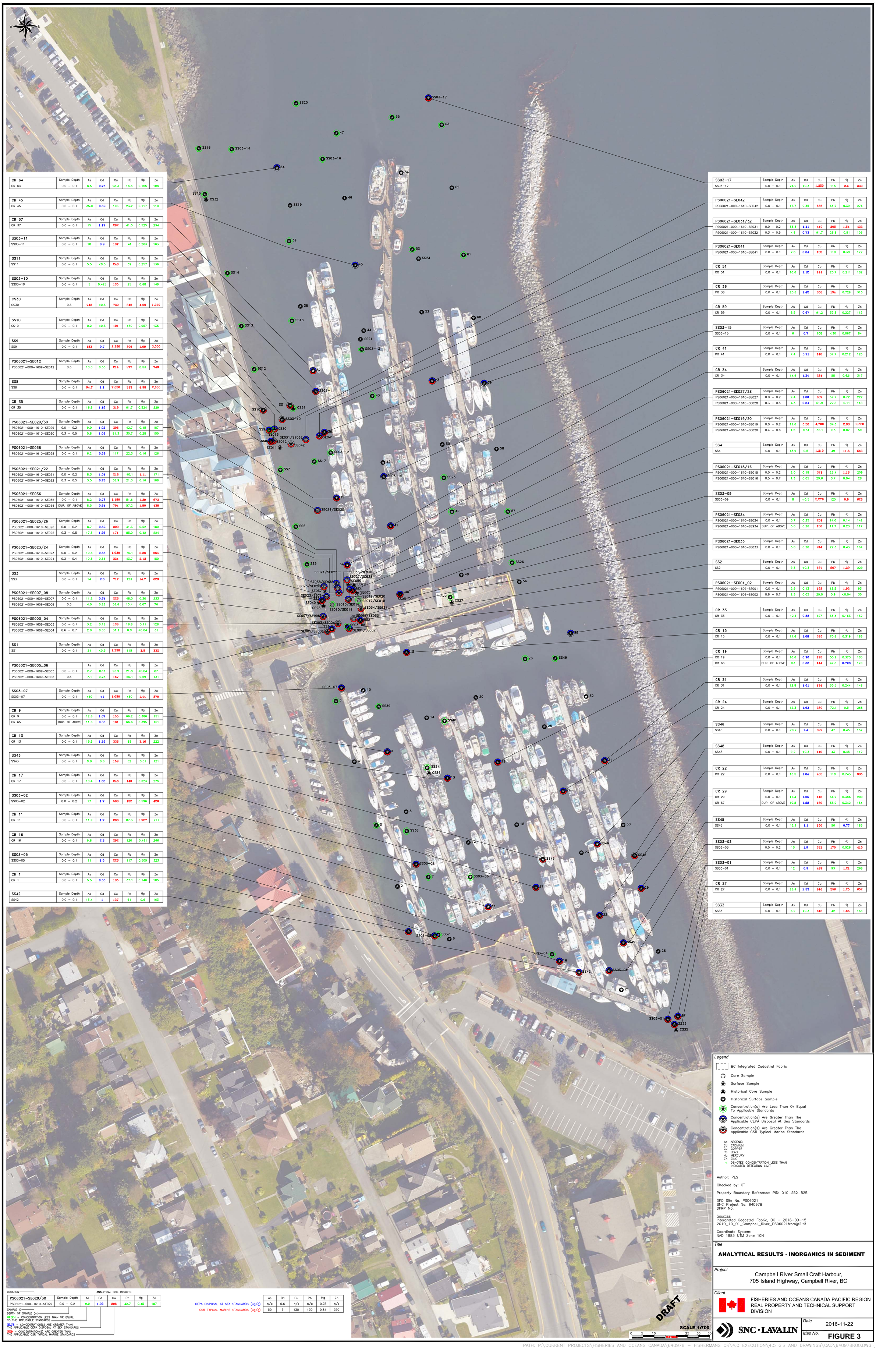


CR 64	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 64	0.0 – 0.1	8.5	0.75	98.3	16.6	0.155	108

CR 45	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 45	0.0 – 0.1	<5.0	0.62	106	23.2	0.117	110

CR 37	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 37	0.0 – 0.1	15	1.19	292	41.5	0.525	234

SS03-11	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-11	0.0 – 0.1	10	0.9	137	41	0.263	163

SS11	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS11	0.0 – 0.1	5.5	<0.3	248	39	0.257	136

SS03-10	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-10	0.0 – 0.1	5	0.425	135	25	0.68	149

CS30	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CS30	0.6	742	<0.3	739	346	4.09	1,270

SS10	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS10	0.0 – 0.1	0.2	<0.3	191	<30	0.057	135

SS9	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS9	0.0 – 0.1	183	0.7	2,350	306	1.09	3,500

PS06021-SE012	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE012	0.3	10.0	0.58	214	277	0.53	749

SS8	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS8	0.0 – 0.1	94.7	1.1	7,820	313	4.98	2,680

CR 35	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 35	0.0 – 0.1	16.9	1.15	319	61.7	0.524	229

PS06021-SE029/30	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE029	0.0 – 0.2	9.0	1.02	206	42.7	0.45	187
PS06021-000-1610-SE030	0.3 – 0.5	5.8	1.08	81.3	30.7	0.28	150

PS06021-SE038	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE038	0.0 – 0.1	6.2	0.69	117	22.3	0.16	126

PS06021-SE021/22	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE021	0.0 – 0.2	8.3	1.01	218	40.1	1.11	171
PS06021-000-1610-SE022	0.3 – 0.5	3.5	0.78	58.9	21.3	0.16	108

PS06021-SE036	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE036	0.0 – 0.1	8.2	0.78	1,180	51.6	1.39	672
PS06021-000-1610-SE936	DUP. OF ABOVE	8.5	0.64	794	57.2	1.80	438

PS06021-SE025/26	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE025	0.0 – 0.2	8.7	0.62	290	41.3	0.62	180
PS06021-000-1610-SE026	0.3 – 0.5	17.3	1.26	174	85.0	0.42	224

PS06021-SE023/24	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE023	0.0 – 0.2	10.8	0.88	1,930	76.1	2.86	554
PS06021-000-1610-SE024	0.3 – 0.4	10.5	0.55	234	43.7	2.12	180

SS3	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS3	0.0 – 0.1	14	2.6	717	123	14.7	629

PS06021-SE007_08	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE007	0.0 – 0.1	11.2	0.74	226	48.0	0.30	233
PS06021-000-1609-SE008	0.5	4.0	0.28	56.6	13.4	0.07	76

PS06021-SE003_04	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE003	0.0 – 0.1	3.2	0.16	138	16.6	0.11	128
PS06021-000-1609-SE004	0.6 – 0.7	2.0	0.05	31.1	0.9	<0.04	31

SS1	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS1	0.0 – 0.1	24	<0.3	1,250	115	2.5	332

PS06021-SE005_06		As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE005	0.0 – 0.1	2.7	0.11	96.9	21.8	<0.04	87
PS06021-000-1609-SE006	0.5	7.1	0.28	167	66.1	0.59	131

SS03-07	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-07	0.0 – 0.1	<10	<1	1,050	<60	1.44	370

CR 9	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 9	0.0 – 0.1	12.6	1.07	155	66.2	0.386	151
CR 65	DUP. OF ABOVE	11.6	0.86	161	66.6	0.395	151

CR 13	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 13	0.0 – 0.1	15.9	1.29	336	85	3.16	222

SS43	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS43	0.0 – 0.1	9.8	0.6	159	62	0.51	121

CR 17	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 17	0.0 – 0.1	10.4	1.53	246	140	0.523	275

SS03-02	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-02	0.0 – 0.2	17	1.7	560	132	0.596	420

CR 11	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 11	0.0 – 0.1	11.9	1.7	266	87.3	0.927	271

CR 16	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 16	0.0 – 0.1	9.8	2.3	292	120	0.491	266

SS03-05	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-05	0.0 – 0.1	11	1.5	226	117	0.509	323

CR 1	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 1	0.0 – 0.1	5.5	0.66	135	37.1	0.146	105

SS42	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS42	0.0 – 0.1	13.4	1	137	64	0.6	163

SS03-17	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-17	0.0 – 0.1	24.0	<0.3	1,250	115	2.5	332

PS06021-SE042	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE042	0.0 – 0.1	17.7	0.35	566	63.2	0.39	276

PS06021-SE031/32	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE031	0.0 – 0.2	35.3	1.41	440	205	1.54	433
PS06021-000-1610-SE032	0.3 – 0.5	4.6	0.73	91.7	23.8	0.51	105

PS06021-SE041	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE041	0.0 – 0.1	7.8	0.84	133	119	0.38	172

CR 51	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 51	0.0 – 0.1	10.6	1.12	141	25.7	0.211	182

CR 36	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 36	0.0 – 0.1	20.8	1.42	358	134	0.729	315

CR 59	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 59	0.0 – 0.1	6.5	0.67	91.2	32.8	0.227	112

SS03-15	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-15	0.0 – 0.1	6	0.7	108	<30	0.067	84

CR 41	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 41	0.0 – 0.1	7.4	0.71	140	37.7	0.212	123

CR 34	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 34	0.0 – 0.1	14.9	1.24	281	58	0.621	317

PS06021-SE027/28	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE027	0.0 – 0.2	9.4	1.00	667	59.7	0.72	222
PS06021-000-1610-SE028	0.3 – 0.5	4.3	0.84	61.9	22.8	0.11	118

PS06021-SE019/20	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE019	0.0 – 0.2	11.6	5.28	4,700	84.3	2.93	2,620
PS06021-000-1610-SE020	0.4 – 0.6	1.5	0.31	36.1	9.3	0.07	59

SS4	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS4	0.0 – 0.1	13.9	0.5	1,210	49	11.6	563

PS06021-SE015/16	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE015	0.0 – 0.2	2.0	0.18	321	25.4	1.16	209
PS06021-000-1610-SE016	0.5 – 0.7	1.3	0.05	29.6	0.7	0.04	28

SS03-09	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-09	0.0 – 0.1	8	<0.5	2,270	125	0.9	628

PS06021-SE034	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE034	0.0 – 0.1	3.7	0.25	201	14.0	0.14	142
PS06021-000-1610-SE934	DUP. OF ABOVE	3.0	0.26	136	11.7	0.23	117

PS06021-SE033	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE033	0.0 – 0.1	3.0	0.20	244	22.3	0.43	164

SS2	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS2	0.0 – 0.1	9.3	<0.3	667	567	1.29	229

PS06021-SE001_02	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE001	0.0 – 0.1	2.9	0.13	193	13.5	1.93	93
PS06021-000-1609-SE002	0.6 – 0.7	2.3	0.05	29.0	0.9	<0.04	30

CR 33	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 33	0.0 – 0.1	12.1	0.83	127	33.4	0.163	132

CR 15	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 15	0.0 – 0.1	11.6	1.08	395	70.8	0.319	183

CR 19	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 19	0.0 – 0.1	10.6	0.96	195	53.9	0.373	185
CR 66	DUP. OF ABOVE	9.1	0.88	144	47.8	0.798	170

CR 31	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 31	0.0 – 0.1	12.8	1.01	134	35.5	0.244	148

CR 24	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 24	0.0 – 0.1	12.3	1.63	280	72.1	0.5	268

SS46	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS46	0.0 – 0.1	<0.2	1.4	329	47	0.45	157

SS48	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS48	0.0 – 0.1	9.2	<0.3	140	43	0.45	112

CR 22	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 22	0.0 – 0.1	16.5	1.84	403	119	0.743	335

CR 29	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 29	0.0 – 0.1	11.4	1.05	145	64.2	0.386	200
CR 67	DUP. OF ABOVE	10.8	1.22	150	58.9	0.342	154

SS45	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS45	0.0 – 0.1	12.1	1.1	150	56	0.77	185

SS03-03	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-03	0.0 – 0.2	13	1.9	332	170	0.526	415

SS03-01	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS03-01	0.0 – 0.1	12	0.9	497	93	1.21	268

CR 27	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
CR 27	0.0 – 0.1	26.4	2.53	916	256	1.25	652

SS33	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
SS33	0.0 – 0.1	6.2	<0.3	613	42	1.65	168

LOCATION

PS06021-SE029/30	Sample Depth	As	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE029	0.0 – 0.2	9.0	1.02	206	42.7	0.45	187

ANALYTICAL SOIL RESULTS

SAMPLE ID

DEPTH OF SAMPLE (m)

GREEN – CONCENTRATION LESS THAN OR EQUAL TO THE APPLICABLE STANDARDS

BLUE – CONCENTRATION(S) ARE GREATER THAN THE APPLICABLE CEPA DISPOSAL AT SEA STANDARDS

RED – CONCENTRATION(S) ARE GREATER THAN THE APPLICABLE CSR TYPICAL MARINE STANDARDS

	As	Cd	Cu	Pb	Hg	Zn
CEPA DISPOSAL AT SEA STANDARDS (µg/g)	n/a	0.6	n/a	n/a	0.75	n/a
CSR TYPICAL MARINE STANDARDS (µg/g)	50	5	130	130	0.84	330

Legend

- BC Integrated Cadastral Fabric
- Core Sample
- Surface Sample
- Historical Core Sample
- Historical Surface Sample
- Concentration(s) Are Less Than Or Equal To Applicable Standards
- Concentration(s) Are Greater Than The Applicable CEPA Disposal At Sea Standards
- Concentration(s) Are Greater Than The Applicable CSR Typical Marine Standards

As ARSENIC
Cd CADMIUM
Cu COPPER
Pb LEAD
Hg MERCURY
Zn ZINC
< DENOTES CONCENTRATION LESS THAN INDICATED DETECTION LIMIT

Author: PES

Checked by: CT

Property Boundary Reference: PID: 010–252–525

DFO Site No. PS06021
SNC Project No. 640978
DFRP No.

Sources
Intergrated Cadastral Fabric, BC – 2016–09–15
2010_10_01_Campbell_River_PS06021fromjp2.tif

Coordinate System:
NAD 1983 UTM Zone 10N

Title

ANALYTICAL RESULTS - INORGANICS IN SEDIMENT

Project

Campbell River Small Craft Harbour,
705 Island Highway, Campbell River, BC

Client

FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

SNC·LAVALIN

Date 2016-11-22

Map No. **FIGURE 3**

PATH: P:\CURRENT PROJECTS\FISHERIES AND OCEANS CANADA\640978 – FISHERMANS CR\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\640978R00.DWG

SS03-14	Sample Depth	PAHs	Total PAH
SS03-14	0.0 – 0.1	<CSR	2.56

CR 64	Sample Depth	PAHs	Total PAH
CR 64	0.0 – 0.1	>CSR	5.28

CR 39	Sample Depth	PAHs	Total PAH
CR 39	0.0 – 0.1	>CSR	3.08

CR 45	Sample Depth	PAHs	Total PAH
CR 45	0.0 – 0.1	<CSR	4.45

SS21	Sample Depth	PAHs	Total PAH
SS21	0.0 – 0.1	>CSR	8.3

SS03-13	Sample Depth	PAHs	Total PAH
SS03-13	0.0 – 0.1	>CSR	8.49

CR 37	Sample Depth	PAHs	Total PAH
CR 37	0.0 – 0.1	>CSR	12.29

SS03-11	Sample Depth	PAHs	Total PAH
SS03-11	0.0 – 0.1	>CSR	11.1

SS03-10	Sample Depth	PAHs	Total PAH
SS03-10	0.0 – 0.1	>CSR	19.2

SS10	Sample Depth	PAHs	Total PAH
SS10	0.0 – 0.1	<CSR	2.92

SS9	Sample Depth	PAHs	Total PAH
SS9	0.0 – 0.1	>CSR	30.9
SS9 (Dup2)	DUP. OF ABOVE	>CSR	30

SS8	Sample Depth	PAHs	Total PAH
SS8	0.0 – 0.1	>CSR	4.77

SS17	Sample Depth	PAHs	Total PAH
SS17	0.0 – 0.1	>CSR	6.64

SS7	Sample Depth	PAHs	Total PAH
SS7	0.0 – 0.1	<CSR	7.97

CR 35	Sample Depth	PAHs	Total PAH
CR 35	0.0 – 0.1	>CSR	10.36

SS6	Sample Depth	PAHs	Total PAH
SS6	0.0 – 0.1	<CSR	3.61

CR 34	Sample Depth	PAHs	Total PAH
CR 34	0.0 – 0.1	>CSR	20.34

SS3	Sample Depth	PAHs	Total PAH
SS3	0.0 – 0.1	>CSR	354

PS06021-SE003_04	Sample Depth	PAHs	Total PAH
PS06021-000-1609-SE003	0.0 – 0.1	>CSR	264

CR 1	Sample Depth	PAHs	Total PAH
CR 1	0.0 – 0.1	>CSR	12.55

SS03-07	Sample Depth	PAHs	Total PAH
SS03-07	0.0 – 0.1	>CSR	6.29

CR 5	Sample Depth	PAHs	Total PAH
CR 5	0.0 – 0.1	<CSR	3.04

CR 13	Sample Depth	PAHs	Total PAH
CR 13	0.0 – 0.1	>CSR	12.90

CR 9	Sample Depth	PAHs	Total PAH
CR 9	0.0 – 0.1	>CSR	7.29
CR 65	DUP. OF ABOVE	>CSR	9.33

SS34	Sample Depth	PAHs	Total PAH
SS34	0.0 – 0.1	>CSR	14.3

CR 3	Sample Depth	PAHs	Total PAH
CR 3	0.0 – 0.1	<CSR	6.54

SS03-06	Sample Depth	PAHs	Total PAH
SS03-06	0.0 – 0.1	>CSR	10.4

CR 7	Sample Depth	PAHs	Total PAH
CR 7	0.0 – 0.1	>CSR	4.25

CR 11	Sample Depth	PAHs	Total PAH
CR 11	0.0 – 0.1	>CSR	25.74

SS03-04	Sample Depth	PAHs	Total PAH
SS03-04	0.0 – 0.1	>CSR	100

SS37	Sample Depth	PAHs	Total PAH
SS37	0.0 – 0.1	<CSR	3.14

SS03-05	Sample Depth	PAHs	Total PAH
SS03-05	0.0 – 0.1	<CSR	3.98

SS1	Sample Depth	PAHs	Total PAH
SS1	0.0 – 0.1	>CSR	28.1

CR 55	Sample Depth	PAHs	Total PAH
CR 55	0.0 – 0.1	<CSR	5.09

CR 47	Sample Depth	PAHs	Total PAH
CR 47	0.0 – 0.1	<CSR	5.35

SS03-16	Sample Depth	PAHs	Total PAH
SS03-16	0.0 – 0.1	<CSR	2.68

CR 43	Sample Depth	PAHs	Total PAH
CR 43	0.0 – 0.1	<CSR	3.73

CR 51	Sample Depth	PAHs	Total PAH
CR 51	0.0 – 0.1	>CSR	8.65

CR 36	Sample Depth	PAHs	Total PAH
CR 36	0.0 – 0.1	>CSR	14.76

CR 59	Sample Depth	PAHs	Total PAH
CR 59	0.0 – 0.1	<CSR	3.67

SS03-12	Sample Depth	PAHs	Total PAH
SS03-12	0.0 – 0.1	>CSR	7.42

SS03-15	Sample Depth	PAHs	Total PAH
SS03-15	0.0 – 0.1	<CSR	5.25

CR 41	Sample Depth	PAHs	Total PAH
CR 41	0.0 – 0.1	>CSR	7.06

CR 49	Sample Depth	PAHs	Total PAH
CR 49	0.0 – 0.1	<CSR	3.17
CR 69	DUP. OF ABOVE	>CSR	7.89

CR 57	Sample Depth	PAHs	Total PAH
CR 57	0.0 – 0.1	<CSR	2.66

SS4	Sample Depth	PAHs	Total PAH
SS4	0.0 – 0.1	>CSR	82

SS03-09	Sample Depth	PAHs	Total PAH
SS03-09	0.0 – 0.1	<CSR	4.08

SS26	Sample Depth	PAHs	Total PAH
SS26	0.0 – 0.1	>CSR	10.6

SS2	Sample Depth	PAHs	Total PAH
SS2	0.0 – 0.1	>CSR	49.8

SS22	Sample Depth	PAHs	Total PAH
SS22	0.0 – 0.1	<CSR	3.88
SS22 (Dup4)	DUP. OF ABOVE	<CSR	5.99

SS03-08	Sample Depth	PAHs	Total PAH
SS03-08	0.0 – 0.1	>CSR	33.1

CR 15	Sample Depth	PAHs	Total PAH
CR 15	0.0 – 0.1	>CSR	39.48

CR 33	Sample Depth	PAHs	Total PAH
CR 33	0.0 – 0.1	<CSR	5.66

CR 26	Sample Depth	PAHs	Total PAH
CR 26	0.0 – 0.1	<CSR	4.71

CR 19	Sample Depth	PAHs	Total PAH
CR 19	0.0 – 0.1	<CSR	5.46
CR 66	DUP. OF ABOVE	>CSR	8.15

CR 24	Sample Depth	PAHs	Total PAH
CR 24	0.0 – 0.1	>CSR	9.95

CR 31	Sample Depth	PAHs	Total PAH
CR 31	0.0 – 0.1	<CSR	4.84

CR 17	Sample Depth	PAHs	Total PAH
CR 17	0.0 – 0.1	>CSR	13.76

CR 16	Sample Depth	PAHs	Total PAH
CR 16	0.0 – 0.1	>CSR	29.10

SS48	Sample Depth	PAHs	Total PAH
SS48	0.0 – 0.1	<CSR	4.83

CR 22	Sample Depth	PAHs	Total PAH
CR 22	0.0 – 0.1	>CSR	13.85

CR 29	Sample Depth	PAHs	Total PAH
CR 29	0.0 – 0.1	<CSR	4.51
CR 67	DUP. OF ABOVE	<CSR	4.84

SS45	Sample Depth	PAHs	Total PAH
SS45	0.0 – 0.1	<CSR	4.89

SS03-03	Sample Depth	PAHs	Total PAH
SS03-03	0.0 – 0.2	>CSR	12.2

SS03-01	Sample Depth	PAHs	Total PAH
SS03-01	0.0 – 0.1	>CSR	85.0

CR 27	Sample Depth	PAHs	Total PAH
CR 27	0.0 – 0.1	>CSR	16.69

SS33	Sample Depth	PAHs	Total PAH
SS33	0.0 – 0.1	>CSR	23.6

LOCATION

ANALYTICAL SOIL RESULTS

SS8	Sample Depth	PAHs	Total PAH
SS8	0.0 – 0.1	>CSR	4.77

SAMPLE ID
DEPTH OF SAMPLE (m)
RED – CONCENTRATION(S) ARE GREATER THAN THE APPLICABLE CSR TYPICAL MARINE STANDARDS
BLUE – CONCENTRATION(S) ARE GREATER THAN THE APPLICABLE CEPA DISPOSAL AT SEA STANDARDS
GREEN – CONCENTRATION LESS THAN OR EQUAL TO THE APPLICABLE STANDARDS

	PAHs	Total PAH
CEPA DISPOSAL AT SEA STANDARDS (µg/g)	SEE TABLES	2.5
CSR TYPICAL MARINE STANDARDS (µg/g)	SEE TABLES	20

DRAFT

SCALE 1:700

0 5 10 25 30 35 METRES

Legend

- BC Integrated Cadastral Fabric
- Core Sample
- Surface Sample
- Historical Core Sample
- Historical Surface Sample
- Concentration(s) Are Less Than Or Equal To Applicable Standards
- Concentration(s) Are Greater Than The Applicable CEPA Disposal At Sea Standards
- Concentration(s) Are Greater Than The Applicable CSR Typical Marine Standards

PAHs POLYCYCLIC AROMATIC HYDROCARBONS
< DENOTES CONCENTRATION LESS THAN INDICATED DETECTION LIMIT

Author: PES

Checked by: CT

Property Boundary Reference: PID: 010-252-525

DFO Site No. PS06021
SNC Project No. 640978
DFRP No.

Sources
Intergrated Cadastral Fabric, BC – 2016-09-15
2010_10_01_Campbell_River_PS06021fromjp2.tif

Coordinate System:
NAD 1983 UTM Zone 10N

Title

ANALYTICAL RESULTS - PAHs IN SEDIMENT

Project

Campbell River Small Craft Harbour,
705 Island Highway, Campbell River, BC

Client

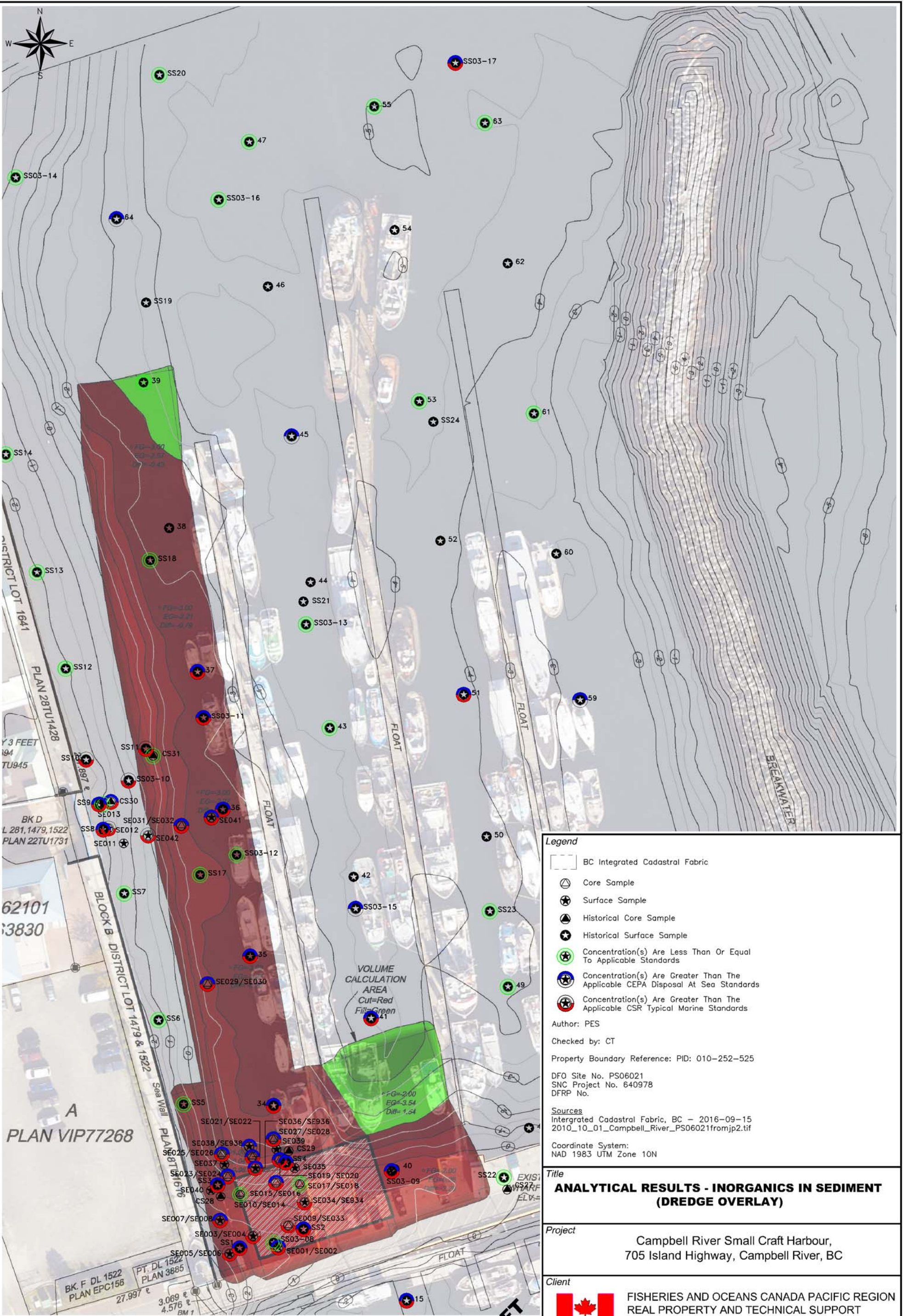
FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

SNC·LAVALIN

Date 2016-11-22

Map No. **FIGURE 4**

PATH: P:\CURRENT PROJECTS\FISHERIES AND OCEANS CANADA\640978 – FISHERMANS CR\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\640978R00.DWG



Legend

- BC Integrated Cadastral Fabric
- Core Sample
- Surface Sample
- Historical Core Sample
- Historical Surface Sample
- Concentration(s) Are Less Than Or Equal To Applicable Standards
- Concentration(s) Are Greater Than The Applicable CEPA Disposal At Sea Standards
- Concentration(s) Are Greater Than The Applicable CSR Typical Marine Standards

Author: PES

Checked by: CT

Property Boundary Reference: PID: 010-252-525

DFO Site No. PS06021
SNC Project No. 640978
DFRP No.

