-11	AEC3-SW09-1	AEC4-SW09-1
Duplicate ID										SW09-DUP1	AEC2-SW09-9		
Date			17/Sep/09	15/Sep/09	15/Sep/09	17/Sep/09	15/Sep/09	17/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	17/Sep/09
Lab report ID			A9C4118	A9C2507	A9C2507	A9C4118	A9C2507	A9C4118	A9C2507	A9C2507	A9C2507	A9C2507	A9C4118
Screen depth (m)													
Acetone	-	-	<10	-	-	<10	-	<10	-	-	-	-	-
Benzene	370	110	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
Bromodichloromethane	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
Bromoform	-	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
Bromomethane	-	-	<0.5	-	-	<0.5	-	<0.5	-	-	-	-	-
Carbon tetrachloride	13.3	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
Chlorobenzene	1.3	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
Chlorodibromomethane	-	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
Chloroform	1.8	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
1,2-Dichlorobenzene	0.7	42	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
1,3-Dichlorobenzene	150	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
1,4-Dichlorobenzene	26	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
1,1-Dichloroethane	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
1,2-Dichloroethane	100	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
1,1-Dichloroethene	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
Dichloromethane	98.1	-	<0.5	-	-	<0.5	-	<0.5	-	-	-	-	-
1,2-Dichloropropane	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
Ethylbenzene	90	25	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
Ethylene dibromide	-	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
Hexachlorobenzene	-	-	<0.03	<0.005	<0.005	-	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005
Methyl ethyl ketone	-	-	<5	-	-	<5	-	<5	-	-	-	-	-
Methyl isobutyl ketone	-	-	<5	-	-	<5	-	<5	-	-	-	-	-
Methyl-tert-butylether	10000	5000	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
Styrene	72	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
Tetrachloroethene	111	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
Toluene	2	215	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
1,1,1-Trichloroethane	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
1,1,2-Trichloroethane	-	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
Trichloroethene	21	-	<0.1	-	-	0.2	-	<0.1	-	-	-	-	-
Vinyl chloride	-	-	<0.2	-	-	<0.2	-	<0.2	-	-	-	-	-
m+p-Xylene	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
o-Xylene	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-
Xylenes (total)	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-	-	-

All units in ug/L, unless otherwise noted.

- Notes**
- CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Freshwater.
- 1 = Life,
- 2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Marine.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies section for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed.
- RDL = Reportable Detection Limit
- RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- NC = Not calculated
- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME freshwater guidelines
- 20 = Denotes exceedance of CCME marine guidelines

TABLE 7-12A: Analytical Results for VOCs in Water - 2009

Area ID	CCME AW Freshwater ¹	CCME AW Marine ^{2**}	AEC 4	AEC 4	Duplicate Evaluation				AEC 4	AEC 4	AEC 4
Station ID			AEC4-SW09-11	AEC4-SW09-11					AEC4-SW09-12	AEC4-SW09-15	AEC4-SW09-16
Field label			AEC4-SW09-11	AEC4-SW09-DUP2	Scenario ^A	RPD (%)	Value (ug/L)	Acceptable (Y/N)	AEC4-SW09-12	AEC4-SW09-15	AEC4-SW09-16
Duplicate ID			AEC4-SW09-DUP2	AEC4-SW09-11							
Date			17/Sep/09	17/Sep/09					17/Sep/09	17/Sep/09	17/Sep/09
Lab report ID			A9C4118	A9C4118					A9C4118	A9C4118	A9C4118
Screen depth (m)											
Acetone	-	-	<10	<10	A	NC	NC	Y	<10	<10	<100
Benzene	370	110	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
Bromodichloromethane	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
Bromoform	-	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
Bromomethane	-	-	<0.5	<0.5	A	NC	NC	Y	<0.5	<0.5	<5
Carbon tetrachloride	13.3	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
Chlorobenzene	1.3	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
Chlorodibromomethane	-	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
Chloroform	1.8	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
1,2-Dichlorobenzene	0.7	42	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
1,3-Dichlorobenzene	150	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
1,4-Dichlorobenzene	26	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
1,1-Dichloroethane	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
1,2-Dichloroethane	100	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
1,1-Dichloroethene	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
cis-1,2-Dichloroethene	-	-	0.3	0.4	D	NC	0.1	Y	<0.1	<0.1	2
trans-1,2-Dichloroethene	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
Dichloromethane	98.1	-	<0.5	<0.5	A	NC	NC	Y	<0.5	<0.5	<5
1,2-Dichloropropane	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
cis-1,3-Dichloropropene	-	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
trans-1,3-Dichloropropene	-	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
Ethylbenzene	90	25	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
Ethylene dibromide	-	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
Hexachlorobenzene	-	-	<0.005	-	NC	NC	NC	NC	-	<0.005	-
Methyl ethyl ketone	-	-	<5	<5	A	NC	NC	Y	<5	<5	<50
Methyl isobutyl ketone	-	-	<5	<5	A	NC	NC	Y	<5	<5	<50
Methyl-tert-butylether	10000	5000	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
Styrene	72	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
1,1,1,2-Tetrachloroethane	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
1,1,2,2-Tetrachloroethane	-	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
Tetrachloroethene	111	-	7.7	7.9	C	0.6	NC	Y	0.8	<0.1	210
Toluene	2	215	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
1,1,1-Trichloroethane	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
1,1,2-Trichloroethane	-	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	3
Trichloroethene	21	-	1.5	1.5	C	0.0	NC	Y	<0.1	<0.1	62
Vinyl chloride	-	-	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<2
m+p-Xylene	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
o-Xylene	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1
Xylenes (total)	-	-	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<1

All units in ug/L, unless otherwise noted.

Notes

- CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Freshwater.
- 2 = CCME (2007), Canadian Water Quality Guidelines for Protection of Aquatic Life, Update 7.1, Summary Table . Summary of Canadian water quality guidelines for the protection of aquatic life. Marine.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies section for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed.
- RDL = Reportable Detection Limit
- RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- NC = Not calculated
- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME freshwater guidelines
- 20 = Denotes exceedance of CCME marine guidelines

		APEC 4		
Parameters		CCME Freshwater	A4-SW08-3	A4- SW08-2
	Lab ID #		L682329-2	L682349-2
	Sample Date		08-SEP-08	08-SEP-08
	Prepared by:		Franz	Franz
Volatile Organic Compounds				
Benzene	0.37	<0.00050	<0.00050	
Bromodichloromethane	---	<0.0010	<0.0010	
Bromoform	---	<0.0010	<0.0010	
Carbon Tetrachloride	0.0133	<0.0010	<0.0010	
Chlorobenzene	0.0013	<0.0010	<0.0010	
Dibromochloromethane	---	<0.0010	<0.0010	
Chloroethane	---	<0.0010	<0.0010	
Chloroform	0.0018	<0.0010	<0.0010	
Chloromethane	---	<0.0010	<0.0010	
1,2-Dichlorobenzene	0.0007	0.0007	<0.0007	
1,3-Dichlorobenzene	0.15	<0.0010	<0.0010	
1,4-Dichlorobenzene	0.026	<0.0010	<0.0010	
1,1-Dichloroethane	---	<0.0010	<0.0010	
1,2-Dichloroethane	0.1	<0.0010	<0.0010	
1,1-Dichloroethylene	---	<0.0010	<0.0010	
cis-1,2-Dichloroethylene	---	<0.0010	0.004	
trans-1,2-Dichloroethylene	---	<0.0010	<0.0010	
Dichloromethane	---	<0.0050	<0.0050	
1,2-Dichloropropane	---	<0.0010	<0.0010	
cis-1,3-Dichloropropylene	---	<0.0010	<0.0010	
trans-1,3-Dichloropropylene	---	<0.0010	<0.0010	
Ethylbenzene	0.09	<0.00050	<0.00050	
Methyl t-butyl ether (MTBE)	10	<0.0010	<0.0010	
Styrene	0.072	<0.00050	<0.00050	
1,1,1,2-Tetrachloroethane	---	<0.0010	<0.0010	
1,1,2,2-Tetrachloroethane	---	<0.0010	<0.0010	
Tetrachloroethylene	0.111	<0.0010	0.0411	
Toluene	0.002	<0.0010	<0.0010	
1,1,1-Trichloroethane	---	<0.0010	<0.0010	
1,1,2-Trichloroethane	---	<0.0010	<0.0010	
Trichloroethylene	0.021	<0.0010	0.0226	
Trichlorofluoromethane	---	<0.0010	<0.0010	
Vinyl Chloride	---	<0.0010	<0.0010	
ortho-Xylene	---	<0.00050	<0.00050	
meta- & para-Xylene	---	<0.00050	<0.00050	
Xylenes	---	<0.0010	<0.0010	

Notes (Refer to endnotes for complete list)

10	value is greater than the CCME freshwater Guideline
---	No Guideline

General CCME Endnotes for Water

General Endnotes:

All values are reported as mg/L unless otherwise indicated.

10 = Value is greater than the CCME freshwater Guideline

--- = No guideline

- = Not Analyzed

NC = Not Calculated

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

Laboratory Notes

Refer to Laboratory reports for sample specific notes

< = less than method detection limit (mdl)

General Canadian Council of Ministers of the Environment (CCME) Notes

Summary Table - Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life
CCME, 1999, updated 2001, 2002, 2003, 2005, 2006, and 2007.

Sediment – Analytical Results

TABLE 7-13A: Analytical Results for Metals in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ²		CCME Soil PL ³ CCME Soil CL ⁴		AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2
Station ID							AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7	AEC2-SD09-8
Field label							AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7	AEC2-SD09-8
Duplicate ID															
Date															
Lab report ID							17/Sep/09 A9C4313	15/Sep/09 A9C2285	15/Sep/09 A9C2285	15/Sep/09 A9C2285	15/Sep/09 A9C2285	15/Sep/09 A9C2285	15/Sep/09 A9C2285	15/Sep/09 A9C2285	15/Sep/09 A9C2285
Depth (m)	ISQG	PEL	ISQG	PEL											
TOC							17,000	9,200	110,000	37,000	110,000	33,000	53,000	57,000	50,000
Aluminum	-	-			-	-	4700	3200	4700	3900	3700	3600	5500	4100	10000
Antimony	-	-			20	40	<0.2	<0.2	<1	<0.2	<1	2	2	2	3
Arsenic	5.9	17	7.24E-12	4.16E-11	12	12	<1	<1	<5	2	<5	<5	<5	<5	<5
Barium	-	-			500	2000	26.0	19.0	61.0	120.0	77.0	82.0	95.0	99.0	95.0
Beryllium	-	-			4	8	<0.2	<0.2	<1	<0.2	<1	<1	<1	<1	<1
Cadmium	0.6	3.5	7.00E-13	4.20E-12	10	22	<0.1	<0.1	<0.5	0.2	<0.5	6.1	6.6	4.4	5.7
Calcium	-	-			-	-	2200	1700	7600	2400	4200	3400	5400	6700	7000
Chromium	37.3	90	5.23E-11	1.60E-10	64	87	23	17	20	15	13	41	34	30	44
Chromium (VI)	-	-			0.4	1.4	<0.2	<0.2	-	2.0	2.6	<0.2	0.9	<0.4	<0.2
Cobalt	-	-			50	300	5.2	3.4	13.0	28.0	21.0	18.0	19.0	19.0	18.0
Copper	35.7	197	1.87E-11	1.08E-10	63	91	6.1	4.9	20.0	8.9	26.0	28.0	38.0	42.0	67.0
Iron	-	-			-	-	25000	22000	93000	58000	220000	84000	90000	98000	100000
Lead	35	91.3	3.02E-11	1.12E-10	140	260	5	8	24	9	31	150	170	150	150
Magnesium	-	-			-	-	2600	1600	3500	1700	1500	1900	2900	2300	6200
Manganese	-	-			-	-	150	110	980	8100	1400	3400	3000	3200	1100
Mercury (ug/g)	0.17	0.49	0.13	0.70	6.6	24	<0.05	<0.05	<0.25	<0.05	<0.25	<0.25	<0.25	<0.25	<0.25
Molybdenum	-	-			10	40	0.8	0.9	<2.5	2.3	4.5	2.8	2.8	<2.5	5.0
Nickel	-	-			50	50	7.1	5.2	17.0	8.5	16.0	15.0	16.0	16.0	22.0
Phosphorus	-	-			-	-	770	780	2100	1400	1400	720	1000	900	1500
Potassium	-	-			-	-	700	410	1200	430	<1000	<1000	<1000	<1000	1900
Selenium	-	-			1	2.9	<0.5	<0.5	<2.5	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Silver	-	-			20	40	<0.2	<0.2	<1	<0.2	<1	<1	<1	<1	<1
Sodium	-	-			-	-	130	<100	<500	<100	<500	<500	<500	<500	<500
Strontium	-	-			-	-	6	4	23	12	22	14	21	24	25
Thallium	-	-			1	1	0.07	<0.05	<0.25	<0.05	<0.25	<0.25	<0.25	<0.25	<0.25
Vanadium	-	-			130	130	52	46	40	41	<25	33	38	28	66
Zinc (ug/g)	123	315	124	271	200	360	29	52	230	230	280	210	270	300	440

All units in ug/g, unless otherwise noted.

Notes

CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic

1 = Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
2 = Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

3 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.

4 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.

A = See Methodologies in Appendix F for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not performed.

** = CCME Marine sediment guidelines apply only to AEC4 samples

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME ISQG guidelines for Freshwater

20 = Denotes exceedance of CCME PEL guidelines for Freshwater

20 = Denotes exceedance of CCME soil guidelines

20 = Denotes exceedance of CCME ISQG guidelines for Marine

20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-13A: Analytical Results for Metals in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ² **		CCME Soil PL ³	CCME Soil CL ⁴	AEC 2	AEC 2	Duplicate Evaluation				AEC 2	AEC 2	AEC 3	AEC 3	AEC 3	AEC 4
Station ID							AEC2-SD09-9	AEC2-SD09-9					AEC2-SD09-10	AEC2-SD09-11	AEC3-SD09-1	AEC3-SD09-2	AEC3-SD09-3	AEC4-SD09-1
Field label							AEC2-SD09-9	SD09-DUP1					AEC2-SD09-9	AEC2-SD09-11	AEC3-SD09-1	AEC3-SD09-2	AEC3-SD09-3	AEC4-SD09-1
Duplicate ID							SD09-DUP1	AEC2-SD09-9										
Date							15/Sep/09	15/Sep/09										
Lab report ID							A9C2285	A9C2285										
Depth (m)	ISQG	PEL	ISQG	PEL														
TOC							67,000	78,000					41,000	46,000	3,400	3,300	52,000	12,000
Aluminum	-	-			-	-	4900	5800	C	4.2	NC	Y	5300	6700	3500	2600	4600	3500
Antimony	-	-			20	40	1.5	2	C	7.1	NC	Y	1.0	0.8	<0.2	<0.2	0.7	<0.2
Arsenic	5.9	17	7.24E-12	4.16E-11	12	12	2	<5	B	NC	1.5	N	<1	2	2	<1	7	<1
Barium	-	-			500	2000	55.0	68.0	C	5.3	NC	Y	35.0	39.0	18.0	11.0	23.0	16.0
Beryllium	-	-			4	8	0.2	<1	B	NC	0.1	Y	0.3	0.3	<0.2	<0.2	0.3	<0.2
Cadmium	0.6	3.5	7.00E-13	4.20E-12	10	22	3.8	6.7	C	13.8	NC	Y	2.0	2.0	0.1	<0.1	0.3	0.2
Calcium	-	-			-	-	3900	4600	C	4.1	NC	Y	3400	3900	2600	2000	3500	2500
Chromium	37.3	90	5.23E-11	1.60E-10	64	87	23	31	C	7.4	NC	Y	20	22	13	17	18	20
Chromium (VI)	-	-			0.4	1.4	<0.2	<0.8	A	NC	NC	Y	<0.2	<0.2	<0.2	<0.2	<0.4	<0.4
Cobalt	-	-			50	300	11.0	17.0	C	10.7	NC	Y	5.6	6.4	3.4	2.8	5.7	3.1
Copper	35.7	197	1.87E-11	1.08E-10	63	91	22.0	33.0	C	10.0	NC	Y	20.0	18.0	7.5	4.7	18.0	7.2
Iron	-	-			-	-	70000	110000	C	11.1	NC	Y	48000	25000	12000	22000	46000	22000
Lead	35	91.3	3.02E-11	1.12E-10	140	260	86	120	C	8.3	NC	Y	57	51	18	5	63	9
Magnesium	-	-			-	-	2600	3000	C	3.6	NC	Y	3400	3800	2200	1900	4800	2500
Manganese	-	-			-	-	770	930	C	4.7	NC	Y	160	100	60	130	150	59
Mercury (ug/g)	0.17	0.49	0.13	0.70	6.6	24	<0.05	<0.25	A	NC	NC	Y	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum	-	-			10	40	3.0	<2.5	B	NC	2.75	N	3.4	2.0	4.1	1.6	11.0	1.9
Nickel	-	-			50	50	11.0	14.0	C	6.0	NC	Y	9.1	10.0	6.1	4.6	10.0	5.3
Phosphorus	-	-			-	-	750	990	C	6.9	NC	Y	780	770	850	690	1300	880
Potassium	-	-			-	-	710	<1000	B	NC	610	N	1100	1200	690	520	1800	910
Selenium	-	-			1	2.9	<0.5	<2.5	A	NC	NC	Y	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	-	-			20	40	<0.2	<1	A	NC	NC	Y	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sodium	-	-			-	-	270	<500	B	NC	220	N	290	360	260	1100	8800	1400
Strontium	-	-			-	-	14	16	C	3.3	NC	Y	16	16	7	7	37	11
Thallium	-	-			1	1	<0.05	<0.25	A	NC	NC	Y	0.05	0.07	<0.05	<0.05	<0.05	<0.05
Vanadium	-	-			130	130	30	38	C	5.9	NC	Y	33	35	26	46	51	51
Zinc (ug/g)	123	315	124	271	200	360	270	390	C	9.1	NC	Y	160	250	35	28	130	51

All units in ug/g, unless otherwise noted.