Sources
Intergrated Cadastral Fabric, BC – 2016-09-15
2010_10_01_Campbell_River_PS06021fromjp2.tif

Coordinate System:
NAD 1983 UTM Zone 10N

Title

ANALYTICAL RESULTS - INORGANICS IN SEDIMENT (DREDGE OVERLAY)

Project

Campbell River Small Craft Harbour,
705 Island Highway, Campbell River, BC

Client

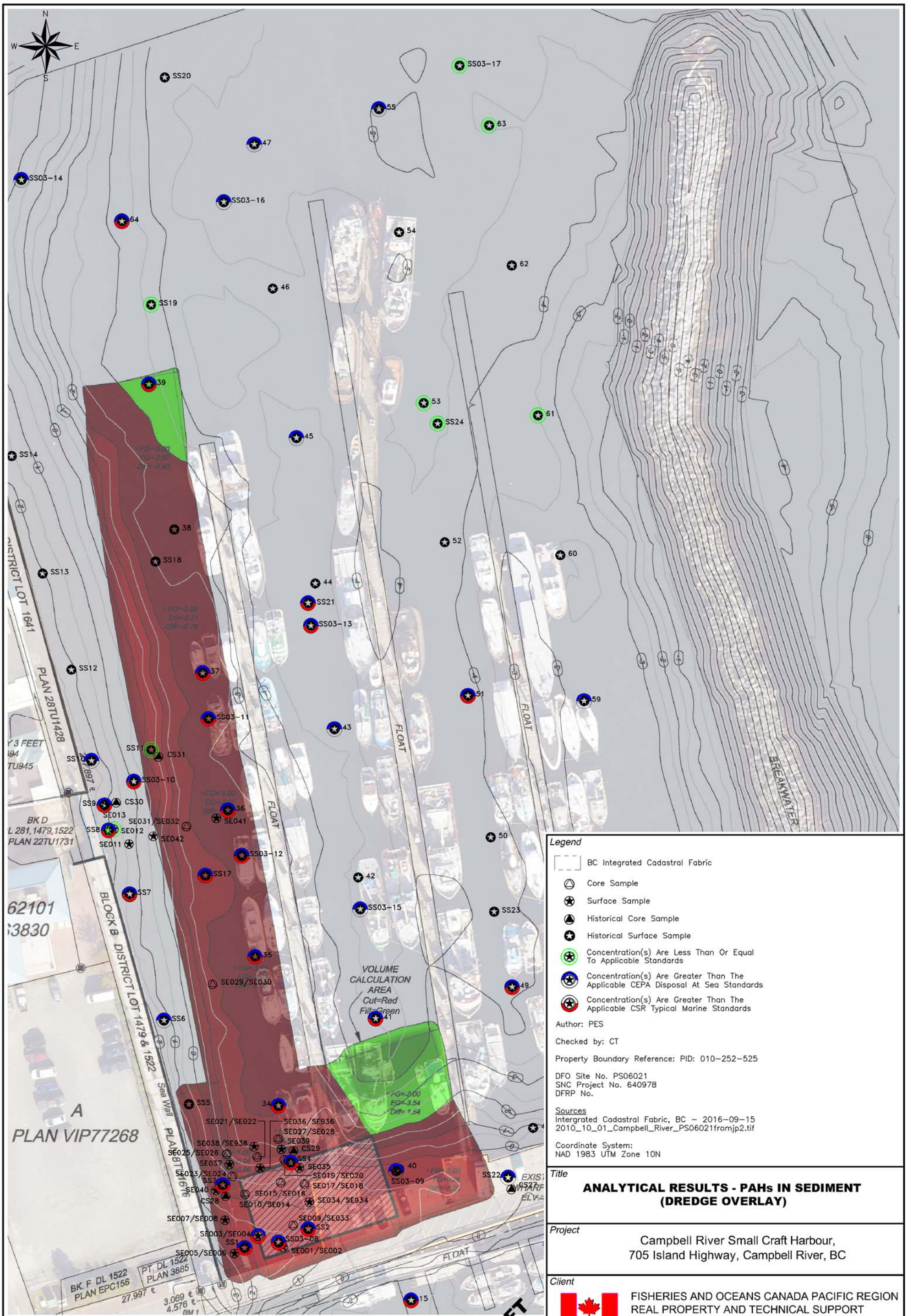
FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

SNC·LAVALIN

Date 2016-11-22

Map No. **FIGURE 5**

PATH: P:\CURRENT PROJECTS\FISHERIES AND OCEANS CANADA\640978 – FISHERMANS CR\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\640978R00.DWG



Legend

- BC Integrated Cadastral Fabric
- Core Sample
- Surface Sample
- Historical Core Sample
- Historical Surface Sample
- Concentration(s) Are Less Than Or Equal To Applicable Standards
- Concentration(s) Are Greater Than The Applicable CEPA Disposal At Sea Standards
- Concentration(s) Are Greater Than The Applicable CSR Typical Marine Standards

Author: PES

Checked by: CT

Property Boundary Reference: PID: 010-252-525

DFO Site No. PS06021
SNC Project No. 640978
DFRP No.

Sources
Intergrated Cadastral Fabric, BC - 2016-09-15
2010_10_01_Campbell_River_PS06021fromjp2.tif

Coordinate System:
NAD 1983 UTM Zone 10N

Title

ANALYTICAL RESULTS - PAHs IN SEDIMENT (DREDGE OVERLAY)

Project

Campbell River Small Craft Harbour,
705 Island Highway, Campbell River, BC

Client

FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

SNC·LAVALIN

Date 2016-11-22

Map No. **FIGURE 6**

PATH: P:\CURRENT PROJECTS\FISHERIES AND OCEANS CANADA\640978 - FISHERMANS CR\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\640978R00.DWG

PS06021-SE014	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE014	0.1 – 0.2	0.06	30.9	4.2	<0.04	110

PS06021-SE023/24	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE023	0.0 – 0.2	0.88	1,930	76.1	2.86	554
PS06021-000-1610-SE024	0.3 – 0.4	0.55	234	43.7	2.12	180

PS06021-SE025/26	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE025	0.0 – 0.2	0.62	290	41.3	0.62	180

PS06021-SE007/08	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE007	0.0 – 0.1	0.74	226	48.0	0.30	233
PS06021-000-1609-SE008	0.5	0.28	56.6	13.4	0.07	76

PS06021-SE005/06	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE005	0.0 – 0.1	0.11	96.9	21.8	<0.04	87
PS06021-000-1609-SE006	0.5	0.28	167	66.1	0.59	131

PS06021-SE029/30	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE029	0.0 – 0.2	1.02	206	42.7	0.45	187
PS06021-000-1610-SE030	0.3 – 0.5	1.08	81.3	30.7	0.28	150

PS06021-SE012	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE012	0.3	0.58	214	277	0.53	749

PS06021-SE013	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE013	0.3	0.12	57.3	61.9	0.15	85

PS06021-SE042	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE042	0.0 – 0.1	0.35	566	63.2	0.39	276

PS06021-SE031/32	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE031	0.0 – 0.2	1.41	440	205	1.54	433
PS06021-000-1610-SE032	0.3 – 0.5	0.73	91.7	23.8	0.51	105

PS06021-SE041	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE041	0.0 – 0.1	0.84	133	119	0.38	172

PS06021-SE003/04	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE003	0.0 – 0.1	0.16	138	16.6	0.11	128
PS06021-000-1609-SE004	0.6 – 0.7	0.05	31.1	0.9	<0.04	31

PS06021-SE038	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE038	0.0 – 0.1	0.69	117	22.3	0.16	126

PS06021-SE021/22	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE021	0.0 – 0.2	1.01	218	40.1	1.11	171
PS06021-000-1610-SE022	0.3 – 0.5	0.78	58.9	21.3	0.16	108

PS06021-SE036	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE036	0.0 – 0.1	0.78	1,180	51.6	1.39	672
PS06021-000-1610-SE936	DUP. OF ABOVE	0.64	794	57.2	1.80	438

PS06021-SE015/16	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE015	0.0 – 0.2	0.18	321	25.4	1.16	209
PS06021-000-1610-SE016	0.5 – 0.7	0.05	29.6	0.7	0.04	28

PS06021-SE027/28	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE027	0.0 – 0.2	1.00	667	59.7	0.72	222

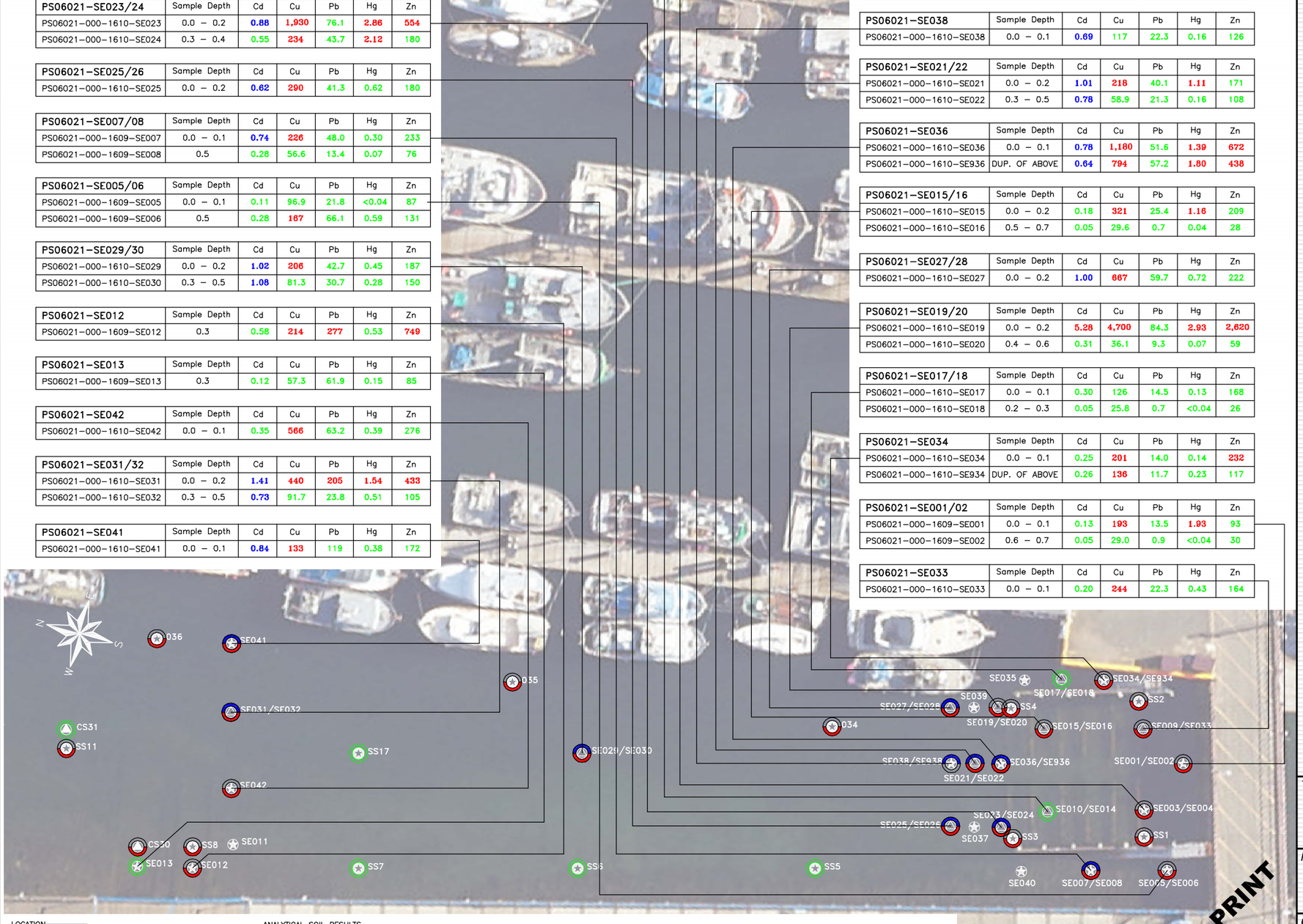
PS06021-SE019/20	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE019	0.0 – 0.2	5.28	4,700	84.3	2.93	2,620
PS06021-000-1610-SE020	0.4 – 0.6	0.31	36.1	9.3	0.07	59

PS06021-SE017/18	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE017	0.0 – 0.1	0.30	126	14.5	0.13	168
PS06021-000-1610-SE018	0.2 – 0.3	0.05	25.8	0.7	<0.04	26

PS06021-SE034	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE034	0.0 – 0.1	0.25	201	14.0	0.14	232
PS06021-000-1610-SE934	DUP. OF ABOVE	0.26	136	11.7	0.23	117

PS06021-SE001/02	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1609-SE001	0.0 – 0.1	0.13	193	13.5	1.93	93
PS06021-000-1609-SE002	0.6 – 0.7	0.05	29.0	0.9	<0.04	30

PS06021-SE033	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE033	0.0 – 0.1	0.20	244	22.3	0.43	164



LOCATION

ANALYTICAL SOIL RESULTS

PS06021-SE036	Sample Depth	Cd	Cu	Pb	Hg	Zn
PS06021-000-1610-SE036	0.0 – 0.1	0.78	1,180	51.6	1.39	672

SAMPLE ID
DEPTH OF SAMPLE (m)
BLUE – CONCENTRATION(S) ARE GREATER THAN THE APPLICABLE CEPA DISPOSAL AT SEA STANDARDS
GREEN – CONCENTRATION LESS THAN OR EQUAL TO THE APPLICABLE STANDARDS
RED – CONCENTRATION(S) ARE GREATER THAN THE APPLICABLE CSR TYPICAL MARINE STANDARDS

	Cd	Cu	Pb	Hg	Zn
CEPA DISPOSAL AT SEA STANDARDS (µg/g)	0.6	n/a	n/a	0.75	n/a
CSR TYPICAL MARINE STANDARDS (µg/g)	5	130	130	0.84	330

Legend

- BC Integrated Cadastral Fabric
- Core Sample
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- Historical Core Sample
- Historical Surface Sample
- Concentration(s) Are Less Than Or Equal To Applicable Standards
- Concentration(s) Are Greater Than The Applicable CEPA Disposal At Sea Standards
- Concentration(s) Are Greater Than The Applicable CSR Typical Marine Standards

Cd CADMIUM
Cu COPPER
Pb LEAD
Hg MERCURY
Zn ZINC
< DENOTES CONCENTRATION LESS THAN INDICATED DETECTION LIMIT

Author: PES

Checked by: CT

Property Boundary Reference: PID: 010-252-525

DFO Site No. PS06021
SNC Project No. 640978
DFRP No.

Sources
Intergrated Cadastral Fabric, BC – 2016-09-15
2010_10_01_Campbell_River_PS06021fromjp2.tif

Coordinate System:
NAD 1983 UTM Zone 10N

Title

ANALYTICAL RESULTS - INORGANICS IN SOIL

Project

Campbell River Small Craft Harbour,
705 Island Highway, Campbell River, BC

Client

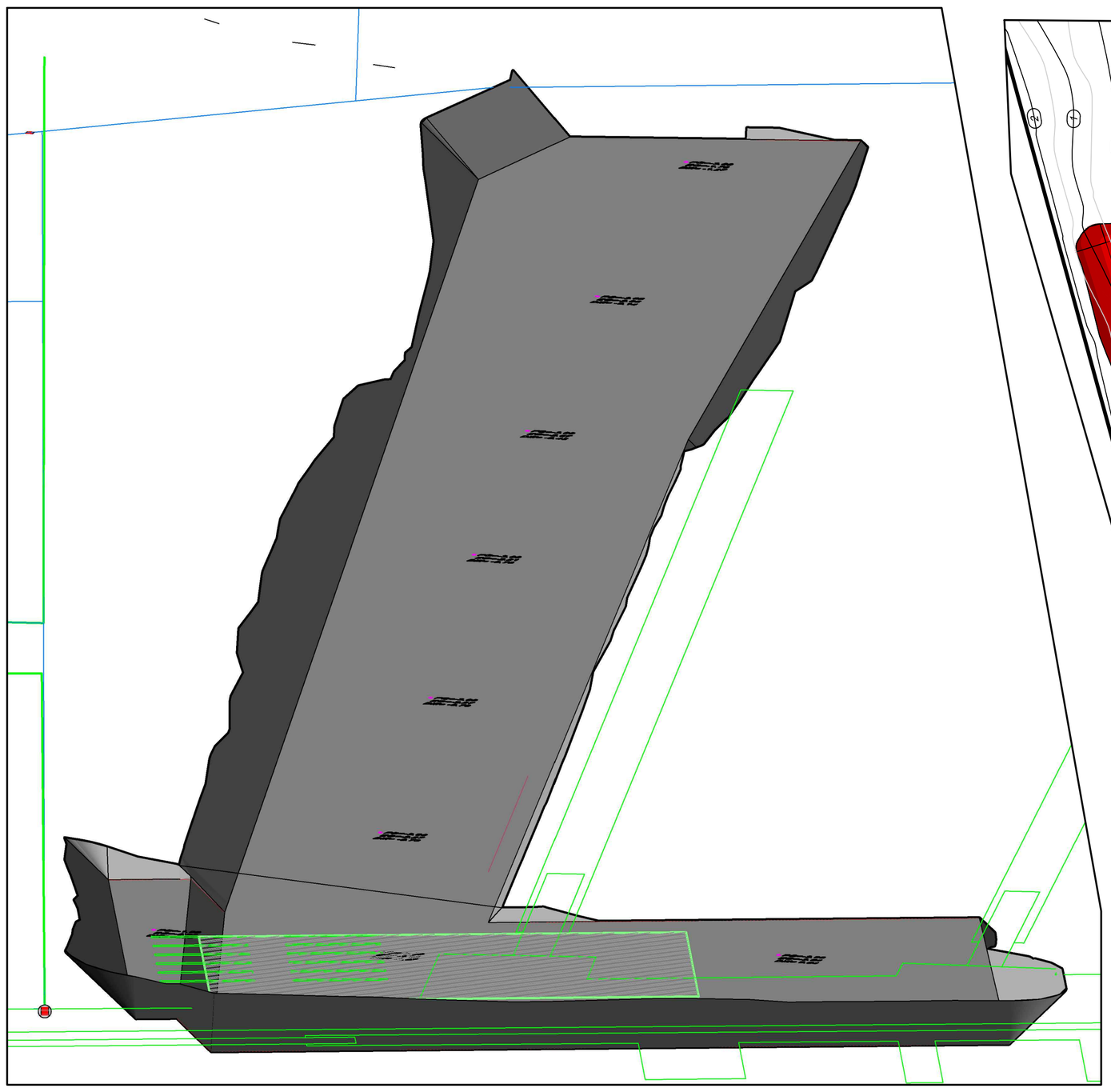
FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

SNC·LAVALIN

Date 2016-10-27

Map No. **FIGURE 2**

PATH: P:\CURRENT PROJECTS\FISHERIES AND OCEANS CANADA\640978 – FISHERMANS CR\4.0 EXECUTION\4.5 GIS AND DRAWINGS\CAD\640978R00.DWG



DETAIL
SCALE 1:300

Volume

Base Surface	EG (Existing Ground)
Comparison Surface	Grading Group 1
Cut volume (unadjusted)	7375.78 Cu. M.
Fill volume (unadjusted)	464.51 Cu. M.
Net volume (unadjusted)	6911.28 Cu. M.<Cut>

SMALL CRAFT HARBOURS

SKETCH PLAN SHOWING GRADING SURFACE AND VOLUME CALCULATION FOR PROPOSED COAST GUARD FLOAT CAMPBELL RIVER BOAT BASIN

DISTRICT LOT 1479, SAYWARD DISTRICT

10 0 10 20 30 40 50 metres

1:500

GRANT LAND SURVEYING

78Bathy.dwg

Date of Survey: Dec. 22/14

Legend

FG=	denotes finished ground elevation
EG=	denotes existing ground elevation
Diff=	denotes elevation difference
◉	denotes standard rock post found
■	denotes standard lead plug found
●	denotes standard iron post found

Contour Interval = 0.5m
All distances are in metres and decimals thereof.

Bearings are NAD 83 grid bearings, derived from differential GPS observations to Integrated Control Monuments 87H3757 and 87H3758 and are referred to the central meridian of Zone 10 (123° West). To obtain local astronomic bearings referred to the meridian through 87H3758, subtract 1°42'55".

Horizontal distances are ground level. To obtain grid distances multiply by mean project combined scale factor of 0.99991724 Elevations on this plan are referred to Chart Datum derived from Canadian Hydrographic Service published difference between Chart and Geodetic. To transform elevations to Geodetic subtract 2.9 m from elevations shown.

GRANT LAND SURVEYING INC.
1-1841 COMOX AVENUE
COMOX, B.C. V9M 3M3
WWW.GRANTGEOMATICS.COM

Keystone Environmental

NOTES:
1. *THIS DRAWING IS FOR GENERAL INFORMATION ONLY. LOT BOUNDARIES AND FEATURES ARE APPROXIMATE.*
2. *DATE OF AERIAL PHOTO IS 2014.*
3. *BATHYMETRY BASED ON VJA ENGINEERING DRAWING; PROJECT NO. 215134, SHEET 001.*
4. *ELEVATIONS ARE IN METERS AND ARE TO TIDE AND CHART DATUM.*
5. *HIGH WATER LEVEL IS +4.8m, LOW WATER LEVEL IS 0.2m.*

10m 0 50m

SCALE: 1:1000(approx.)

Campbell River Harbour
Campbell River, B C
Small Craft Harbours

REVISION No.	DATE	PROJECT No.
00	Mar. 2016	12914-102

Figure 2
General Arrangement Plan

PLOT SCALE: 1:1 DRAWN BY: AB CADD FILE No. 12914\Figures\Fig2-General Arrangement Plan-R0.dwg

TABLE 1: Sediment Sample Log
Campbell River Small Craft Harbour

Sample ID	Sample Date (yyyy mm dd)	Sample Type	Description	North (m)	East (m)	Depth (m)	Headspace (ppm)
PS06021-000-1609-SE001	2016 09 29	Sediment	SAND, fine to medium grained, trace gravel, fine, subrounded, black, medium dense, moist to wet, trace shells.	5543530.7	339637.2	0.0-0.1	-
PS06021-000-1609-SE002	2016 09 29	Sediment	SAND, fine grained, brown, medium dense, wet.	5543530.7	339637.2	0.6-0.7	-
PS06021-000-1609-SE003	2016 09 29	Sediment	SAND, fine to medium grained, trace gravel, fine, subrounded, black, medium dense, moist to wet, trace shells, trace sheen.	5543533.0	339632.1	0.0-0.1	0
PS06021-000-1609-SE004	2016 09 29	Sediment	SAND, fine grained, brown, medium dense, wet.	5543533.0	339632.1	0.6-0.7	-
PS06021-000-1609-SE005	2016 09 29	Sediment	COBBLES, gravelly, fine and coarse, subangular, some sand, fine grained, brown, dense, wet.	5543529.4	339627.4	0.0-0.1	-
PS06021-000-1609-SE006	2016 09 29	Sediment	COBBLES, gravelly, fine and coarse, subangular, some sand, fine grained, black, dense, wet.	5543529.4	339627.4	0.5	-
PS06021-000-1609-SE007	2016 09 29	Sediment	COBBLES, gravelly, fine and coarse, subangular, some sand, fine grained, dark grey, dense, wet, trace shells.	5543536.1	339625.5	0.0-0.1	-
PS06021-000-1609-SE008	2016 09 29	Sediment	COBBLES, gravelly, fine and coarse, subangular, some sand, fine grained, grey, dense, wet.	5543536.1	339625.5	0.5	-
PS06021-000-1609-SE009	2016 09 29	Sediment	SAND, coarse grained, trace cobbles, black, loose, wet, some shells.	5543535.1	339639.2	0.0-0.1	-
PS06021-000-1609-SE010	2016 09 29	Sediment	SAND, coarse grained, trace cobbles, black, loose, wet, some shells.	5543541.4	339629.5	0.0-0.1	-
PS06021-000-1609-SE910	2016 09 29	Sediment	Blind field duplicate of PS06021-000-1609-SE010.	5543541.4	339629.5	0.0-0.1	-
PS06021-000-1609-SE011	2016 09 29	Sediment	GRAVEL, coarse, subrounded, some sand, fine to medium grained, brown, medium dense, wet, trace shells.	5543612.2	339606.1	0.3	-
PS06021-000-1609-SE012	2016 09 29	Sediment	GRAVEL, coarse, subrounded, some sand, fine to medium grained, brown, medium dense, wet, trace shells.	5543615.2	339603.0	0.3	-
PS06021-000-1609-SE013	2016 09 29	Sediment	GRAVEL, coarse, subrounded, some sand, fine to medium grained, brown, medium dense, wet, trace shells.	5543620.1	339601.7	0.3	-
PS06021-000-1610-SE033	2016 10 14	Sediment	SILT and SAND, trace gravel, fine, dark grey/black, soft, wet, trace shell fragments, trace organic debris, trace metal debris, sulphur odour.	5543535.1	339639.2	0.0-0.1	-
PS06021-000-1610-SE034	2016 10 14	Sediment	SILT and SAND, fine grained, occasional gravel, fine, dark grey/black, soft, trace shell fragments, trace organic debris, trace metal debris, sulphur odour, hydrocarbon-like odour.	5543539.8	339642.5	0.0-0.1	-
PS06021-000-1610-SE934	2016 10 14	Sediment	Blind field duplicate of PS06021-000-1610-SE034.	5543539.8	339642.5	0.0-0.1	-
PS06021-000-1610-SE035	2016 10 14	Sediment	SILT and SAND, fine grained, occasional gravel, fine, dark grey/black, soft, trace shell fragments, trace organic debris, trace metal debris, sulphur odour, hydrocarbon-like odour.	5543546.7	339640.5	0.0-0.1	-
PS06021-000-1610-SE036	2016 10 14	Sediment	SILT and SAND, fine grained, occasional gravel, fine, dark grey/black, soft, trace shell fragments, trace organic debris, trace metal debris, sulphur odour, hydrocarbon-like odour.	5543546.7	339632.6	0.0-0.1	-
PS06021-000-1610-SE936	2016 10 14	Sediment	Blind field duplicate of PS06021-000-1610-SE036.	5543546.7	339632.6	0.0-0.1	-
PS06021-000-1610-SE037	2016 10 14	Sediment	SILT and SAND, fine grained, occasional gravel, fine, dark grey/black, soft, trace shell fragments, trace organic debris, sulphur odour.	5543547.5	339626.3	0.0-0.1	-
PS06021-000-1610-SE038	2016 10 14	Sediment	SILT and SAND, fine grained, occasional gravel, fine, dark grey/black, soft, trace organic debris, occasional shell fragments, sulphur odour.	5543551.1	339631.3	0.0-0.1	-
PS06021-000-1610-SE938	2016 10 14	Sediment	Blind field duplicate of PS06021-000-1610-SE038.	5543551.1	339631.3	0.0-0.1	-
PS06021-000-1610-SE039	2016 10 14	Sediment	SILT and SAND, fine grained, occasional gravel, fine, dark grey/black, soft, trace organic debris, occasional shell fragments, sulphur odour, hydrocarbon-like odour, sheen.	5543550.5	339636.8	0.0-0.1	-
PS06021-000-1610-SE040	2016 10 14	Sediment	SILT and SAND, fine grained, occasional gravel, fine, dark grey/black, soft, trace shell fragments, trace organic debris, sulphur odour, hydrocarbon-like odour, sheen.	5543542.2	339623.6	0.0-0.1	-
PS06021-000-1610-SE041	2016 10 14	Sediment	SILT, trace sand, trace gravel, fine, grey/dark grey, soft, wet, sulphur odour.	5543617.4	339623.7	0.0-0.1	-
PS06021-000-1610-SE042	2016 10 14	Sediment	SILT, trace sand, trace gravel, fine, grey/dark grey, soft, wet, trace metal debris, sulphur odour.	5543613.8	339611.0	0.0-0.1	-

TABLE 2: Summary of Analytical Results for Hydrocarbons in Sediment
Campbell River Small Craft Harbour

APEC / Issue		
Station ID DFO	PS06021-SE003/04	PS06021-SE012
Sample ID	PS06021-000-1609-SE003	PS06021-000-1609-SE012
Lab ID	6100057-03	6100057-13
Sampling Depth (m)	0.0 - 0.1	0.3
Field Screen (ppm)	0	-
Sample Collection Date (Y/M/D)	2016 09 29	2016 09 29
Sample Extraction Date (Y/M/D)	2016 09 29-10 04	2016 09 29-10 04
Sample Analysis Date (Y/M/D)	2016 10 05-06	2016 10 05-06

Parameters	Federal Guidelines & Standards			BC Standards			Units	Analytical Results	
	CCME CEQG ISQG Marine and Estuarine Sediment (ISQG MR)	CCME CEQG PEL Marine and Estuarine Sediment (PEL MR)	CEPA Disposal at Sea Screening Level	CSR Typical Site Marine and Estuarine Sediment ($SEDQC_{TS}$)	CSR Sch 7 Nonagricultural Land (NAL)	CSR Commercial Land Use (CL)[a]			
Monocyclic Aromatic Hydrocarbons									
Benzene	n/a	n/a	n/a	n/a	0.04	2.5	µg/g	< 0.02	< 0.02
Ethylbenzene	n/a	n/a	n/a	n/a	1	20	µg/g	< 0.05	0.06
Toluene	n/a	n/a	n/a	n/a	1.5	25	µg/g	< 0.20	< 0.20
Xylenes	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.10	0.35
Styrene	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	0.10
Gross Parameters									
VPH (C6-C10)	n/a	n/a	n/a	n/a	200	200	µg/g	< 20	< 20
LEPH (C10-C19)	n/a	n/a	n/a	n/a	1,000	2,000	µg/g	210	< 50
HEPH (C19-C32)	n/a	n/a	n/a	n/a	1,000	5,000	µg/g	500	67
MTBE									
MTBE	n/a	n/a	n/a	n/a	n/a	700	µg/g	< 0.04	< 0.04

Associated Caro file(s): 6100057.

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit or RPD less than indicated value.

- Denotes analysis not conducted.

n/a Denotes no applicable standard.

* RPDs are not normally calculated where one or more concentrations are less than five times MDL.

BOLD	Concentration greater than CCME CEQG ISQG Marine and Estuarine Water Sediment (ISQG MR) guideline.
SHADOW	Concentration greater than CCME CEQG PEL Marine and Estuarine Water Sediment (PEL MR) guideline.
OUTLINE	Concentration greater than the CEPA Screening Level for Disposal at Sea.
SHADED	Concentration greater than CSR Marine and Estuarine Water Sediment ($SEDQC_{TS}$) standard.
RED	Concentration greater than CSR Schedule 7 - Non-Agricultural Land Use (NAL) Standard
BLUE	Concentration greater than CSR Commercial Land Use (CL) Standard

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by marine and/or estuarine aquatic life (whichever is most stringent).

TABLE 3: Summary of Analytical Results for PAHs in Sediment
Campbell River Small Craft Harbour

APEC / Issue		
Station ID DFO	PS06021-SE003/04	PS06021-SE012
Sample ID	PS06021-000-1609-SE003	PS06021-000-1609-SE012
Lab ID	6100057-03	6100057-13
Sampling Depth (m)	0.0 - 0.1	0.3
Field Screen (ppm)	0	-
Sample Collection Date (Y/M/D)	2016 09 29	2016 09 29
Sample Extraction Date (Y/M/D)	2016 10 04	2016 10 04
Sample Analysis Date (Y/M/D)	2016 10 06	2016 10 06

Parameters	Federal Guidelines & Standards			BC Standards			Units	Analytical Results	
	CCME CEQG ISQG Marine and Estuarine Sediment (ISQG MR)	CCME CEQG PEL Marine and Estuarine Sediment (PEL MR)	CEPA Disposal at Sea Screening Level	CSR Typical Site Marine and Estuarine Sediment ($SEDQC_{TS}$)	CSR Sch 7 Nonagricultural Land (NAL)	CSR Commercial Land Use (CL)[a]			
Polycyclic Aromatic Hydrocarbons									
Naphthalene	0.0346	0.391	n/a	0.47	5	50	µg/g	***0.574***	< 0.010
2-Methylnaphthalene	0.0202	0.201	n/a	0.24	n/a	n/a	µg/g	***0.236***	< 0.010
Acenaphthylene	0.00587	0.128	n/a	0.15	n/a	n/a	µg/g	***0.412***	< 0.005
Acenaphthene	0.00671	0.0889	n/a	0.11	n/a	n/a	µg/g	***21.5***	< 0.005
Fluorene	0.0211	0.144	n/a	0.17	n/a	n/a	µg/g	***15.3***	< 0.010
Phenanthrene	0.0867	0.544	n/a	0.65	5	50	µg/g	***71.9***	0.055
Anthracene	0.0469	0.245	n/a	0.29	n/a	n/a	µg/g	***13.4***	0.019
Fluoranthene	0.113	1.494	n/a	1.8	n/a	n/a	µg/g	***71.0***	***0.334***
Pyrene	0.153	1.398	n/a	1.7	10	100	µg/g	***45.5***	***0.222***
Benzo(a)anthracene	0.0748	0.693	n/a	0.83	1	10	µg/g	***9.34***	***0.100***
Chrysene	0.108	0.846	n/a	1	n/a	n/a	µg/g	***10.3***	***0.152***
Benzo(b)fluoranthene	n/a	n/a	n/a	n/a	1	10	µg/g	5.92	0.122
Benzo(k)fluoranthene	n/a	n/a	n/a	n/a	1	10	µg/g	4.02	0.083
Benzo(a)pyrene	0.0888	0.763	n/a	0.92	1	10	µg/g	***4.57***	0.084
Indeno(1,2,3-cd)pyrene	n/a	n/a	n/a	n/a	1	10	µg/g	1.07	0.048
Dibenz(a,h)anthracene	0.00622	0.135	n/a	0.16	1	10	µg/g	***0.214***	***0.009***
Benzo(g,h,i)perylene	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	0.770	0.042
Total PAH	n/a	n/a	2.5	20	n/a	n/a	µg/g	**264**	0.974

Associated Caro file(s): 6100057.
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RPD Denotes relative percent difference.
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RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG ISQG Marine and Estuarine Water Sediment (ISQG MR) guideline.
SHADOW	Concentration greater than CCME CEQG PEL Marine and Estuarine Water Sediment (PEL MR) guideline.
OUTLINE	Concentration greater than the CEPA Screening Level for Disposal at Sea.
SHADED	Concentration greater than CSR Marine and Estuarine Water Sediment ($SEDQC_{TS}$) standard.
RED	Concentration greater than CSR Schedule 7 - Non-Agricultural Land Use (NAL) Standard
BLUE	Concentration greater than CSR Commercial Land Use (CL) Standard

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by marine and/or estuarine aquatic life (whichever is most stringent).

TABLE 4: Summary of Analytical Results for Metals in Sediment
Campbell River Small Craft Harbour

							APEC / Issue									
							Station ID DFO	PS06021-SE001/02		PS06021-SE003/04		PS06021-SE005/06		PS06021-SE007/08		PS06021-SE012
							Sample ID	PS06021-000-1609-SE001	PS06021-000-1609-SE002	PS06021-000-1609-SE003	PS06021-000-1609-SE004	PS06021-000-1609-SE005	PS06021-000-1609-SE006	PS06021-000-1609-SE007	PS06021-000-1609-SE008	PS06021-000-1609-SE012
							Lab ID	6100057-01	6100057-02	6100057-03	6100057-04	6100057-05	6100057-06	6100057-07	6100057-08	6100057-13
							Sampling Depth (m)	0.0 - 0.1	0.6 - 0.7	0.0 - 0.1	0.6 - 0.7	0.0 - 0.1	0.5	0.0 - 0.1	0.5	0.3
							Field Screen (ppm)	-	-	0	-	-	-	-	-	-
							Sample Collection Date (Y/M/D)	2016 09 29	2016 09 29	2016 09 29	2016 09 29	2016 09 29	2016 09 29	2016 09 29	2016 09 29	2016 09 29
							Sample Extraction Date (Y/M/D)	2016 10 05	2016 10 05	2016 10 05-11 07	2016 10 05	2016 10 05	2016 10 05	2016 10 05	2016 10 05	2016 10 05
							Sample Analysis Date (Y/M/D)	2016 10 06	2016 10 06	2016 10 06-11 08	2016 10 06	2016 10 06	2016 10 06	2016 10 06	2016 10 06	2016 10 06
Parameters	**Federal Guidelines & Standards**			**BC Standards**			**Units**									
	CCME CEQG ISQG Marine and Estuarine Sediment (ISQG MR)	**CCME CEQG PEL Marine and Estuarine Sediment (PEL MR)**	**CEPA Disposal at Sea Screening Level**	**CSR Typical Site Marine and Estuarine Sediment ($SEDQC_{TS}$)**	**CSR Sch 7 Nonagricultural Land (NAL)**	**CSR Commercial Land Use (CL)[a]**		**Analytical Results**								
Physical Parameters																
pH	n/a	n/a	n/a	n/a	n/a	n/a	pH	8.6	7.0	8.8	7.6	8.2	8.7	8.1	8.6	7.9
Soil Salinity																
Saturated Paste Sodium	n/a	n/a	n/a	n/a	200	1,000	µg/g	-	-	2,470	-	-	-	-	-	-
Saturated Paste Chloride	n/a	n/a	n/a	n/a	35	2,500	µg/g	-	-	3,530	-	-	-	-	-	-
Total Metals																
Antimony	n/a	n/a	n/a	n/a	20	40	µg/g	0.4	0.1	0.3	0.1	0.3	6.1	2.6	0.5	6.9
Arsenic	7.24	41.6	n/a	50	15	25	µg/g	2.9	2.3	3.2	2.0	2.7	7.1	***11.2***	4.0	***10.0***
Barium	n/a	n/a	n/a	n/a	400	1,500	µg/g	13	23	24	23	17	17	43	12	15
Beryllium	n/a	n/a	n/a	n/a	4	8	µg/g	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3
Boron	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	8	4	9	4	19	13	21	10	11
Cadmium	0.7	4.2	0.6	5	1.5	2 (pH<7.0)	µg/g									
						3.5 (pH 7.0-<7.5)			0.05							
						35 (pH 7.5-<8.0)					0.05					0.58
						100 (pH >8.0)		0.13		0.16		0.11	0.28	***0.74***	0.28	
Chromium	52.3	160	n/a	190	60	60	µg/g	22.2	16.8	20.2	17.5	24.8	24.7	22.7	18.8	35.1
Cobalt	n/a	n/a	n/a	n/a	50	300	µg/g	7.6	9.1	8.3	9.0	13.7	11.1	8.4	7.9	10.1
Copper	18.7	108	n/a	130	90	100 (pH 5.0-<5.5)	µg/g									
						250 (pH >6.0)		***193***	***29.0***	***138***	***31.1***	***96.9***	***167***	***226***	***56.6***	***214***
Lead	30.2	112	n/a	130	100	150 (pH<5.5)	µg/g									
						700 (pH >6.0)		13.5	0.9	16.6	0.9	21.8	***66.1***	***48.0***	13.4	***277***
Lithium	n/a	n/a	n/a	n/a	n/a	20,000	µg/g	6.5	5.2	8.9	5.4	12.0	10.9	9.8	8.1	9.5
Manganese	n/a	n/a	n/a	n/a	n/a	19,000	µg/g	221	244	214	227	420	301	234	207	259
Mercury	0.13	0.7	0.75	0.84	15	40	µg/g	***1.93***	< 0.04	0.11	< 0.04	< 0.04	***0.59***	***0.30***	0.07	***0.53***
Molybdenum	n/a	n/a	n/a	n/a	10	40	µg/g	0.9	0.3	1.3	0.2	0.4	2.0	5.2	2.1	1.6
Nickel	n/a	n/a	n/a	n/a	100	500	µg/g	17.3	14.3	15.1	15.6	24.5	19.6	17.1	14.6	24.0
Selenium	n/a	n/a	n/a	n/a	3	10	µg/g	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5
Silver	n/a	n/a	n/a	n/a	20	40	µg/g	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2
Strontium	n/a	n/a	n/a	n/a	n/a	100,000	µg/g	82.1	27.8	111	26.6	28.2	119	56.6	58.0	25.9
Thallium	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Tin	n/a	n/a	n/a	n/a	50	300	µg/g	1.6	0.3	1.4	0.3	1.1	7.1	4.2	0.9	7.9
Uranium	n/a	n/a	n/a	n/a	n/a	200	µg/g	0.39	0.37	0.87	0.38	0.53	0.95	2.24	1.84	0.78
Vanadium	n/a	n/a	n/a	n/a	200	n/a	µg/g	92.5	84.9	86.3	87.9	101	107	88.3	100	102
Zinc	124	271	n/a	330	150	150 (pH<6.0)	µg/g									
						300 (pH 6.5-<7.0)										
						600 (pH >7.0)		93	30	***128***	31	87	***131***	***233***	76	***749***

Associated Caro file(s): 6100057, 6101130.
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RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG ISQG Marine and Estuarine Water Sediment (ISQG MR) guideline.
SHADOW	Concentration greater than CCME CEQG PEL Marine and Estuarine Water Sediment (PEL MR) guideline.
OUTLINE	Concentration greater than the CEPA Screening Level for Disposal at Sea.
SHADED	Concentration greater than CSR Marine and Estuarine Water Sediment ($SEDQC_{TS}$) standard.
RED	Concentration greater than CSR Schedule 7 - Non-Agricultural Land Use (NAL) Standard
BLUE	Concentration greater than CSR Commercial Land Use (CL) Standard

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by marine and/or estuarine aquatic life (whichever is most stringent).

TABLE 4: Summary of Analytical Results for Metals in Sediment
Campbell River Small Craft Harbour

							APEC / Issue								
							Station ID DFO	PS06021-SE013	PS06021-SE014	PS06021-SE015/16		PS06021-SE017/18		PS06021-SE019/20	
							Sample ID	PS06021-000-1609-SE013	PS06021-000-1610-SE014	PS06021-000-1610-SE015	PS06021-000-1610-SE016	PS06021-000-1610-SE017	PS06021-000-1610-SE018	PS06021-000-1610-SE019	PS06021-000-1610-SE020
							Lab ID	6100057-14	6101130-01	6101130-02	6101130-03	6101130-04	6101130-05	6101130-06	6101130-07
							Sampling Depth (m)	0.3	0.1 - 0.2	0.0 - 0.2	0.5 - 0.7	0.0 - 0.1	0.2 - 0.3	0.0 - 0.2	0.4 - 0.6
							Field Screen (ppm)	-	-	-	-	-	-	-	-
							Sample Collection Date (Y/M/D)	2016 09 29	2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14
							Sample Extraction Date (Y/M/D)	2016 10 05	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19-11 07	2016 10 19/20
							Sample Analysis Date (Y/M/D)	2016 10 06	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19-11 08	2016 10 19/20
Parameters	**Federal Guidelines & Standards**			**BC Standards**			**Units**	**Analytical Results**							
	CCME CEQG ISQG Marine and Estuarine Sediment (ISQG MR)	**CCME CEQG PEL Marine and Estuarine Sediment (PEL MR)**	**CEPA Disposal at Sea Screening Level**	**CSR Typical Site Marine and Estuarine Sediment ($SEDQC_{TS}$)**	**CSR Sch 7 Nonagricultural Land (NAL)**	**CSR Commercial Land Use (CL)[a]**									
Physical Parameters															
pH	n/a	n/a	n/a	n/a	n/a	n/a	pH	6.9	7.5	8.5	6.6	8.4	7.5	8.4	6.3
Soil Salinity															
Saturated Paste Sodium	n/a	n/a	n/a	n/a	200	1,000	µg/g	-	-	-	-	-	-	5,200	-
Saturated Paste Chloride	n/a	n/a	n/a	n/a	35	2,500	µg/g	-	-	-	-	-	-	7,720	-
Total Metals															
Antimony	n/a	n/a	n/a	n/a	20	40	µg/g	1.0	0.3	0.5	< 0.1	0.4	< 0.1	1.4	0.1
Arsenic	7.24	41.6	n/a	50	15	25	µg/g	2.3	1.4	2.0	1.3	3.5	1.8	***11.6***	1.5
Barium	n/a	n/a	n/a	n/a	400	1,500	µg/g	8	23	21	20	14	22	172	11
Beryllium	n/a	n/a	n/a	n/a	4	8	µg/g	0.1	0.1	0.1	0.1	< 0.1	0.1	< 0.1	0.1
Boron	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	5	2	4	2	9	2	25	3
Cadmium	0.7	4.2	0.6	5	1.5	2 (pH<7.0)	µg/g	0.12			0.05				0.31
						3.5 (pH 7.0-<7.5)									
						35 (pH 7.5-<8.0)			0.06				0.05		
						100 (pH >8.0)				0.18		0.30		***5.28***	
Chromium	52.3	160	n/a	190	60	60	µg/g	17.6	16.9	17.0	13.8	17.9	13.7	30.1	14.0
Cobalt	n/a	n/a	n/a	n/a	50	300	µg/g	7.5	7.8	6.0	6.9	6.7	7.0	7.0	6.3
Copper	18.7	108	n/a	130	90	100 (pH 5.0-<5.5)	µg/g								
						250 (pH >6.0)		***57.3***	***30.9***	***321***	***29.6***	***126***	***25.8***	***4,700***	***36.1***
Lead	30.2	112	n/a	130	100	150 (pH<5.5)	µg/g								
						700 (pH >6.0)		***61.9***	4.2	25.4	0.7	14.5	0.7	***84.3***	9.3
Lithium	n/a	n/a	n/a	n/a	n/a	20,000	µg/g	7.4	4.2	5.8	4.0	5.1	3.8	7.3	5.8
Manganese	n/a	n/a	n/a	n/a	n/a	19,000	µg/g	213	236	173	207	183	202	196	180
Mercury	0.13	0.7	0.75	0.84	15	40	µg/g	***0.15***	< 0.04	***1.16***	0.04	0.13	< 0.04	***2.93***	0.07
Molybdenum	n/a	n/a	n/a	n/a	10	40	µg/g	0.4	0.2	1.5	0.4	0.9	0.2	3.7	1.2
Nickel	n/a	n/a	n/a	n/a	100	500	µg/g	13.4	12.7	11.3	11.5	13.4	11.5	19.7	12.3
Selenium	n/a	n/a	n/a	n/a	3	10	µg/g	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5
Silver	n/a	n/a	n/a	n/a	20	40	µg/g	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.6	< 0.2
Strontium	n/a	n/a	n/a	n/a	n/a	100,000	µg/g	21.5	28.4	31.6	20.8	80.4	21.6	347	20.6
Thallium	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	< 0.1
Tin	n/a	n/a	n/a	n/a	50	300	µg/g	2.4	0.5	6.4	0.3	1.2	0.2	27.1	0.7
Uranium	n/a	n/a	n/a	n/a	n/a	200	µg/g	0.98	0.34	0.48	0.27	0.55	0.26	1.41	0.55
Vanadium	n/a	n/a	n/a	n/a	200	n/a	µg/g	93.6	82.6	72.7	76.3	78.8	72.4	64.2	68.9
Zinc	124	271	n/a	330	150	150 (pH<6.0)	µg/g								
						300 (pH 6.5-<7.0)		85			28				59
						600 (pH >7.0)			110	***209***		***168***	26	***2,620***	

Associated Caro file(s): 6100057, 6101130.
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< Denotes concentration less than indicated detection limit or RPD less than indicated value.
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BOLD	Concentration greater than CCME CEQG ISQG Marine and Estuarine Water Sediment (ISQG MR) guideline.
SHADOW	Concentration greater than CCME CEQG PEL Marine and Estuarine Water Sediment (PEL MR) guideline.
OUTLINE	Concentration greater than the CEPA Screening Level for Disposal at Sea.
SHADED	Concentration greater than CSR Marine and Estuarine Water Sediment ($SEDQC_{TS}$) standard.
RED	Concentration greater than CSR Schedule 7 - Non-Agricultural Land Use (NAL) Standard
BLUE	Concentration greater than CSR Commercial Land Use (CL) Standard

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by marine and/or estuarine aquatic life (whichever is most stringent).