Notes

- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
- 1 = Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
- 2 = Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- 3 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- 4 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- A = See Methodologies in Appendix F for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- RDL = Reportable Detection Limit
- RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than
- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME ISQG guidelines for Freshwater
- 20 = Denotes exceedance of CCME PEL guidelines for Freshwater
- 20 = Denotes exceedance of CCME soil guidelines
- 20 = Denotes exceedance of CCME ISQG guidelines for Marine
- 20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-13A: Analytical Results for Metals in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹	CCME Marine Sediment ²	CCME Soil PL ³	CCME Soil CL ⁴	AEC 4	AEC 4	AEC 4	AEC 4	AEC 4	AEC 4	Duplicate Evaluation			
Station ID					AEC4-SD09-2	AEC4-SD09-3	AEC4-SD09-4	AEC4-SD09-5	AEC4-SD09-11	AEC4-SD09-11				
Field label					AEC4-SD09-2	AEC4-SD09-3	AEC4-SD09-4	AEC4-SD09-5	AEC4-SD09-11	AEC4-SD09-11				
Duplicate ID					17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09				
Date	ISQG	PEL	ISQG	PEL	A9C4313	A9C4313	A9C4313	A9C4313	A9C4313	A9C4313	Scenario ^A	RPD (%)	Value (ug/L)	Acceptable (Y/N)
Lab report ID														
Depth (m)	ISQG	PEL	ISQG	PEL										
TOC					20,000	12,000	15,000	4,200	4,900	5,300	C	2.0	NC	Y
Aluminum	-	-			4300	3600	4100	3700	3900	3700	C	1.3	NC	Y
Antimony	-	-			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	A	NC	NC	Y
Arsenic	5.9	17	7.24E-12	4.16E-11	12	12	1	<1	1	2	D	NC	1	Y
Barium	-	-			500	2000	25.0	17.0	20.0	23.0	C	1.1	NC	Y
Beryllium	-	-			4	8	<0.2	<0.2	<0.2	0.2	D	NC	0.1	Y
Cadmium	0.6	3.5	7.00E-13	4.20E-12	10	22	0.2	0.2	0.1	<0.1	A	NC	NC	Y
Calcium	-	-			2400	2300	2400	1800	2200	2000	C	2.4	NC	Y
Chromium	37.3	90	5.23E-11	1.60E-10	64	87	15	17	18	13	C	4.8	NC	Y
Chromium (VI)	-	-			0.4	1.4	0.8	0.7	<0.2	<0.2	A	NC	NC	Y
Cobalt	-	-			50	300	3.4	3.3	3.0	3.3	C	1.5	NC	Y
Copper	35.7	197	1.87E-11	1.08E-10	63	91	7.6	7.6	8.0	5.6	C	4.3	NC	Y
Iron	-	-			-	-	16000	22000	19000	15000	C	0.0	NC	Y
Lead	35	91.3	3.02E-11	1.12E-10	140	260	9	11	6	2	D	NC	0	Y
Magnesium	-	-			-	-	3400	2800	3200	3000	C	2.6	NC	Y
Manganese	-	-			-	-	60	68	55	54	C	0.7	NC	Y
Mercury (ug/g)	0.17	0.49	0.13	0.70	6.6	24	<0.05	<0.05	<0.05	<0.05	A	NC	NC	Y
Molybdenum	-	-			10	40	4.2	2.5	8.3	0.8	C	0.0	NC	Y
Nickel	-	-			50	50	6.4	5.9	6.0	5.8	C	0.0	NC	Y
Phosphorus	-	-			-	-	820	770	920	600	C	4.1	NC	Y
Potassium	-	-			-	-	1200	980	1400	1100	C	0.0	NC	Y
Selenium	-	-			1	2.9	<0.5	<0.5	<0.5	<0.5	A	NC	NC	Y
Silver	-	-			20	40	<0.2	<0.2	<0.2	<0.2	A	NC	NC	Y
Sodium	-	-			-	-	1400	2400	5100	3000	C	4.5	NC	Y
Strontium	-	-			-	-	14	12	12	10	C	0.0	NC	Y
Thallium	-	-			1	1	0.09	<0.05	0.05	<0.05	A	NC	NC	Y
Vanadium	-	-			130	130	32	43	44	29	C	2.9	NC	Y
Zinc (ug/g)	123	315	124	271	200	360	64	60	48	31	C	1.4	NC	Y

All units in ug/g, unless otherwise noted.

Notes

- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
- 1 = Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
- 2 = Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- 3 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- 4 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- A = See Methodologies in Appendix F for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- RDL = Reportable Detection Limit
- RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than
- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME ISQG guidelines for Freshwater
- 20 = Denotes exceedance of CCME PEL guidelines for Freshwater
- 20 = Denotes exceedance of CCME soil guidelines
- 20 = Denotes exceedance of CCME ISQG guidelines for Marine
- 20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-13A: Analytical Results for Metals in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹	CCME Marine Sediment ²	CCME Soil PL ³	CCME Soil CL ⁴	AEC 4	AEC 4	AEC 4	AEC 4	AEC 5	AEC 6
Station ID					AEC4-SD09-12	AEC4-SD09-13	AEC4-SD09-14	AEC4-SD09-15	SD-BK-1	SD-BK-2
Field label					AEC4-SD09-12	AEC4-SD09-13	AEC4-SD09-14	AEC4-SD09-15	SD-BK-1	SD-BK-2
Duplicate ID										
Date					17/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	09-SEP-08	09-SEP-08
Lab report ID					A9C4313	A9C4313	A9C4313	A9C4313	L682370-12	L682370-15
Depth (m)	ISQG	PEL	ISQG	PEL						
TOC					2,300	4,900	3,200	6,600	-	-
Aluminum	-	-			2700	4000	3900	5500	-	-
Antimony	-	-			20	40			<10	<10
Arsenic	5.9	17	7.24E-12	4.16E-11	12	12	<1	<1	<5.0	<5.0
Barium	-	-			500	2000	20.0	34.0	16.7	23.5
Beryllium	-	-			4	8	<0.2	<0.2	<0.50	<0.50
Cadmium	0.6	3.5	7.00E-13	4.20E-12	10	22	<0.1	<0.1	<0.50	<0.50
Calcium	-	-			-	-	1500	2500	-	-
Chromium	37.3	90	5.23E-11	1.60E-10	64	87	30	20	13.7	10.2
Chromium (VI)	-	-			0.4	1.4	<0.2	<0.2	-	-
Cobalt	-	-			50	300	4.8	3.4	3.5	3.2
Copper	35.7	197	1.87E-11	1.08E-10	63	91	6.3	5.8	5	5.2
Iron	-	-			-	-	40000	23000	-	-
Lead	35	91.3	3.02E-11	1.12E-10	140	260	2	3	<30	<30
Magnesium	-	-			-	-	2100	3100	2800	4000
Manganese	-	-			-	-	230	67	58	75
Mercury (ug/g)	0.17	0.49	0.13	0.70	6.6	24	<0.05	<0.05	<0.05	<0.0050
Molybdenum	-	-			10	40	1.9	1.4	1.0	2.5
Nickel	-	-			50	50	6.5	6.3	5.9	7.9
Phosphorus	-	-			-	-	530	850	820	880
Potassium	-	-			-	-	590	990	990	1600
Selenium	-	-			1	2.9	<0.5	<0.5	<0.5	<0.5
Silver	-	-			20	40	<0.2	<0.2	<0.2	<0.2
Sodium	-	-			-	-	1800	560	870	1100
Strontium	-	-			-	-	7	8	10	13
Thallium	-	-			1	1	<0.05	<0.05	<0.05	0.06
Vanadium	-	-			130	130	91	52	43	40
Zinc (ug/g)	123	315	124	271	200	360	32	40	33	50

All units in ug/g, unless otherwise noted.

Notes

CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic

1 = Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
2 = Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

3 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.

4 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.

A = See Methodologies in Appendix F for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not performed.

** = CCME Marine sediment guidelines apply only to AEC4 samples

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME ISQG guidelines for Freshwater

20 = Denotes exceedance of CCME PEL guidelines for Freshwater

20 = Denotes exceedance of CCME soil guidelines

20 = Denotes exceedance of CCME ISQG guidelines for Marine

20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-13B: Analytical Results for Metals in Sediment - 2008

						APEC 2				APEC 3				
Parameters		CCME Freshwater Sediment (ISQG)	CCME Freshwater Sediment (PEL)	CCME Marine Sediment (ISQG)	CCME Marine Sediment (PEL)	A2-S008-1	A2-S008-2	A2-S008-3	A2-S008-4	A3-S008-2	SD-DUP 1		A3-S008-3	A3-S008-4
						L681311-3	L681311-4	L681311-5	L681311-6	L681123-1	L681123-4	RPD	L681123-2	L681123-3
						06-SEP-08	06-SEP-08	06-SEP-08	06-SEP-08	07-SEP-08	07-SEP-08		07-SEP-08	07-SEP-08
						Franz	Franz	Franz	Franz	Franz	Franz		Franz	Franz
Lab ID # Sample Date														
Physical Tests														
% Moisture		---	---			-	-	50	40.3	25.1	23.7	6%	52	15.8
pH		---	---			5.43	5.94	6.55	6.76	6.85	6.89	1%	6.62	6.99
Total Metals														
Antimony (Sb)		---	---			<10	<10	<10	<10	<10	<10	NC	<10	<10
Arsenic (As)		5.9	17	7.24E-12	4.16E-11	<5.0	<5.0	<5.0	6.3	<5.0	<5.0	NC	<5.0	<5.0
Barium (Ba)		---	---			84.4	59	61.9	155	13.9	19.4	33%	45.3	21.6
Beryllium (Be)		---	---			<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NC	<0.50	<0.50
Cadmium (Cd)		0.6	3.5	7.00E-13	4.20E-12	<0.50	<0.50	2.73	2.83	<0.50	<0.50	NC	1.38	0.6
Chromium (Cr)		37.3	90	5.23E-11	1.60E-10	16.3	21.4	55.4	50.2	12.8	14.2	10%	25.4	24.1
Cobalt (Co)		---	---			13.5	13.3	13.7	20.6	2.8	3.4	19%	5.9	3.9
Copper (Cu)		35.7	197	1.87E-11	1.08E-10	17.6	292	70.3	48.9	4.5	7.9	55%	20.7	13.7
Lead (Pb)		35	91.3	3.02E-11	1.12E-10	<30	<30	96	201	<30	39	NC	59	57
Mercury (Hg)		0.17	0.486	0.13	0.70	0.046	0.0575	0.0414	0.0508	<0.0050	0.0064	NC	0.0384	0.0155
Molybdenum (Mo)		---	---			<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	NC	5	<4.0
Nickel (Ni)		---	---			8.8	10.9	23.9	24.6	<5.0	<5.0	NC	8.9	<5.0
Selenium (Se)		---	---			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NC	<2.0	<2.0
Silver (Ag)		---	---			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NC	<2.0	<2.0
Thallium (Tl)		---	---			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NC	<1.0	<1.0
Tin (Sn)		---	---			<5.0	9.8	8.7	8.9	<5.0	<5.0	NC	<5.0	<5.0
Vanadium (V)		---	---			36.8	28.9	23.4	24.1	30.5	41.4	30%	45.1	29.2
Zinc (Zn)		123	315	124	271	499	111	145	333	28.3	42.7	41%	191	139

Notes (Refer to endnotes for complete list)

10	value is greater than the PEL Guideline
<u>10</u>	value is greater than the ISQG Guideline

--- No Guideline.

- Not analyzed

NC - Not calculated

TABLE 7-13B: Analytical Results for Metals in Sediment - 2008

Parameters		CCME Freshwater Sediment (ISQG)	APEC 4						SD-BK-1	SD-BK-2
			A4-SD08-1	A4-SD08-2	A4-SD08-3	A4-SD08-4	A4-SD08-5	A4-SD08-6		
			L682317-1	L682317-2	L682317-3	L682317-4	L682317-5	L682317-6		
			08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08		
Lab ID # Sample Date			Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz
Physical Tests										
% Moisture		---	29.6	19.4	19	18.9	22	20.7	25.9	-
pH		---	7.11	7.95	7.47	8.33	7.66	8.31	8.04	7.56
Total Metals										
Antimony (Sb)		---	<10	<10	<10	<10	<10	<10	<10	<10
Arsenic (As)		5.9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Barium (Ba)		---	37.7	19.7	15.7	17.1	13.2	17.5	25.9	16.7
Beryllium (Be)		---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cadmium (Cd)		0.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chromium (Cr)		37.3	17.4	15.5	9.3	14	10.2	11.4	10.4	13.7
Cobalt (Co)		---	4.7	2.9	2.3	3.3	2.6	3.1	3	3.5
Copper (Cu)		35.7	8.1	5.4	6.7	4.9	4.6	4.9	5	5
Lead (Pb)		35	<30	<30	<30	<30	<30	<30	<30	<30
Mercury (Hg)		0.17	0.0067	<0.0050	0.0091	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Molybdenum (Mo)		---	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Nickel (Ni)		---	6.8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Selenium (Se)		---	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Silver (Ag)		---	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Thallium (Tl)		---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tin (Sn)		---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vanadium (V)		---	39.6	37.2	23.2	41.8	33.2	28.6	24.1	36.9
Zinc (Zn)		123	52.9	26.8	49.4	21.8	23.2	23.3	36.1	22

Notes (Refer to endnotes for complete list)

10	value is greater than the PEL Guideline
<u>10</u>	value is greater than the ISQG Guideline

--- No Guideline.

- Not analyzed

NC - Not calculated

TABLE 7-14A: Analytical Results for PHCs in Sediments - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ² "		CCME Soil PL ³		CCME Soil CL ⁴		AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2
Station ID									AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7
Field label									AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7
Duplicate ID									AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7
Date									17/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09
Lab report ID									A9C4313	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285
Depth (m)	ISQG	PEL	ISQG	PEL												
Moisture content	-	-	-	-	-	-	-	-	23.0	35.0	75.0	54.0	82.0	55.0	66.0	61.0
Benzene	-	-	-	-	-	0.03	0.03	-	<0.002	<0.002	<0.008	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	-	-	-	-	-	0.082	0.082	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.004	<0.006
Toluene	-	-	-	-	-	0.37	0.37	-	<0.002	0.008	<0.008	<0.004	<0.01	<0.004	<0.004	<0.006
m+p-Xylene	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.004	<0.006
o-Xylene	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.004	<0.01	<0.004	<0.004	<0.006
Xylenes (total)	-	-	-	-	-	2.4	11	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.004	<0.006
F1 (C6-C10)	-	-	-	-	-	-	-	-	<10	<10	<40	<10	<10	<20	<30	<30
F1 (C6-C10) minus BTEX	-	-	-	-	-	30	240	-	<10	<10	<40	<10	<10	<20	<30	<30
F2 (C10-C16)	-	-	-	-	-	150	260	-	<10	130	<40	<10	1500	<10	35	<30
F3 (C16-C34)	-	-	-	-	-	300	1700	-	52	110	190	<10	4100	160	620	330
F4 (C34-C50)	-	-	-	-	-	2800	3300	-	50	<10	<40	<10	4500	110	390	390
F4 Gravimetric	-	-	-	-	-	-	-	-	-	-	-	-	23000	-	-	-
Reached Baseline at C50	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

All units in ug/g, unless otherwise noted.

Notes:

- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies in Appendix F for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed.
- RDL = Reportable Detection Limit
- Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- 20 = Denotes exceedance of CCME Residential/Parkland Use guidelines
- 20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-14A: Analytical Results for PHCs in Sediments - 2009

Area ID	CCME Freshwater Sediment ¹				CCME Marine Sediment ^{2**}				CCME Soil PL ³		CCME Soil CL ⁴		AEC 2	AEC 2	AEC 2	Duplicate Evaluation			AEC 2	AEC 2	AEC 3	AEC 3	AEC 3			
Station ID													AEC2-SD09-8	AEC2-SD09-9	AEC2-SD09-9				AEC2-SD09-8	AEC2-SD09-9	SD09-DUP1	AEC2-SD09-10	AEC2-SD09-11	AEC3-SD09-1	AEC3-SD09-2	AEC3-SD09-3
Field label													AEC2-SD09-8	AEC2-SD09-9	SD09-DUP1				AEC2-SD09-10	AEC2-SD09-11	AEC3-SD09-1	AEC3-SD09-2	AEC3-SD09-3			
Duplicate ID													SD09-DUP1	AEC2-SD09-9												
Date													Scenario ^A	RPD (%)	Acceptable (Y/N)	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09						
Lab report ID																A9C2285	A9C2285	A9C2285	A9C2285	A9C2285						
Depth (m)	ISQG	PEL	ISQG	PEL																						
Moisture content	-	-	-	-	-	-	-	-	-	-	-	-	11.0	74.0	71.0	C	1.0	Y	67.0	68.0	19.0	23.0	75.0			
Benzene	-	-	-	-	-	-	0.03	0.03	-	-	-	-	<0.002	<0.002	<0.002	A	NC	Y	<0.002	<0.002	<0.002	<0.002	<0.002			
Ethylbenzene	-	-	-	-	-	-	0.082	0.082	-	-	-	-	<0.002	<0.008	<0.008	A	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.008			
Toluene	-	-	-	-	-	-	0.37	0.37	-	-	-	-	<0.002	<0.008	<0.008	A	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.008			
m+p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.008	<0.008	A	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.008			
p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.008	<0.008	A	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.008			
Xylenes (total)	-	-	-	-	-	-	2.4	11	-	-	-	-	<0.002	<0.008	<0.008	A	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.008			
F1 (C6-C10)	-	-	-	-	-	-	-	-	-	-	-	-	<10	<40	<40	A	NC	Y	<30	<30	<50	<10	<40			
F1 (C6-C10) minus BTEX	-	-	-	-	-	-	30	240	-	-	-	-	<10	<40	<40	A	NC	Y	<30	<30	<10	<10	<40			
F2 (C10-C16)	-	-	-	-	-	-	150	260	-	-	-	-	71	180	310	C	13.3	Y	140	1500	<10	<10	<40			
F3 (C16-C34)	-	-	-	-	-	-	300	1700	-	-	-	-	280	1000	1300	C	6.5	Y	470	1200	43	<10	360			
F4 (C34-C50)	-	-	-	-	-	-	2800	3300	-	-	-	-	160	500	620				260	560	<10	<10	470			
F4 Gravimetric	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-			
Reached Baseline at C50	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes				Yes	Yes	Yes	Yes	Yes			

All units in ug/g, unless otherwise noted.