TABLE 4: Summary of Analytical Results for Metals in Sediment
Campbell River Small Craft Harbour

Parameters	Federal Guidelines & Standards: CCME CEQG ISQG Marine and Estuarine Sediment (ISQG MR)	Federal Guidelines & Standards: CCME CEQG PEL Marine and Estuarine Sediment (PEL MR)	Federal Guidelines & Standards: CEPA Disposal at Sea Screening Level	BC Standards: CSR Typical Site Marine and Estuarine Sediment ($SEDQC_{TS}$)	BC Standards: CSR Sch 7 Nonagricultural Land (NAL)	BC Standards: CSR Commercial Land Use (CL)[a]	Units	PS06021-SE021/22	PS06021-SE021/22	PS06021-SE023/24	PS06021-SE023/24	PS06021-SE025/26	PS06021-SE025/26	PS06021-SE027/28	PS06021-SE027/28
APEC / Issue															
Station ID DFO								PS06021-SE021/22	PS06021-SE021/22	PS06021-SE023/24	PS06021-SE023/24	PS06021-SE025/26	PS06021-SE025/26	PS06021-SE027/28	PS06021-SE027/28
Sample ID								PS06021-000-1610-SE021	PS06021-000-1610-SE022	PS06021-000-1610-SE023	PS06021-000-1610-SE024	PS06021-000-1610-SE025	PS06021-000-1610-SE026	PS06021-000-1610-SE027	PS06021-000-1610-SE028
Lab ID								6101130-08	6101130-09	6101130-10	6101130-11	6101130-12	6101130-13	6101130-14	6101130-15
Sampling Depth (m)								0.0 - 0.2	0.3 - 0.5	0.0 - 0.2	0.3 - 0.4	0.0 - 0.2	0.3 - 0.5	0.0 - 0.2	0.3 - 0.5
Field Screen (ppm)								-	-	-	-	-	-	-	-
Sample Collection Date (Y/M/D)								2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14
Sample Extraction Date (Y/M/D)								2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 26	2016 11 14	2016 10 26	2016 11 14
Sample Analysis Date (Y/M/D)								2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 26	2016 11 14	2016 10 26	2016 11 14
Physical Parameters															
pH	n/a	n/a	n/a	n/a	n/a	n/a	pH	8.1	6.2	8.5	8.2	8.3	7.1	8.2	5.4
Soil Salinity															
Saturated Paste Sodium	n/a	n/a	n/a	n/a	200	1,000	µg/g	-	-	-	-	-	-	-	-
Saturated Paste Chlorid	n/a	n/a	n/a	n/a	35	2,500	µg/g	-	-	-	-	-	-	-	-
Total Metals															
Antimony	n/a	n/a	n/a	n/a	20	40	µg/g	1.6	0.4	2.9	5.1	2.4	9.6	1.0	0.4
Arsenic	7.24	41.6	n/a	50	15	25	µg/g	***8.3***	3.5	***10.8***	***10.5***	***8.7***	***17.3***	***9.4***	4.3
Barium	n/a	n/a	n/a	n/a	400	1,500	µg/g	20	18	78	18	23	32	27	15
Beryllium	n/a	n/a	n/a	n/a	4	8	µg/g	0.1	0.1	0.1	< 0.1	0.2	0.1	0.2	0.1
Boron	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	16	5	9	4	14	8	25	4
Cadmium	0.7	4.2	0.6	5	1.5	2 (pH<7.0)	µg/g		***0.78***						***0.84***
						3.5 (pH 7.0-<7.5)							***1.26***		
						35 (pH 7.5-<8.0)									
						100 (pH >8.0)		***1.01***		***0.88***	0.55	**0.62**		***1.00***	
Chromium	52.3	160	n/a	190	60	60	µg/g	21.1	17.4	22.9	16.4	20.9	24.4	29.8	18.1
Cobalt	n/a	n/a	n/a	n/a	50	300	µg/g	7.3	6.8	6.7	6.8	8.0	9.0	8.0	7.7
Copper	18.7	108	n/a	130	90	100 (pH 5.0-<5.5)	µg/g								***61.9***
						250 (pH >6.0)		***218***	***58.9***	***1,930***	***234***	***290***	***174***	***667***	
Lead	30.2	112	n/a	130	100	150 (pH<5.5)	µg/g								22.8
						700 (pH >6.0)		***40.1***	21.3	***76.1***	***43.7***	***41.3***	***85.0***	***59.7***	
Lithium	n/a	n/a	n/a	n/a	n/a	20,000	µg/g	8.5	7.2	6.6	6.3	10.5	7.6	10.3	6.3
Manganese	n/a	n/a	n/a	n/a	n/a	19,000	µg/g	203	184	180	177	211	214	214	187
Mercury	0.13	0.7	0.75	0.84	15	40	µg/g	***1.11***	***0.16***	***2.86***	***2.12***	***0.62***	***0.42***	***0.72***	0.11
Molybdenum	n/a	n/a	n/a	n/a	10	40	µg/g	3.9	5.2	2.5	1.6	2.8	6.2	5.5	8.1
Nickel	n/a	n/a	n/a	n/a	100	500	µg/g	15.2	15.2	18.2	13.1	15.9	18.6	19.9	15.1
Selenium	n/a	n/a	n/a	n/a	3	10	µg/g	0.7	< 0.5	< 0.5	< 0.5	< 0.5	0.6	0.7	< 0.5
Silver	n/a	n/a	n/a	n/a	20	40	µg/g	< 0.2	0.2	0.3	< 0.2	0.3	0.4	0.3	0.3
Strontium	n/a	n/a	n/a	n/a	n/a	100,000	µg/g	32.8	24.8	240	41.2	55.2	42.5	42.2	24.4
Thallium	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.1	< 0.1
Tin	n/a	n/a	n/a	n/a	50	300	µg/g	6.3	1.2	16.0	6.7	4.0	5.6	7.1	1.1
Uranium	n/a	n/a	n/a	n/a	n/a	200	µg/g	1.23	1.50	0.85	0.56	0.98	1.64	1.47	2.27
Vanadium	n/a	n/a	n/a	n/a	200	n/a	µg/g	77.3	71.2	68.4	71.5	78.8	86.1	78.1	79.4
Zinc	124	271	n/a	330	150	150 (pH<6.0)	µg/g								118
						300 (pH 6.5-<7.0)			108						
						600 (pH >7.0)		***171***		***554***	***180***	***180***	***224***	***222***	

Associated Caro file(s): 6100057, 6101130.
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- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
RPD Denotes relative percent difference.
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG ISQG Marine and Estuarine Water Sediment (ISQG MR) guideline.
SHADOW	Concentration greater than CCME CEQG PEL Marine and Estuarine Water Sediment (PEL MR) guideline.
OUTLINE	Concentration greater than the CEPA Screening Level for Disposal at Sea.
SHADED	Concentration greater than CSR Marine and Estuarine Water Sediment ($SEDQC_{TS}$) standard.
RED	Concentration greater than CSR Schedule 7 - Non-Agricultural Land Use (NAL) Standard
BLUE	Concentration greater than CSR Commercial Land Use (CL) Standard

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by marine and/or estuarine aquatic life (whichever is most stringent).

TABLE 4: Summary of Analytical Results for Metals in Sediment
Campbell River Small Craft Harbour

Parameters	Federal Guidelines & Standards: CCME CEQG ISQG Marine and Estuarine Sediment (ISQG MR)	Federal Guidelines & Standards: CCME CEQG PEL Marine and Estuarine Sediment (PEL MR)	Federal Guidelines & Standards: CEPA Disposal at Sea Screening Level	BC Standards: CSR Typical Site Marine and Estuarine Sediment ($SEDQC_{TS}$)	BC Standards: CSR Sch 7 Nonagricultural Land (NAL)	BC Standards: CSR Commercial Land Use (CL)[a]	Units	PS06021-SE029/30	PS06021-SE029/30	PS06021-SE031/32	PS06021-SE031/32	PS06021-SE033	PS06021-SE034	PS06021-SE034	QA/QC RPD %
APEC / Issue															
Station ID DFO								PS06021-SE029/30		PS06021-SE031/32		PS06021-SE033	PS06021-SE034		
Sample ID								PS06021-000-1610-SE029	PS06021-000-1610-SE030	PS06021-000-1610-SE031	PS06021-000-1610-SE032	PS06021-000-1610-SE033	PS06021-000-1610-SE034	PS06021-000-1610-SE934	
Lab ID								6101130-16	6101130-17	6101130-18	6101130-19	6101130-20	6101130-21	6101130-22	
Sampling Depth (m)								0.0 - 0.2	0.3 - 0.5	0.0 - 0.2	0.3 - 0.5	0.0 - 0.1	0.0 - 0.1	0.0 - 0.1	
Field Screen (ppm)								-	-	-	-	-	-	-	
Sample Collection Date (Y/M/D)								2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14	2016 10 14	
Sample Extraction Date (Y/M/D)								2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	
Sample Analysis Date (Y/M/D)								2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19/20	2016 10 19-25	2016 10 19/20	
								Analytical Results							
Physical Parameters															
pH	n/a	n/a	n/a	n/a	n/a	n/a	pH	8.0	6.1	8.1	7.9	8.8	8.4	8.4	0
Soil Salinity															
Saturated Paste Sodium	n/a	n/a	n/a	n/a	200	1,000	µg/g	-	-	-	-	-	-	-	-
Saturated Paste Chloride	n/a	n/a	n/a	n/a	35	2,500	µg/g	-	-	-	-	-	-	-	-
Total Metals															
Antimony	n/a	n/a	n/a	n/a	20	40	µg/g	1.7	0.8	21.2	0.5	0.5	0.3	0.3	*
Arsenic	7.24	41.6	n/a	50	15	25	µg/g	***9.0***	5.8	***35.3***	4.6	3.0	3.7	3.0	21
Barium	n/a	n/a	n/a	n/a	400	1,500	µg/g	23	19	42	19	23	17	18	6
Beryllium	n/a	n/a	n/a	n/a	4	8	µg/g	0.2	0.2	0.2	0.1	0.1	0.1	< 0.1	*
Boron	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	17	6	21	10	9	10	10	0
Cadmium	0.7	4.2	0.6	5	1.5	2 (pH<7.0)	µg/g		***1.08***						
						3.5 (pH 7.0-<7.5)									
						35 (pH 7.5-<8.0)					***0.73***				
						100 (pH >8.0)		***1.02***		***1.41***		0.20	0.25	0.26	4
Chromium	52.3	160	n/a	190	60	60	µg/g	23.3	19.3	32.5	19.3	19.5	16.7	15.6	7
Cobalt	n/a	n/a	n/a	n/a	50	300	µg/g	7.6	7.3	8.5	7.6	7.0	6.3	6.0	5
Copper	18.7	108	n/a	130	90	100 (pH 5.0-<5.5)	µg/g								
						250 (pH >6.0)		***206***	***81.3***	***440***	***91.7***	***244***	***201***	***136***	39
Lead	30.2	112	n/a	130	100	150 (pH<5.5)	µg/g								
						700 (pH >6.0)		***42.7***	***30.7***	***205***	23.8	22.3	14.0	11.7	18
Lithium	n/a	n/a	n/a	n/a	n/a	20,000	µg/g	9.0	8.5	9.1	8.9	5.2	5.0	4.9	2
Manganese	n/a	n/a	n/a	n/a	n/a	19,000	µg/g	216	208	219	214	186	168	170	1
Mercury	0.13	0.7	0.75	0.84	15	40	µg/g	***0.45***	***0.28***	***1.54***	***0.51***	***0.43***	***0.14***	***0.23***	*
Molybdenum	n/a	n/a	n/a	n/a	10	40	µg/g	4.6	4.8	7.9	3.3	1.5	0.9	0.6	40
Nickel	n/a	n/a	n/a	n/a	100	500	µg/g	16.9	15.5	19.5	16.0	14.4	12.3	11.8	4
Selenium	n/a	n/a	n/a	n/a	3	10	µg/g	0.7	0.6	0.7	0.5	< 0.5	< 0.5	< 0.5	*
Silver	n/a	n/a	n/a	n/a	20	40	µg/g	0.2	< 0.2	0.4	< 0.2	< 0.2	< 0.2	< 0.2	*
Strontium	n/a	n/a	n/a	n/a	n/a	100,000	µg/g	33.3	32.6	47.0	36.0	223	186	267	36
Thallium	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	*
Tin	n/a	n/a	n/a	n/a	50	300	µg/g	6.6	1.9	12.4	2.1	2.2	1.4	1.4	0
Uranium	n/a	n/a	n/a	n/a	n/a	200	µg/g	1.43	1.63	1.82	1.20	0.46	0.47	0.43	9
Vanadium	n/a	n/a	n/a	n/a	200	n/a	µg/g	77.8	78.7	76.1	83.2	79.7	71.2	70.1	2
Zinc	124	271	n/a	330	150	150 (pH<6.0)	µg/g								
						300 (pH 6.5-<7.0)			***150***						
						600 (pH >7.0)		***187***		***433***	105	***164***	***142***	117	19

Associated Caro file(s): 6100057, 6101130.
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* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG ISQG Marine and Estuarine Water Sediment (ISQG MR) guideline.
SHADOW	Concentration greater than CCME CEQG PEL Marine and Estuarine Water Sediment (PEL MR) guideline.
OUTLINE	Concentration greater than the CEPA Screening Level for Disposal at Sea.
SHADED	Concentration greater than CSR Marine and Estuarine Water Sediment ($SEDQC_{TS}$) standard.
RED	Concentration greater than CSR Schedule 7 - Non-Agricultural Land Use (NAL) Standard
BLUE	Concentration greater than CSR Commercial Land Use (CL) Standard

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by marine and/or estuarine aquatic life (whichever is most stringent).

TABLE 4: Summary of Analytical Results for Metals in Sediment
Campbell River Small Craft Harbour

							APEC / Issue						
							Station ID DFO	PS06021-SE036		**QA/QC**	PS06021-SE038	PS06021-SE041	PS06021-SE042
							Sample ID	PS06021-000-1610-SE036	PS06021-000-1610-SE936	**RPD %**	PS06021-000-1610-SE038	PS06021-000-1610-SE041	PS06021-000-1610-SE042
							Lab ID	6101130-24	6101130-25			6101130-31	6101130-32
							Sampling Depth (m)	0.0 - 0.1	0.0 - 0.1		0.0 - 0.1	0.0 - 0.1	0.0 - 0.1
							Field Screen (ppm)	-	-		-	-	-
							Sample Collection Date (Y/M/D)	2016 10 14	2016 10 14		2016 10 14	2016 10 14	2016 10 14
							Sample Extraction Date (Y/M/D)	2016 10 19/20	2016 10 19/20		2016 10 26	2016 10 19/20	2016 10 19/20
							Sample Analysis Date (Y/M/D)	2016 10 19/20	2016 10 19-25		2016 10 26	2016 10 19/20	2016 10 19/20

Parameters	**Federal Guidelines & Standards**			**BC Standards**			**Units**						
	CCME CEQG ISQG Marine and Estuarine Sediment (ISQG MR)	**CCME CEQG PEL Marine and Estuarine Sediment (PEL MR)**	**CEPA Disposal at Sea Screening Level**	**CSR Typical Site Marine and Estuarine Sediment ($SEDQC_{TS}$)**	**CSR Sch 7 Nonagricultural Land (NAL)**	**CSR Commercial Land Use (CL)[a]**							
								Analytical Results					
Physical Parameters													
pH	n/a	n/a	n/a	n/a	n/a	n/a	pH	8.6	8.5	1	8.5	7.8	8.6
Soil Salinity													
Saturated Paste Sodium	n/a	n/a	n/a	n/a	200	1,000	µg/g	-	-	-	-	-	-
Saturated Paste Chloride	n/a	n/a	n/a	n/a	35	2,500	µg/g	-	-	-	-	-	-
Total Metals													
Antimony	n/a	n/a	n/a	n/a	20	40	µg/g	1.8	2.6	36	0.7	1.0	8.8
Arsenic	7.24	41.6	n/a	50	15	25	µg/g	***8.2***	***8.5***	4	6.2	***7.8***	***17.7***
Barium	n/a	n/a	n/a	n/a	400	1,500	µg/g	75	49	42	22	25	54
Beryllium	n/a	n/a	n/a	n/a	4	8	µg/g	0.1	0.1	*	0.2	0.1	0.1
Boron	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	15	15	0	20	27	10
Cadmium	0.7	4.2	0.6	5	1.5	2 (pH<7.0)	µg/g						
						3.5 (pH 7.0-<7.5)							
						35 (pH 7.5-<8.0)						***0.84***	
						100 (pH >8.0)		***0.78***	**0.64**	20	**0.69**		0.35
Chromium	52.3	160	n/a	190	60	60	µg/g	21.2	22.5	6	19.9	22.4	27.8
Cobalt	n/a	n/a	n/a	n/a	50	300	µg/g	6.6	6.6	0	6.9	6.5	7.8
Copper	18.7	108	n/a	130	90	100 (pH 5.0-<5.5)	µg/g						
						250 (pH >6.0)		***1,180***	***794***	39	***117***	***133***	***566***
Lead	30.2	112	n/a	130	100	150 (pH<5.5)	µg/g						
						700 (pH >6.0)		***51.6***	***57.2***	10	22.3	***119***	***63.2***
Lithium	n/a	n/a	n/a	n/a	n/a	20,000	µg/g	6.1	6.2	2	9.1	7.3	5.9
Manganese	n/a	n/a	n/a	n/a	n/a	19,000	µg/g	176	184	4	193	189	205
Mercury	0.13	0.7	0.75	0.84	15	40	µg/g	***1.39***	***1.80***	26	***0.16***	***0.38***	***0.39***
Molybdenum	n/a	n/a	n/a	n/a	10	40	µg/g	1.7	1.8	6	2.8	4.0	2.2
Nickel	n/a	n/a	n/a	n/a	100	500	µg/g	20.1	15.2	28	13.9	15.4	17.6
Selenium	n/a	n/a	n/a	n/a	3	10	µg/g	< 0.5	< 0.5	*	< 0.5	0.7	< 0.5
Silver	n/a	n/a	n/a	n/a	20	40	µg/g	< 0.2	< 0.2	*	0.3	0.2	< 0.2
Strontium	n/a	n/a	n/a	n/a	n/a	100,000	µg/g	305	300	2	32.6	37.0	55.9
Thallium	n/a	n/a	n/a	n/a	n/a	n/a	µg/g	< 0.1	< 0.1	*	0.1	0.1	< 0.1
Tin	n/a	n/a	n/a	n/a	50	300	µg/g	8.9	7.6	16	1.9	4.1	9.5
Uranium	n/a	n/a	n/a	n/a	n/a	200	µg/g	0.79	0.77	3	1.24	1.43	0.47
Vanadium	n/a	n/a	n/a	n/a	200	n/a	µg/g	65.5	64.6	1	77.9	64.4	77.2
Zinc	124	271	n/a	330	150	150 (pH<6.0)	µg/g						
						300 (pH 6.5-<7.0)							
						600 (pH >7.0)		***672***	***438***	42	***126***	***172***	***276***

Associated Caro file(s): 6100057, 6101130.
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RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG ISQG Marine and Estuarine Water Sediment (ISQG MR) guideline.
SHADOW	Concentration greater than CCME CEQG PEL Marine and Estuarine Water Sediment (PEL MR) guideline.
OUTLINE	Concentration greater than the CEPA Screening Level for Disposal at Sea.
SHADED	Concentration greater than CSR Marine and Estuarine Water Sediment ($SEDQC_{TS}$) standard.
RED	Concentration greater than CSR Schedule 7 - Non-Agricultural Land Use (NAL) Standard
BLUE	Concentration greater than CSR Commercial Land Use (CL) Standard

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by marine and/or estuarine aquatic life (whichever is most stringent).

TABLE 5: Summary of Analytical Results for VOCs in Sediment
Cape Scott Lightstation

APEC / Issue		
Station ID DFO	PS06021-SE003/04	PS06021-SE012
Sample ID	PS06021-000-1609-SE003	PS06021-000-1609-SE012
Lab ID	6100057-03	6100057-13
Sampling Depth (m)	0.0 - 0.1	0.3
Field Screen (ppm)	0	-
Sample Collection Date (Y/M/D)	2016 09 29	2016 09 29
Sample Extraction Date (Y/M/D)	2016 09 29	2016 09 29
Sample Analysis Date (Y/M/D)	2016 10 05	2016 10 05

Parameters	Federal Guidelines & Standards			BC Standards			Units	Analytical Results	
	CCME CEQG ISQG Marine and Estuarine Sediment (ISQG MR)	CCME CEQG PEL Marine and Estuarine Sediment (PEL MR)	CEPA Disposal at Sea Screening Level	CSR Typical Site Marine and Estuarine Sediment ($SEDQC_{TS}$)	CSR Sch 7 Nonagricultural Land (NAL)	CSR Commercial Land Use (CL)[a]			
Volatile Organic Compounds									
Bromodichloromethane	n/a	n/a	n/a	n/a	n/a	18	µg/g	< 0.10	< 0.10
Bromoform	n/a	n/a	n/a	n/a	n/a	2,200	µg/g	< 0.10	< 0.10
Carbon tetrachloride	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	< 0.05
Chlorobenzene	n/a	n/a	n/a	n/a	n/a	10	µg/g	< 0.05	< 0.05
Chloroform	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	< 0.05
Dibromochloromethane	n/a	n/a	n/a	n/a	n/a	26	µg/g	< 0.10	< 0.10
1,2-Dibromoethane	n/a	n/a	n/a	n/a	n/a	0.73	µg/g	< 0.10	< 0.10
1,2-Dichlorobenzene	n/a	n/a	n/a	n/a	1	10	µg/g	< 0.05	< 0.05
1,3-Dichlorobenzene	n/a	n/a	n/a	n/a	1	10	µg/g	< 0.05	< 0.05
1,4-Dichlorobenzene	n/a	n/a	n/a	n/a	1	10	µg/g	< 0.05	< 0.05
1,1-Dichloroethane	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	< 0.05
1,2-Dichloroethane	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	< 0.05
1,1-Dichloroethylene	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	< 0.05
cis-1,2-Dichloroethylene	n/a	n/a	n/a	n/a	n/a	50	µg/g	< 0.05	< 0.05
trans-1,2-Dichloroethylene	n/a	n/a	n/a	n/a	n/a	50	µg/g	< 0.05	< 0.05
Dichloromethane	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.10	< 0.10
1,2-Dichloropropane	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	< 0.05
1,3-Dichloropropylene	n/a	n/a	n/a	n/a	n/a	230	µg/g	< 0.05	< 0.05
Methylene bromide	n/a	n/a	n/a	n/a	n/a	50	µg/g	< 0.10	< 0.10
1,1,2,2-Tetrachloroethane	n/a	n/a	n/a	n/a	5	9.3	µg/g	< 0.05	< 0.05
Tetrachloroethylene	n/a	n/a	n/a	n/a	5	5	µg/g	< 0.05	< 0.05
1,1,1-Trichloroethane	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	< 0.05
1,1,2-Trichloroethane	n/a	n/a	n/a	n/a	5	50	µg/g	< 0.05	< 0.05
Trichloroethylene	n/a	n/a	n/a	n/a	0.015	0.65	µg/g	< 0.01	< 0.01
Trichlorofluoromethane	n/a	n/a	n/a	n/a	n/a	2,000	µg/g	0.22	< 0.10
Vinyl chloride	n/a	n/a	n/a	n/a	n/a	7.5	µg/g	< 0.10	< 0.10

Associated Caro file(s): 6100057.
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RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG ISQG Marine and Estuarine Water Sediment (ISQG MR) guideline.
SHADOW	Concentration greater than CCME CEQG PEL Marine and Estuarine Water Sediment (PEL MR) guideline.
OUTLINE	Concentration greater than the CEPA Screening Level for Disposal at Sea.
SHADED	Concentration greater than CSR Marine and Estuarine Water Sediment ($SEDQC_{TS}$) standard.
RED	Concentration greater than CSR Schedule 7 - Non-Agricultural Land Use (NAL) Standard
BLUE	Concentration greater than CSR Commercial Land Use (CL) Standard

[a] The site-specific factors used for determining the matrix standards for this site include: intake of contaminated soil, toxicity to soil invertebrates and plants, and groundwater flow to surface water used by marine and/or estuarine aquatic life (whichever is most stringent).

TABLE 6: Summary of Analytical Results for Leachable PAHs in Sediment
Campbell River Small Craft Harbour

		APEC / Issue	
		Station ID DFO	PS06021-SE003/04
		Sample ID	PS06021-000-1609-SE003
		Lab ID	6100057-03
		Sampling Depth (m)	0.0 - 0.1
		Field Screen (ppm)	0
		Sample Collection Date (Y/M/D)	2016 09 29
		Sample Extraction Date (Y/M/D)	2016 10 19
		Sample Analysis Date (Y/M/D)	2016 10 20
Parameters	**BC Standards**	**Units**	
	HWR Leachate Quality Standards (HWLQ)		**Analytical Results**
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene	1	µg/L	< 1

Associated Caro file(s): 6100057.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
RPD Denotes relative percent difference.
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD Concentration greater than HWR Leachate Quality Standards (HWLQ) Standard

TABLE 7: Summary of Analytical Results for Leachable Metals in Sediment
Campbell River Small Craft Harbour

	APEC / Issue			
	Station ID DFO		PS06021-SE012	PS06021-SE019/20
	Sample ID		PS06021-000-1609-SE012	PS06021-000-1610-SE019
	Lab ID		6100057-13	6101130-06
	Sampling Depth (m)		0.3	0.0 - 0.2
	Field Screen (ppm)		-	-
	Sample Collection Date (Y/M/D)		2016 09 29	2016 10 14
	Sample Extraction Date (Y/M/D)		2016 11 04	2016 11 02
	Sample Analysis Date (Y/M/D)		2016 11 05	2016 11 03
Parameters	**BC Standards**	**Units**		
	HWR Leachate Quality Standards (HWLQ)		**Analytical Results**	
Toxicity Characteristic Leaching Procedure Metals				
Antimony	n/a	µg/L	< 5	< 5
Arsenic	2,500	µg/L	< 10	< 10
Barium	100,000	µg/L	< 1,000	< 1,000
Beryllium	n/a	µg/L	< 50	< 50
Boron	500,000	µg/L	< 500	< 500
Cadmium	500	µg/L	< 1	< 1
Chromium	5,000	µg/L	< 50	< 50
Cobalt	n/a	µg/L	< 20	< 20
Copper	100,000	µg/L	< 100	< 100
Iron	n/a	µg/L	< 1,000	56,000
Lead	5,000	µg/L	< 10	< 10
Mercury	100	µg/L	< 1	< 1
Nickel	n/a	µg/L	< 100	< 100
Selenium	1,000	µg/L	< 20	< 20
Silver	5,000	µg/L	< 1	< 1
Thallium	n/a	µg/L	< 10	< 10
Uranium	10,000	µg/L	< 20	< 20
Vanadium	n/a	µg/L	< 50	< 50
Zinc	500,000	µg/L	530	< 500
Zirconium	n/a	µg/L	< 50	< 50

Associated Caro file(s): 6100057, 6101130.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit or RPD less than indicated value.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
RPD Denotes relative percent difference.
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD Concentration greater than HWR Leachate Quality Standards (HWLQ) Standard

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Nanaimo) Suite 202, 890 Crace Street Nanaimo, BC V9R 2T3	**TEL** **FAX**	 (250) 756-3520
ATTENTION	Meredith Guest	**WORK ORDER**	6100057
PO NUMBER		**RECEIVED / TEMP**	2016-10-03 14:06 / 6°C
PROJECT	640978	**REPORTED**	2016-11-08
PROJECT INFO	Campbell River Small Craft Harbour	**COC NUMBER**	640978-01

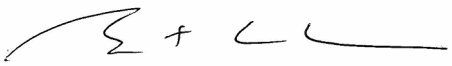
General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

Work Order Comments: **Custody Seals Intact:** YES

This is a revised report. Refer to Appendix 3 for details



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ANALYSIS INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6100057
PROJECT	640978	**REPORTED**	2016-11-08

Analysis Description	Method Reference	Technique	Location
EPH in Soil	EPA 3570* / BCMOE EPHs	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-FID)	Richmond
HEPHs in Soil	BCMOE LEPH/HEPH	Calculation	N/A
LEPHs in Soil	BCMOE LEPH/HEPH	Calculation	N/A
Metals in Sat. Paste Extract by ICPMS in Soil	EPA 6020A	Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
Moisture in Soil	ASTM D2974-87*	Gravimetry (Dried at 105C)	N/A
pH (1:2 Soil/Water) in Soil	Carter 16.2 / APHA 4500-H+ B	1:2 Soil/Water Slurry / Electrometry	Richmond
Polycyclic Aromatic Hydrocarbons (low-level) in Soil	EPA 3570* / EPA 8270D	Shaker Extraction (Hexane-Acetone 1:1) / GC-MS (SIM)	Richmond
SALM by ICPMS in Soil	BCMOE SALM V.2 / EPA 6020A	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
Saturated Paste Chloride (mg/kg) in Soil	APHA 4500-Cl- D*	Potentiometric Titration	Richmond
TCLP Extraction (Non-Volatiles) in Soil	EPA 1311	20:1 Leach for 18 h	Richmond
TCLP Leachable Metals by ICPMS in Soil	APHA 3030E* / EPA 6020A	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
TCLP Polycyclic Aromatic Hydrocarbons in Soil	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MS (SIM)	Richmond
Total PAHs in Soil	Total PAHs	Calculation: ANA+ANTH+B[a]A+B[b]F+B[k]F+B[a]P+B[ghi]P+CH+D[a,h]A+FLAN+FL+I[123-cd]PY+NA+PH+PY	N/A
VH in Soil	EPA 5035A/5030B / BCMOE VHs	Methanol Extract, Purge&Trap / Purge&Trap or Headspace, Gas Chromatography (GC-FID)	Richmond
Volatile Organic Compounds in Soil	EPA 5035A/5030B / EPA 8260B	Methanol Extract, Purge&Trap / GC-MS (SIM)	Richmond
VPHs in Soil	BCMOE VPH	Calculation: VH - (Benzene + Toluene + Ethylbenzene + Xylenes + Styrene)	N/A

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Method Reference Descriptions:

APHA	Standard Methods for the Examination of Water and Wastewater, 22nd Edition, American Public Health Association/American Water Works Association/Water Environment Federation
ASTM	ASTM International Test Methods
BCMOE	British Columbia Environmental Laboratory Manual, 2013, British Columbia Ministry of Environment
EPA	United States Environmental Protection Agency Test Methods

Glossary of Terms:

MRL	Method Reporting Limit
<	Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences
% wet	Percent (wet weight)
mg/kg dry	Milligrams per kilogram (dry weight)
mg/L	Milligrams per litre
pH units	pH < 7 = acidic, ph > 7 = basic

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6100057
PROJECT	640978	**REPORTED**	2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE001 (6100057-01) [Sediment] Sampled: 2016-09-29 10:20						
General Parameters						
pH (1:2 H2O Solution)	**8.6**	0.1	pH units	2016-10-06	2016-10-06	
Strong Acid Leachable Metals						
Antimony	**0.4**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**2.9**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**13**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**8**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.13**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**22.2**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**7.6**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**193**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**13.5**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**6.5**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**221**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	**1.93**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**0.9**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**17.3**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**82.1**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**1.6**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**0.39**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**92.5**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**93**	2	mg/kg dry	2016-10-05	2016-10-06	
Sample ID: PS06021-000-1609-SE002 (6100057-02) [Sediment] Sampled: 2016-09-29 10:20						
General Parameters						
pH (1:2 H2O Solution)	**7.0**	0.1	pH units	2016-10-06	2016-10-06	
Strong Acid Leachable Metals						
Antimony	**0.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**2.3**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**23**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**4**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.05**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**16.8**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**9.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**29.0**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**0.9**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**5.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**244**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	< 0.04	0.04	mg/kg dry	2016-10-05	2016-10-06	

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6100057
REPORTED 2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE002 (6100057-02) [Sediment] Sampled: 2016-09-29 10:20, Continued						
Strong Acid Leachable Metals, Continued						
Molybdenum	**0.3**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**14.3**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**27.8**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**0.3**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**0.37**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**84.9**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**30**	2	mg/kg dry	2016-10-05	2016-10-06	
Sample ID: PS06021-000-1609-SE003 (6100057-03) [Sediment] Sampled: 2016-09-29 10:20						
General Parameters						
Moisture	**22.6**	0.1	% wet	N/A	2016-10-07	
pH (1:2 H2O Solution)	**8.8**	0.1	pH units	2016-10-06	2016-10-06	
Calculated Parameters						
Total PAHs	**264**	0.020	mg/kg dry	N/A	N/A	
Salinity Parameters (Sat. Paste Extract)						
Chloride, Saturated Paste	**3530**	25	mg/kg dry	2016-11-07	2016-11-07	
Sodium, Saturated Paste	**2470**	0.4	mg/kg dry	2016-11-07	2016-11-08	
TCLP Non-Volatile Extraction Details						
Extraction Fluid pH	**4.91**		pH units	N/A	2016-10-14	
Final Extract pH	**6.28**		pH units	N/A	2016-10-14	
Strong Acid Leachable Metals						
Antimony	**0.3**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**3.2**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**24**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**9**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.16**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**20.2**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**8.3**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**138**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**16.6**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**8.9**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**214**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	**0.11**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**1.3**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**15.1**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**111**	0.2	mg/kg dry	2016-10-05	2016-10-06	

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6100057
PROJECT	640978	**REPORTED**	2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE003 (6100057-03) [Sediment] Sampled: 2016-09-29 10:20, Continued						
Strong Acid Leachable Metals, Continued						
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**1.4**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**0.87**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**86.3**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**128**	2	mg/kg dry	2016-10-05	2016-10-06	
BCMOE Aggregate Hydrocarbons						
VHs (6-10)	< 20	20	mg/kg dry	2016-09-29	2016-10-05	
VPHs	< 20	20	mg/kg dry	N/A	N/A	
EPHs10-19	**280**	50	mg/kg dry	2016-10-04	2016-10-06	
EPHs19-32	**570**	50	mg/kg dry	2016-10-04	2016-10-06	
LEPHs	**210**	50	mg/kg dry	N/A	N/A	
HEPHs	**500**	50	mg/kg dry	N/A	N/A	
Surrogate: 2-Methylnonane	*89*	*60-140*	%	*2016-10-04*	*2016-10-06*	
Polycyclic Aromatic Hydrocarbons (PAH)						
2-Methylnaphthalene	**0.236**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Acenaphthene	**21.5**	0.005	mg/kg dry	2016-10-04	2016-10-06	
Acenaphthylene	**0.412**	0.005	mg/kg dry	2016-10-04	2016-10-06	
Anthracene	**13.4**	0.004	mg/kg dry	2016-10-04	2016-10-06	
Benz (a) anthracene	**9.34**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Benzo (a) pyrene	**4.57**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Benzo (b) fluoranthene	**5.92**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Benzo (k) fluoranthene	**4.02**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Benzo (g,h,i) perylene	**0.770**	0.020	mg/kg dry	2016-10-04	2016-10-06	
Chrysene	**10.3**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Dibenz (a,h) anthracene	**0.214**	0.005	mg/kg dry	2016-10-04	2016-10-06	
Fluoranthene	**71.0**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Fluorene	**15.3**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Indeno (1,2,3-cd) pyrene	**1.07**	0.020	mg/kg dry	2016-10-04	2016-10-06	
Naphthalene	**0.574**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Phenanthrene	**71.9**	0.020	mg/kg dry	2016-10-04	2016-10-06	
Pyrene	**45.5**	0.020	mg/kg dry	2016-10-04	2016-10-06	
Surrogate: Naphthalene-d8	*103*	*72-117*	%	*2016-10-04*	*2016-10-06*	
Surrogate: Acenaphthene-d10	*100*	*74-111*	%	*2016-10-04*	*2016-10-06*	
Surrogate: Phenanthrene-d10	*94*	*66-106*	%	*2016-10-04*	*2016-10-06*	
Surrogate: Chrysene-d12	*78*	*60-109*	%	*2016-10-04*	*2016-10-06*	
Surrogate: Perylene-d12	*93*	*60-121*	%	*2016-10-04*	*2016-10-06*	
TCLP Semivolatiles						
Benzo (a) pyrene	< 0.001	0.001	mg/L	2016-10-19	2016-10-20	
Surrogate: Naphthalene-d8	*75*	*60-130*	%	*2016-10-19*	*2016-10-20*	
Surrogate: Perylene-d12	*85*	*60-130*	%	*2016-10-19*	*2016-10-20*	
Volatile Organic Compounds (VOC)						
Benzene	< 0.02	0.02	mg/kg dry	2016-09-29	2016-10-05	
Bromodichloromethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6100057
REPORTED 2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE003 (6100057-03) [Sediment] Sampled: 2016-09-29 10:20, Continued						
Volatile Organic Compounds (VOC), Continued						
Bromoform	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Carbon tetrachloride	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Chlorobenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Chloroform	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Dibromochloromethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
1,2-Dibromoethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Dibromomethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
1,2-Dichlorobenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,3-Dichlorobenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,4-Dichlorobenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,1-Dichloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,2-Dichloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,1-Dichloroethene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
cis-1,2-Dichloroethene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
trans-1,2-Dichloroethene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,2-Dichloropropane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,3-Dichloropropene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Ethylbenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Methyl tert-butyl ether	< 0.04	0.04	mg/kg dry	2016-09-29	2016-10-05	
Methylene chloride	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Styrene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,1,2,2-Tetrachloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Tetrachloroethene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Toluene	< 0.20	0.20	mg/kg dry	2016-09-29	2016-10-05	
1,1,1-Trichloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,1,2-Trichloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Trichloroethene	< 0.01	0.01	mg/kg dry	2016-09-29	2016-10-05	
Trichlorofluoromethane	**0.22**	0.10	mg/kg dry	2016-09-29	2016-10-05	
Vinyl chloride	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Xylenes (total)	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Surrogate: Toluene-d8	*89*	*60-140*	%	*2016-09-29*	*2016-10-05*	
Surrogate: 4-Bromofluorobenzene	*79*	*60-140*	%	*2016-09-29*	*2016-10-05*	
Surrogate: 1,4-Dichlorobenzene-d4	*73*	*60-140*	%	*2016-09-29*	*2016-10-05*	
Sample ID: PS06021-000-1609-SE004 (6100057-04) [Sediment] Sampled: 2016-09-29 10:20						
General Parameters						
pH (1:2 H2O Solution)	**7.6**	0.1	pH units	2016-10-06	2016-10-06	
Strong Acid Leachable Metals						
Antimony	**0.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**2.0**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**23**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**4**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.05**	0.04	mg/kg dry	2016-10-05	2016-10-06	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE004 (6100057-04) [Sediment] Sampled: 2016-09-29 10:20, Continued						
Strong Acid Leachable Metals, Continued						
Chromium	**17.5**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**9.0**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**31.1**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**0.9**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**5.4**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**227**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	< 0.04	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**0.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**15.6**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**26.6**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**0.3**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**0.38**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**87.9**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**31**	2	mg/kg dry	2016-10-05	2016-10-06	
Sample ID: PS06021-000-1609-SE005 (6100057-05) [Sediment] Sampled: 2016-09-29 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.2**	0.1	pH units	2016-10-06	2016-10-06	
Strong Acid Leachable Metals						
Antimony	**0.3**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**2.7**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**17**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.3**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**19**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.11**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**24.8**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**13.7**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**96.9**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**21.8**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**12.0**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**420**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	< 0.04	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**0.4**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**24.5**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**28.2**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**1.1**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**0.53**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**101**	0.4	mg/kg dry	2016-10-05	2016-10-06	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE005 (6100057-05) [Sediment] Sampled: 2016-09-29 11:00, Continued						
Strong Acid Leachable Metals, Continued						
Zinc	**87**	2	mg/kg dry	2016-10-05	2016-10-06	
Sample ID: PS06021-000-1609-SE006 (6100057-06) [Sediment] Sampled: 2016-09-29 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.7**	0.1	pH units	2016-10-06	2016-10-06	
Strong Acid Leachable Metals						
Antimony	**6.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**7.1**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**17**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**13**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.28**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**24.7**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**11.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**167**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**66.1**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**10.9**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**301**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	**0.59**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**2.0**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**19.6**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**119**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**7.1**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**0.95**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**107**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**131**	2	mg/kg dry	2016-10-05	2016-10-06	
Sample ID: PS06021-000-1609-SE007 (6100057-07) [Sediment] Sampled: 2016-09-29 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.1**	0.1	pH units	2016-10-06	2016-10-06	
Strong Acid Leachable Metals						
Antimony	**2.6**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**11.2**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**43**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**21**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.74**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**22.7**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**8.4**	0.1	mg/kg dry	2016-10-05	2016-10-06	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE007 (6100057-07) [Sediment] Sampled: 2016-09-29 11:00, Continued						
Strong Acid Leachable Metals, Continued						
Copper	**226**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**48.0**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**9.8**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**234**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	**0.30**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**5.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**17.1**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	**0.6**	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**56.6**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**4.2**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**2.24**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**88.3**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**233**	2	mg/kg dry	2016-10-05	2016-10-06	
Sample ID: PS06021-000-1609-SE008 (6100057-08) [Sediment] Sampled: 2016-09-29 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.6**	0.1	pH units	2016-10-06	2016-10-06	
Strong Acid Leachable Metals						
Antimony	**0.5**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**4.0**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**12**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**10**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.28**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**18.8**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**7.9**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**56.6**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**13.4**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**8.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**207**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	**0.07**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**2.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**14.6**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**58.0**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**0.9**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**1.84**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**100**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**76**	2	mg/kg dry	2016-10-05	2016-10-06	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE012 (6100057-13) [Sediment] Sampled: 2016-09-29 12:15						
General Parameters						
Moisture	**14.6**	0.1	% wet	N/A	2016-10-07	
pH (1:2 H2O Solution)	**7.9**	0.1	pH units	2016-10-06	2016-10-06	
Calculated Parameters						
Total PAHs	**0.974**	0.020	mg/kg dry	N/A	N/A	
TCLP Non-Volatile Extraction Details						LCH1
Extraction Fluid pH	**4.91**		pH units	N/A	2016-11-04	
Final Extract pH	**4.88**		pH units	N/A	2016-11-04	
Strong Acid Leachable Metals						
Antimony	**6.9**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**10.0**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**15**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.3**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**11**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.58**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**35.1**	1.0	mg/kg dry	2016-10-05	2016-10-06	
Cobalt	**10.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**214**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**277**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**9.5**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**259**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	**0.53**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**1.6**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**24.0**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	**0.2**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**25.9**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**7.9**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**0.78**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**102**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**749**	2	mg/kg dry	2016-10-05	2016-10-06	
TCLP Metals						
Antimony	< 0.005	0.005	mg/L	2016-11-04	2016-11-05	
Arsenic	< 0.010	0.010	mg/L	2016-11-04	2016-11-05	
Barium	< 1.0	1.0	mg/L	2016-11-04	2016-11-05	
Beryllium	< 0.050	0.050	mg/L	2016-11-04	2016-11-05	
Boron	< 0.50	0.50	mg/L	2016-11-04	2016-11-05	
Cadmium	< 0.001	0.001	mg/L	2016-11-04	2016-11-05	
Chromium	< 0.050	0.050	mg/L	2016-11-04	2016-11-05	
Cobalt	< 0.020	0.020	mg/L	2016-11-04	2016-11-05	
Copper	< 0.10	0.10	mg/L	2016-11-04	2016-11-05	
Iron	< 1.0	1.0	mg/L	2016-11-04	2016-11-05	
Lead	< 0.010	0.010	mg/L	2016-11-04	2016-11-05	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE012 (6100057-13) [Sediment] Sampled: 2016-09-29 12:15, Continued						
TCLP Metals, Continued						
Mercury	< 0.001	0.001	mg/L	2016-11-04	2016-11-05	
Nickel	< 0.10	0.10	mg/L	2016-11-04	2016-11-05	
Selenium	< 0.020	0.020	mg/L	2016-11-04	2016-11-05	
Silver	< 0.001	0.001	mg/L	2016-11-04	2016-11-05	
Thallium	< 0.010	0.010	mg/L	2016-11-04	2016-11-05	
Uranium	< 0.020	0.020	mg/L	2016-11-04	2016-11-05	
Vanadium	< 0.050	0.050	mg/L	2016-11-04	2016-11-05	
Zinc	**0.53**	0.50	mg/L	2016-11-04	2016-11-05	
Zirconium	< 0.050	0.050	mg/L	2016-11-04	2016-11-05	
BCMOE Aggregate Hydrocarbons						
VHs (6-10)	< 20	20	mg/kg dry	2016-09-29	2016-10-05	
VPHs	< 20	20	mg/kg dry	N/A	N/A	
EPHs10-19	< 50	50	mg/kg dry	2016-10-04	2016-10-06	
EPHs19-32	**67**	50	mg/kg dry	2016-10-04	2016-10-06	
LEPHs	< 50	50	mg/kg dry	N/A	N/A	
HEPHs	**67**	50	mg/kg dry	N/A	N/A	
Surrogate: 2-Methylnonane	*93*	*60-140*	%	*2016-10-04*	*2016-10-06*	
Polycyclic Aromatic Hydrocarbons (PAH)						
2-Methylnaphthalene	< 0.010	0.010	mg/kg dry	2016-10-04	2016-10-06	
Acenaphthene	< 0.005	0.005	mg/kg dry	2016-10-04	2016-10-06	
Acenaphthylene	< 0.005	0.005	mg/kg dry	2016-10-04	2016-10-06	
Anthracene	**0.019**	0.004	mg/kg dry	2016-10-04	2016-10-06	
Benz (a) anthracene	**0.100**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Benzo (a) pyrene	**0.084**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Benzo (b) fluoranthene	**0.122**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Benzo (k) fluoranthene	**0.083**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Benzo (g,h,i) perylene	**0.042**	0.020	mg/kg dry	2016-10-04	2016-10-06	
Chrysene	**0.152**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Dibenz (a,h) anthracene	**0.009**	0.005	mg/kg dry	2016-10-04	2016-10-06	
Fluoranthene	**0.334**	0.010	mg/kg dry	2016-10-04	2016-10-06	
Fluorene	< 0.010	0.010	mg/kg dry	2016-10-04	2016-10-06	
Indeno (1,2,3-cd) pyrene	**0.048**	0.020	mg/kg dry	2016-10-04	2016-10-06	
Naphthalene	< 0.010	0.010	mg/kg dry	2016-10-04	2016-10-06	
Phenanthrene	**0.055**	0.020	mg/kg dry	2016-10-04	2016-10-06	
Pyrene	**0.222**	0.020	mg/kg dry	2016-10-04	2016-10-06	
Surrogate: Naphthalene-d8	*85*	*72-117*	%	*2016-10-04*	*2016-10-06*	
Surrogate: Acenaphthene-d10	*88*	*74-111*	%	*2016-10-04*	*2016-10-06*	
Surrogate: Phenanthrene-d10	*82*	*66-106*	%	*2016-10-04*	*2016-10-06*	
Surrogate: Chrysene-d12	*91*	*60-109*	%	*2016-10-04*	*2016-10-06*	
Surrogate: Perylene-d12	*103*	*60-121*	%	*2016-10-04*	*2016-10-06*	
Volatile Organic Compounds (VOC)						
Benzene	< 0.02	0.02	mg/kg dry	2016-09-29	2016-10-05	
Bromodichloromethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Bromoform	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE012 (6100057-13) [Sediment] Sampled: 2016-09-29 12:15, Continued						
Volatile Organic Compounds (VOC), Continued						
Carbon tetrachloride	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Chlorobenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Chloroform	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Dibromochloromethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
1,2-Dibromoethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Dibromomethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
1,2-Dichlorobenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,3-Dichlorobenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,4-Dichlorobenzene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,1-Dichloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,2-Dichloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,1-Dichloroethene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
cis-1,2-Dichloroethene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
trans-1,2-Dichloroethene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,2-Dichloropropane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,3-Dichloropropene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Ethylbenzene	**0.06**	0.05	mg/kg dry	2016-09-29	2016-10-05	
Methyl tert-butyl ether	< 0.04	0.04	mg/kg dry	2016-09-29	2016-10-05	
Methylene chloride	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Styrene	**0.10**	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,1,2,2-Tetrachloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Tetrachloroethene	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Toluene	< 0.20	0.20	mg/kg dry	2016-09-29	2016-10-05	
1,1,1-Trichloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
1,1,2-Trichloroethane	< 0.05	0.05	mg/kg dry	2016-09-29	2016-10-05	
Trichloroethene	< 0.01	0.01	mg/kg dry	2016-09-29	2016-10-05	
Trichlorofluoromethane	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Vinyl chloride	< 0.10	0.10	mg/kg dry	2016-09-29	2016-10-05	
Xylenes (total)	**0.35**	0.10	mg/kg dry	2016-09-29	2016-10-05	
Surrogate: Toluene-d8	*93*	*60-140*	%	*2016-09-29*	*2016-10-05*	
Surrogate: 4-Bromofluorobenzene	*86*	*60-140*	%	*2016-09-29*	*2016-10-05*	
Surrogate: 1,4-Dichlorobenzene-d4	*85*	*60-140*	%	*2016-09-29*	*2016-10-05*	
Sample ID: PS06021-000-1609-SE013 (6100057-14) [Sediment] Sampled: 2016-09-29 12:15						
General Parameters						
pH (1:2 H2O Solution)	**6.9**	0.1	pH units	2016-10-06	2016-10-06	
Strong Acid Leachable Metals						
Antimony	**1.0**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Arsenic	**2.3**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Barium	**8**	1	mg/kg dry	2016-10-05	2016-10-06	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Boron	**5**	2	mg/kg dry	2016-10-05	2016-10-06	
Cadmium	**0.12**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Chromium	**17.6**	1.0	mg/kg dry	2016-10-05	2016-10-06	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1609-SE013 (6100057-14) [Sediment] Sampled: 2016-09-29 12:15, Continued						
Strong Acid Leachable Metals, Continued						
Cobalt	**7.5**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Copper	**57.3**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lead	**61.9**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Lithium	**7.4**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Manganese	**213**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Mercury	**0.15**	0.04	mg/kg dry	2016-10-05	2016-10-06	
Molybdenum	**0.4**	0.1	mg/kg dry	2016-10-05	2016-10-06	
Nickel	**13.4**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-05	2016-10-06	
Silver	< 0.2	0.2	mg/kg dry	2016-10-05	2016-10-06	
Strontium	**21.5**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-05	2016-10-06	
Tin	**2.4**	0.2	mg/kg dry	2016-10-05	2016-10-06	
Uranium	**0.98**	0.05	mg/kg dry	2016-10-05	2016-10-06	
Vanadium	**93.6**	0.4	mg/kg dry	2016-10-05	2016-10-06	
Zinc	**85**	2	mg/kg dry	2016-10-05	2016-10-06	

Sample / Analysis Qualifiers:

LCH1 Insufficient sample available to meet EPA 1311/1312 criterion of 100 g.

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- **Duplicate (Dup)**: Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- **Blank Spike (BS)**: A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- **Standard Reference Material (SRM)**: A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
BCMOE Aggregate Hydrocarbons, Batch B6J0143										
Blank (B6J0143-BLK1)				Prepared: 2016-10-04, Analyzed: 2016-10-05						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane	*14.2*		*mg/kg wet*	*16.7*		*85*	*60-140*			
LCS (B6J0143-BS2)				Prepared: 2016-10-04, Analyzed: 2016-10-05						
EPHs10-19	2200	50	mg/kg wet	2890		78	70-130			
EPHs19-32	3100	50	mg/kg wet	4180		74	70-130			
Surrogate: 2-Methylnonane	*11.5*		*mg/kg wet*	*16.7*		*69*	*60-140*			
Reference (B6J0143-SRM2)				Prepared: 2016-10-04, Analyzed: 2016-10-05						
EPHs10-19	2400	50	mg/kg wet	3020		81	65-130			
EPHs19-32	4100	50	mg/kg wet	4330		96	65-130			
Surrogate: 2-Methylnonane	*22.9*		*mg/kg wet*	*25.0*		*92*	*60-140*			
BCMOE Aggregate Hydrocarbons, Batch B6J0262										
Blank (B6J0262-BLK1)				Prepared: 2016-10-05, Analyzed: 2016-10-05						
VHs (6-10)	< 20	20	mg/kg wet							
LCS (B6J0262-BS2)				Prepared: 2016-10-05, Analyzed: 2016-10-05						
VHs (6-10)	430	20	mg/kg wet	417		103	70-130			
General Parameters, Batch B6J0288										
Reference (B6J0288-SRM1)				Prepared: 2016-10-06, Analyzed: 2016-10-06						
pH (1:2 H2O Solution)	8.6	0.1	pH units	8.18		105	95-105			
Reference (B6J0288-SRM2)				Prepared: 2016-10-06, Analyzed: 2016-10-06						
pH (1:2 H2O Solution)	8.5	0.1	pH units	8.18		104	95-105			
Salinity Parameters (Sat. Paste Extract), Batch B6K0438										

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Salinity Parameters (Sat. Paste Extract), Batch B6K0438, Continued										
Blank (B6K0438-BLK1)				Prepared: 2016-11-07, Analyzed: 2016-11-07						
Chloride, Saturated Paste	< 25	25	mg/kg dry							
Duplicate (B6K0438-DUP1)		**Source: 6100057-03**		Prepared: 2016-11-07, Analyzed: 2016-11-07						
Chloride, Saturated Paste	3130	25	mg/kg dry		3530			12	28	
Reference (B6K0438-SRM1)				Prepared: 2016-11-07, Analyzed: 2016-11-07						
Chloride, Saturated Paste	1500	25	mg/kg dry	1470		102	80-120			
Salinity Parameters (Sat. Paste Extract), Batch B6K0441										
Blank (B6K0441-BLK1)				Prepared: 2016-11-07, Analyzed: 2016-11-08						
Sodium, Saturated Paste	< 1.8	0.4	mg/kg dry							
Duplicate (B6K0441-DUP1)		**Source: 6100057-03**		Prepared: 2016-11-07, Analyzed: 2016-11-08						
Sodium, Saturated Paste	2050	0.4	mg/kg dry		2470			19	24	
Reference (B6K0441-SRM1)				Prepared: 2016-11-07, Analyzed: 2016-11-08						
Sodium, Saturated Paste	1000	0.4	mg/kg dry	1030		97	80-120			
Strong Acid Leachable Metals, Batch B6J0209										
Blank (B6J0209-BLK1)				Prepared: 2016-10-05, Analyzed: 2016-10-06						
Antimony	< 0.1	0.1	mg/kg dry							
Arsenic	< 0.4	0.4	mg/kg dry							
Barium	< 1	1	mg/kg dry							
Beryllium	< 0.1	0.1	mg/kg dry							
Boron	< 2	2	mg/kg dry							
Cadmium	< 0.04	0.04	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.1	0.1	mg/kg dry							
Copper	< 0.2	0.2	mg/kg dry							
Lead	< 0.2	0.2	mg/kg dry							
Lithium	< 0.1	0.1	mg/kg dry							
Manganese	< 0.4	0.4	mg/kg dry							
Mercury	< 0.04	0.04	mg/kg dry							
Molybdenum	< 0.1	0.1	mg/kg dry							
Nickel	< 0.4	0.4	mg/kg dry							
Selenium	< 0.5	0.5	mg/kg dry							
Silver	< 0.2	0.2	mg/kg dry							
Strontium	< 0.2	0.2	mg/kg dry							
Thallium	< 0.1	0.1	mg/kg dry							
Tin	< 0.2	0.2	mg/kg dry							
Uranium	< 0.05	0.05	mg/kg dry							
Vanadium	< 0.4	0.4	mg/kg dry							
Zinc	< 2	2	mg/kg dry							
Reference (B6J0209-SRM1)				Prepared: 2016-10-05, Analyzed: 2016-10-06						
Antimony	7.0	0.1	mg/kg dry	6.27		111	73-138			
Arsenic	14.4	0.4	mg/kg dry	15.4		93	87-106			
Barium	82	1	mg/kg dry	80.6		102	72-119			
Beryllium	0.6	0.1	mg/kg dry	0.544		118	73-128			
Boron	4	2	mg/kg dry	2.68		133	58-139			
Cadmium	0.23	0.04	mg/kg dry	0.230		98	88-121			
Chromium	27.4	1.0	mg/kg dry	27.2		101	91-113			
Cobalt	12.6	0.1	mg/kg dry	12.5		101	90-109			
Copper	46.9	0.2	mg/kg dry	44.9		104	92-112			