Notes:

- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
1 = Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
2 = Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
3 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
4 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
** = CCME Marine sediment guidelines apply only to AEC4 samples
A = See Methodologies in Appendix F for Scenario Rationale
"-" indicates that there is no applicable regulation or analyses were not performed
RDL = Reportable Detection Limit
Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
20 = Denotes exceedance of CCME Residential/Parkland Use guidelines
20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-14A: Analytical Results for PHCs in Sediments - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ²		CCME Soil PL ³	CCME Soil CL ⁴	AEC 4	AEC 4	AEC 4	Duplicate Evaluation				AEC 4
Station ID							AEC4-SD09-1	AEC4-SD09-11	AEC4-SD09-11	Scenario ^A	RPD (%)	Value (ug/L)	Acceptable (Y/N)	AEC4-SD09-1
Field label							AEC4-SD09-1	AEC4-SD09-11	SD09-DUP2					AEC4-SD09-1
Duplicate ID									AEC4-SD09-11					
Date							17/Sep/09	17/Sep/09	17/Sep/09					17/Sep/09
Lab report ID							A9C4313	A9C4313	A9C4313					A9C4313
Depth (m)	ISQG	PEL	ISQG	PEL										
Moisture content	-	-	-	-	-	-	48.0	33.0	26.0	C	5.9	NC	Y	47.0
Benzene	-	-	-	-	0.03	0.03	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002
Ethylbenzene	-	-	-	-	0.082	0.082	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002
Toluene	-	-	-	-	0.37	0.37	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002
m+p-Xylene	-	-	-	-	-	-	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002
p-Xylene	-	-	-	-	-	-	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002
Xylenes (total)	-	-	-	-	2.4	11	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002
F1 (C6-C10)	-	-	-	-	-	-	<10	<10	<10	A	NC	NC	Y	<10
F1 (C6-C10) minus BTEX	-	-	-	-	30	240	<10	<10	<10	A	NC	NC	Y	<10
F2 (C10-C16)	-	-	-	-	150	260	<10	<10	<10	A	NC	NC	Y	<10
F3 (C16-C34)	-	-	-	-	300	1700	190	42	<10	B	NC	37	N	21
F4 (C34-C50)	-	-	-	-	2800	3300	180	100	<10	B	NC	95	N	<10
F4 Gravimetric	-	-	-	-	-	-	-	-	-					-
Reached Baseline at C50	-	-	-	-	-	-	Yes	Yes	Yes					Yes

All units in ug/g, unless otherwise noted.

Notes:

- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
- 1 = Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic
- 2 = Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian
- 3 = Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian
- 4 = Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies in Appendix F for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed
- RDL = Reportable Detection Limit
- Relative percent difference is calculated as the difference over the average of the
- RPD = two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- 20 = Denotes exceedance of CCME Residential/Parkland Use guidelines
- 20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-14B: Analytical Results for PHCs in Sediment - 2008

			APEC 2		APEC 3					APEC 4			
Parameters		CCME Freshwater Sediment (ISQG)	CCME Freshwater Sediment (PEL)	A2-S008-3	A2-S008-4	A3-S008-2	SD-DUP 1		A3-S008-3	A3-S008-4	A4-SD08-1	A4-SD08-2	A4-SD08-3
				L681311-5	L681311-6	L681123-1	L681123-4	RPD	L681123-2	L681123-3	L682317-1	L682317-2	L682317-3
				06-SEP-08	06-SEP-08	07-SEP-08	07-SEP-08		07-SEP-08	07-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08
				Franz	Franz	Franz	Franz		Franz	Franz	Franz	Franz	Franz
Volatiles													
Benzene		---	---	<0.040	<0.040	<0.040	<0.040	NC	<0.040	<0.040	<0.040	<0.040	<0.040
Ethylbenzene		---	---	<0.050	<0.050	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl t-butyl ether (MTBE)		---	---	<0.20	<0.20	<0.20	<0.20	NC	<0.20	<0.20	<0.20	<0.20	<0.20
Styrene		---	---	<0.050	<0.050	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene		---	---	<0.050	<0.050	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050
o-Xylene		---	---	<0.050	<0.050	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050
m & p-Xylene		---	---	<0.050	<0.050	<0.050	<0.050	NC	<0.050	<0.050	<0.050	<0.050	<0.050
Xylenes (Total)		---	---	<0.10	<0.10	<0.10	<0.10	NC	<0.10	<0.10	<0.10	<0.10	<0.10
Extractable Petroleum Hydrocrabons													
F4SG (Heavy Hydrocarbons-SilicaGel)		---	---	<500	<500	-	<500	NC	1040	-	-	-	-
CWS F2 (C10-C16)		---	---	<30	33	<30	<30	NC	535	141	<30	<40	<30
CWS F3 (C16-C34)		---	---	220	248	<50	139	NC	568	177	<50	<50	<50
CWS F4 (C34-C50)		---	---	94	99	<50	89	NC	191	71	<50	<50	<50
F1-BTEX		---	---	<10	<10	<10	10	NC	11	<10	<10	<10	<10
CWS F1 (C06-C10)		---	---	<10	<10	<10	10	NC	11	<10	<10	<10	<10

Notes (Refer to endnotes for complete list)

10	value is greater than the PEL Guideline
<u>10</u>	value is greater than the ISQG Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-15A: Analytical Results for PAHs in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ^{2**}		AEC 1	AEC 4	AEC 4	Duplicate Evaluation		AEC 4
Station ID					AEC1-SD09-1	AEC4-SD09-11	AEC4-SD09-11			AEC4-SD09-15
Field label					AEC1-SD09-1	AEC4-SD09-11	SD09-DUP2			AEC4-SD09-15
Duplicate ID					SD09-DUP2		AEC4-SD09-11			
Date					17/Sep/09	17/Sep/09	17/Sep/09	Scenario ^A	Acceptable (Y/N)	17/Sep/09
Lab report ID					A9C4313	A9C4313	A9C4313			A9C4313
Depth (m)	ISQG	PEL	ISQG	PEL						
Acenaphthene	0.00671	0.0889	0.00671	0.0889	<0.02	<0.02	<0.02	A	Y	<0.02
Acenaphthylene	0.00587	0.128	0.00587	0.128	<0.01	<0.01	<0.01	A	Y	<0.01
Anthracene	0.0469	0.245	0.0469	0.245	<0.01	<0.01	<0.01	A	Y	<0.01
Benzo(a)anthracene	0.0317	0.385	0.0748	0.693	<0.02	<0.02	<0.02	A	Y	<0.02
Benzo(a)pyrene	0.0319	0.782	0.0888	0.763	<0.01	<0.01	<0.01	A	Y	0.01
Benzo(g,h,i)perylene	-	-	-	-	<0.04	<0.04	<0.04	A	Y	<0.04
Benzo(k)fluoranthene	-	-	-	-	<0.02	<0.02	<0.02	A	Y	<0.02
Chrysene	0.0571	0.862	0.108	0.846	<0.02	<0.02	<0.02	A	Y	<0.02
Dibenz(a,h)anthracene	0.00622	0.135	0.00622	0.135	<0.04	<0.04	<0.04	A	Y	<0.04
Fluoranthene	0.111	2.355	0.113	1.494	0.02	<0.01	<0.01	A	Y	0.03
Fluorene	0.0212	0.144	0.0212	0.144	<0.01	<0.01	<0.01	A	Y	<0.01
Indeno(1,2,3-cd)pyrene	-	-	-	-	<0.04	<0.04	<0.04	A	Y	<0.04
2-Methylnaphthalene	0.0202	0.201	0.0202	0.201	<0.01	<0.01	<0.01	A	Y	<0.01
Naphthalene	0.0346	0.391	0.0346	0.391	<0.01	<0.01	<0.01	A	Y	<0.01
Phenanthrene	0.0419	0.515	0.0867	0.544	0.01	<0.01	<0.01	A	Y	0.02
Pyrene	0.053	0.875	0.153	1.398	0.01	<0.01	<0.01	A	Y	0.02

All units in ug/g, unless otherwise noted.

Notes

¹ = CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

² = CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

^{**} = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies in Appendix F for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not performed.

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both

20 = Denotes exceedance of CCME ISQG guidelines for Freshwater

20 = Denotes exceedance of CCME PEL guidelines for Freshwater

20 = Denotes exceedance of CCME ISQG guidelines for Marine

20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-15B: Analytical Results for PAHs in Sediment - 2008

					APEC 2	APEC 4		
Parameters	Lab ID # Sample Date	CCME Freshwater Sediment (ISQG)	CCME Freshwater Sediment (PEL)	CCME Marine Sediment (ISQG)	CCME Marine Sediment (PEL)	A2-SD08-4	A4-SD08-2	A4-SD08-3
						L682370-22	L682317-2	L682317-3
						09-SEP-08	08-SEP-08	08-SEP-08
						Franz	Franz	Franz
Polycyclic Aromatic Hydrocarbons								
Acenaphthene		0.00671	0.0889	0.00671	0.0889	<0.040	<0.00671	<0.00671
Acenaphthylene		0.00587	0.128	0.00587	0.128	<0.050	<0.00587	<0.00587
Anthracene		0.0469	0.245	0.0469	0.245	<0.050	<0.0469	<0.0469
Benz(a)anthracene		0.0317	0.385	0.0748	0.693	<0.050	<0.0317	<0.0317
Benzo(a)pyrene		0.0319	0.782	0.0888	0.763	<0.050	<0.0319	<0.0319
Benzo(b)fluoranthene		---	---	---	---	0.061	<0.050	<0.050
Benzo(g,h,i)perylene		---	---	---	---	<0.050	<0.050	<0.050
Benzo(k)fluoranthene		---	---	---	---	<0.050	<0.050	<0.050
Chrysene		0.0571	0.862	0.108	0.846	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene		0.00622	0.135	0.00622	0.135	<0.050	<0.00622	<0.00622
Fluoranthene		0.111	2.355	0.113	1.494	0.05	<0.05	<0.05
Fluorene		0.0212	0.144	0.0212	0.144	<0.050	<0.0212	<0.0212
Indeno(1,2,3-c,d)pyrene		---	---	---	---	<0.050	<0.050	<0.050
2-Methylnaphthalene		0.0202	0.201	0.0202	0.201	<0.050	<0.0202	<0.0202
Naphthalene		0.0346	0.391	0.0346	0.391	<0.050	<0.0346	<0.0346
Phenanthrene		0.0419	0.515	0.0867	0.544	<0.050	<0.0419	<0.0419
Pyrene		0.053	0.875	0.153	1.398	<0.050	<0.050	<0.050

Notes (Refer to endnotes for complete list)

10	value is greater than the PEL Guideline
<u>10</u>	value is greater than the ISQG Guideline
--- No Guideline.	

TABLE 7-16A: Analytical Results for PCBs in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ²		AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2
Station ID					AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7
Field label					AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7
Duplicate ID												
Date					17/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09
Lab report ID					A9C4313	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285
Depth (m)	ISQG	PEL	ISQG	PEL								
Aroclor 1016	-	-	-	-	<0.02	<0.02	<0.06	<0.03	<0.08	<0.3	<0.4	<0.3
Aroclor 1221	-	-	-	-	<0.03	<0.03	<0.1	<0.06	<0.2	<0.6	<1	<0.6
Aroclor 1232	-	-	-	-	<0.02	<0.02	<0.06	<0.03	<0.08	<0.3	<0.4	<0.3
Aroclor 1242	-	-	-	-	<0.02	<0.02	<0.06	<0.03	<0.08	<0.3	<0.4	<0.3
Aroclor 1248	-	-	-	-	<0.02	<0.02	<0.06	<0.03	<0.08	<0.3	<0.4	<0.3
Aroclor 1254	0.06	0.34	0.0633	0.709	<0.02	<0.02	<0.06	<0.03	<0.08	<0.3	<0.4	<0.3
Aroclor 1260	-	-	-	-	<0.02	<0.02	0.27	0.05	0.20	0.6	1.8	0.7
Aroclor 1262	-	-	-	-	<0.02	<0.02	<0.06	<0.03	<0.08	<0.3	<0.4	<0.3
Aroclor 1268	-	-	-	-	<0.02	<0.02	<0.06	<0.03	<0.08	<0.3	<0.4	<0.3
Polychlorinated biphenyls	0.0341	0.277	0.0215	0.189	<0.03	<0.03	0.3	<0.06	0.2	0.6	2	0.7

All units in ug/g, unless otherwise noted.

Notes

CCME (2002), Canadian Sediment Quality Guidelines for Protection of
1 = Aquatic Life, Update 2002, Table 1. Interim freshwater sediment quality
guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

CCME (2002), Canadian Sediment Quality Guidelines for Protection of
2 = Aquatic Life, Update 2002, Table 2. Interim marine sediment quality
guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

** = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies in Appendix F for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not
performed.

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the
average of the two values and is only calculated when both
concentrations are greater than 5 times the method detection limit.

NC = Not calculated

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME ISQG guidelines for Freshwater

20 = Denotes exceedance of CCME PEL guidelines for Freshwater

20 = Denotes exceedance of CCME ISQG guidelines for Marine

20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-16A: Analytical Results for PCBs in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ²		AEC 2	AEC 2	AEC 2	Duplicate Evaluation				AEC 2	AEC 2
Station ID					AEC2-SD09-8	AEC2-SD09-9	AEC2-SD09-9					AEC2-SD09-10	AEC2-SD09-11
Field label					AEC2-SD09-8	AEC2-SD09-9	SD09-DUP1					AEC2-SD09-10	AEC2-SD09-11
Duplicate ID					SD09-DUP1		AEC2-SD09-9						
Date					15/Sep/09	15/Sep/09	15/Sep/09					15/Sep/09	15/Sep/09
Lab report ID					A9C2285	A9C2285	A9C2285	Scenario ^A	RPD (%)	Value (ug/L)	Acceptable (Y/N)	A9C2285	A9C2285
Depth (m)	ISQG	PEL	ISQG	PEL									
Aroclor 1016	-	-	-	-	<0.2	<6	<0.4	A	NC	NC	Y	<0.5	<0.5
Aroclor 1221	-	-	-	-	<0.3	<10	<1	A	NC	NC	Y	<1	<1
Aroclor 1232	-	-	-	-	<0.2	<6	<0.4	A	NC	NC	Y	<0.5	<0.5
Aroclor 1242	-	-	-	-	<0.2	<6	<0.4	A	NC	NC	Y	<0.5	<0.5
Aroclor 1248	-	-	-	-	<0.2	<6	<0.4	A	NC	NC	Y	<0.5	<0.5
Aroclor 1254	0.06	0.34	0.0633	0.709	<0.2	<6	<0.4	A	NC	NC	Y	<0.5	<0.5
Aroclor 1260	-	-	-	-	0.3	15	1.9	C	38.8	NC	Y	1.0	1.6
Aroclor 1262	-	-	-	-	<0.2	<6	<0.4	A	NC	NC	Y	<0.5	<0.5
Aroclor 1268	-	-	-	-	<0.2	<6	<0.4	A	NC	NC	Y	<0.5	<0.5
Polychlorinated biphenyls	0.0341	0.277	0.0215	0.189	0.3	15	2	C	38.2	NC	Y	1	2

All units in ug/g, unless otherwise noted.

Notes

CCME (2002), Canadian Sediment Quality Guidelines for Protection of
1 = Aquatic Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

CCME (2002), Canadian Sediment Quality Guidelines for Protection of
2 = Aquatic Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

** = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies in Appendix F for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not performed.

RDL = Reportable Detection Limit

Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

NC = Not calculated

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME ISQG guidelines for Freshwater

20 = Denotes exceedance of CCME PEL guidelines for Freshwater

20 = Denotes exceedance of CCME ISQG guidelines for Marine

20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-16A: Analytical Results for PCBs in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ²		AEC 3	AEC 3	AEC 3	AEC 4	AEC 4	AEC 4	Duplicate Evaluation		AEC 4
Station ID					AEC3-SD09-1	AEC3-SD09-2	AEC3-SD09-3	AEC4-SD09-1	AEC4-SD09-11	AEC4-SD09-11			AEC4-SD09-15
Field label					AEC3-SD09-1	AEC3-SD09-2	AEC3-SD09-3	AEC4-SD09-1	AEC4-SD09-11	SD09-DUP2	Scenario ^A	Acceptable (Y/N)	AEC4-SD09-15
Duplicate ID									SD09-DUP2	AEC4-SD09-11			
Date					15/Sep/09	15/Sep/09	15/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09			17/Sep/09
Lab report ID					A9C2285	A9C2285	A9C2285	A9C4313	A9C4313	A9C4313			A9C4313
Depth (m)	ISQG	PEL	ISQG	PEL									
Aroclor 1016	-	-	-	-	<0.02	<0.02	<0.06	-	<0.02	<0.02	A	Y	<0.02
Aroclor 1221	-	-	-	-	<0.03	<0.03	<0.1	-	<0.03	<0.03	A	Y	<0.03
Aroclor 1232	-	-	-	-	<0.02	<0.02	<0.06	-	<0.02	<0.02	A	Y	<0.02
Aroclor 1242	-	-	-	-	<0.02	<0.02	<0.06	-	<0.02	<0.02	A	Y	<0.02
Aroclor 1248	-	-	-	-	<0.02	<0.02	<0.06	-	<0.02	<0.02	A	Y	<0.02
Aroclor 1254	0.06	0.34	0.0633	0.709	<0.02	<0.02	<0.06	-	<0.02	<0.02	A	Y	<0.02
Aroclor 1260	-	-	-	-	<0.02	<0.02	0.09	-	<0.02	<0.02	A	Y	0.04
Aroclor 1262	-	-	-	-	<0.02	<0.02	<0.06	-	<0.02	<0.02	A	Y	<0.02
Aroclor 1268	-	-	-	-	<0.02	<0.02	<0.06	-	<0.02	<0.02	A	Y	<0.02
Polychlorinated biphenyls	0.0341	0.277	0.0215	0.189	<0.03	<0.03	<0.1	0.03	<0.03	<0.03	A	Y	0.04

All units in ug/g, unless otherwise noted.

Notes

CCME (2002), Canadian Sediment Quality Guidelines for Protection of
1 = Aquatic Life, Update 2002, Table 1. Interim freshwater sediment quality
guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

CCME (2002), Canadian Sediment Quality Guidelines for Protection of
2 = Aquatic Life, Update 2002, Table 2. Interim marine sediment quality
guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

** = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies in Appendix F for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not
performed.

RDL = Reportable Detection Limit

RPD = Relative percent difference is calculated as the difference over the
average of the two values and is only calculated when both
concentrations are greater than 5 times the method detection limit.

NC = Not calculated

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME ISQG guidelines for Freshwater

20 = Denotes exceedance of CCME PEL guidelines for Freshwater

20 = Denotes exceedance of CCME ISQG guidelines for Marine

20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-16B: Analytical Results for PCBs in Sediment - 2008

					APEC 2		APEC 3					
Parameters		Lab ID # Prepared by:	CCME Freshwater Sediment (ISQG)	CCME Freshwater Sediment (PEL)	CCME Marine Sediment (ISQG)	CCME Marine Sediment (PEL)	A2-S008-3	A2-S008-4	A3-S008-2	SD-DUP 1	RPD	A3-S008-4
							L681311-5	L681311-6	L681123-1	L681123-4		L681123-3
							06-SEP-08	06-SEP-08	07-SEP-08	07-SEP-08		07-SEP-08
							Franz	Franz	Franz	Franz		Franz
Polychlorinated Biphenyls												
PCB-1016			---	---			<0.01	<0.050	<0.01	<0.01	NC	<0.050
PCB-1221			---	---			<0.01	<0.050	<0.01	<0.01	NC	<0.050
PCB-1232			---	---			<0.01	<0.050	<0.01	<0.01	NC	<0.050
PCB-1242			---	---			<0.01	<0.050	<0.01	<0.01	NC	<0.050
PCB-1248			---	---			<0.01	<0.050	<0.01	<0.01	NC	<0.050
PCB-1254			0.06	0.34	0.0633	0.709	0.024	<0.050	<0.01	<0.01	NC	<0.050
PCB-1260			---	---			0.198	0.56	0.014	<0.01	NC	0.496
PCB-1262			---	---			<0.01	<0.050	<0.01	<0.01	NC	<0.050
PCB-1268			---	---			<0.01	<0.050	<0.01	<0.01	NC	<0.050
Total Polychlorinated Biphenyls			0.0341	0.277	0.0215	0.189	0.222	0.56	0.014	<0.01	NC	0.496

Notes (Refer to endnotes for complete list)

10	value is greater than the PEL Guideline
<u>10</u>	value is greater than the ISQG Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-16B: Analytical Results for PCBs in Sediment - 2008

			APEC 4							
Parameters		CCME Freshwater Sediment (ISQG)	CCME Freshwater Sediment (PEL)	A4-SD08-1	A4-SD08-2	A4-SD08-3	A4-SD08-4	A4-SD08-5	A4-SD08-6	A4-SD08-8
	Lab ID #			L682317-1	L682317-2	L682317-3	L682317-4	L682317-5	L682317-6	L682317-7
				08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08	08-SEP-08
	Prepared by:			Franz	Franz	Franz	Franz	Franz	Franz	Franz
Polychlorinated Biphenyls										
PCB-1016		---	---	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PCB-1221		---	---	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PCB-1232		---	---	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PCB-1242		---	---	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PCB-1248		---	---	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PCB-1254		0.06	0.34	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
PCB-1260		---	---	0.011	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
PCB-1262		---	---	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PCB-1268		---	---	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Polychlorinated Biphenyls		0.0341	0.277	0.011	<0.01	0.01	<0.01	<0.01	0.01	<0.01

Notes (Refer to endnotes for complete list)

10	value is greater than the PEL Guideline
<u>10</u>	value is greater than the ISQG Guideline

--- No Guideline.

NC - Not calculated

TABLE 7-17A: Analytical Results for Pesticides in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ² **		AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2
Station ID					AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7
Field label					AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6	AEC2-SD09-7
Duplicate ID												
Date					17/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09
Lab report ID					A9C4313	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285
Depth (m)	ISQG	PEL	ISQG	PEL								
Aldrin	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
Chlordane	0.0045	0.00887	0.00226	0.00479	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
alpha-Chlordane	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
trans-Chlordane	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
2,4'-DDD	-	-	-	-	<0.002	0.009	0.04	0.014	<0.03	<0.004	<0.006	<0.004
4,4'-DDD	-	-	-	-	0.009	0.037	0.22	0.09	0.09	<0.01	0.025	0.013
DDD (total)	0.00354	0.00851	0.00122	0.00781	0.009	0.046	0.26	0.10	0.11	<0.01	0.025	0.013
2,4'-DDE	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
4,4'-DDE	-	-	-	-	0.004	0.009	0.055	0.017	0.03	<0.004	0.009	0.006
DDE (total)	0.00142	0.00675	0.00207	0.374	0.004	0.009	0.055	0.017	0.03	<0.004	0.009	0.006
2,4'-DDT	-	-	-	-	<0.002	<0.002	0.014	0.005	<0.01	<0.02	0.036	0.015
4,4'-DDT	-	-	-	-	0.002	0.013	0.25	0.043	<0.03	<0.06	0.16	<0.07
DDT plus metabolites	-	-	-	-	0.015	0.068	0.58	0.17	0.14	<0.06	0.23	<0.07
DDT (total)	0.00119	0.00477	0.00119	0.00477	0.002	0.013	0.26	0.048	<0.03	<0.06	0.20	<0.07
Dieldrin	0.00285	0.00667	0.000071	0.0043	<0.002	<0.002	<0.008	<0.004	<0.01	<0.006	<0.01	<0.004
Endosulfan	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.006	<0.006	<0.004
alpha-Endosulfan	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
beta-Endosulfan	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.006	<0.006	<0.004
Endrin	0.00267	0.0624	0.00267	0.00624	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
gamma-HCH	0.00094	0.00138	0.000032	0.000099	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
Heptachlor	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
Heptachlor epoxide	0.0006	0.00274	0.00006	0.000274	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
Hexachlorobenzene	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006	<0.004
Methoxychlor	-	-	-	-	<0.008	<0.008	<0.03	<0.02	<0.04	<0.02	<0.02	<0.02

All units in ug/g, unless otherwise noted.

Notes

- CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life,
1 = Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life,
2 = Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
** = CCME Marine sediment guidelines apply only to AEC4 samples
A = See Methodologies in Appendix F for Scenario Rationale
"-" indicates that there is no applicable regulation or analyses were not performed.
RDL = Reportable Detection Limit
Relative percent difference is calculated as the difference over the average of the
RPD = two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
NC = Not calculated
20 = RDL exceeds guideline
20 = Denotes exceedance of CCME ISQG guidelines for Freshwater
20 = Denotes exceedance of CCME PEL guidelines for Freshwater
20 = Denotes exceedance of CCME ISQG guidelines for Marine
20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-17A: Analytical Results for Pesticides in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹	CCME Marine Sediment ²	AEC 2				Duplicate Evaluation				AEC 2		AEC 2		AEC 3		AEC 3	
			AEC2-SD09-8	AEC2-SD09-9	AEC2-SD09-9	AEC2-SD09-9	Scenario ^A	RPD (%)	Value (ug/L)	Acceptable (Y/N)	AEC2-SD09-10	AEC2-SD09-11	AEC2-SD09-10	AEC2-SD09-11	AEC3-SD09-1	AEC3-SD09-2	AEC3-SD09-1	AEC3-SD09-2
			AEC2-SD09-8	AEC2-SD09-9	AEC2-SD09-9	AEC2-SD09-9					AEC2-SD09-10	AEC2-SD09-11	AEC2-SD09-10	AEC2-SD09-11	AEC3-SD09-1	AEC3-SD09-2	AEC3-SD09-1	AEC3-SD09-2
			15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09					15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09
Station ID			A9C2285	A9C2285	A9C2285	A9C2285					A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285
Field label																		
Duplicate ID																		
Date																		
Lab report ID																		
Depth (m)	ISQG	PEL	ISQG	PEL														
Aldrin	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
Chlordane	0.0045	0.00887	0.00226	0.00479	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
alpha-Chlordane	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
trans-Chlordane	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
2,4'-DDD	-	-	-	-	<0.002	<0.03	<0.04	A	NC	NC	Y	0.007	0.02	<0.002	<0.002	<0.002	<0.002	<0.002
4,4'-DDD	-	-	-	-	0.005	0.06	0.045	C	7.1	NC	Y	0.034	0.10	<0.002	<0.002	<0.002	<0.002	<0.002
DDD (total)	0.00354	0.00851	0.00122	0.00781	0.005	0.06	0.05	C	4.5	NC	Y	0.041	0.12	<0.002	<0.002	<0.002	<0.002	<0.002
2,4'-DDE	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
4,4'-DDE	-	-	-	-	<0.002	0.035	0.020	D	NC	0.015	N	0.012	0.018	<0.002	<0.002	<0.002	<0.002	<0.002
DDE (total)	0.00142	0.00675	0.00207	0.374	<0.002	0.035	0.020	D	NC	0.015	N	0.012	0.018	<0.002	<0.002	<0.002	<0.002	<0.002
2,4'-DDT	-	-	-	-	0.003	<0.02	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
4,4'-DDT	-	-	-	-	<0.04	<0.1	<0.05	A	NC	NC	Y	<0.02	<0.04	<0.002	<0.002	<0.002	<0.002	<0.002
DDT plus metabolites	-	-	-	-	<0.04	0.1	0.07	D	NC	0.03	Y	0.05	0.14	<0.002	<0.002	<0.002	<0.002	<0.002
DDT (total)	0.00119	0.00477	0.00119	0.00477	<0.04	<0.1	<0.05	A	NC	NC	Y	<0.02	<0.04	<0.002	<0.002	<0.002	<0.002	<0.002
Dieldrin	0.00285	0.00667	0.000071	0.0043	<0.002	<0.02	<0.02	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
Endosulfan	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
alpha-Endosulfan	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
beta-Endosulfan	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
Endrin	0.00267	0.0624	0.00267	0.00624	<0.002	<0.06	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
gamma-HCH	0.00094	0.00138	0.000032	0.000099	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
Heptachlor	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
Heptachlor epoxide	0.0006	0.00274	0.00006	0.000274	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
Hexachlorobenzene	-	-	-	-	<0.002	<0.008	<0.006	A	NC	NC	Y	<0.006	<0.006	<0.002	<0.002	<0.002	<0.002	<0.002
Methoxychlor	-	-	-	-	<0.008	<0.03	<0.02	A	NC	NC	Y	<0.02	<0.02	<0.008	<0.008	<0.008	<0.008	<0.008

All units in ug/g, unless otherwise noted.

Notes

CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life,
1 = Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life,
2 = Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

** = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies in Appendix F for Scenario Rationale

"-" indicates that there is no applicable regulation or analyses were not performed.

RDL = Reportable Detection Limit

Relative percent difference is calculated as the difference over the average of the

RPD = two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

NC = Not calculated

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME ISQG guidelines for Freshwater

20 = Denotes exceedance of CCME PEL guidelines for Freshwater

20 = Denotes exceedance of CCME ISQG guidelines for Marine

20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-17A: Analytical Results for Pesticides in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹		CCME Marine Sediment ² **		AEC 3	AEC 4	AEC 4	AEC 4	Duplicate Evaluation		AEC 4
Station ID					AEC3-SD09-3	AEC4-SD09-1	AEC4-SD09-11	AEC4-SD09-11			AEC4-SD09-15
Field label					AEC3-SD09-3	AEC4-SD09-1	AEC4-SD09-11	SD09-DUP2			AEC4-SD09-15
Duplicate ID							SD09-DUP2	AEC4-SD09-11			
Date					15/Sep/09	17/Sep/09	17/Sep/09	17/Sep/09	Scenario ^A	Acceptable (Y/N)	17/Sep/09
Lab report ID					A9C2285	A9C4313	A9C4313	A9C4313			A9C4313
Depth (m)	ISQG	PEL	ISQG	PEL							
Aldrin	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
Chlordane	0.0045	0.00887	0.00226	0.00479	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
alpha-Chlordane	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
trans-Chlordane	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
2,4'-DDD	-	-	-	-	<0.01	<0.002	<0.002	<0.002	A	Y	<0.002
4,4'-DDD	-	-	-	-	0.018	0.004	<0.002	<0.002	A	Y	0.004
DDD (total)	0.00354	0.00851	0.00122	0.00781	0.02	0.004	<0.002	<0.002	A	Y	0.004
2,4'-DDE	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
4,4'-DDE	-	-	-	-	0.014	<0.002	<0.002	<0.002	A	Y	<0.002
DDE (total)	0.00142	0.00675	0.00207	0.374	0.014	<0.002	<0.002	<0.002	A	Y	<0.002
2,4'-DDT	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
4,4'-DDT	-	-	-	-	<0.03	<0.002	<0.002	<0.002	A	Y	<0.002
DDT plus metabolites	-	-	-	-	0.03	0.004	<0.002	<0.002	A	Y	0.004
DDT (total)	0.00119	0.00477	0.00119	0.00477	<0.03	<0.002	<0.002	<0.002	A	Y	<0.002
Dieldrin	0.00285	0.00667	0.000071	0.0043	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
Endosulfan	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
alpha-Endosulfan	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
beta-Endosulfan	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
Endrin	0.00267	0.0624	0.00267	0.00624	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
gamma-HCH	0.00094	0.00138	0.000032	0.000099	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
Heptachlor	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
Heptachlor epoxide	0.0006	0.00274	0.00006	0.000274	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
Hexachlorobenzene	-	-	-	-	<0.008	<0.002	<0.002	<0.002	A	Y	<0.002
Methoxychlor	-	-	-	-	<0.03	<0.008	<0.008	<0.008	A	Y	<0.008

All units in ug/g, unless otherwise noted.

Notes

CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life,
1 = Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life,
2 = Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).

** = CCME Marine sediment guidelines apply only to AEC4 samples

A = See Methodologies in Appendix F for Scenario Rationale

“-” indicates that there is no applicable regulation or analyses were not performed.

RDL = Reportable Detection Limit

Relative percent difference is calculated as the difference over the average of the
RPD = two values and is only calculated when both concentrations are greater than 5 times
the method detection limit.

NC = Not calculated

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME ISQG guidelines for Freshwater

20 = Denotes exceedance of CCME PEL guidelines for Freshwater

20 = Denotes exceedance of CCME ISQG guidelines for Marine

20 = Denotes exceedance of CCME PEL guidelines for Marine

TABLE 7-17B: Analytical Results for Pesticides in Sediment - 2008

					APEC 2	APEC 4		
Parameters	Lab ID # Sample Date	CCME Freshwater Sediment (ISQG)	CCME Freshwater Sediment (PEL)	CCME Marine Sediment (ISQG)	CCME Marine Sediment (PEL)	A2-S008-4	A4-SD08-2	A4-SD08-3
						L681311-6	L682317-2	L682317-3
						06-SEP-08	08-SEP-08	08-SEP-08
						Franz	Franz	Franz
Organochlorine Pesticides								
Aldrin		---	---			<0.0020	<0.0010	<0.0010
alpha-BHC		---	---			<0.0020	<0.0010	<0.0010
beta-BHC		---	---			<0.0020	<0.0020	<0.0020
Lindane (gamma - BHC)		0.00094	0.00138			<0.0020	<0.00094	<0.00094
delta-BHC		---	---			<0.0020	<0.0010	<0.0010
cis-Chlordane (alpha)		0.0045 ^a	0.00887 ^a			<0.0020	<0.0010	<0.0010
trans-Chlordane (gamma)		0.0045 ^a	0.00887 ^a			<0.0020	<0.0010	<0.0010
2,4'-DDD		0.00354 ^b	0.0851 ^b			<0.0020	<0.0010	<0.0010
4,4'-DDD		0.00354 ^b	0.0851 ^b			<u>0.0149</u>	<0.0010	<0.0010
Total DDD		0.00354 ^b	0.0851 ^b	0.00122	0.00781			
2,4'-DDE		0.00142 ^c	0.00675 ^c			<0.0020	<0.0010	<0.0010
4,4'-DDE		0.00142 ^c	0.00675 ^c			<u>0.029</u>	<0.0010	<0.0010
Total DDE		0.00142 ^c	0.00675 ^c	0.00207	0.374			
2,4'-DDT		0.00119 ^d	0.00477 ^d			<0.0020	<0.00119	<0.002
4,4'-DDT		0.00119 ^d	0.00477 ^d			<u>0.0175</u>	<0.00119	<0.002
Total DDT		0.00119 ^d	0.00477	0.00119	0.00477			
Dieldrin		0.00285	0.00667	0.000071	0.0043	<0.0020	<0.0010	<0.0010
Endosulfan I		---	---			<0.0020	<0.0010	<0.0010
Endosulfan II		---	---			<0.0020	<0.0010	<0.0010
Endosulfan Sulfate		---	---			<0.0020	<0.0010	<0.0010
Endrin		0.00267	0.0624	0.00267	0.00624	<0.0050	<0.00267	<0.0050
Heptachlor		---	---			<0.0020	<0.0020	<0.0020
Heptachlor Epoxide		0.0006	0.00274	0.00006	0.000274	<0.0020	<0.0006	<0.0010
Methoxychlor		---	---			<0.0050	<0.0050	<0.0050
Mirex		---	---			<0.0020	<0.0010	<0.0010
cis-Nonachlor		---	---			<0.0020	<0.0010	<0.0010
trans-Nonachlor		---	---			<0.0020	<0.0010	<0.0010
Oxychlordane		---	---			<0.0020	<0.0010	<0.0010

Notes (Refer to endnotes for complete list)

10	value is greater than the PEL Guideline
<u>10</u>	value is greater than the ISQG Guideline

--- No Guideline.