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Strong Acid Leachable Metals, Batch B6J0209, Continued										
Reference (B6J0209-SRM1), Continued				Prepared: 2016-10-05, Analyzed: 2016-10-06						
Lead	14.6	0.2	mg/kg dry	14.4		102	89-111			
Lithium	11.2	0.1	mg/kg dry	9.26		121	73-124			
Manganese	1070	0.4	mg/kg dry	1100		97	93-112			
Mercury	0.10	0.04	mg/kg dry	0.0980		105	74-126			
Molybdenum	0.8	0.1	mg/kg dry	0.738		105	93-120			
Nickel	17.9	0.4	mg/kg dry	17.4		103	93-110			
Strontium	11.9	0.2	mg/kg dry	11.6		103	85-116			
Tin	1.1	0.2	mg/kg dry	1.10		99	78-120			
Uranium	0.87	0.05	mg/kg dry	0.940		92	80-102			
Vanadium	54.1	0.4	mg/kg dry	54.9		99	87-116			
Zinc	70	2	mg/kg dry	67.5		103	91-113			
TCLP Metals, Batch B6K0310										
Blank (B6K0310-BLK1)				Prepared: 2016-11-04, Analyzed: 2016-11-05						
Antimony	< 0.005	0.005	mg/L							
Arsenic	< 0.010	0.010	mg/L							
Barium	< 1.0	1.0	mg/L							
Beryllium	< 0.050	0.050	mg/L							
Boron	< 0.50	0.50	mg/L							
Cadmium	< 0.001	0.001	mg/L							
Chromium	< 0.050	0.050	mg/L							
Cobalt	< 0.020	0.020	mg/L							
Copper	< 0.10	0.10	mg/L							
Iron	< 1.0	1.0	mg/L							
Lead	< 0.010	0.010	mg/L							
Mercury	< 0.001	0.001	mg/L							
Nickel	< 0.10	0.10	mg/L							
Selenium	< 0.020	0.020	mg/L							
Silver	< 0.001	0.001	mg/L							
Thallium	< 0.010	0.010	mg/L							
Uranium	< 0.020	0.020	mg/L							
Vanadium	< 0.050	0.050	mg/L							
Zinc	< 0.50	0.50	mg/L							
Zirconium	< 0.050	0.050	mg/L							
TCLP Non-Volatile Extraction Details, Batch B6J0768										
Blank (B6J0768-BLK1)				Prepared: 2016-10-14, Analyzed: 2016-10-14						
Extraction Fluid pH	4.91		pH units							
Final Extract pH	4.80		pH units							
Duplicate (B6J0768-DUP1)		**Source: 6100057-03**		Prepared: 2016-10-14, Analyzed: 2016-10-14						
Extraction Fluid pH	4.91		pH units		4.91			< 1		
Final Extract pH	5.40		pH units		6.28			15		
TCLP Non-Volatile Extraction Details, Batch B6K0273										
Blank (B6K0273-BLK1)				Prepared: 2016-11-04, Analyzed: 2016-11-04						
Extraction Fluid pH	4.91		pH units							
Final Extract pH	4.84		pH units							
TCLP Semivolatiles, Batch B6J1136										

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
TCLP Semivolatiles, Batch B6J1136, Continued										
Blank (B6J1136-BLK1)				Prepared: 2016-10-19, Analyzed: 2016-10-20						
Benzo (a) pyrene	< 0.001	0.001	mg/L							
Surrogate: Naphthalene-d8	*0.00374*		*mg/L*	*0.00444*		*84*	*60-130*			
Surrogate: Perylene-d12	*0.00484*		*mg/L*	*0.00444*		*109*	*60-130*			
LCS (B6J1136-BS1)				Prepared: 2016-10-19, Analyzed: 2016-10-20						
Benzo (a) pyrene	0.004	0.001	mg/L	0.00444		95	70-130			
Surrogate: Naphthalene-d8	*0.00338*		*mg/L*	*0.00444*		*76*	*60-130*			
Surrogate: Perylene-d12	*0.00446*		*mg/L*	*0.00444*		*100*	*60-130*			
Matrix Spike (B6J1136-MS1)		**Source: 6100057-03**		Prepared: 2016-10-19, Analyzed: 2016-10-20						
Benzo (a) pyrene	0.004	0.001	mg/L	0.00443	< 0.001	98	50-130			
Surrogate: Naphthalene-d8	*0.00296*		*mg/L*	*0.00443*		*67*	*60-130*			
Surrogate: Perylene-d12	*0.00321*		*mg/L*	*0.00443*		*72*	*60-130*			
Volatile Organic Compounds (VOC), Batch B6J0262										
Blank (B6J0262-BLK1)				Prepared: 2016-10-05, Analyzed: 2016-10-05						
Benzene	< 0.03	0.02	mg/kg wet							CST2
Bromodichloromethane	< 0.10	0.10	mg/kg wet							
Bromoform	< 0.10	0.10	mg/kg wet							
Carbon tetrachloride	< 0.05	0.05	mg/kg wet							
Chlorobenzene	< 0.05	0.05	mg/kg wet							
Chloroform	< 0.05	0.05	mg/kg wet							
Dibromochloromethane	< 0.10	0.10	mg/kg wet							
1,2-Dibromoethane	< 0.10	0.10	mg/kg wet							
Dibromomethane	< 0.10	0.10	mg/kg wet							
1,2-Dichlorobenzene	< 0.05	0.05	mg/kg wet							
1,3-Dichlorobenzene	< 0.05	0.05	mg/kg wet							
1,4-Dichlorobenzene	< 0.05	0.05	mg/kg wet							
1,1-Dichloroethane	< 0.05	0.05	mg/kg wet							
1,2-Dichloroethane	< 0.05	0.05	mg/kg wet							
1,1-Dichloroethene	< 0.05	0.05	mg/kg wet							
cis-1,2-Dichloroethene	< 0.05	0.05	mg/kg wet							
trans-1,2-Dichloroethene	< 0.05	0.05	mg/kg wet							
1,2-Dichloropropane	< 0.05	0.05	mg/kg wet							
1,3-Dichloropropene	< 0.05	0.05	mg/kg wet							
Ethylbenzene	< 0.05	0.05	mg/kg wet							
Methyl tert-butyl ether	< 0.04	0.04	mg/kg wet							
Methylene chloride	< 0.10	0.10	mg/kg wet							
Styrene	< 0.05	0.05	mg/kg wet							
1,1,2,2-Tetrachloroethane	< 0.05	0.05	mg/kg wet							
Tetrachloroethene	< 0.05	0.05	mg/kg wet							
Toluene	< 0.20	0.20	mg/kg wet							
1,1,1-Trichloroethane	< 0.05	0.05	mg/kg wet							
1,1,2-Trichloroethane	< 0.05	0.05	mg/kg wet							
Trichloroethene	< 0.01	0.01	mg/kg wet							
Trichlorofluoromethane	< 0.10	0.10	mg/kg wet							
Vinyl chloride	< 0.10	0.10	mg/kg wet							
Xylenes (total)	< 0.10	0.10	mg/kg wet							
Surrogate: Toluene-d8	*12.2*		*mg/kg wet*	*10.0*		*122*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*10.3*		*mg/kg wet*	*10.0*		*103*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*10.0*		*mg/kg wet*	*10.0*		*100*	*60-140*			
LCS (B6J0262-BS1)				Prepared: 2016-10-05, Analyzed: 2016-10-05						
Benzene	2.16	0.02	mg/kg wet	2.00		108	70-130			
Bromodichloromethane	2.03	0.10	mg/kg wet	2.00		101	70-130			

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Volatile Organic Compounds (VOC), Batch B6J0262, Continued										
LCS (B6J0262-BS1), Continued				Prepared: 2016-10-05, Analyzed: 2016-10-05						
Bromoform	2.25	0.10	mg/kg wet	2.00		113	70-130			
Carbon tetrachloride	1.93	0.05	mg/kg wet	2.00		97	70-130			
Chlorobenzene	2.02	0.05	mg/kg wet	2.00		101	70-130			
Chloroform	2.08	0.05	mg/kg wet	2.00		104	70-130			
Dibromochloromethane	2.03	0.10	mg/kg wet	2.00		102	70-130			
1,2-Dibromoethane	2.11	0.10	mg/kg wet	2.00		106	70-130			
Dibromomethane	2.30	0.10	mg/kg wet	2.00		115	70-130			
1,2-Dichlorobenzene	2.16	0.05	mg/kg wet	2.00		108	70-130			
1,3-Dichlorobenzene	2.05	0.05	mg/kg wet	2.00		102	70-130			
1,4-Dichlorobenzene	2.07	0.05	mg/kg wet	2.00		103	70-130			
1,1-Dichloroethane	2.11	0.05	mg/kg wet	2.00		105	70-130			
1,2-Dichloroethane	2.33	0.05	mg/kg wet	2.00		116	70-130			
1,1-Dichloroethene	1.88	0.05	mg/kg wet	2.00		94	70-130			
cis-1,2-Dichloroethene	1.99	0.05	mg/kg wet	2.00		100	70-130			
trans-1,2-Dichloroethene	1.98	0.05	mg/kg wet	2.00		99	70-130			
1,2-Dichloropropane	2.13	0.05	mg/kg wet	2.00		106	70-130			
1,3-Dichloropropene	4.36	0.05	mg/kg wet	4.00		109	60-140			
Ethylbenzene	1.95	0.05	mg/kg wet	2.00		97	70-130			
Methyl tert-butyl ether	2.06	0.04	mg/kg wet	2.00		103	70-130			
Methylene chloride	2.13	0.10	mg/kg wet	2.00		107	70-130			
Styrene	1.74	0.05	mg/kg wet	2.00		87	70-130			
1,1,2,2-Tetrachloroethane	2.82	0.05	mg/kg wet	2.00		141	70-130			SPK
Tetrachloroethene	1.98	0.05	mg/kg wet	2.00		99	70-130			
Toluene	2.16	0.20	mg/kg wet	2.00		108	70-130			
1,1,1-Trichloroethane	1.98	0.05	mg/kg wet	2.00		99	70-130			
1,1,2-Trichloroethane	2.14	0.05	mg/kg wet	2.00		107	70-130			
Trichloroethene	1.97	0.01	mg/kg wet	2.00		98	70-130			
Trichlorofluoromethane	2.07	0.10	mg/kg wet	2.00		104	70-130			
Vinyl chloride	1.84	0.10	mg/kg wet	2.00		92	70-130			
Xylenes (total)	5.97	0.10	mg/kg wet	6.00		99	70-130			
Surrogate: Toluene-d8	*9.39*		*mg/kg wet*	*10.0*		*94*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*8.60*		*mg/kg wet*	*10.0*		*86*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*8.47*		*mg/kg wet*	*10.0*		*85*	*60-140*			

QC Qualifiers:

CST2 The Reporting Limit (RL) for this analyte has been raised.
SPK The recovery of this analyte was outside of established control limits.

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6100057
REPORTED 2016-11-08

		6100057-01	6100057-02	6100057-03	6100057-04	6100057-05	6100057-06
		Soil	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
		2016-09-29	**2016-09-29**	**2016-09-29**	**2016-09-29**	**2016-09-29**	**2016-09-29**
		PS06021-000-1609-SE001	**PS06021-000-1609-SE002**	**PS06021-000-1609-SE003**	**PS06021-000-1609-SE004**	**PS06021-000-1609-SE005**	**PS06021-000-1609-SE006**
General Parameters	Moisture (% wet)			22.6			
	pH (1:2 H2O Solution) (pH units)	8.6	7.0	8.8	7.6	8.2	8.7
Calculated Parameters	Total PAHs (mg/kg dry)			264			
Salinity Parameters (Sat. Paste Extract)	Chloride, Saturated Paste (mg/kg dry)			3530			
	Sodium, Saturated Paste (mg/kg dry)			2470			
TCLP Non-Volatile Extraction Details	Extraction Fluid pH (pH units)			4.91			
	Final Extract pH (pH units)			6.28			
Strong Acid Leachable Metals	Antimony (mg/kg dry)	0.4	0.1	0.3	0.1	0.3	6.1
	Arsenic (mg/kg dry)	2.9	2.3	3.2	2.0	2.7	7.1
	Barium (mg/kg dry)	13	23	24	23	17	17
	Beryllium (mg/kg dry)	0.2	0.2	0.2	0.2	0.3	0.2
	Boron (mg/kg dry)	8	4	9	4	19	13
	Cadmium (mg/kg dry)	0.13	0.05	0.16	0.05	0.11	0.28
	Chromium (mg/kg dry)	22.2	16.8	20.2	17.5	24.8	24.7
	Cobalt (mg/kg dry)	7.6	9.1	8.3	9.0	13.7	11.1
	Copper (mg/kg dry)	193	29.0	138	31.1	96.9	167
	Lead (mg/kg dry)	13.5	0.9	16.6	0.9	21.8	66.1
	Lithium (mg/kg dry)	6.5	5.2	8.9	5.4	12.0	10.9
	Manganese (mg/kg dry)	221	244	214	227	420	301
	Mercury (mg/kg dry)	1.93	< 0.04	0.11	< 0.04	< 0.04	0.59
	Molybdenum (mg/kg dry)	0.9	0.3	1.3	0.2	0.4	2.0
	Nickel (mg/kg dry)	17.3	14.3	15.1	15.6	24.5	19.6
	Selenium (mg/kg dry)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Silver (mg/kg dry)	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Strontium (mg/kg dry)	82.1	27.8	111	26.6	28.2	119
	Thallium (mg/kg dry)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Tin (mg/kg dry)	1.6	0.3	1.4	0.3	1.1	7.1
	Uranium (mg/kg dry)	0.39	0.37	0.87	0.38	0.53	0.95
	Vanadium (mg/kg dry)	92.5	84.9	86.3	87.9	101	107
	Zinc (mg/kg dry)	93	30	128	31	87	131
BCMOE Aggregate Hydrocarbons	VHs (6-10) (mg/kg dry)			< 20			
	VPHs (mg/kg dry)			< 20			
	EPHs10-19 (mg/kg dry)			280			
	EPHs19-32 (mg/kg dry)			570			
	LEPHs (mg/kg dry)			210			
	HEPHs (mg/kg dry)			500			
	Sur: 2-Methylnonane (%)			89			
Polycyclic Aromatic Hydrocarbons (PAH)	2-Methylnaphthalene (mg/kg dry)			0.236			
	Acenaphthene (mg/kg dry)			21.5			
	Acenaphthylene (mg/kg dry)			0.412			
	Anthracene (mg/kg dry)			13.4			
	Benz (a) anthracene (mg/kg dry)			9.34			
	Benzo (a) pyrene (mg/kg dry)			4.57			
	Benzo (b) fluoranthene (mg/kg dry)			5.92			

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6100057
REPORTED 2016-11-08

		6100057-01	6100057-02	6100057-03	6100057-04	6100057-05	6100057-06
		Soil	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
		2016-09-29	**2016-09-29**	**2016-09-29**	**2016-09-29**	**2016-09-29**	**2016-09-29**
		PS06021-000-1609-SE001	**PS06021-000-1609-SE002**	**PS06021-000-1609-SE003**	**PS06021-000-1609-SE004**	**PS06021-000-1609-SE005**	**PS06021-000-1609-SE006**
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo (k) fluoranthene (mg/kg dry)			4.02			
	Benzo (g,h,i) perylene (mg/kg dry)			0.770			
	Chrysene (mg/kg dry)			10.3			
	Dibenz (a,h) anthracene (mg/kg dry)			0.214			
	Fluoranthene (mg/kg dry)			71.0			
	Fluorene (mg/kg dry)			15.3			
	Indeno (1,2,3-cd) pyrene (mg/kg dry)			1.07			
	Naphthalene (mg/kg dry)			0.574			
	Phenanthrene (mg/kg dry)			71.9			
	Pyrene (mg/kg dry)			45.5			
	Sur: Naphthalene-d8 (%)			103			
	Sur: Acenaphthene-d10 (%)			100			
	Sur: Phenanthrene-d10 (%)			94			
	Sur: Chrysene-d12 (%)			78			
	Sur: Perylene-d12 (%)			93			
TCLP Semivolatiles	Benzo (a) pyrene (mg/L)			< 0.001			
	Sur: Naphthalene-d8 (%)			75			
	Sur: Perylene-d12 (%)			85			
Volatile Organic Compounds (VOC)	Benzene (mg/kg dry)			< 0.02			
	Bromodichloromethane (mg/kg dry)			< 0.10			
	Bromoform (mg/kg dry)			< 0.10			
	Carbon tetrachloride (mg/kg dry)			< 0.05			
	Chlorobenzene (mg/kg dry)			< 0.05			
	Chloroform (mg/kg dry)			< 0.05			
	Dibromochloromethane (mg/kg dry)			< 0.10			
	1,2-Dibromoethane (mg/kg dry)			< 0.10			
	Dibromomethane (mg/kg dry)			< 0.10			
	1,2-Dichlorobenzene (mg/kg dry)			< 0.05			
	1,3-Dichlorobenzene (mg/kg dry)			< 0.05			
	1,4-Dichlorobenzene (mg/kg dry)			< 0.05			
	1,1-Dichloroethane (mg/kg dry)			< 0.05			
	1,2-Dichloroethane (mg/kg dry)			< 0.05			
	1,1-Dichloroethene (mg/kg dry)			< 0.05			
	cis-1,2-Dichloroethene (mg/kg dry)			< 0.05			
	trans-1,2-Dichloroethene (mg/kg dry)			< 0.05			
	1,2-Dichloropropane (mg/kg dry)			< 0.05			
	1,3-Dichloropropene (mg/kg dry)			< 0.05			
	Ethylbenzene (mg/kg dry)			< 0.05			
	Methyl tert-butyl ether (mg/kg dry)			< 0.04			
	Methylene chloride (mg/kg dry)			< 0.10			
	Styrene (mg/kg dry)			< 0.05			
	1,1,2,2-Tetrachloroethane (mg/kg dry)			< 0.05			
	Tetrachloroethene (mg/kg dry)			< 0.05			
	Toluene (mg/kg dry)			< 0.20			
	1,1,1-Trichloroethane (mg/kg dry)			< 0.05			

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6100057
REPORTED 2016-11-08

		6100057-01	6100057-02	6100057-03	6100057-04	6100057-05	6100057-06
		Soil	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
		2016-09-29	**2016-09-29**	**2016-09-29**	**2016-09-29**	**2016-09-29**	**2016-09-29**
		PS06021-000-1609-SE001	**PS06021-000-1609-SE002**	**PS06021-000-1609-SE003**	**PS06021-000-1609-SE004**	**PS06021-000-1609-SE005**	**PS06021-000-1609-SE006**
Volatile Organic Compounds (VOC)	1,1,2-Trichloroethane (mg/kg dry)			< 0.05			
	Trichloroethene (mg/kg dry)			< 0.01			
	Trichlorofluoromethane (mg/kg dry)			0.22			
	Vinyl chloride (mg/kg dry)			< 0.10			
	Xylenes (total) (mg/kg dry)			< 0.10			
	Sur: Toluene-d8 (%)			89			
	Sur: 4-Bromofluorobenzene (%)			79			
	Sur: 1,4-Dichlorobenzene-d4 (%)			73			

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6100057
REPORTED 2016-11-08

		6100057-07	6100057-08	6100057-13	6100057-14
		Soil	**Soil**	**Soil**	**Soil**
		2016-09-29	**2016-09-29**	**2016-09-29**	**2016-09-29**
		PS06021-000-1609-SE007	**PS06021-000-1609-SE008**	**PS06021-000-1609-SE012**	**PS06021-000-1609-SE013**
General Parameters	Moisture (% wet)			14.6	
	pH (1:2 H2O Solution) (pH units)	8.1	8.6	7.9	6.9
Calculated Parameters	Total PAHs (mg/kg dry)			0.974	
TCLP Non-Volatile Extraction Details	Extraction Fluid pH (pH units)			4.91	
	Final Extract pH (pH units)			4.88	
Strong Acid Leachable Metals	Antimony (mg/kg dry)	2.6	0.5	6.9	1.0
	Arsenic (mg/kg dry)	11.2	4.0	10.0	2.3
	Barium (mg/kg dry)	43	12	15	8
	Beryllium (mg/kg dry)	0.2	0.2	0.3	0.1
	Boron (mg/kg dry)	21	10	11	5
	Cadmium (mg/kg dry)	0.74	0.28	0.58	0.12
	Chromium (mg/kg dry)	22.7	18.8	35.1	17.6
	Cobalt (mg/kg dry)	8.4	7.9	10.1	7.5
	Copper (mg/kg dry)	226	56.6	214	57.3
	Lead (mg/kg dry)	48.0	13.4	277	61.9
	Lithium (mg/kg dry)	9.8	8.1	9.5	7.4
	Manganese (mg/kg dry)	234	207	259	213
	Mercury (mg/kg dry)	0.30	0.07	0.53	0.15
	Molybdenum (mg/kg dry)	5.2	2.1	1.6	0.4
	Nickel (mg/kg dry)	17.1	14.6	24.0	13.4
	Selenium (mg/kg dry)	0.6	< 0.5	< 0.5	< 0.5
	Silver (mg/kg dry)	< 0.2	< 0.2	0.2	< 0.2
	Strontium (mg/kg dry)	56.6	58.0	25.9	21.5
	Thallium (mg/kg dry)	< 0.1	< 0.1	< 0.1	< 0.1
	Tin (mg/kg dry)	4.2	0.9	7.9	2.4
	Uranium (mg/kg dry)	2.24	1.84	0.78	0.98
	Vanadium (mg/kg dry)	88.3	100	102	93.6
	Zinc (mg/kg dry)	233	76	749	85
TCLP Metals	Antimony (mg/L)			< 0.005	
	Arsenic (mg/L)			< 0.010	
	Barium (mg/L)			< 1.0	
	Beryllium (mg/L)			< 0.050	
	Boron (mg/L)			< 0.50	
	Cadmium (mg/L)			< 0.001	
	Chromium (mg/L)			< 0.050	
	Cobalt (mg/L)			< 0.020	
	Copper (mg/L)			< 0.10	
	Iron (mg/L)			< 1.0	
	Lead (mg/L)			< 0.010	
	Mercury (mg/L)			< 0.001	
	Nickel (mg/L)			< 0.10	
	Selenium (mg/L)			< 0.020	
	Silver (mg/L)			< 0.001	
	Thallium (mg/L)			< 0.010	

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6100057
REPORTED 2016-11-08

		6100057-07	6100057-08	6100057-13	6100057-14
		Soil	**Soil**	**Soil**	**Soil**
		2016-09-29	**2016-09-29**	**2016-09-29**	**2016-09-29**
		PS06021-000-1609-SE007	**PS06021-000-1609-SE008**	**PS06021-000-1609-SE012**	**PS06021-000-1609-SE013**
TCLP Metals	Uranium (mg/L)			< 0.020	
	Vanadium (mg/L)			< 0.050	
	Zinc (mg/L)			0.53	
	Zirconium (mg/L)			< 0.050	
BCMOE Aggregate Hydrocarbons	VHs (6-10) (mg/kg dry)			< 20	
	VPHs (mg/kg dry)			< 20	
	EPHs10-19 (mg/kg dry)			< 50	
	EPHs19-32 (mg/kg dry)			67	
	LEPHs (mg/kg dry)			< 50	
	HEPHs (mg/kg dry)			67	
	Sur: 2-Methylnonane (%)			93	
Polycyclic Aromatic Hydrocarbons (PAH)	2-Methylnaphthalene (mg/kg dry)			< 0.010	
	Acenaphthene (mg/kg dry)			< 0.005	
	Acenaphthylene (mg/kg dry)			< 0.005	
	Anthracene (mg/kg dry)			0.019	
	Benz (a) anthracene (mg/kg dry)			0.100	
	Benzo (a) pyrene (mg/kg dry)			0.084	
	Benzo (b) fluoranthene (mg/kg dry)			0.122	
	Benzo (k) fluoranthene (mg/kg dry)			0.083	
	Benzo (g,h,i) perylene (mg/kg dry)			0.042	
	Chrysene (mg/kg dry)			0.152	
	Dibenz (a,h) anthracene (mg/kg dry)			0.009	
	Fluoranthene (mg/kg dry)			0.334	
	Fluorene (mg/kg dry)			< 0.010	
	Indeno (1,2,3-cd) pyrene (mg/kg dry)			0.048	
	Naphthalene (mg/kg dry)			< 0.010	
	Phenanthrene (mg/kg dry)			0.055	
	Pyrene (mg/kg dry)			0.222	
	Sur: Naphthalene-d8 (%)			85	
	Sur: Acenaphthene-d10 (%)			88	
	Sur: Phenanthrene-d10 (%)			82	
	Sur: Chrysene-d12 (%)			91	
	Sur: Perylene-d12 (%)			103	
Volatile Organic Compounds (VOC)	Benzene (mg/kg dry)			< 0.02	
	Bromodichloromethane (mg/kg dry)			< 0.10	
	Bromoform (mg/kg dry)			< 0.10	
	Carbon tetrachloride (mg/kg dry)			< 0.05	
	Chlorobenzene (mg/kg dry)			< 0.05	
	Chloroform (mg/kg dry)			< 0.05	
	Dibromochloromethane (mg/kg dry)			< 0.10	
	1,2-Dibromoethane (mg/kg dry)			< 0.10	
	Dibromomethane (mg/kg dry)			< 0.10	
	1,2-Dichlorobenzene (mg/kg dry)			< 0.05	
	1,3-Dichlorobenzene (mg/kg dry)			< 0.05	
	1,4-Dichlorobenzene (mg/kg dry)			< 0.05	

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6100057
PROJECT	640978	**REPORTED**	2016-11-08

		6100057-07	6100057-08	6100057-13	6100057-14
		Soil	**Soil**	**Soil**	**Soil**
		2016-09-29	**2016-09-29**	**2016-09-29**	**2016-09-29**
		PS06021-000-1609-SE007	**PS06021-000-1609-SE008**	**PS06021-000-1609-SE012**	**PS06021-000-1609-SE013**
Volatile Organic Compounds (VOC)	1,1-Dichloroethane (mg/kg dry)			< 0.05	
	1,2-Dichloroethane (mg/kg dry)			< 0.05	
	1,1-Dichloroethene (mg/kg dry)			< 0.05	
	cis-1,2-Dichloroethene (mg/kg dry)			< 0.05	
	trans-1,2-Dichloroethene (mg/kg dry)			< 0.05	
	1,2-Dichloropropane (mg/kg dry)			< 0.05	
	1,3-Dichloropropene (mg/kg dry)			< 0.05	
	Ethylbenzene (mg/kg dry)			0.06	
	Methyl tert-butyl ether (mg/kg dry)			< 0.04	
	Methylene chloride (mg/kg dry)			< 0.10	
	Styrene (mg/kg dry)			0.10	
	1,1,2,2-Tetrachloroethane (mg/kg dry)			< 0.05	
	Tetrachloroethene (mg/kg dry)			< 0.05	
	Toluene (mg/kg dry)			< 0.20	
	1,1,1-Trichloroethane (mg/kg dry)			< 0.05	
	1,1,2-Trichloroethane (mg/kg dry)			< 0.05	
	Trichloroethene (mg/kg dry)			< 0.01	
	Trichlorofluoromethane (mg/kg dry)			< 0.10	
	Vinyl chloride (mg/kg dry)			< 0.10	
	Xylenes (total) (mg/kg dry)			0.35	
	Sur: Toluene-d8 (%)			93	
	Sur: 4-Bromofluorobenzene (%)			86	
	Sur: 1,4-Dichlorobenzene-d4 (%)			85	

APPENDIX 3: REVISION HISTORY

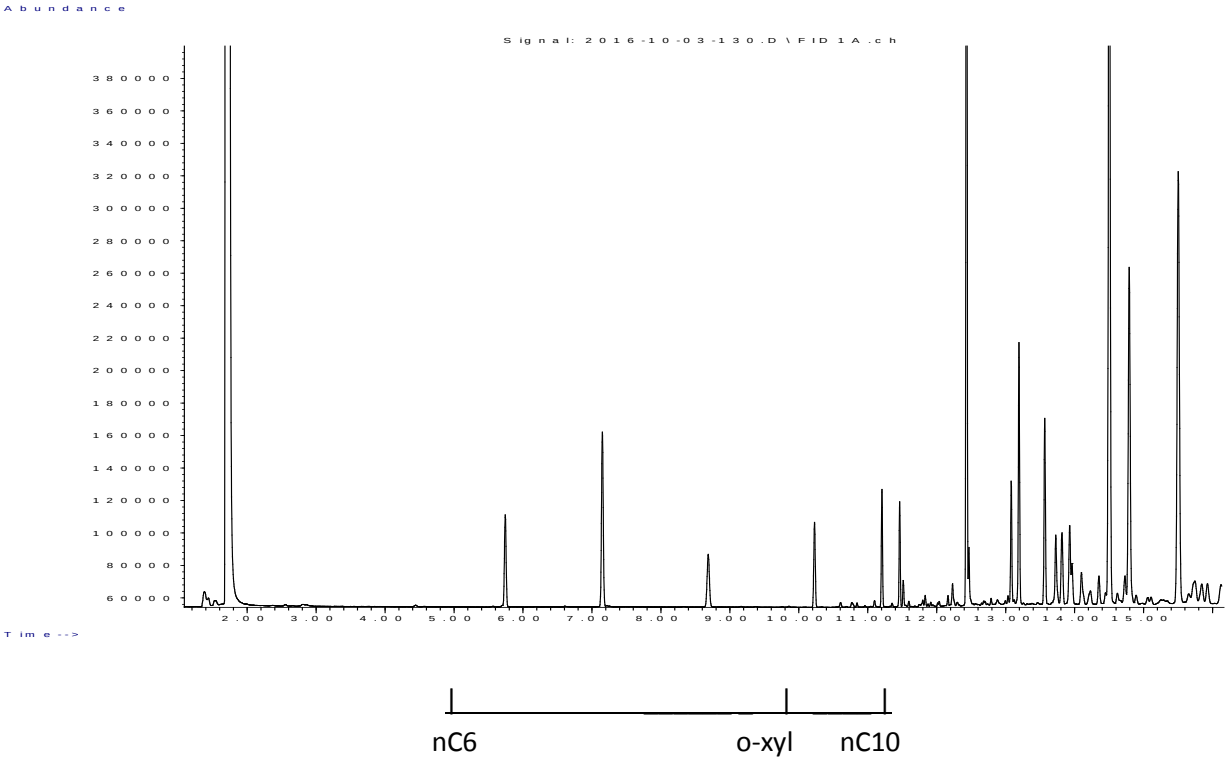
REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6100057
REPORTED 2016-11-08

Sample ID	Changed	Change	Analysis	Analyte(s)
6100057-01	2016-10-11	Sample ID	N/A	N/A
6100057-02	2016-10-11	Sample ID	N/A	N/A
6100057-03	2016-10-11	Sample ID	N/A	N/A
6100057-03	2016-10-11	Added	Polycyclic Aromatic Hydrocarbons + Total	
6100057-04	2016-10-11	Sample ID	N/A	N/A
6100057-05	2016-10-11	Sample ID	N/A	N/A
6100057-06	2016-10-11	Sample ID	N/A	N/A
6100057-07	2016-10-11	Sample ID	N/A	N/A
6100057-08	2016-10-11	Sample ID	N/A	N/A
6100057-09	2016-10-11	Sample ID	N/A	N/A
6100057-10	2016-10-11	Sample ID	N/A	N/A
6100057-11	2016-10-11	Sample ID	N/A	N/A
6100057-12	2016-10-11	Sample ID	N/A	N/A
6100057-13	2016-10-11	Sample ID	N/A	N/A
6100057-13	2016-10-11	Added	Polycyclic Aromatic Hydrocarbons + Total	
6100057-14	2016-10-11	Sample ID	N/A	N/A
6100057-03	2016-10-13	Added	TCLP Polycyclic Aromatic Hydrocarbons	
6100057-03	2016-10-13	VersionID	TCLP Polycyclic Aromatic Hydrocarbons	
6100057-03	2016-11-01	Added	Saturated Paste Chloride (mg/kg)	
6100057-03	2016-11-01	Added	Saturated Paste Extraction	
6100057-03	2016-11-01	Added	Saturated Paste Sodium (mg/kg)	
6100057-13	2016-11-01	Added	TCLP Metals by ICPMS	

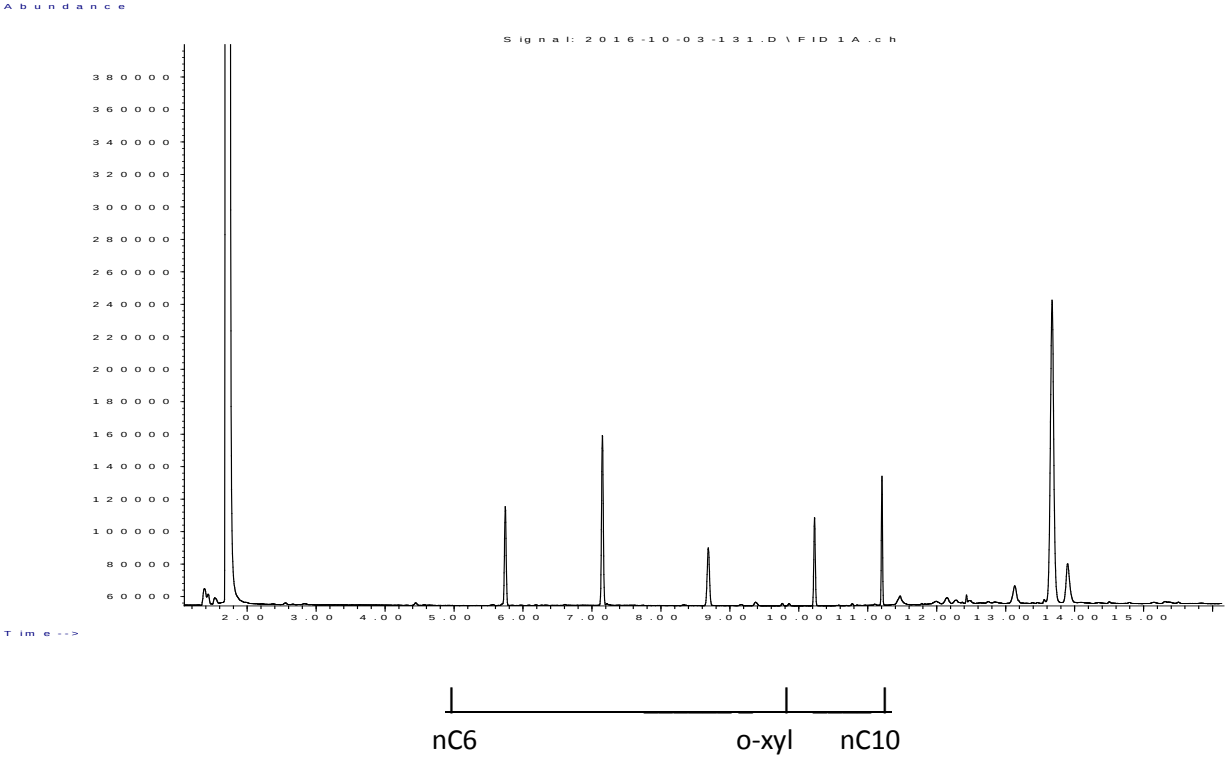
Client ID: PS06021-00-1609-SE003

CARO ID: 6100057-03



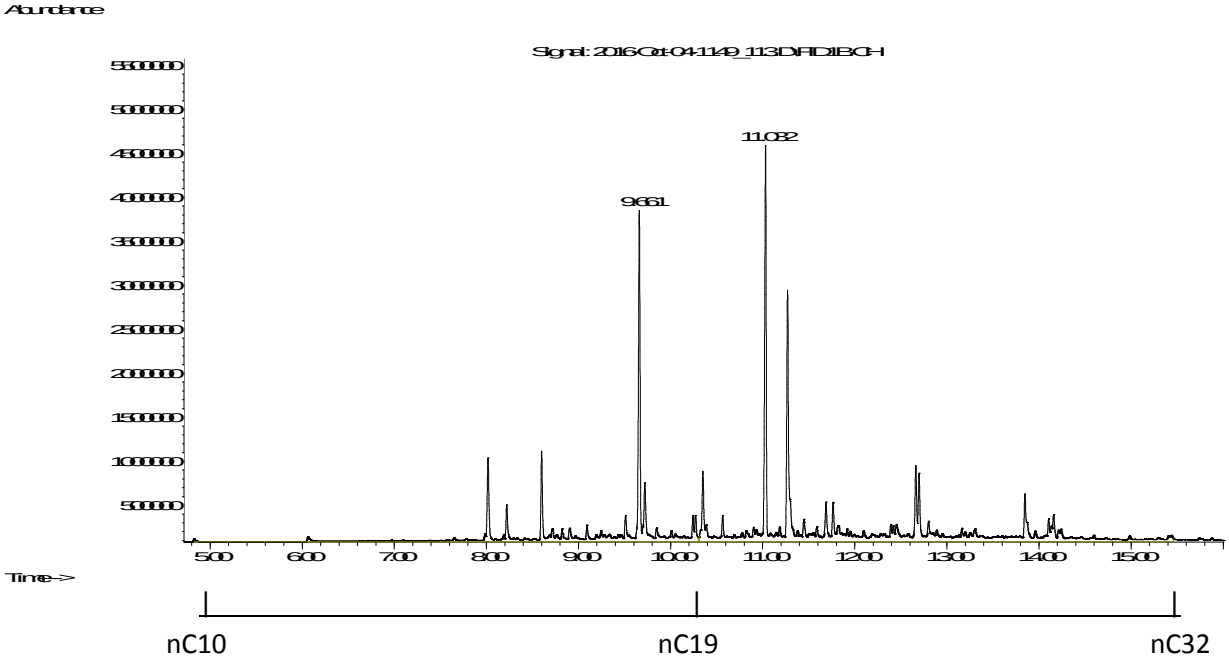
Client ID: PS06021-00-1609-SE012

CARO ID: 6100057-13



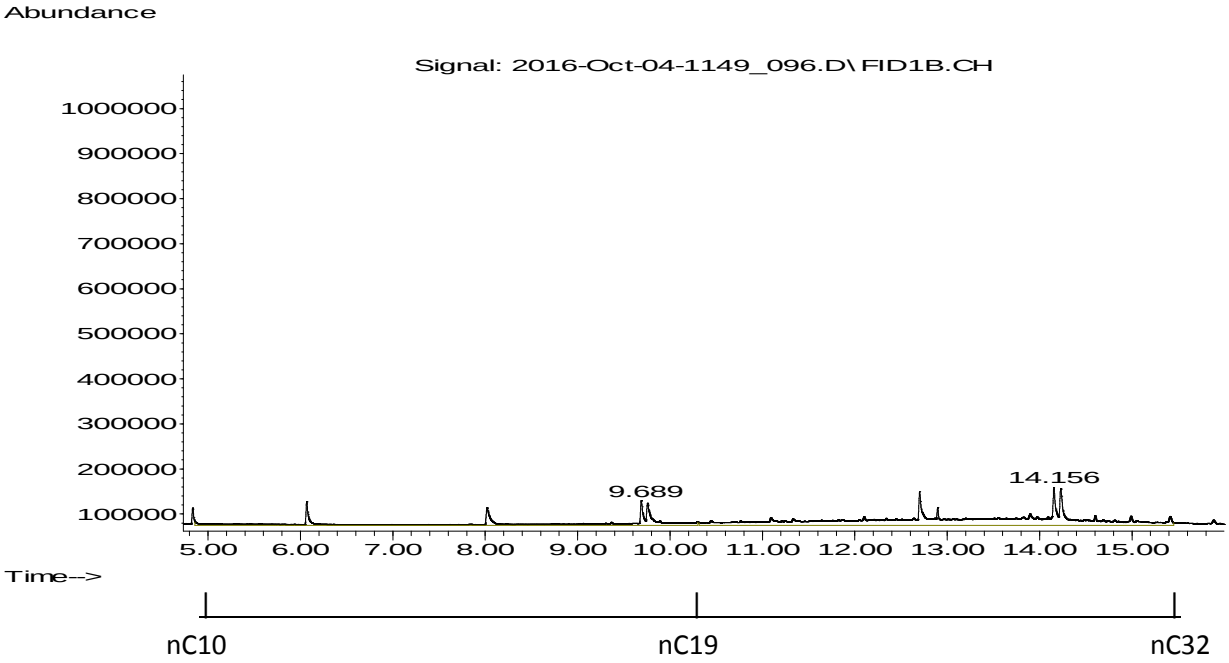
Client ID: PS06021-00-1609-SE003

Caro ID: 6100057-03



Client ID: PS06021-00-1609-SE012

Caro ID: 6100057-13



CARO ANALYTICAL
Caring About Results

6100057

CARO BC COC Rev 2015-09

CHAIN OF CUSTODY RECORD

COC# 640978 - 01 PAGE 1 OF 2

RELINQUISHED BY: Didi Grimes DATE: 16/09/21 TIME: 15:20

RECEIVED BY: DATE: TIME:

PROJECT: 640978

PROJECT INFO: Campbell River Small Craft Harbour

REPORT TO:
COMPANY: SNC-Lavalin
ADDRESS: 890 Crace Street, unit 202
Nanaimo, BC, V9R 2T3
CONTACT: Meredith Guest
TEL/FAX: 250-716-9000
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
DATA FORMAT: EXCEL ☐ WATERTRAX ☐ ESdat ☐ EQuIS ☒ BC EMS ☐ OTHER* ☐
EMAIL 1: meredith.guest@snclavalin.com
EMAIL 2: didi.grimes@snclavalin.com
EMAIL 3: chris.trendholm@snclavalin.com; scott.mos

INVOICE TO: SAME AS REPORT TO ☐
COMPANY: Fisheries & Oceans Canada
ADDRESS: Suite 200-401 Burrard Street
Vancouver, BC, V6C 3S4
CONTACT: Cher LaCoste
TEL/FAX:
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
EMAIL 1: scott.moseley@dfo-mpo.gc.ca
EMAIL 2:
EMAIL 3:
PO #:

TURNAROUND TIME REQUESTED:
Routine: (5-7 Days) ☒
Rush: 1 Day* ☐ 2 Day* ☐ 3 Day* ☐
Other* 4 day TAT
*Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Regs on Report? ☐
Canadian Drinking Water Quality Guidelines ☒
BC Drinking Water Protection Act / Reg. ☐
BC CSR ☒ AB TIER 1 ☐ CCME ☒ OTHER* ☒
AL ☐ PL ☐ RL ☐ CL ☐ IL ☐ AW ☐ IW ☐ LW ☐

** NEW ** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, check here: ☐

SAMPLED BY: C. Trenholm / D. Grimes

CLIENT SAMPLE ID:	MATRIX: DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE DD-MMM-YY	TIME HH:MM	COMMENTS: CHLORINATED	FILTERED	PRESERVED	(e.g. flow/volume media ID/notes)
PS06021-000-1609-SE001				X	2	29-SEP-16	10:20				
PS06021-000-1609-SE002				X	2		10:20				
PS06021-000-1609-SE003				X	7		10:20				
PS06021-000-1609-SE004				X	2		10:20				
PS06021-000-1609-SE005				X	2		11:00				
PS06021-000-1609-SE006				X	2		11:00				
PS06021-000-1609-SE007				X	2		11:00				
PS06021-000-1609-SE008				X	2		11:00				
PS06021-000-1609-SE009				X	2		11:25				
PS06021-000-1609-SE010				X	2		11:25				
PS06021-000-1609-SE910				X	2		11:25				
PS06021-000-1609-SE011				X	2		12:15				

ANALYSES REQUESTED:

CLIENT SAMPLE ID:	BTEX	VPH	PHC F1	VOC	VPH	EPH	PHC F2-F4	PAH	L/H EPH	PHENOLS Chlorinated	Non-Chlor	PCB	GLYCOLS	HAA	PESTICIDES	ACID HERBICIDES	METALS - WATER TOTAL	Hg	METALS - WATER DISSOLVED	Hg	METALS - SOIL (SALM)	Inc. pH	pH	EC	ALK	TSS	VSS	TDS	BOD	COD	TOC	MOG	HPC	FECAL COLIFORMS	E. coli	TOTAL COLIFORMS	ASBESTOS	HOLD
PS06021-000-1609-SE001																					X																	
PS06021-000-1609-SE002																					X																	
PS06021-000-1609-SE003				X				X													X																	
PS06021-000-1609-SE004																					X																	
PS06021-000-1609-SE005																					X																	
PS06021-000-1609-SE006																					X																	
PS06021-000-1609-SE007																					X																	
PS06021-000-1609-SE008																					X																	
PS06021-000-1609-SE009																																						
PS06021-000-1609-SE010																																						
PS06021-000-1609-SE910																																						
PS06021-000-1609-SE011																																						

SHIPPING INSTRUCTIONS: Return Cooler(s) ☐
Supplies Needed:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days ☐ 90 Days ☐ Longer Date (Surcharges will Apply):

OTHER INSTRUCTIONS:
Please provide a draft of the invoice to Meredith Guest and Chris Trenholm of SNC upon sample receipt. + Didi Grimes
Please use CCME / CSR Sediment standards/guidelines
Sediment Samples.

PAYMENT:
CHEQUE ☐
CREDIT ☐
DEBIT ☐
CASH ☐
INVOICE ☐

ARRIVE RECEIPT CONDITION:
COOLER 1 (°C): ____ ICE: Y ☐ N ☐
COOLER 2 (°C): ____ ICE: Y ☐ N ☐
COOLER 3 (°C): ____ ICE: Y ☐ N ☐
CUSTODY SEALS INTACT: NA ☐ Y ☐ N ☐

CARO ANALYTICAL SERVICES

Caring About Results... Obviously

☒ 110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599

☐ 102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893

☐ 17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

CARO BC COC Rev 2015-09

CHAIN OF CUSTODY RECORD

COC# 640978 - 02 PAGE 2 OF 2

RELINQUISHED BY: Didi Grimes — DATE: 16/09/29 — TIME: 15:20

RECEIVED BY: — DATE: — TIME:

PROJECT: 640978

PROJECT INFO: Campbell River Small Craft Harbour

REPORT TO:
COMPANY: SNC-Lavalin
ADDRESS: 890 Crace Street, unit 202
Nanaimo, BC, V9R 2T3
CONTACT: Meredith Guest
TEL/FAX: 250-716-9000
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
DATA FORMAT: EXCEL ☐ WATERTRAX ☐ ESdat ☐ EQuIS ☒ BC EMS ☐ OTHER* ☐
EMAIL 1: meredith.guest@snclavalin.com
EMAIL 2: didi.grimes@snclavalin.com
EMAIL 3: chris.trendholm@snclavalin.com; scott.mo

INVOICE TO: SAME AS REPORT TO ☐
COMPANY: Fisheries & Oceans Canada
ADDRESS: Suite 200-401 Burrard Street
Vancouver, BC, V6C 3S4
CONTACT: Cher LaCoste
TEL/FAX:
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
EMAIL 1: scott.moseley@dfo-mpo.gc.ca
EMAIL 2:
EMAIL 3:
PO #:

TURNAROUND TIME REQUESTED:
Routine: (5-7 Days) ☒
Rush: 1 Day* ☐ 2 Day* ☐ 3 Day* ☐
Other* 4 day TAT
*Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Regs on Report? ☐
Canadian Drinking Water Quality Guidelines ☒
BC Drinking Water Protection Act / Reg. ☐
BC CSR ☒ AB TIER 1 ☐ CCME ☒ OTHER* ☒
AL ☐ PL ☐ RL ☐ CL ☐ FL ☐ AW ☐ IW ☐ LW ☐

** NEW ** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, check here: ☐

SAMPLED BY: C. Trenholm / D. Grimes

ANALYSES REQUESTED:

CLIENT SAMPLE ID:	MATRIX: DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE DD-MMM-YY	TIME HH:MM	COMMENTS: CHLORINATED	FILTERED	PRESERVED	(e.g. flow/volume media ID/notes)	BTEX ☐ VPH ☐ PHC F1 ☐	VOC ☒ VPH ☒	EPH ☐ PHC F2-F4 ☐	PAH ☒ L/HEPH ☒	PHENOLS Chlorinated ☐ Non-Chlor. ☐	PCB ☐ GLYCOLS ☐ HAA ☐	PESTICIDES ☐ ACID HERBICIDES ☐	METALS - WATER TOTAL Hg ☐	METALS - WATER DISSOLVED Hg ☐	METALS - SOIL (SALM) ☒ inc pH ☒	pH ☐ EC ☐ ALK ☐	TSS ☐ VSS ☐ TDS ☐	BOD ☐ COD ☐	TOG ☐ MOG ☐	FECAL COLIFORMS ☐ HPC ☐	TOTAL COLIFORMS ☐ E.coli ☐	ASBESTOS	HOLD
PS06021 - 000-1609-SE012				X	5	29-Sep-16	12:15						X		X							X								
PS06021 - 000-1609-SE013				X	2	↓	12:15															X								
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SHIPPING INSTRUCTIONS: Return Cooler(s) ☐
Supplies Needed:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days ☐ 90 Days ☐ Longer Date (Surcharges will Apply):

*** OTHER INSTRUCTIONS:**
Please provide a draft of the invoice to Meredith Guest and Chris Trenholm of SNC upon sample receipt.
Please use CCME / CSR Sediment standards/guidelines + Didi Grimes

PAYMENT:
CHEQUE ☐
CREDIT ☐
DEBIT ☐
CASH ☐

SAMPLE RECEIPT CONDITION:
COOLER 1 (°C): ____ ICE: Y ☐ N ☐
COOLER 2 (°C): ____ ICE: Y ☐ N ☐
COOLER 3 (°C): ____ ICE: Y ☐ N ☐

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Nanaimo) Suite 202, 890 Crace Street Nanaimo, BC V9R 2T3	**TEL** **FAX**	 (250) 756-3520
ATTENTION	Meredith Guest	**WORK ORDER**	6101130
PO NUMBER		**RECEIVED / TEMP**	2016-10-18 09:30 / 6°C
PROJECT	640978	**REPORTED**	2016-11-08
PROJECT INFO	Campbell River Small Craft Harbour	**COC NUMBER**	640978-2016-01

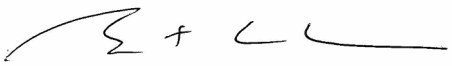
General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

Work Order Comments: **Custody Seals Intact:** YES

This is a revised report. Refer to Appendix 3 for details



Authorized By: **Brent Coates, B.Sc.**
Division Manager, Richmond

If you have any questions or concerns, please contact your Account Manager:
Bryan Shaw, Ph.D. (bshaw@caro.ca)

Locations:

#110 4011 Viking Way
Richmond, BC V6V 2K9
Tel: 604-279-1499 Fax: 604-279-1599

#102 3677 Highway 97N
Kelowna, BC V1X 5C3
Tel: 250-765-9646 Fax: 250-765-3893

17225 109 Avenue
Edmonton, AB T5S 1H7
Tel: 780-489-9100 Fax: 780-489-9700

www.caro.ca

TABLE OF CONTENTS

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6101130
PROJECT	640978	**REPORTED**	2016-11-08

ANALYSIS INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6101130
PROJECT	640978	**REPORTED**	2016-11-08

Analysis Description	Method Reference	Technique	Location
Metals in Sat. Paste Extract by ICPMS in Soil	EPA 6020A	Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
pH (1:2 Soil/Water) in Soil	Carter 16.2 / APHA 4500-H+ B	1:2 Soil/Water Slurry / Electrometry	Richmond
SALM by ICPMS in Soil	BCMOE SALM V.2 / EPA 6020A	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond
Saturated Paste Chloride (mg/kg) in Soil	APHA 4500-Cl- D*	Potentiometric Titration	Richmond
TCLP Extraction (Non-Volatiles) in Soil	EPA 1311	20:1 Leach for 18 h	Richmond
TCLP Leachable Metals by ICPMS in Soil	APHA 3030E* / EPA 6020A	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Method Reference Descriptions:

APHA	Standard Methods for the Examination of Water and Wastewater, 22nd Edition, American Public Health Association/American Water Works Association/Water Environment Federation
EPA	United States Environmental Protection Agency Test Methods

Glossary of Terms:

MRL	Method Reporting Limit
<	Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences
mg/kg dry	Milligrams per kilogram (dry weight)
mg/L	Milligrams per litre
pH units	pH < 7 = acidic, ph > 7 = basic

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6101130
PROJECT	640978	**REPORTED**	2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE014 (6101130-01) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**7.5**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**0.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**1.4**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**23**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**2**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.06**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**16.9**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**30.9**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**4.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**4.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**236**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	< 0.04	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**0.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**12.7**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**28.4**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**0.5**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.34**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**82.6**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**110**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE015 (6101130-02) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**8.5**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**0.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**2.0**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**21**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**4**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.18**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**17.0**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**321**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**25.4**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**5.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**173**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**1.16**	0.04	mg/kg dry	2016-10-19	2016-10-19	

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6101130
PROJECT	640978	**REPORTED**	2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE015 (6101130-02) [Sediment] Sampled: 2016-10-14 10:00, Continued						
Strong Acid Leachable Metals, Continued						
Molybdenum	**1.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**11.3**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**31.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**6.4**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.48**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**72.7**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**209**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE016 (6101130-03) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**6.6**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**1.3**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**20**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**2**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.05**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**13.8**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**29.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**0.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**4.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**207**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.04**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**0.4**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**11.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**20.8**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**0.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.27**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**76.3**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**28**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE017 (6101130-04) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**8.4**	0.1	pH units	2016-10-20	2016-10-20	