*a - Standard for Chlordane

*b - Standard for DDD (2,2-Bis(p-chlorophenyl)-1,1-dichloroethane; Dichloro diphenyl dichloroethane)

*c - Standard for DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)-ethene; Diphenyl dichloro ethylene)

*d - Standard for DDT (2,2-Bis(p-chlorophenyl)-1,1,1-trichloroethane; Dichloro diphenyl trichloroethane)

TABLE 7-18A: Analytical Results for VOCs in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹				CCME Marine Sediment ²				CCME Soil PL ²		CCME Soil CL ²		AEC 1	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2	AEC 2
Station ID													AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6
Field label													AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6
Duplicate ID													AEC1-SD09-1	AEC2-SD09-1	AEC2-SD09-2	AEC2-SD09-3	AEC2-SD09-4	AEC2-SD09-5	AEC2-SD09-6
Date													17/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09
Lab report ID													A9C4313	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285	A9C2285
Depth (m)	ISQG	PEL	ISQG	PEL															
Acetone	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	0.03	0.03	-	-	<0.002	<0.002	<0.008	<0.002	<0.002	<0.002	<0.002
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
Bromomethane	-	-	-	-	-	-	-	-	-	-	-	-	<0.003	-	-	-	-	-	-
Carbon tetrachloride	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	1	10	-	-	-	<0.002	-	-	-	-	-	-
Chlorodibromomethane	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-	-	-	-	1	10	-	-	-	<0.002	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	1	10	-	-	-	<0.002	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	-	-	-	-	1	10	-	-	-	<0.002	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
Dichloromethane	-	-	-	-	-	-	-	5	50	-	-	-	<0.003	-	-	-	-	-	-
1,2-Dichloropropane	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
Ethylbenzene	-	-	-	-	-	-	-	0.082	0.082	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.004
Ethylene dibromide	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
Hexachlorobenzene	-	-	-	-	-	-	-	2	10	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.006
Hexachlorobutadiene	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.04	<0.02	<0.05	<0.02	<0.03
Methyl ethyl ketone	-	-	-	-	-	-	-	-	-	-	-	-	<0.03	-	-	-	-	-	-
Methyl isobutyl ketone	-	-	-	-	-	-	-	-	-	-	-	-	<0.03	-	-	-	-	-	-
Methyl-tert-butylether	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
Styrene	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	0.2	0.5	-	-	-	<0.002	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	0.37	0.37	-	-	-	<0.002	0.008	<0.008	<0.004	<0.01	<0.004	<0.004
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
1,1,2-Trichloroethane	-	-	-	-	-	-	-	5	50	-	-	-	<0.002	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-	0.01	0.01	-	-	-	<0.002	-	-	-	-	-	-
Vinyl chloride	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
m+p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.004
o-Xylene	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.004	<0.01	<0.004	<0.004
Xylenes (total)	-	-	-	-	-	-	-	2.4	11	-	-	-	<0.002	<0.002	<0.008	<0.004	<0.01	<0.004	<0.004

All units in ug/g, unless otherwise noted.

Notes

- 1 = CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- 2 = CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- 2 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- 3 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies in Appendix F for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed.

RDL = Reportable Detection Limit

Relative percent difference is calculated as the difference over the average of the two

RPD = values and is only calculated when both concentrations are greater than 5 times the method detection limit.

NC = Not calculated

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME Residential/Parkland Use guidelines

20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-18A: Analytical Results for VOCs in Sediment - 2009

Area ID Station ID Field label Duplicate ID Date Lab report ID Depth (m)	CCME Freshwater Sediment ¹		CCME Marine Sediment ²		CCME Soil PL ²	CCME Soil CL ³	AEC 2	AEC 2	AEC 2	AEC 2	Duplicate Evaluation Scenario ^A Acceptable (Y/N)		AEC 2	AEC 2	AEC 3	AEC 3
							AEC2-SD09-7	AEC2-SD09-8	AEC2-SD09-9	AEC2-SD09-9			AEC2-SD09-10	AEC2-SD09-11	AEC3-SD09-1	AEC3-SD09-2
							AEC2-SD09-7	AEC2-SD09-8	AEC2-SD09-9	AEC2-SD09-9			AEC2-SD09-10	AEC2-SD09-11	AEC3-SD09-1	AEC3-SD09-2
							15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09			15/Sep/09	15/Sep/09	15/Sep/09	15/Sep/09
	ISQG	PEL	ISQG	PEL			A9C2285	A9C2285	A9C2285	A9C2285			A9C2285	A9C2285	A9C2285	A9C2285
Acetone	-	-	-	-	-	-	-	-	-	-	A	Y	-	-	-	-
Benzene	-	-	-	-	-	0.03	<0.002	<0.002	<0.002	<0.002	-	-	<0.002	<0.002	<0.002	<0.002
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	1	10	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-	1	10	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	1	10	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	-	1	10	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloromethane	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	-	-	-	0.082	0.082	<0.006	<0.002	<0.008	<0.008	A	Y	<0.006	<0.006	<0.002	<0.002
Ethylene dibromide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	-	-	-	-	2	10	<0.004	<0.002	<0.008	<0.006	A	Y	<0.006	<0.006	<0.002	<0.002
Hexachlorobutadiene	-	-	-	-	-	-	<0.02	<0.01	<0.04	<0.03	A	Y	<0.03	<0.03	<0.01	<0.01
Methyl ethyl ketone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl isobutyl ketone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-tert-butylether	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	0.2	0.5	-	-	-	-	-	-	-	-	-	-
Toluene	-	-	-	-	0.37	0.37	<0.006	<0.002	<0.008	<0.008	A	Y	<0.006	<0.006	<0.002	<0.002
1,1,1-Trichloroethane	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	-	-	-	5	50	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	0.01	0.01	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m+p-Xylene	-	-	-	-	-	-	<0.006	<0.002	<0.008	<0.008	A	Y	<0.006	<0.006	<0.002	<0.002
p-Xylene	-	-	-	-	-	-	<0.006	<0.002	<0.008	<0.008	A	Y	<0.006	<0.006	<0.002	<0.002
Xylenes (total)	-	-	-	-	2.4	11	<0.006	<0.002	<0.008	<0.008	A	Y	<0.006	<0.006	<0.002	<0.002

All units in ug/g, unless otherwise noted.

Notes

- 1 = CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- 2 = CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- 2 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- 3 = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies in Appendix F for Scenario Rationale
- "-" indicates that there is no applicable regulation or analyses were not performed.
- RDL = Reportable Detection Limit
- Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.
- RPD =
- NC = Not calculated
- 20 = RDL exceeds guideline
- 20 = Denotes exceedance of CCME Residential/Parkland Use guidelines
- 20 = Denotes exceedance of CCME Commercial Use guidelines

TABLE 7-18A: Analytical Results for VOCs in Sediment - 2009

Area ID	CCME Freshwater Sediment ¹				CCME Marine Sediment ²				CCME Soil PL ²	CCME Soil CL ³	AEC 3	AEC 4	AEC 4	AEC 4	Duplicate Evaluation				AEC 4		
Station ID											AEC3-SD09-3	AEC4-SD09-1	AEC4-SD09-11	AEC4-SD09-11					AEC4-SD09-15		
Field label											AEC3-SD09-3	AEC4-SD09-1	AEC4-SD09-11	SD09-DUP2					AEC4-SD09-15		
Duplicate ID											SD09-DUP2	AEC4-SD09-11	AEC4-SD09-11	AEC4-SD09-11					AEC4-SD09-15		
Date																	Scenario ^A	RPD (%)	Value (ug/L)	Acceptable (Y/N)	17/Sep/09
Lab report ID																					A9C2285
Depth (m)	ISQG	PEL	ISQG	PEL																	
Acetone	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	A	NC	NC	Y	<0.1					
Benzene	-	-	-	-	0.03	0.03	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Bromodichloromethane	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Bromoform	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Bromomethane	-	-	-	-	-	-	-	<0.003	<0.003	<0.003	<0.003	A	NC	NC	Y	<0.003					
Carbon tetrachloride	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Chlorobenzene	-	-	-	-	1	10	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Chlorodibromomethane	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Chloroform	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,2-Dichlorobenzene	-	-	-	-	1	10	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,3-Dichlorobenzene	-	-	-	-	1	10	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,4-Dichlorobenzene	-	-	-	-	1	10	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,1-Dichloroethane	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,2-Dichloroethane	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,1-Dichloroethene	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	<0.002	0.008	0.004	0.004	D	NC	0.004	Y	<0.002					
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Dichloromethane	-	-	-	-	5	50	-	<0.003	<0.003	<0.003	<0.003	A	NC	NC	Y	<0.003					
1,2-Dichloropropane	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Ethylbenzene	-	-	-	-	0.082	0.082	<0.008	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Ethylene dibromide	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Hexachlorobenzene	-	-	-	-	2	10	<0.008	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Hexachlorobutadiene	-	-	-	-	-	-	<0.04	<0.01	<0.01	<0.01	<0.01	A	NC	NC	Y	<0.01					
Methyl ethyl ketone	-	-	-	-	-	-	-	<0.03	<0.03	<0.03	<0.03	A	NC	NC	Y	<0.03					
Methyl isobutyl ketone	-	-	-	-	-	-	-	<0.03	<0.03	<0.03	<0.03	A	NC	NC	Y	<0.03					
Methyl-tert-butylether	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Styrene	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,1,1,2-Tetrachloroethane	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,1,2,2-Tetrachloroethane	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Tetrachloroethene	-	-	-	-	0.2	0.5	-	<0.002	<0.002	0.24	0.38	C	11.3	NC	Y	<0.002					
Toluene	-	-	-	-	0.37	0.37	<0.008	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,1,1-Trichloroethane	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
1,1,2-Trichloroethane	-	-	-	-	5	50	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Trichloroethene	-	-	-	-	0.01	0.01	-	<0.002	0.10	0.072	0.072	C	8.1	NC	Y	<0.002					
Vinyl chloride	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
m+p-Xylene	-	-	-	-	-	-	<0.008	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
o-Xylene	-	-	-	-	-	-	<0.008	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					
Xylenes (total)	-	-	-	-	2.4	11	<0.008	<0.002	<0.002	<0.002	<0.002	A	NC	NC	Y	<0.002					

All units in ug/g, unless otherwise noted.

Notes

- = CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 1. Interim freshwater sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- = CCME (2002), Canadian Sediment Quality Guidelines for Protection of Aquatic Life, Update 2002, Table 2. Interim marine sediment quality guidelines (ISQGs; dry weight), probable effect levels (PELs; dry weight).
- = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Residential / Parkland Use, coarse-grained soils.
- = CCME (2007), Canadian Soil Quality Guidelines, Update 7.0, Table 1. Canadian Soil Quality Guidelines, Commercial Use, coarse-grained soils.
- ** = CCME Marine sediment guidelines apply only to AEC4 samples
- A = See Methodologies in Appendix F for Scenario Rationale
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RDL = Reportable Detection Limit

Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

NC = Not calculated

20 = RDL exceeds guideline

20 = Denotes exceedance of CCME Residential/Parkland Use guidelines

20 = Denotes exceedance of CCME Commercial Use guidelines

Parameters		CCME Freshwater Sediment (ISQG)	CCME Freshwater Sediment (PEL)	APEC 2	APEC 4	
				A2-SD08-4	A4-SD08-2	A4-SD08-3
				L682370-22	L682317-2	L682317-3
				09-SEP-08	08-SEP-08	08-SEP-08
Lab ID # Sample Date				Franz	Franz	Franz
Volatile Organic Compounds						
Benzene		---	---	<0.040	<0.040	<0.040
Bromodichloromethane		---	---	<0.050	<0.050	<0.050
Bromoform		---	---	<0.050	<0.050	<0.050
Carbon Tetrachloride		---	---	<0.050	<0.050	<0.050
Chlorobenzene		---	---	<0.050	<0.050	<0.050
Dibromochloromethane		---	---	<0.050	<0.050	<0.050
Chloroethane		---	---	<0.10	<0.10	<0.10
Chloroform		---	---	<0.10	<0.10	<0.10
Chloromethane		---	---	<0.10	<0.10	<0.10
1,2-Dichlorobenzene		---	---	<0.050	<0.050	<0.050
1,3-Dichlorobenzene		---	---	<0.050	<0.050	<0.050
1,4-Dichlorobenzene		---	---	<0.050	<0.050	<0.050
1,1-Dichloroethane		---	---	<0.050	<0.050	<0.050
1,2-Dichloroethane		---	---	<0.050	<0.050	<0.050
1,1-Dichloroethylene		---	---	<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene		---	---	<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene		---	---	<0.050	<0.050	<0.050
Dichloromethane		---	---	<0.60	<0.30	<0.30
1,2-Dichloropropane		---	---	<0.050	<0.050	<0.050
cis-1,3-Dichloropropylene		---	---	<0.050	<0.050	<0.050
trans-1,3-Dichloropropylene		---	---	<0.050	<0.050	<0.050
Ethylbenzene		---	---	<0.050	<0.050	<0.050
Methyl t-butyl ether (MTBE)		---	---	<0.20	<0.20	<0.20
Styrene		---	---	<0.050	<0.050	<0.050
1,1,1,2-Tetrachloroethane		---	---	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane		---	---	<0.050	<0.050	<0.050
Tetrachloroethylene		---	---	<0.050	<0.050	<0.050
Toluene		---	---	0.12	<0.050	<0.050
1,1,1-Trichloroethane		---	---	<0.050	<0.050	<0.050
1,1,2-Trichloroethane		---	---	<0.050	<0.050	<0.050
Trichloroethylene		---	---	<0.015	<0.040	<0.015
Trichlorofluoromethane		---	---	<0.10	<0.10	<0.10
Vinyl Chloride		---	---	<0.10	<0.10	<0.10
ortho-Xylene		---	---	<0.050	<0.050	<0.050
meta- & para-Xylene		---	---	<0.050	<0.050	<0.050
Xylenes		---	---	<0.10	<0.10	<0.10

Notes (Refer to endnotes for complete list)

10	value is greater than the PEL Guideline
<u>10</u>	value is greater than the ISQG Guideline
---	No Guideline.

General Endnotes:

All values are reported as mg/kg unless otherwise indicated.

10

 = value is greater than the PEL Guideline

3

 = value is greater than the ISQG Guideline

'---' = No guideline

- = Not analyzed

NC = Not calculated

RPD = Relative percent difference is calculated as the difference over the average of the two values and is only calculated when both concentrations are greater than 5 times the method detection limit.

Laboratory Notes

Refer to Laboratory reports for sample specific notes

< = less than method detection limit (mdl)

General Canadian Council of Ministers of the Environment (CCME) Endnotes

*Canadian Sediment Quality Guidelines for the Protection of Aquatic Life
CCME, 1999, updated 2001 and 2002.*

Table 1 Interim Freshwater Sediment Quality Guidelines (ISQG; dry weight), and
Probable Effect Levels (PELs; dry weight)

Vegetation – Analytical Results

TABLE 7-19A Analytical Results for Metals in Vegetation - 2009

Area ID	Foliage (Rural) ¹	Grass (Rural) ¹	AEC 1	AEC 1	Duplicate Evaluation				AEC 1	AEC 2	AEC 2	AEC 2	AEC 3	AEC 3	AEC 3	AEC 4	AEC 4	AEC 4
Station ID			AEC1-AQ-VEG09-1	AEC1-AQ-VEG09-1					AEC1-AQ-VEG09-1	AEC2-AQ-VEG09-1	AEC2-VEG09-1	AEC2-AQ-VEG09-2	AEC3-AQ-VEG09-1	AEC3-VEG09-1	AEC3-VEG09-2	AEC4-AQ-VEG09-1	AEC4-AQ-VEG09-2	AEC4-AQ-VEG09-3
Field label			VEG09-DUP1	VEG09-DUP1					AEC1-VEG09-1	AEC2-AQ-VEG09-1	AEC2-VEG09-1	AEC2-AQ-VEG09-2	AEC3-AQ-VEG09-1	AEC3-VEG09-1	AEC3-VEG09-2	AEC4-AQ-VEG09-1	AEC4-AQ-VEG09-2	AEC4-AQ-VEG09-3
Duplicate ID			16/Sep/09	16/Sep/09	Scenario ^a	RPD (%)	Value (ug/L)	Acceptable (Y/N)	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09	16/Sep/09
Date									A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887
Lab report ID			A9C4887	A9C4887					A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887	A9C4887
Aluminum	500	---	12.6	10.6	C	4.3	NC	Y	3.5	7.0	2.6	17.9	99.1	1.2	1.7	175.0	486.0	158.0
Antimony	0.3*	---	<0.05	<0.05	A	NC	NC	Y	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.5, 2*	---	<0.1	<0.1	A	NC	NC	Y	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.4	1.1	0.2
Barium	---	---	4.1	3.5	C	3.9	NC	Y	0.9	2.6	0.6	2.6	1.1	0.6	0.8	1.4	3.7	1.2
Beryllium	---	---	<0.05	<0.05	A	NC	NC	Y	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bismuth	---	---	<0.05	<0.05	A	NC	NC	Y	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	75	20	2.2	2.0	D	NC	0.2	Y	1.1	2.1	0.8	2.1	26.6	1.1	1.0	12.8	5.2	19.0
Cadmium	1*	0.5, 2*	<0.01	<0.01	A	NC	NC	Y	0.01	0.04	<0.01	0.06	0.01	<0.01	<0.01	0.03	0.01	0.02
Calcium	---	---	1080	1040	C	0.9	NC	Y	114	616	110	889	824	79	83	876	464	617
Chromium	8	5	<0.3	<0.3	A	NC	NC	Y	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.5	1.0	0.4
Cobalt	2	2, 8*	0.779	0.456	C	13.1	NC	Y	0.011	0.130	0.006	0.848	0.294	0.007	0.005	0.248	0.470	0.439
Copper	20	7, 20*	0.6	0.6	D	NC	0.0	Y	0.8	0.8	0.9	0.7	0.8	0.8	1.0	0.5	1.0	0.7
Iron	500	500	416	235	C	13.9	NC	Y	9	212	8	894	930	<3	6	1890	2410	808
Lead	30	20	0.11	0.09	D	NC	0.0	Y	7.53	0.07	3.69	0.17	1.67	2.64	5.20	0.79	0.48	0.95
Magnesium	---	---	297	240	D	NC	57	Y	<100	244	<100	308	1140	<100	<100	895	588	895
Manganese	---	50	231.0	187.0	C	5.3	NC	Y	5.2	66.4	1.8	369	231	2.6	8.0	97.8	39.2	199.0
Mercury	0.3	---	<0.01	<0.01	A	NC	NC	Y	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	1.5	6	1.52	1.40	C	2.1	NC	Y	<0.05	0.10	<0.05	0.16	0.36	<0.05	<0.05	0.09	0.27	0.15
Nickel	5, 30*	5, 25*	0.20	0.12	D	NC	0.08	Y	0.08	0.11	<0.05	0.15	0.29	<0.05	<0.05	0.34	0.87	0.27
Phosphorus	---	---	496	319	C	10.9	NC	Y	141	410	114	132	55	131	149	72	213	55
Potassium	---	---	2660	2100	C	5.9	NC	Y	1190	2550	1020	3020	440	1250	1140	263	1390	286
Selenium	0.5	0.5	<0.2	<0.2	A	NC	NC	Y	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Silver	---	---	<0.05	<0.05	A	NC	NC	Y	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sodium	50	---	120	226	D	NC	106	N	<50	293	<50	1570	3390	<50	<50	310	241	1180
Strontium	---	---	4.1	3.6	C	3.2	NC	Y	<0.5	1.9	<0.5	4.3	11.9	<0.5	<0.5	8.9	5.7	7.9
Thallium	---	---	<0.003	<0.003	A	NC	NC	Y	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.005	<0.003
Tin	---	---	<0.3	<0.3	A	NC	NC	Y	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Titanium	---	---	0.8	0.7	D	NC	0.1	Y	1.1	<0.5	<0.5	0.8	8.4	<0.5	<0.5	14	45	13
Uranium	---	---	<0.005	<0.005	A	NC	NC	Y	<0.005	<0.005	<0.005	0.009	0.192	<0.005	<0.005	0.038	0.071	0.025
Vanadium	5	6	<0.05	<0.05	A	NC	NC	Y	<0.05	<0.05	<0.05	0.30	1.27	<0.05	<0.05	1.68	2.76	1.12
Zinc	250	40, 100*	16	17	C	1.5	NC	Y	3	17	<2	11	5	2	<2	6	6	4

Notes:

The Ontario Ministry of the Environment and Energy (MOEE) HCB Phytotoxicology Field Investigation Manual 1= (014-3511-93). "Upper Limit of Normal", contaminant guidelines (ULN) for concentrations of contaminants in foliage, grass, and moss bags in Ontario.

* Max RDL used

A = See Methodologies in Appendix F for Scenario Rationale

NC = Not Calculated

--- = No Guidelines exist

All units in ug/g.

20 = Guidelines Used

20 = Denotes exceedance of guidelines

TABLE 7-19B: Analytical Results for Metals in Vegetation - 2008

Parameters		Vegetation Foliage (Rural)	APEC 1	APEC 2	APEC 3				APEC 4					VEG-BK-1		VEG-BK-2	
			VEG-6	VEG-4	VEG-1	VEG-2	VEG-3	VEG-5	A4-VEG-1	VEG-DUP		A4-VEG-2	A4-VEG-3				
			L682370-6 09-SEP-08	L682370-4 09-SEP-08	L682370-1 09-SEP-08	L682370-2 09-SEP-08	L682370-3 09-SEP-08	L682370-5 09-SEP-08	L682370-7 10-SEP-08	L682370-10 10-SEP-08	RPD	L682370-8 10-SEP-08	L682370-9 10-SEP-08				
Lab ID # Sample Date Prepared by:			Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz		Franz	Franz	Franz	Franz		
Physical Tests																	
Hardness (as CaCO3)		---	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
% Moisture		---	62.4	56.5	59.8	69.5	67.8	68.4	78.8	77.3	2%	71.8	71.7	74	76.1		
pH		---	-	-	-	-	-	-	-	-	-	-	-	-	-		
Metals																	
Aluminum (Al)		500	108	88.4	31	36.1	45.7	24	271	303	11%	199	255	34.7	10.5		
Antimony (Sb)		0.3*	<0.010	<0.010	<0.010	0.013	<0.010	0.023	<0.010	<0.010	NC	<0.010	<0.010	<0.010	<0.010		
Arsenic (As)		0.5,2*	<0.010	0.013	<0.010	<0.010	<0.010	0.012	0.428	0.428	0%	0.074	0.426	0.016	<0.010		
Barium (Ba)		---	34.8	26.4	9.07	7.88	13.2	36.2	2.17	2.15	1%	1.4	1.96	11.6	5.73		
Beryllium (Be)		---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	NC	<0.10	<0.10	<0.10	<0.10		
Bismuth (Bi)		---	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	NC	<0.030	<0.030	<0.030	<0.030		
Cadmium (Cd)		1*	0.241	0.495	0.467	0.14	0.118	0.0206	0.0072	0.0076	5%	0.0087	0.0131	0.0967	0.0171		
Calcium (Ca)		---	2070	3390	3750	2000	1590	7300	458	530	15%	1940	899	1320	918		
Chromium (Cr)		8	0.19	0.2	0.11	<0.10	0.1	0.12	0.9	1.06	16%	0.72	0.8	0.11	<0.10		
Cobalt (Co)		2	0.065	0.062	0.027	0.105	0.04	<0.020	0.236	0.259	9%	0.405	0.209	0.023	0.036		
Copper (Cu)		20	2.43	3.4	2.52	1.38	1.7	2.89	0.663	0.663	0%	0.797	1.21	1.1	0.726		
Iron (Fe)		500	106	133	28.3	35.6	38.2	47.6	7880	7320	7%	627	853	21.7	8.9		
Lead (Pb)		30	0.287	0.358	0.095	0.283	0.2	1.45	0.233	0.223	4%	0.17	0.315	0.053	<0.020		
Lithium (Li)		---	<0.10	0.11	<0.10	<0.10	<0.10	0.13	0.37	0.38	3%	0.36	0.41	<0.10	<0.10		
Magnesium (Mg)		---	734	1030	817	463	484	343	621	731	16%	2070	1410	395	212		
Manganese (Mn)		---	93.1	261	25.9	31.7	90.4	4.02	41.3	42.7	3%	122	32.9	56.7	10.8		
Mercury (Hg)		---	-	-	-	-	-	-	-	-	-	-	-	-	-		
Molybdenum (Mo)		1.5	0.071	0.094	0.12	0.258	0.066	1.09	0.44	0.522	17%	0.184	0.392	0.022	<0.010		
Nickel (Ni)		5, 30*	0.61	0.34	0.18	0.16	0.27	0.3	0.39	0.41	5%	0.58	0.44	0.18	0.47		
Phosphorus (P)		---	465	365	245	350	397	520	248	324	27%	167	292	241	177		
Potassium (K)		---	1730	3210	2340	1780	2170	1690	1710	2050	18%	6390	3450	1560	1710		
Selenium (Se)		0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NC	<0.20	<0.20	<0.20	<0.20		
Silver (Ag)		---	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sodium (Na)		50	34	55	62	53	36	21	2660	3300	21%	6790	6180	32	<20		
Strontium (Sr)		---	4.67	7.75	16.4	6.51	4.37	26.7	6.46	6.78	5%	15.6	10.8	1.78	1.7		
Thallium (Tl)		---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NC	<0.010	<0.010	<0.010	<0.010		
Tin (Sn)		---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.054	NC	<0.050	<0.050	<0.050	0.084		
Titanium (Ti)		---	4.35	4.7	0.91	1.6	1.77	2.62	26.8	33.2	21%	26.8	21.5	1.08	0.2		
Uranium (U)		---	0.0023	0.004	<0.0020	<0.0020	<0.0020	<0.0020	0.106	0.0917	14%	0.0414	0.0792	<0.0020	<0.0020		
Vanadium (V)		5	0.16	0.13	<0.10	<0.10	<0.10	<0.10	2.04	2.5	20%	1.25	1.84	<0.10	<0.10		
Zinc (Zn)		250	17.8	29.8	46.5	19.1	14.1	22.3	4.24	4.66	9%	19.5	8.13	11.3	10.2		

Notes (Refer to endnotes for complete list)

10 value is greater than the Ontario Vegetation Criteria

--- No guideline.

NC - Not calculated

- Not Analysed

Where two values shown, the first is based on Southern Ontario data while the second is based on Northeastern Region data.

TABLE 7-20A: Analytical Results for PCBs in Vegetation - 2009

Area ID	Foliage (Rural) ¹	Grass (Rural) ¹	AEC 1	AEC 3
Station ID			AEC1-VEG09-1	AEC3-AQ-VEG09-1
Field label			AEC1-VEG09-1	AEC3-AQ-VEG09-1
Duplicate ID				
Date			16/Sep/09	16/Sep/09
Lab report ID			A9C4887	A9C4887
Aroclor 1016	---	---	<0.1	<0.1
Aroclor 1221	---	---	<0.1	<0.1
Aroclor 1232	---	---	<0.1	<0.1
Aroclor 1242	---	---	<0.1	<0.1
Aroclor 1248	---	---	<0.1	<0.1
Aroclor 1254	---	---	<0.1	<0.1
Aroclor 1260	---	---	<0.1	<0.1
Aroclor 1262	---	---	<0.1	<0.1
Aroclor 1268	---	---	<0.1	<0.1
Polychlorinated biphenyls	---	---	<0.1	<0.1

Notes:

The Ontario Ministry of the Environment and Energy (MOEE) HCB Phytotoxicology Field
1= Investigation Manual (014-3511-93). "Upper Limit of Normal" , contaminant guidelines
(ULN) for concentrations of contaminants in foliage, grass, and moss bags in Ontario.

---' = No Guidelines exist

All units in ug/g.

20 = Guidelines Used

20 = Denotes exceedance of guidelines

TABLE 7-20B: Analytical Results for PCBs in Vegetation - 2008

		APEC 1	APEC 2	APEC 3				APEC 4					
Parameters	Lab ID # Sample Date Prepared by:	Vegetation Foliage (Rural)	VEG-6	VEG-4	VEG-1	VEG-2	VEG-3	VEG-5	A4-VEG-1	VEG-DUP		A4-VEG-2	A4-VEG-3
			L682370-6	L682370-4	L682370-1	L682370-2	L682370-3	L682370-5	L682370-7	L682370-10	RPD	L682370-8	L682370-9
			09-SEP-08	09-SEP-08	09-SEP-08	09-SEP-08	09-SEP-08	09-SEP-08	10-SEP-08	10-SEP-08		10-SEP-08	10-SEP-08
			Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz	Franz
Polychlorinated Biphenyls													
PCB-1016	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
PCB-1221	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
PCB-1232	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
PCB-1242	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
PCB-1248	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
PCB-1254	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
PCB-1260	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
PCB-1262	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
PCB-1268	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	
Total Polychlorinated Biphenyls	---	<0.20	<0.25	<0.50	<0.10	<0.10	<0.050	<0.050	<0.050	NC	<0.050	<0.050	

Notes (Refer to endnotes for complete list)

10

value is greater than the Ontario
Vegetation Criteria

--- No Standard.

NC - Not calculated

Building Materials – Analytical Results

TABLE 7-21: Analytical Results for Lead in Paint - 2009

PARAMETER	Designated Substances Criteria				AEC 2	
Sampling Number	Territorial		Federal		AEC2-PB09-1 (ORANGE)	AEC2-PB09-2 (GREEN)
Sampling Date	Government of NWT ¹	Government of NWT ²	Health Canada ³	CEPA ⁴	16/09/2009	16/09/2009
Sample Description					Orange	Green
Material						
Total Lead in Paint (mg/kg)	600	---	---	---	75,000	57,000

Notes:

1= Government of Northwest Territories (2004), Guideline for Management of Waste Lead and Lead Paint.

2= Guideline for Industrial Waste Discharges in the NWT, 1998, Schedule IV Standards for Solid Waste/Process Residuals Suitable for Landfill (based on Leachate Quality criteria test results).

3= Health Canada's Hazardous Products Act, R.S.C, 1985, c. H-3.

4= Canadian Environmental Protection Act (1999), Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (May, 2005), Schedule 6.

*= Inadequate sample size to perform analysis.

ND = Denotes Non-Detectable.

--- = No criteria.

20 = Denotes guidelines used to determine exceedance

20 = Denotes exceedances of Designated Substances

APPENDIX A

FIELD LOGS

TABLE A1 - 2009 Test Pit Logs

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 1 - Up Gradient			Test Pit: AEC1-TP09-1					COMMENTS
			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Potential Buried Debris	0 - 0.33	SAND - fine, reddish brown, moist to wet, no odour, roots and rootlets	GR	AEC1-TP09-1-1	0.8	0	PHCs, metals, PAHs, PCBs, VOCs	Water encountered @ 0.8m, EOH - Sluffing @ 1.3m
	0.33 - 0.8	SAND AND GRAVEL - fine to coarse, grey, some cobbles and boulders at 0.8m, wet						
	0.8 - 1.3	SAND AND GRAVEL - fine to coarse, grey, some cobbles and boulders, saturated	GR	AEC1-TP09-1-2	1.3	0	Metals	

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 1 - Up Gradient			Test Pit: AEC1-TP09-2					COMMENTS
			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Potential Buried Debris	0 - 0.2	SAND - fine to medium, reddish brown, moist, no odour, rootlets	GR	AEC1-TP09-2-1	0.75	0		Water encountered @ 0.6m, EOH - Frost @ 0.8m
	0.2 - 0.8	SAND - fine, grey, some silt, wet, no odour						

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 1 - Up Gradient			Test Pit: AEC1-TP09-3					COMMENTS
			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Potential Buried Debris	0 - 1.0	SAND - fine to medium, brown, moist, no odour, metal debris	GR	AEC1-TP09-3-1	1	0	metals	hydrocarbon odour @ 1.2m, metal debris - drums, pipe, cable
	1.0 - 1.5	SAND - fine to medium, brown, moist, hydrocarbon odour, metal debris, EOH - frost	GR	AEC1-TP09-3-2	1.5	0	PHCs, PAHs, PCBs, VOCs, Pest/Herb	

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 1 - Up Gradient			Test Pit: AEC1-TP09-4					COMMENTS
			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Potential Buried Debris	0 - 1.0	SAND AND GRAVEL - fine to coarse, brown, moist to wet, no odour	GR	AEC1-TP09-4-1	0.9	0	PHCs, PCBs & metals	Water encountered @ 0.9m, EOH - Frost @ 1.1m
	1.0 - 1.1	SILTY SAND - fine to coarse, yellow/beige, wet, no odour	GR	AEC1-TP09-4-2	no sample	N/A		

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 1 - Up Gradient			Test Pit: AEC1-TP09-5					COMMENTS
SAMPLES			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Potential Buried Debris	0 - 0.8	SAND AND GRAVEL - fine to coarse, brown, moist, no odour	GR	AEC1-TP09-5-1	0.8	0	PHCs & metals	EOH - Frost @ 1.5m
	0.8 - 1.0	SAND - some silt, fine, moist, no odour	GR	AEC1-TP09-5-2	1	0	metals	
	1.0 - 1.5		GR	AEC1-TP09-5-3	1.5	5		

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 1 - Up Gradient			Test Pit: AEC1-TP09-6					COMMENTS
SAMPLES			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Potential Buried Debris	0 - 0.2	SAND - fine, brown, moist, no odour, rootlets	GR	N/A	N/A	N/A	N/A	EOH - Frost @ 1.5m
	0.2 - 1.0	SAND - fine, grey, trace silt, moist, no odour	GR	AEC1-TP09-6-1	1	0	N/A	
	0.1 - 1.5		GR	AEC1-TP09-6-2	1.5	N/A	N/A	

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 1 - Up Gradient			Test Pit: AEC1-TP09-7					COMMENTS
SAMPLES			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Potential Buried Debris	0 - 1.1	SAND - fine to medium, brown, moist, no odour, rootlets, some cobbles and boulders at 1.0m	GR	AEC1-TP09-7-1	1.1	0	N/A	EOH - Sluffing @ 1.1m

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 2 - Vehicle Dump			Test Pit: AEC2-TP09-1					COMMENTS
SAMPLES			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Vehicles and Debris, Stain	Surface	SAND AND GRAVEL- fine to coarse, brown, dry, no odour	GR	AEC2-TP09-1	Surface	0	PHCs, Metals, PCBs	EOH - Bedrock @ 0.1m

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 2 - Vehicle Dump			Test Pit: AEC2-TP09-2					COMMENTS
			Type	Sample I.D.	Depth of sample	QVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Vehicles and Debris, Stain	0 - 0.2	SAND AND GRAVEL- fine to coarse, brown, dry, no odour, some rootlets	GR	AEC2-TP09-2	0.2	0	PHCs, Metals, PCBs	EOH - Bedrock @ 0.2m, Duplicate AEC2-DUP3

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 3 - Landfill - Top of Escarpment			Test Pit: AEC3-TP09-T1				
Issue	Depth (m)	Description					
Observation Pit	<0.1	Debris , <0.1m of soil, sand and gravel					

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 3 - Landfill - Top of Escarpment			Test Pit: AEC3-TP09-T2				
Issue	Depth (m)	Description					
Observation Pit	<0.1	Debris, <0.1m of soil, sand and gravel					

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 3 - Landfill - Top of Escarpment			Test Pit: AEC3-TP09-T3				
Issue	Depth (m)	Description					
Observation Pit	<0.15	Debris, <0.15m of soil, sand and gravel					

Date: 16-Sep-09 Logged by: Ryan Fletcher Method: Excavator Location: AEC 3 - Landfill - Top of Escarpment			Test Pit: AEC3-TP09-T4				
Issue	Depth (m)	Description					
Observation Pit	<0.15	Debris, <0.15m of soil, sand and gravel					

TABLE A1 - 2009 Test Pit Logs

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 3 - Landfill			Test Pit: AEC3-TP09-1					COMMENTS
SAMPLES			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Exposed Debris	0 - 0.25	SAND AND GRAVEL - fine to coarse, dark brown, some organic matter at surface, dry, no odour, rootlets	GR	AEC3-TP09-1	0.25	N/A	PCBs, PHCs	

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 3 - Landfill			Test Pit: AEC3-TP09-3					COMMENTS
SAMPLES			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Escarpment Runoff	0 - 0.1	SAND - fine to coarse, brown, some organic matter, dry, no odour, rootlets	GR	AEC3-TP09-3	Surface	10	PHCs	

Date: 17-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 3 - Landfill			Test Pit: AEC3-TP09-4					COMMENTS
SAMPLES			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Barrel Cache Stained Area	0 - 0.2	SAND AND GRAVEL - fine to coarse, some silt, brown, dry, no odour, rootlets	GR	AEC3-TP09-4	0.2	N/A	Metals	

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 3 - Landfill			Test Pit: AEC3-TP09-5					COMMENTS
SAMPLES			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Barrel Cache Area	0 - 0.2	SAND AND GRAVEL- fine to coarse, some silt, brown, dry, no odour, some rootlets	GR	AEC3-TP09-5	0.2	10	Metals	

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 3 - Landfill			Test Pit: AEC3-TP09-6					COMMENTS
			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Landfill Leachate	0 - 0.38	SAND AND SILT - fine to medium, some gravel, brown, dry, no odour, rootlets	GR	AEC3-TP09-6	0.38	N/A	PAHs, VOCs, PHCs, metals	

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 3 - Landfill			Test Pit: AEC3-TP09-7					COMMENTS
			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Landfill Leachate	0 - 0.4	SAND - fine to coarse, some silt, some clay, brown, dry, no odour, organic layer at 0.05m, rootlets	GR	AEC3-TP09-7	0.4	N/A	VOCs, PHCs, PAHs, metals	

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 4 - Down Gradient			Test Pit: AEC4-TP09-1					COMMENTS
			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Landfill Leachate	0 - 0.3	SAND AND SILT - fine to coarse, some clay, reddish brown, moist, no odour, rootlets, organic layer on surface	GR	AEC4-TP09-1	0.3	0	PHCs, metals, PAHs, VOCs	

Date: 16-Sep-09 Logged by: Julie Dittburner Method: Hand Excavation Location: AEC 4 - Down Gradient			Test Pit: AEC4-TP09-2					COMMENTS
			Type	Sample I.D.	Depth of sample	OVM (ppm)	Analysis	
Issue	Depth (m)	Description						
Landfill Leachate and small Barrel Cache	0 - 0.35	ORGANIC MATTER- some sand and gravel, some silt, fine to medium, grey brown, moist, organic odour, rootlets, rust color horizon just below surface	GR	AEC4-TP09-2	0.35	10	PHCs, metals, VOCs	

TABLE A2 - 2008 Test Pit Logs

TEST PIT	DEPTH (m)	SAMPLE ID	VAPOUR READING S (ppm)	SOIL DESCRIPTION	DEBRIS
APEC 1 - UP-GRADIENT DEBRIS					
A1-TP08-1	0.0 - 0.80	A1-TP08-1	110	Brown fine to coarse SAND and GRAVEL.	Drums, metal, piping, cable, vehicle parts, wheel rims, wood
A1-TP08-2	0.0 - 1.0	A1-TP08-2	-	Brown fine to coarse SAND and GRAVEL, no odour.	Drums, steel rods, metal, wood
A1-TP08-3	0.0 - 1.6	A1-TP08-3	-	Brown fine to coarse SAND and GRAVEL, no odour.	Tires, drums, wood, iron bracing, vehicle parts, rubber hose, cable wire, rods
APEC 2 - VEHICLE DUMP					
A2-TP08-1	0.0 - 0.1	A2-TP08-1	55	Dark brown fine to medium silty SAND, trace gravel, some organic matter, black staining, organic odour. Overlain bedrock	No
A2-TP08-2	0.0 - 0.1	A2-TP08-2	140	Dark brown SAND, trace gravel, some organic matter, organic odour.	No
APEC 3 - LANDFILL					
A3-TP08-1	0.0 - 0.2	A3-TP08-1	-	Dark brown fine to medium SAND, some organic matter, no odour, black staining.	Yes, metal debris
A3-TP08-2	0.0 - 0.12	A3-TP08-2	15	Black medium to coarse SAND, trace gravel, some organic matter, hydrocarbon odour. Overlain bedrock	No
A3-TP08-3	0.0 - 0.25	A3-TP08-3	20	Black SAND, organic matter, no odour. Overlain bedrock	No
A3-TP08-4	0.0 - 0.05	A3-TP08-4	-	Black SAND, organic matter, no odour. Overlain bedrock	No
A3-TP08-5	0.0 - 0.3	A3-TP08-5 / DUP - 1	70	Light brown fine to medium SAND, some organic matter, no odour, orange staining. Overlain bedrock. Slightly stressed vegetation on surface.	No
A3-TP08-6	0.0 - 0.3	A3-TP08-6	80	Dark brown fine to medium silty SAND, no odour. Overlain bedrock	No
A3-TP08-7	0.0 - 0.25	A3-TP08-7	70	Dark brown/beige fine silty SAND, organic matter, paint odour. Overlain bedrock	No
A3-TP08-8	0.0 - 0.30	A3-TP08-8	60	Gry/brown silty SAND, some organic matter, no odour. Overlain bedrock	No
A3-TP08-9	0.0 - 0.20	A3-TP08-9	0	Gry/brown silty SAND, some organic matter, hydrocarbon odour. Overlain bedrock	No
A3-TP08-10	0.0 - 0.15	A3-TP08-10	-	Light brown fine to medium silty SAND, some organic matter, no odour. Overlain bedrock	No
A3-TP08-11	0.0 - 0.20	A3-TP08-11	50	Brown silty SAND, fine to medium, no odour. Overlain bedrock	No
A3-TP08-12	0.0 - 0.10	A3-TP08-12	20	Brown/grey SAND and GRAVEL, hydrocarbon odour. Overlain bedrock	No
A3-TP08-13	0.0 - 0.20	A3-TP08-13 / DUP-2	75	Brown SAND and GRAVEL, heavy orange staining, unidentified odour.	No
A3-TP08-14	0.0 - 0.40	A3-TP08-14	75	Dark grey fine to medium silty SAND, trace gravel, trace organic matter, paint odour. Overlain bedrock	No
A3-TP08-15	0.0 - 0.30	A3-TP08-15	70	Brown fine to medium silty SAND, trace organic matter, no odour. Overlain bedrock	No
A3-TP08-16	0.0 - 0.30	A3-TP08-16	60	Light brown fine to medium SAND, some silt, trace organic matter, no odour. Overlain bedrock	No
A3-TP08-17	0.0 - 0.5	A3-TP08-17	-	Dark grey silty SAND, trace gravel, some organic matter. Overlain bedrock	No
A3-TP08-18	0.0 - 0.35	A3-TP08-18	45	Black fine to coarse SAND, trace gravel, some organic matter, no odour. Overlain bedrock	Metal debris
APEC 4 - DOWN-GRADIENT					
A4-TP08-1	0.0 - 0.80	A4-TP08-1	70	Dark brown fine to medium SAND, organic matter, no odour. Overlain bedrock	No
A4-TP08-2	0.0 - 0.33	A4-TP08-2	40	Dark grey/brown fine to medium SAND, organic matter, no odour. Overlain bedrock	No

TABLE A3 - Grain Size Analysis
(all units % unless otherwise stated)

Parameters		GS-1	GS-2	GS-3	GS-4	GS-5	GS-SD-1	GS-SD-2
	Lab ID #	L682370-23	L682370-24	L682370-25	L682370-26	L682370-27	L682370-28	L682370-29
	Sample Date	09-SEP-08	09-SEP-08	09-SEP-08	09-SEP-08	09-SEP-08	09-SEP-08	09-SEP-08
	Prepared by:	Franz	Franz	Franz	Franz	Franz	Franz	Franz
Particle Size								
% Gravel (>2mm)		17	13	1	4	6	2	4
% Sand (2.0mm - 0.063mm)		68	75	70	63	55	84	55
% Silt (0.063mm - 4um)		12	1	16	19	35	13	33
% Clay (<4um)		2	11	13	13	4	2	8

TABLE A4 - 2009 Surface Water Field Measurements

FIELD CHEMISTRY PARAMETERS - 2009						
SURFACE WATER STATION	pH (UpH)	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO	ORP	TURBIDITY
APEC 1 - UP-GRADIENT DEBRIS						
AEC1-SW09-1	7.35	5.97	0.071	8	89	91.3
	7.31	5.95	0.071	7.92	93	86.1
	7.29	5.91	0.072	7.81	97	75.3
	7.26	5.9	0.072	7.77	99	70.2
AVERAGE	7.30	5.93	0.07	7.88	94.50	80.73
APEC 2 - VEHICLE DUMP						
AEC2-SW09-1	7.63	1.03	0.083	0	203	19
	7.5	1.31	0.083	1.98	197	18.9
	7.41	1.29	0.084	3.47	191	19.1
	7.34	1.29	0.084	3.86	188	19.2
AVERAGE	7.47	1.23	0.084	2.33	194.75	19.05
AEC2-SW09-2	7.3	1.37	0.075	6.17	95	41.8
	7.28	1.37	0.075	6.2	95	44.6
	7.27	1.38	0.075	6.23	96	44.1
	7.26	1.39	0.075	6.27	96	44.5
AVERAGE	7.28	1.38	0.08	6.22	95.50	43.75
AEC2-SW09-3	7.23	2.29	0.082	4.4	80	20.2
	7.21	2.21	0.082	4.67	80	19.1
	7.2	2.15	0.082	4.78	81	19.8
	7.19	2.13	0.082	4.84	82	19.9
AVERAGE	7.21	2.20	0.082	4.67	80.75	19.75
AEC2-SW09-4	7.06	2.7	0.064	4.89	0	12.3
	7.02	2.58	0.063	4.93	0	44.3
	7.01	2.5	0.063	4.83	2	16.9
	6.99	2.46	0.063	4.78	4	44.6
AVERAGE	7.02	2.56	0.06	4.86	1.50	29.53
AEC2-SW09-5	6.85	2.07	0.059	6.08	57.0	127.0
	6.85	2.05	0.059	7.18	47.0	127.0
	6.87	2.05	0.059	5.26	46.0	125.0
	6.85	2.04	0.059	4.30	45.0	120.0
AVERAGE	6.86	2.05	0.06	5.71	48.75	124.75
AEC2-SW09-6	7.01	2.34	0.059	4.35	34.0	22.3
	7.01	2.35	0.059	4.69	34.0	22.0
	7.00	2.35	0.059	4.82	34.0	21.3
	7.00	2.36	0.059	4.93	34.0	21.5
AVERAGE	7.01	2.35	0.06	4.70	34.00	21.78
AEC2-SW09-7	7.00	3.57	0.064	7.52	41.0	21.1
	7.02	3.54	0.064	6.55	29.0	21.0
	7.04	3.54	0.065	6.86	23.0	20.0
AVERAGE	7.02	3.55	0.06	6.98	31.00	20.70
AEC2-SW09-8	7.18	3.75	0.063	6.75	29.0	35.4
	7.20	3.74	0.063	7.47	26.0	24.3
	7.22	3.74	0.063	8.01	23.0	32.7
	7.23	3.75	0.063	8.20	22.0	32.9
AVERAGE	7.21	3.75	0.06	7.61	25.00	31.33
AEC2-SW09-9	7.30	4.40	0.071	0.55	7.5	86.6
	7.23	4.47	0.071	4.60	79.5	82.9
	7.22	4.50	0.071	5.90	66.0	79.5
	7.21	4.51	0.071	6.55	64.0	81.0
AVERAGE	7.24	4.47	0.07	4.40	54.25	82.50
AEC2-SW09-10	7.15	4.96	0.075	8.54	30.0	21.1
	7.15	4.98	0.075	8.72	32.0	20.9
	7.14	4.98	0.075	8.90	34.0	20.8
	7.13	5.00	0.075	9.06	37.0	20.8
AVERAGE	7.14	4.98	0.08	8.81	33.25	20.90
AEC2-SW09-11	7.23	4.79	0.078	6.15	127.0	21.8
	7.22	4.85	0.077	8.82	125.0	19.8
	7.24	4.89	0.077	9.49	124.0	19.7
	7.26	4.91	0.077	9.98	123.0	19.2
AVERAGE	7.24	4.86	0.08	8.61	124.75	20.13

TABLE A4 - 2009 Surface Water Field Measurements

FIELD CHEMISTRY PARAMETERS - 2009						
SURFACE WATER STATION	pH (UpH)	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO	ORP	TURBIDITY
AEC 3 - LANDFILL						
AEC3-SW09-1	6.69	3.63	9.02	0	100	24.9
	6.86	3.63	9.05	1.42	39	22
	6.97	3.61	9	3.19	17	17.6
	7.06	3.59	8.92	3.95	19	17.5
	7.14	3.58	8.96	4.4	20	17.3
AVERAGE	6.94	3.61	8.99	2.59	39.00	19.86
AEC3-SW09-2	7.84	3.3	9.11	5.71	125	18.8
	7.86	3.3	9.11	5.8	123	23
	7.86	3.3	9.11	5.86	126	20.5
AVERAGE	7.85	3.30	9.11	5.79	124.67	20.77
AEC3-SW09-3	7.61	3.64	9.14	4.98	97	25.8
	7.63	3.65	9.19	5.35	97	25.2
	7.66	3.65	9.19	5.58	98	24.8
	7.86	3.65	9.15	5.71	98	24.9
AVERAGE	7.69	3.65	9.17	5.41	97.50	25.18
APEC 4 - DOWN-GRADIENT						
AEC4-SW09-1	8.06	3.79	1.3	3.74	172	21.9
	8.06	3.81	1.3	3.84	172	21.7
	8.07	3.82	1.3	3.95	172	21.8
	8.07	3.81	1.31	4.08	171	21.8
AVERAGE	8.07	3.81	1.30	3.90	171.75	21.80
AEC4-SW09-2	8.18	3.98	1.45	3.43	168	21.9
	8.2	4	1.45	3.6	168	22.4
	8.21	4.02	1.45	3.69	167	22.2
	8.22	4.03	1.46	3.76	167	21.9
AVERAGE	8.20	4.01	1.45	3.62	167.50	22.10
AEC4-SW09-3	7.99	3.22	0.94	2.96	175	45.5
	7.99	3.24	0.94	3.02	175	35
	7.99	3.25	0.94	3.05	175	34.9
	7.99	3.27	0.94	3.08	174	32
AVERAGE	7.99	3.25	0.94	3.03	174.75	36.85
AEC4-SW09-4	8.1	3.72	1.81	4.24	187	29.2
	8.14	3.73	1.91	3.72	196	30.2
	8.07	3.74	1.84	3.77	198	29.6
	7.88	3.74	1.89	4.21	195	28.4
AVERAGE	8.05	3.73	1.86	3.99	194.00	29.35
AEC4-SW09-5	7.97	2.74	19.1	4.09	174	17.2
	8	2.75	19	4.21	173	17.2
	8.02	2.76	18.8	4.31	173	17.1
	8.03	2.76	18.8	4.37	172	17.2
AVERAGE	8.01	2.75	18.93	4.25	173.00	17.18
AEC4-SW09-6	8.25	3.32	1.41	3.95	164	17.2
	8.19	3.33	1.38	4.2	164	17
	8.12	3.32	1.4	4.45	164	17
	8.09	3.33	1.38	4.5	164	17.1
AVERAGE	8.16	3.33	1.39	4.28	164.00	17.08
AEC4-SW09-7	7.97	3.38	1.05	4.21	161	17
	7.96	3.39	1.05	4.47	160	17
	7.95	3.39	1.03	4.6	159	17.1
	7.93	3.38	1.05	4.66	158	17.2
AVERAGE	7.95	3.39	1.05	4.49	159.50	17.08
AEC4-SW09-8	7.84	3.39	1.1	1.76	186	17.70
	7.86	3.39	1.1	1.86	184	18.00
	7.88	3.41	1.1	2.59	183	17.30
	7.87	3.41	1.1	3.14	182	17.20
AVERAGE	7.86	3.40	1.1	2.34	184	17.55

TABLE A4 - 2009 Surface Water Field Measurements

FIELD CHEMISTRY PARAMETERS - 2009						
SURFACE WATER STATION	pH (UpH)	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO	ORP	TURBIDITY
APEC 4 - DOWN-GRADIENT CON'T						
AEC4-SW09-9	7.7	4.23	1.71	4.12	158	16.9
	7.73	4.26	2.49	4.27	158	24.6
	7.76	4.37	2.65	4.36	149	18.2
	7.65	4.28	3.32	4.93	140	19.4
AVERAGE	7.71	4.29	2.54	4.42	151.25	19.78
AEC4-SW09-10	8.13	4	0.139	7.11	150	54.1
	8.1	4	0.139	7.14	151	54.8
	8.08	3.99	0.139	7.17	151	55.2
	8.07	3.98	0.138	7.19	152	54.6
AVERAGE	8.10	3.99	0.14	7.15	151.00	54.68
AEC4-SW09-11	9.03	6.39	1.13	5.74	154	15.9
	9.06	6.49	1.13	5.84	153	16
	9.09	6.57	1.12	5.9	152	15.9
	9.1	6.55	1.13	5.95	150	15.9
AVERAGE	9.07	6.50	1.13	5.86	152.25	15.93
AEC4-SW09-12	8.07	5.62	17.5	5.25	169	16.2
	8.15	5.67	17.6	5.56	169	16.1
	8.2	5.75	17.7	6.13	168	16.3
	8.27	5.75	17.7	6.23	168	16
AVERAGE	8.17	5.70	17.63	5.79	168.50	16.15
AEC4-SW09-13	8.73	6.68	1.12	5.88	166	17.2
	8.7	6.85	1.08	6.5	166	16.3
	8.69	6.93	1.06	6.72	166	16.5
AVERAGE	8.71	6.82	1.09	6.37	166.00	16.67
AEC4-SW09-14	8.09	5.13	2.78	5.88	180	17.4
	8.09	5.15	2.78	5.94	180	17.1
	8.09	5.15	2.78	5.98	179	17.2
	8.08	5.18	2.78	6.01	179	17.1
AVERAGE	8.09	5.15	2.78	5.95	179.50	17.20
AEC4-SW09-15	8.19	5.69	2.88	5.21	174	18.8
	8.18	5.7	2.88	5.39	174	18.8
	8.18	5.7	2.88	5.48	174	18.8
	8.17	5.69	2.88	5.54	174	18.8
AVERAGE	8.18	5.70	2.88	5.41	174.00	18.80
AEC4-SW09-16	7.08	8.30	0.9	3.38	16	39.70
	6.98	8.40	0.9	3.47	18	39.90
	6.90	8.41	0.9	3.47	18	39.40
AVERAGE	6.99	8.37	0.9	3.44	17	39.67

TABLE A5 - 2008 Surface Water Field Measurements

SURFACE WATER STATION	FIELD CHEMISTRY PARAMETERS					
	pH (UpH)	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO	ORP	TURBIDITY
APEC 1 - UP-GRADIENT DEBRIS						
A1-SW08-1	-	-	-	-	-	-
APEC 2 - VEHICLE DUMP						
A2-SW08-1	6.2	6.25	0.139	10.52	1.27	16.8
	6.16	6.22	0.138	10.39	1.43	15.9
	6.14	6.21	0.138	10.3	1.56	15.3
	6.11	6.2	0.138	10.2	1.67	15.1
	6.11	6.2	0.138	10.15	1.43	15.1
	6.11	6.17	0.137	10.12	1.81	14.9
AVERAGE	6.14	6.21	0.138	10.28	1.53	15.52
A2-SW08-2	6.37	7.25	0.116	10.67	78	45.9
	6.37	7.23	0.116	10.65	73	46.5
	6.4	7.23	0.117	10.66	71	40.62
	6.43	7.23	0.116	10.64	69	46.7
AVERAGE	6.39	7.24	0.12	10.66	72.75	44.93
A2-SW08-3	6.56	6.7	0.116	11	85	47.8
	6.51	6.7	0.116	10.99	85	42.9
	6.48	6.77	0.115	10.94	83	35.8
	6.74	6.8	0.115	10.92	82	43
	6.43	6.77	0.115	10.96	82	32
	6.75	6.8	0.115	10.96	83	
AVERAGE	6.58	6.76	0.115	10.96	83.33	40.30
A2-SW08-4	6.37	6.54	0.115	11.57	59	24.9
	6.35	6.59	0.114	11.59	58	21.2
	6.35	6.61	0.114	11.57	58	19.4
	6.6	6.62	0.114	11.57	57	18.2
	6.35	6.62	0.114	11.57	52	18.9
	6.35	6.62		11.55	57	19.6
AVERAGE	6.40	6.60	0.11	11.57	56.83	20.37
APEC 3 - LANDFILL						
A3-SW08-1	6.92	7.23	0.46	11.41	292	46
	6.75	7.25	0.458	11.77	290	42.59
	6.6	7.27	0.455	11.94	288	31.2
	6.53	7.3	0.455	12.18	286	39.4
	6.38	7.31	0.45	12.2	285	38.2
AVERAGE	6.64	7.27	0.46	11.90	288.20	39.48
A3-SW08-2	6.48	6.77	14.9	11.6	3.43	11.2
	6.56	6.76	14.9	11.66	3.4	9.9
	6.62	6.75	14.9	11.66	3.38	10.1
	6.77	6.75	14.9	11.74	3.36	10.1
AVERAGE	6.61	6.76	14.90	11.67	3.39	10.33
A3-SW08-3	6.31	6.47	0.141	11.77	306	14.7
	6.49	6.52	0.14	11.78	303	14.2
	6.51	6.57	0.14	11.8	301	14.2
	6.55	6.6	0.141	12.07	298	14.2
AVERAGE	6.47	6.54	0.14	11.86	302.00	14.33
A3-SW08-4	6.92	5.83	0.9	11.51	60	98.8
	6.82	5.84	0.9	11.54	53	99
	6.9	5.83	0.99	11.45	48	98.8
	5.83	5.82	0.99	11.48	49	99.2
	6.9	5.83	0.99	11.5	49	99.4
	6.91	5.83	0.9	11.49	49	99.3
AVERAGE	6.71	5.83	0.95	11.50	51.33	99.08

TABLE A5 - 2008 Surface Water Field Measurements

SURFACE WATER STATION	FIELD CHEMISTRY PARAMETERS					
	pH (UpH)	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO	ORP	TURBIDITY
APEC 4 - DOWN-GRADIENT						
A4-SW08-1	6.93	5.66	5.26	11.68	237	11.2
	6.94	5.68	5.26	11.52	237	10.8
	6.95	5.69	5.26	11.5	237	11.5
	6.97	5.69	5.26	11.45	236	11
	6.98	5.71	5.26	11.45	236	11
AVERAGE	6.95	5.69	5.26	11.52	236.60	11.10
A4-SW08-2	6.66	4.88	6.25	11.15	288	11.9
	6.7	4.53	6.25	12	262	11.2
	6.76	4.61	6.28	12.07	252	11.4
	6.78	4.66	6.29	11.98	248	11
	6.8	4.69	6.3	11.9	243	11.1
	6.82	4.7	6.31	11.86	239	11.3
AVERAGE	6.75	4.68	6.28	11.83	255.33	11.32
A4-SW08-3	7.76	9.09	0.775	14.01	252	14
	7.79	9.14	0.788	13.06	248	13.94
	7.81	9.18	0.801	13.2	246	13.93
	7.84	9.18	0.826	13.87	243	12.5
	7.85	9.21	0.851	13.82	240	12.6
	7.88	9.22	0.857	13.85	237	12.8
AVERAGE	7.82	9.17	0.82	13.64	244.33	13.30
A4-SW08-4	7.67	6.26	0.069	12.66	257	9
	7.61	6.14	0.064	12.61	259	9.1
	7.55	6.14	0.062	12.59	261	8.9
	7.48	6.17	0.063	12.47	265	9.5
	7.39	6.12	0.06	12.52	267	9.5
	7.32	6.13	0.06	12.46	269	9.7
AVERAGE	7.50	6.16	0.06	12.55	263.00	9.28
A4-SW08-5	7.07	6.19	0.061	12.53	277	9
	7	6.19	0.06	12.52	280	9
	6.96	6.2	0.061	12.51	281	9
	6.94	6.2	0.06	12.49	282	9
AVERAGE	6.99	6.20	0.06	12.51	280.00	9.00
A4-SW08-6	8.25	7.23	0.138	13.67	255	10.3
	8.11	7.23	0.138	13.72	255	10.4
	8.1	7.23	0.136	13.65	254	10.4
	8.07	7.23	0.136	13.72	254	10.5
	8.07	7.24	0.137	13.76	254	10.4
AVERAGE	8.12	7.23	0.14	13.70	254.40	10.40
A4-SW08-7	8.61	7.53	0.394	12.97	240	14.9
	8.7	7.61	0.05	12.08	242	7.7
	8.57	7.51	0.458	12.72	244	14.3
	8.49	7.56	0.042	12.72	242	16.8
	8.55	7.48	0.046	12.61	244	7.5
	8.42	7.62		12.52	243	13.9
AVERAGE	7.53	7.55	0.20	12.60	242.50	12.52
A4-SW08-8	7.61	7.03	50.0	18.50	302	13.80
	7.51	7.00	50.1	18.89	299	13.90
	7.56	6.98	50.1	18.83	297	14.20
	7.48	6.98	50.2	18.83	295	14.60
AVERAGE	7.62	7.00	50.1	18.76	298	14.13

TABLE A6 - 2009 Sediment Logs

Project: 1584-0901
Iqaluit TC Landfill

Franz Personnel: Ryan Fletcher and Julie Dittburner
Weather: Overcast to partly sunny, 3 to 5 degrees, windy

Sample ID	Coordinates	H ₂ O depth (m)	Organics (%)	Recov. %	Sheen	Comments (Benthic species, colour, grain size, decomposition, odour, Sheen ² , staining, etc..)
	Easting/Northing					
AEC 1 - Up Gradien Debris						
AEC1-SD09-1 notes:	522136 7067957	0.4	55	100	no	No visible benthos, dark brown, fine to coarse grained, sand and organics, medium decomposition, no odour
AEC 2 - Vehicle Dump						
AEC2-SD09-1 notes: @ A2-SD08-1	522018 7067913	0.3	50	100	no	No visible benthos, dark brown, coarse sand, some silt, low decomposition, slight organic sheen, no odour
AEC2-SD09-2 notes: New for 2009	522033 7067875	0.1	60-80	100	no	No visible benthos, dark brown, highly organic, trace angluar rocks, little sand/silt, high decomposition, no odour
AEC2-SD09-3 notes: New for 2009	522060 7067832	0.07	40	100	no	No visible benthos, dark brown, fine sand, trace gravel, high decomposition, organic odour
AEC2-SD09-4 notes: @ A2-SD08-2	522035 7067784	0.3	40	100	no	No visible benthos, dark brown/black, slightly organic, trace sand, high decomposition, no odour, slight staining
AEC2-SD09-5 notes: @ A2-SD09-3	522011 7067780	0.1	none	100	no	No visible benthos, brown, fine to course sand and gravel, no organics, no decomposition, no odour
NO= No hydrocarbon odour Decomposition = high/medium/low Organic odour (marshy/swampy)= high/medium/low 1= sheen on water surface 2= sheen on sediment sample						

TABLE A6 - 2009 Sediment Logs

Project: 1584-0901
Iqaluit TC Landfill

Franz Personnel: Ryan Fletcher and Julie Dittburner
Weather: Overcast to partly sunny, 3 to 5 degrees, windy

Sample ID	Coordinates	H ₂ O depth (m)	Organics (%)	Recov. %	Sheen	Comments (Benthic species, colour, grain size, decomposition, odour, Sheen ² , staining, etc..)
	Easting/Northing					
AEC 2 - Vehicle Dump Con't						
AEC2-SD09-6 notes: New for 2009	521998 7067786	0.1	none	100	no	No visible benthos, brown, fine to coarse sand and gravel, no organics, no decomposition, stained orange on sediment surface slight metallic odour
AEC2-SD09-7 notes: @ A2-SD08-4	521960 7067772	0.15	30	100	slight	No visible benthos, reddish brown, fine to coarse sand and gravel very little organics, some decomposition, orangey-red staining on sediment surface, no odour
AEC2-SD09-8 notes: @ A3-SD08-4	521942 7067751	0.1	none	100	no	No visible benthos, dark brown, coarse gravel, some sand, no organics, no decomposition, no odour
AEC2-SD09-9 notes: New for 2009 SD09-DUP1	521928 7067743	0.45	45	100	yes	No benthos visible, light reddish brown, organic matter preset, some sand and gravel, medium decomposition, organic sheen, black staining, slight odour
AEC2-SD09-10 notes: @ A3-SD08-3	521917 7067730	0.3	50	100	slight	No visible benthos, black, fine to coarse, some sand/silt, organic matter, medium decomposition, organic sheen on water surface, no odour
NO= No hydrocarbon odour Decomposition = high/medium/low Organic odour (marshy/swampy)= high/medium/low 1= sheen on water surface 2= sheen on sediment sample						

TABLE A6 - 2009 Sediment Logs

Project: 1584-0901
Iqaluit TC Landfill

Franz Personnel: Ryan Fletcher and Julie Dittburner
Weather: Overcast to partly sunny, 3 to 5 degrees, windy

Sample ID	Coordinates	H ₂ O depth (m)	Organics (%)	Recov. %	Sheen	Comments (Benthic species, colour, grain size, decomposition, odour, Sheen², staining, etc..)
	Easting/Northing					
AEC 2 - Vehicle Dump Con't						
AEC2-SD09-11 notes: New for 2009	521900 7067714	0.25	85	100	no	No visible benthos, brown with black portions, some fine to coarse sand and gravel, organics, high decomposition,no odour
AEC 3 - Landfill						
AEC3-SD09-1 notes: New for 2009	521844 7067802	0.25	none	100	no	No visible benthos, black, fine to coarse sand and gravel, no organics, no decomposition, no odour
AEC3-SD09-2 notes: New for 2209	N/A	0.3	none	100	no	No visible benthos, black, fine to coarse sand, some gravel, no organics, no decomposition, no odour
AEC3-SD09-3 notes: New for 2009	521812 7067777	0.4	none	100	no	No visible benthos, black, fine to coarse sand and gravel, no organics, no decomposition, no odour
AEC 4 - Down-Gradient						
AEC4-SD09-1 notes: @ pond 4 inlet	521868 7067699	0.4	45	100	no	No visible benthos, brown with black colored cells, fine to coarse sand and gravel, some organics, high decomposition, no odour
NO= No hydrocarbon odour Decomposition = high/medium/low Organic odour (marshy/swampy)= high/medium/low 1= sheen on water surface 2= sheen on sediment sample						

TABLE A6 - 2009 Sediment Logs

Project: 1584-0901
Iqaluit TC Landfill

Franz Personnel: Ryan Fletcher and Julie Dittburner
Weather: Overcast to partly sunny, 3 to 5 degrees, windy

Sample ID	Coordinates	H ₂ O depth (m)	Organics (%)	Recov. %	Sheen	Comments (Benthic species, colour, grain size, decomposition, odour, Sheen ² , staining, etc..)
	Easting/Northing					
AEC 4 - Down-Gradient Con't						
AEC4-SD09-2 notes: @ pond 4	521886 7067648	0.3	70	100	no	No visible benthos, black, fine to medium sand and gravel, organics, high decomposition, organic odour, slight organic sheen
AEC4-SD09-3 notes: @ pond 4	521845 7067734	0.45	70	100	no	No visible benthos, black, fine to medium sand and gravel, organics, high decomposition, organic odour, slight organic sheen
AEC4-SD09-4 notes: adjacent to pond 4	N/A	0.25	70	100	no	No visible benthos, black, some sand and silt, high organics, high decomposition, organic odour, no organic sheen
AEC4-SD09-5 notes: adjacent to Silvia Grinnell River	N/A	0.45	60	100	no	No benthos visible, black, medium grained sand, organics, high decomposition, organic odour
AEC4-SD09-12 notes:	N/A	0.3	none	100	no	No benthos visible, brown, fine to coarse grained sand, no organics, no decomposition, no odour, small cells of black sand intermixed
NO= No hydrocarbon odour Decomposition = high/medium/low Organic odour (marshy/swampy)= high/medium/low 1= sheen on water surface 2= sheen on sediment sample						

TABLE A6 - 2009 Sediment Logs

Project: 1584-0901
Iqaluit TC Landfill

Franz Personnel: Ryan Fletcher and Julie Dittburner
Weather: Overcast to partly sunny, 3 to 5 degrees, windy

Sample ID	Coordinates	H ₂ O depth (m)	Organics (%)	Recov. %	Sheen	Comments (Benthic species, colour, grain size, decomposition, odour, Sheen², staining, etc..)
	Easting/Northing					
AEC 4 - Down-Gradient Con't						
AEC4-SD09-11 notes: SD09-DUP2	N/A	0.15	none	100	no	No visible benthos, black/brown, fine to medium sand, no organics, no decomposition, no odour, orange stain on surface of sediments
AEC4-SD09-13 notes:	N/A	0.1	none	100	no	No visible benthos, black/brown, fine to medium sand, no organics, no decomposition, no odour, orange stain on surface of sediments
AEC4-SD09-14 notes:	N/A	0.5	none	100	no	No visible benthos, black/brown, fine to coarse sand, no organics, no decomposition, no odour
AEC4-SD09-15 notes:	N/A	0.5	60	100	slight	No visible benthos, brown, fine to coarse sand/silt, organic matter, high decomposition, organic odour, brown layer of 'mush' on surface of sand

TABLE A7 - 2008 Sediment Logs

SAMPLE ID	WATER DEPTH (m)	ORGANIC MATTER (%)	RECOVERY (%)	DESCRIPTION	ORGANISMS	DEBRIS
APEC 2 - VEHICLE DUMP						
A2-S008-1	0.04	50	100	Brown fine to medium SAND, no odour, trace orange staining	No	No
A2-S008-2	0.04	70	100	Dark grey fine to coarse SAND , some gravel, no odour, orange staining	No	No
A2-S008-3	0.02	10	100	Dark grey fine to coarse SAND and GRAVEL, some odour, orange staining	No	No
A2-S008-4	0.05	60	100	Brown SAND and GRAVEL, organic odour, heavy orange staining	No	No
APEC 3 - LANDFILL						
A3-S008-2	0.4	10	100	Dark grey fine SAND, organic odour	No	No
A3-S008-3	0.5	30	100	Dark grey/black SAND, no odour or sheen	No	No
A3-S008-4	-	-	-	-	-	-
APEC 4 - DOWN-GRADIENT						
A4-SD08-1	0.35	trace	100	Brown/grey fine SAND, no odour or sheen	Shrimps	Metal debris
A4-SD08-2	0.1	10	100	Brown/grey fine to medium SAND, no odour or sheen	Shrimps, fish, algae	Some debris
A4-SD08-3	0.17	trace	100	Brown fine to coarse SAND and GRAVEL, no odour or staining	Fish	No
A4-SD08-4	0.25	0	100	Brown fine to medium SAND, no odour, sheen or staining	Slight algae growth	No
A4-SD08-5	0.32	0	100	Brown fine to medium SAND, no odour, sheen or staining	Slight algae growth	No
A4-SD08-6	0.2	trace	100	Brown fine to medium SAND and GRAVEL, no odour or staining	Fish	No
A4-SD08-8	0.22	5	100	Dark grey fine SAND, no odour, sheen or staining	Fish and algae growth	No