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6101130
PROJECT	640978	**REPORTED**	2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE017 (6101130-04) [Sediment] Sampled: 2016-10-14 10:00, Continued						
Strong Acid Leachable Metals						
Antimony	**0.4**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**3.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**14**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**9**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.30**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**17.9**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.7**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**126**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**14.5**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**5.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**183**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.13**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**0.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**13.4**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**80.4**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**1.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.55**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**78.8**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**168**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE018 (6101130-05) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**7.5**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**1.8**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**22**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**2**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.05**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**13.7**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**25.8**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**0.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**3.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**202**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	< 0.04	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**0.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**11.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE018 (6101130-05) [Sediment] Sampled: 2016-10-14 10:00, Continued						
Strong Acid Leachable Metals, Continued						
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**21.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**0.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.26**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**72.4**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**26**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE019 (6101130-06) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**8.4**	0.1	pH units	2016-10-20	2016-10-20	
Salinity Parameters (Sat. Paste Extract)						
Chloride, Saturated Paste	**7720**	25	mg/kg dry	2016-11-07	2016-11-07	
Sodium, Saturated Paste	**5200**	0.4	mg/kg dry	2016-11-07	2016-11-08	
TCLP Non-Volatile Extraction Details						
Extraction Fluid pH	**4.89**		pH units	N/A	2016-11-03	
Final Extract pH	**6.44**		pH units	N/A	2016-11-03	
Strong Acid Leachable Metals						
Antimony	**1.4**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**11.6**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**172**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**25**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**5.28**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**30.1**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**4700**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**84.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**7.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**196**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**2.93**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**3.7**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**19.7**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	**0.6**	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	**0.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**347**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**27.1**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**1.41**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**64.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**2620**	2	mg/kg dry	2016-10-19	2016-10-19	
TCLP Metals						

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE019 (6101130-06) [Sediment] Sampled: 2016-10-14 10:00, Continued						
TCLP Metals, Continued						
Antimony	< 0.005	0.005	mg/L	2016-11-02	2016-11-03	
Arsenic	< 0.010	0.010	mg/L	2016-11-02	2016-11-03	
Barium	< 1.0	1.0	mg/L	2016-11-02	2016-11-03	
Beryllium	< 0.050	0.050	mg/L	2016-11-02	2016-11-03	
Boron	< 0.50	0.50	mg/L	2016-11-02	2016-11-03	
Cadmium	< 0.001	0.001	mg/L	2016-11-02	2016-11-03	
Chromium	< 0.050	0.050	mg/L	2016-11-02	2016-11-03	
Cobalt	< 0.020	0.020	mg/L	2016-11-02	2016-11-03	
Copper	< 0.10	0.10	mg/L	2016-11-02	2016-11-03	
Iron	**56**	1.0	mg/L	2016-11-02	2016-11-03	
Lead	< 0.010	0.010	mg/L	2016-11-02	2016-11-03	
Mercury	< 0.001	0.001	mg/L	2016-11-02	2016-11-03	
Nickel	< 0.10	0.10	mg/L	2016-11-02	2016-11-03	
Selenium	< 0.020	0.020	mg/L	2016-11-02	2016-11-03	
Silver	< 0.001	0.001	mg/L	2016-11-02	2016-11-03	
Thallium	< 0.010	0.010	mg/L	2016-11-02	2016-11-03	
Uranium	< 0.020	0.020	mg/L	2016-11-02	2016-11-03	
Vanadium	< 0.050	0.050	mg/L	2016-11-02	2016-11-03	
Zinc	< 0.50	0.50	mg/L	2016-11-02	2016-11-03	
Zirconium	< 0.050	0.050	mg/L	2016-11-02	2016-11-03	
Sample ID: PS06021-000-1610-SE020 (6101130-07) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**6.3**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**1.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**11**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**3**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.31**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**14.0**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**36.1**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**9.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**5.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**180**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.07**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**1.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**12.3**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**20.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE020 (6101130-07) [Sediment] Sampled: 2016-10-14 10:00, Continued						
Strong Acid Leachable Metals, Continued						
Tin	**0.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.55**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**68.9**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**59**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE021 (6101130-08) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**8.1**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**1.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**8.3**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**20**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**16**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**1.01**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**21.1**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**218**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**40.1**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**8.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**203**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**1.11**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**3.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**15.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	**0.7**	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**32.8**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**6.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**1.23**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**77.3**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**171**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE022 (6101130-09) [Sediment] Sampled: 2016-10-14 10:00						
General Parameters						
pH (1:2 H2O Solution)	**6.2**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**0.4**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**3.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**18**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**5**	2	mg/kg dry	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE022 (6101130-09) [Sediment] Sampled: 2016-10-14 10:00, Continued						
Strong Acid Leachable Metals, Continued						
Cadmium	**0.78**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**17.4**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**58.9**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**21.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**7.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**184**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.16**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**5.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**15.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	**0.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**24.8**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**1.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**1.50**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**71.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**108**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE023 (6101130-10) [Sediment] Sampled: 2016-10-14 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.5**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**2.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**10.8**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**78**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**9**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.88**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**22.9**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.7**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**1930**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**76.1**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**6.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**180**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**2.86**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**2.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**18.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	**0.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**240**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**16.0**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.85**	0.05	mg/kg dry	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE023 (6101130-10) [Sediment] Sampled: 2016-10-14 11:00, Continued						
Strong Acid Leachable Metals, Continued						
Vanadium	**68.4**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**554**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE024 (6101130-11) [Sediment] Sampled: 2016-10-14 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.2**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**5.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**10.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**18**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**4**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.55**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**16.4**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**234**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**43.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**6.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**177**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**2.12**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**1.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**13.1**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**41.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**6.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.56**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**71.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**180**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE025 (6101130-12) [Sediment] Sampled: 2016-10-14 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.3**	0.1	pH units	2016-10-26	2016-10-26	
Strong Acid Leachable Metals						
Antimony	**2.4**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Arsenic	**8.7**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Barium	**23**	1	mg/kg dry	2016-10-26	2016-10-26	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Boron	**14**	2	mg/kg dry	2016-10-26	2016-10-26	
Cadmium	**0.62**	0.04	mg/kg dry	2016-10-26	2016-10-26	
Chromium	**20.9**	1.0	mg/kg dry	2016-10-26	2016-10-26	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE025 (6101130-12) [Sediment] Sampled: 2016-10-14 11:00, Continued						
Strong Acid Leachable Metals, Continued						
Cobalt	**8.0**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Copper	**290**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Lead	**41.3**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Lithium	**10.5**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Manganese	**211**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Mercury	**0.62**	0.04	mg/kg dry	2016-10-26	2016-10-26	
Molybdenum	**2.8**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Nickel	**15.9**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-26	2016-10-26	
Silver	**0.3**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Strontium	**55.2**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-26	2016-10-26	
Tin	**4.0**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Uranium	**0.98**	0.05	mg/kg dry	2016-10-26	2016-10-26	
Vanadium	**78.8**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Zinc	**180**	2	mg/kg dry	2016-10-26	2016-10-26	
Sample ID: PS06021-000-1610-SE027 (6101130-14) [Sediment] Sampled: 2016-10-14 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.2**	0.1	pH units	2016-10-26	2016-10-26	
Strong Acid Leachable Metals						
Antimony	**1.0**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Arsenic	**9.4**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Barium	**27**	1	mg/kg dry	2016-10-26	2016-10-26	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Boron	**25**	2	mg/kg dry	2016-10-26	2016-10-26	
Cadmium	**1.00**	0.04	mg/kg dry	2016-10-26	2016-10-26	
Chromium	**29.8**	1.0	mg/kg dry	2016-10-26	2016-10-26	
Cobalt	**8.0**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Copper	**667**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Lead	**59.7**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Lithium	**10.3**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Manganese	**214**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Mercury	**0.72**	0.04	mg/kg dry	2016-10-26	2016-10-26	
Molybdenum	**5.5**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Nickel	**19.9**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Selenium	**0.7**	0.5	mg/kg dry	2016-10-26	2016-10-26	
Silver	**0.3**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Strontium	**42.2**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Thallium	**0.1**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Tin	**7.1**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Uranium	**1.47**	0.05	mg/kg dry	2016-10-26	2016-10-26	
Vanadium	**78.1**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Zinc	**222**	2	mg/kg dry	2016-10-26	2016-10-26	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE029 (6101130-16) [Sediment] Sampled: 2016-10-14 11:00						
General Parameters						
pH (1:2 H2O Solution)	**8.0**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**1.7**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**9.0**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**23**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**17**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**1.02**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**23.3**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**206**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**42.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**9.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**216**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.45**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**4.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**16.9**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	**0.7**	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	**0.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**33.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**6.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**1.43**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**77.8**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**187**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE030 (6101130-17) [Sediment] Sampled: 2016-10-14 12:00						
General Parameters						
pH (1:2 H2O Solution)	**6.1**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**0.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**5.8**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**19**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**6**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**1.08**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**19.3**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**81.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**30.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**8.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**208**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.28**	0.04	mg/kg dry	2016-10-19	2016-10-19	

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PROJECT	640978	**REPORTED**	2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE030 (6101130-17) [Sediment] Sampled: 2016-10-14 12:00, Continued						
Strong Acid Leachable Metals, Continued						
Molybdenum	**4.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**15.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	**0.6**	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**32.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**1.9**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**1.63**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**78.7**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**150**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE031 (6101130-18) [Sediment] Sampled: 2016-10-14 12:00						
General Parameters						
pH (1:2 H2O Solution)	**8.1**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**21.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**35.3**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**42**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**21**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**1.41**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**32.5**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**8.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**440**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**205**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**9.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**219**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**1.54**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**7.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**19.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	**0.7**	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	**0.4**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**47.0**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**12.4**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**1.82**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**76.1**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**433**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE032 (6101130-19) [Sediment] Sampled: 2016-10-14 12:00						
General Parameters						
pH (1:2 H2O Solution)	**7.9**	0.1	pH units	2016-10-20	2016-10-20	

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PROJECT	640978	**REPORTED**	2016-11-08

Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE032 (6101130-19) [Sediment] Sampled: 2016-10-14 12:00, Continued						
Strong Acid Leachable Metals						
Antimony	**0.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**4.6**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**19**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**10**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.73**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**19.3**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**91.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**23.8**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**8.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**214**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.51**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**3.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**16.0**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	**0.5**	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**36.0**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**2.1**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**1.20**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**83.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**105**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE033 (6101130-20) [Sediment] Sampled: 2016-10-14 12:00						
General Parameters						
pH (1:2 H2O Solution)	**8.8**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**0.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**3.0**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**23**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**9**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.20**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**19.5**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**244**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**22.3**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**5.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**186**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.43**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**1.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**14.4**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE033 (6101130-20) [Sediment] Sampled: 2016-10-14 12:00, Continued						
Strong Acid Leachable Metals, Continued						
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**223**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**2.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.46**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**79.7**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**164**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE034 (6101130-21) [Sediment] Sampled: 2016-10-14 13:00						
General Parameters						
pH (1:2 H2O Solution)	**8.4**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**0.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**3.7**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**17**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**10**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.25**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**16.7**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**201**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**14.0**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**5.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**168**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.14**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**0.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**12.3**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**186**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**1.4**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.47**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**71.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**142**	2	mg/kg dry	2016-10-19	2016-10-25	
Sample ID: PS06021-000-1610-SE934 (6101130-22) [Sediment] Sampled: 2016-10-14 13:00						
General Parameters						
pH (1:2 H2O Solution)	**8.4**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**0.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**3.0**	0.4	mg/kg dry	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE934 (6101130-22) [Sediment] Sampled: 2016-10-14 13:00, Continued						
Strong Acid Leachable Metals, Continued						
Barium	**18**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**10**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.26**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**15.6**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**136**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**11.7**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**4.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**170**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.23**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**0.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**11.8**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**267**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**1.4**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.43**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**70.1**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**117**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE036 (6101130-24) [Sediment] Sampled: 2016-10-14 13:00						
General Parameters						
pH (1:2 H2O Solution)	**8.6**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**1.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**8.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**75**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**15**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.78**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**21.2**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**1180**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**51.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**6.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**176**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**1.39**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**1.7**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**20.1**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**305**	0.2	mg/kg dry	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE036 (6101130-24) [Sediment] Sampled: 2016-10-14 13:00, Continued						
Strong Acid Leachable Metals, Continued						
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**8.9**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.79**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**65.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**672**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE936 (6101130-25) [Sediment] Sampled: 2016-10-14 13:00						
General Parameters						
pH (1:2 H2O Solution)	**8.5**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**2.6**	0.1	mg/kg dry	2016-10-19	2016-10-25	
Arsenic	**8.5**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**49**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**15**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.64**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**22.5**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.6**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**794**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**57.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**6.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**184**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**1.80**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**1.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**15.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**300**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**7.6**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.77**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**64.6**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**438**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE038 (6101130-27) [Sediment] Sampled: 2016-10-14 13:30						
General Parameters						
pH (1:2 H2O Solution)	**8.5**	0.1	pH units	2016-10-26	2016-10-26	
Strong Acid Leachable Metals						
Antimony	**0.7**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Arsenic	**6.2**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Barium	**22**	1	mg/kg dry	2016-10-26	2016-10-26	
Beryllium	**0.2**	0.1	mg/kg dry	2016-10-26	2016-10-26	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE038 (6101130-27) [Sediment] Sampled: 2016-10-14 13:30, Continued						
Strong Acid Leachable Metals, Continued						
Boron	**20**	2	mg/kg dry	2016-10-26	2016-10-26	
Cadmium	**0.69**	0.04	mg/kg dry	2016-10-26	2016-10-26	
Chromium	**19.9**	1.0	mg/kg dry	2016-10-26	2016-10-26	
Cobalt	**6.9**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Copper	**117**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Lead	**22.3**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Lithium	**9.1**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Manganese	**193**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Mercury	**0.16**	0.04	mg/kg dry	2016-10-26	2016-10-26	
Molybdenum	**2.8**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Nickel	**13.9**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-26	2016-10-26	
Silver	**0.3**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Strontium	**32.6**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Thallium	**0.1**	0.1	mg/kg dry	2016-10-26	2016-10-26	
Tin	**1.9**	0.2	mg/kg dry	2016-10-26	2016-10-26	
Uranium	**1.24**	0.05	mg/kg dry	2016-10-26	2016-10-26	
Vanadium	**77.9**	0.4	mg/kg dry	2016-10-26	2016-10-26	
Zinc	**126**	2	mg/kg dry	2016-10-26	2016-10-26	
Sample ID: PS06021-000-1610-SE041 (6101130-31) [Sediment] Sampled: 2016-10-14 13:30						
General Parameters						
pH (1:2 H2O Solution)	**7.8**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**1.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**7.8**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**25**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**27**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.84**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**22.4**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**6.5**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**133**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**119**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**7.3**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**189**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.38**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**4.0**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**15.4**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	**0.7**	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	**0.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**37.0**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**4.1**	0.2	mg/kg dry	2016-10-19	2016-10-19	

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Analyte	Result / *Recovery*	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: PS06021-000-1610-SE041 (6101130-31) [Sediment] Sampled: 2016-10-14 13:30, Continued						
Strong Acid Leachable Metals, Continued						
Uranium	**1.43**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**64.4**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**172**	2	mg/kg dry	2016-10-19	2016-10-19	
Sample ID: PS06021-000-1610-SE042 (6101130-32) [Sediment] Sampled: 2016-10-14 13:30						
General Parameters						
pH (1:2 H2O Solution)	**8.6**	0.1	pH units	2016-10-20	2016-10-20	
Strong Acid Leachable Metals						
Antimony	**8.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Arsenic	**17.7**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Barium	**54**	1	mg/kg dry	2016-10-19	2016-10-19	
Beryllium	**0.1**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Boron	**10**	2	mg/kg dry	2016-10-19	2016-10-19	
Cadmium	**0.35**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Chromium	**27.8**	1.0	mg/kg dry	2016-10-19	2016-10-19	
Cobalt	**7.8**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Copper	**566**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lead	**63.2**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Lithium	**5.9**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Manganese	**205**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Mercury	**0.39**	0.04	mg/kg dry	2016-10-19	2016-10-19	
Molybdenum	**2.2**	0.1	mg/kg dry	2016-10-19	2016-10-19	
Nickel	**17.6**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Selenium	< 0.5	0.5	mg/kg dry	2016-10-19	2016-10-19	
Silver	< 0.2	0.2	mg/kg dry	2016-10-19	2016-10-19	
Strontium	**55.9**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Thallium	< 0.1	0.1	mg/kg dry	2016-10-19	2016-10-19	
Tin	**9.5**	0.2	mg/kg dry	2016-10-19	2016-10-19	
Uranium	**0.47**	0.05	mg/kg dry	2016-10-19	2016-10-19	
Vanadium	**77.2**	0.4	mg/kg dry	2016-10-19	2016-10-19	
Zinc	**276**	2	mg/kg dry	2016-10-19	2016-10-19	

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- **Duplicate (Dup)**: Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- **Blank Spike (BS)**: A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- **Standard Reference Material (SRM)**: A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
General Parameters, Batch B6J1121										
Duplicate (B6J1121-DUP1)	**Source: 6101130-01**			Prepared: 2016-10-20, Analyzed: 2016-10-20						
pH (1:2 H2O Solution)	7.5	0.1	pH units		7.5			< 1	4	
Duplicate (B6J1121-DUP2)	**Source: 6101130-03**			Prepared: 2016-10-20, Analyzed: 2016-10-20						
pH (1:2 H2O Solution)	6.6	0.1	pH units		6.6			< 1	4	
Reference (B6J1121-SRM1)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
pH (1:2 H2O Solution)	8.5	0.1	pH units	8.18		104	95-105			
Reference (B6J1121-SRM2)				Prepared: 2016-10-20, Analyzed: 2016-10-20						
pH (1:2 H2O Solution)	8.4	0.1	pH units	8.18		103	95-105			
General Parameters, Batch B6J1684										
Duplicate (B6J1684-DUP1)	**Source: 6101130-12**			Prepared: 2016-10-26, Analyzed: 2016-10-26						
pH (1:2 H2O Solution)	8.5	0.1	pH units		8.3			2	4	
Reference (B6J1684-SRM1)				Prepared: 2016-10-26, Analyzed: 2016-10-26						
pH (1:2 H2O Solution)	8.6	0.1	pH units	8.18		105	95-105			
Reference (B6J1684-SRM2)				Prepared: 2016-10-26, Analyzed: 2016-10-26						
pH (1:2 H2O Solution)	8.8	0.1	pH units	8.18		107	95-105			SRM
Salinity Parameters (Sat. Paste Extract), Batch B6K0438										
Blank (B6K0438-BLK1)				Prepared: 2016-11-07, Analyzed: 2016-11-07						
Chloride, Saturated Paste	< 25	25	mg/kg dry							
Reference (B6K0438-SRM1)				Prepared: 2016-11-07, Analyzed: 2016-11-07						
Chloride, Saturated Paste	1500	25	mg/kg dry	1470		102	80-120			
Salinity Parameters (Sat. Paste Extract), Batch B6K0441										

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Salinity Parameters (Sat. Paste Extract), Batch B6K0441, Continued										
Blank (B6K0441-BLK1)				Prepared: 2016-11-07, Analyzed: 2016-11-08						
Sodium, Saturated Paste	< 1.8	0.4	mg/kg dry							
Reference (B6K0441-SRM1)				Prepared: 2016-11-07, Analyzed: 2016-11-08						
Sodium, Saturated Paste	1000	0.4	mg/kg dry	1030		97	80-120			
Strong Acid Leachable Metals, Batch B6J1125										
Blank (B6J1125-BLK1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Antimony	< 0.1	0.1	mg/kg dry							
Arsenic	< 0.4	0.4	mg/kg dry							
Barium	< 1	1	mg/kg dry							
Beryllium	< 0.1	0.1	mg/kg dry							
Boron	< 2	2	mg/kg dry							
Cadmium	< 0.04	0.04	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.1	0.1	mg/kg dry							
Copper	< 0.2	0.2	mg/kg dry							
Lead	< 0.2	0.2	mg/kg dry							
Lithium	< 0.1	0.1	mg/kg dry							
Manganese	< 0.4	0.4	mg/kg dry							
Mercury	< 0.04	0.04	mg/kg dry							
Molybdenum	< 0.1	0.1	mg/kg dry							
Nickel	< 0.4	0.4	mg/kg dry							
Selenium	< 0.5	0.5	mg/kg dry							
Silver	< 0.2	0.2	mg/kg dry							
Strontium	< 0.2	0.2	mg/kg dry							
Thallium	< 0.1	0.1	mg/kg dry							
Tin	< 0.2	0.2	mg/kg dry							
Uranium	< 0.05	0.05	mg/kg dry							
Vanadium	< 0.4	0.4	mg/kg dry							
Zinc	< 2	2	mg/kg dry							
Blank (B6J1125-BLK2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Antimony	< 0.1	0.1	mg/kg dry							
Arsenic	< 0.4	0.4	mg/kg dry							
Barium	< 1	1	mg/kg dry							
Beryllium	< 0.1	0.1	mg/kg dry							
Boron	< 2	2	mg/kg dry							
Cadmium	< 0.04	0.04	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.1	0.1	mg/kg dry							
Copper	< 0.2	0.2	mg/kg dry							
Lead	< 0.2	0.2	mg/kg dry							
Lithium	< 0.1	0.1	mg/kg dry							
Manganese	< 0.4	0.4	mg/kg dry							
Mercury	< 0.04	0.04	mg/kg dry							
Molybdenum	< 0.1	0.1	mg/kg dry							
Nickel	< 0.4	0.4	mg/kg dry							
Selenium	< 0.5	0.5	mg/kg dry							
Silver	< 0.2	0.2	mg/kg dry							
Strontium	< 0.2	0.2	mg/kg dry							
Thallium	< 0.1	0.1	mg/kg dry							
Tin	< 0.2	0.2	mg/kg dry							
Uranium	< 0.05	0.05	mg/kg dry							
Vanadium	< 0.4	0.4	mg/kg dry							
Zinc	< 2	2	mg/kg dry							

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Strong Acid Leachable Metals, Batch B6J1125, Continued										
Duplicate (B6J1125-DUP2)	**Source: 6101130-32**			Prepared: 2016-10-19, Analyzed: 2016-10-19						
Antimony	7.5	0.1	mg/kg dry		8.8			17	60	
Arsenic	13.6	0.4	mg/kg dry		17.7			26	42	
Barium	33	1	mg/kg dry		54			49	38	RPD
Beryllium	0.1	0.1	mg/kg dry		0.1				37	
Boron	10	2	mg/kg dry		10			< 1	29	
Cadmium	0.34	0.04	mg/kg dry		0.35			2	32	
Chromium	40.7	1.0	mg/kg dry		27.8			38	32	RPD
Cobalt	7.7	0.1	mg/kg dry		7.8			2	26	
Copper	481	0.2	mg/kg dry		566			16	38	
Lead	58.3	0.2	mg/kg dry		63.2			8	46	
Lithium	5.7	0.1	mg/kg dry		5.9			2	28	
Manganese	188	0.4	mg/kg dry		205			8	23	
Mercury	0.64	0.04	mg/kg dry		0.39			48	42	RPD
Molybdenum	2.2	0.1	mg/kg dry		2.2			< 1	52	
Nickel	24.3	0.4	mg/kg dry		17.6			32	29	RPD
Selenium	< 0.5	0.5	mg/kg dry		< 0.5				19	
Silver	< 0.2	0.2	mg/kg dry		0.2				35	
Strontium	60.6	0.2	mg/kg dry		55.9			8	25	
Thallium	< 0.1	0.1	mg/kg dry		< 0.1				27	
Tin	8.8	0.2	mg/kg dry		9.5			8	85	
Uranium	0.46	0.05	mg/kg dry		0.47			2	36	
Vanadium	70.0	0.4	mg/kg dry		77.2			10	23	
Zinc	301	2	mg/kg dry		276			9	30	
Reference (B6J1125-SRM1)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Antimony	5.8	0.1	mg/kg dry	6.27		92	73-138			
Arsenic	14.7	0.4	mg/kg dry	15.4		95	87-106			
Barium	76	1	mg/kg dry	80.6		94	72-119			
Beryllium	0.4	0.1	mg/kg dry	0.544		80	73-128			
Boron	3	2	mg/kg dry	2.68		97	58-139			
Cadmium	0.22	0.04	mg/kg dry	0.230		96	88-121			
Chromium	28.6	1.0	mg/kg dry	27.2		105	91-113			
Cobalt	11.8	0.1	mg/kg dry	12.5		94	90-109			
Copper	44.8	0.2	mg/kg dry	44.9		100	92-112			
Lead	13.7	0.2	mg/kg dry	14.4		95	89-111			
Lithium	8.8	0.1	mg/kg dry	9.26		95	73-124			
Manganese	1070	0.4	mg/kg dry	1100		98	93-112			
Mercury	0.09	0.04	mg/kg dry	0.0980		90	74-126			
Molybdenum	0.8	0.1	mg/kg dry	0.738		109	93-120			
Nickel	18.1	0.4	mg/kg dry	17.4		104	93-110			
Strontium	11.3	0.2	mg/kg dry	11.6		98	85-116			
Tin	1.0	0.2	mg/kg dry	1.10		87	78-120			
Uranium	0.77	0.05	mg/kg dry	0.940		82	80-102			
Vanadium	53.6	0.4	mg/kg dry	54.9		98	87-116			
Zinc	68	2	mg/kg dry	67.5		101	91-113			
Reference (B6J1125-SRM2)				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Antimony	6.0	0.1	mg/kg dry	6.27		95	73-138			
Arsenic	14.6	0.4	mg/kg dry	15.4		95	87-106			
Barium	77	1	mg/kg dry	80.6		96	72-119			
Beryllium	0.5	0.1	mg/kg dry	0.544		87	73-128			
Boron	2	2	mg/kg dry	2.68		90	58-139			
Cadmium	0.21	0.04	mg/kg dry	0.230		91	88-121			
Chromium	27.0	1.0	mg/kg dry	27.2		99	91-113			
Cobalt	11.7	0.1	mg/kg dry	12.5		93	90-109			
Copper	44.2	0.2	mg/kg dry	44.9		98	92-112			
Lead	15.3	0.2	mg/kg dry	14.4		106	89-111			

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Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Strong Acid Leachable Metals, Batch B6J1125, Continued										
Reference (B6J1125-SRM2), Continued				Prepared: 2016-10-19, Analyzed: 2016-10-19						
Lithium	8.7	0.1	mg/kg dry	9.26		94	73-124			
Manganese	1050	0.4	mg/kg dry	1100		96	93-112			
Mercury	0.09	0.04	mg/kg dry	0.0980		90	74-126			
Molybdenum	0.8	0.1	mg/kg dry	0.738		110	93-120			
Nickel	18.1	0.4	mg/kg dry	17.4		104	93-110			
Strontium	10.9	0.2	mg/kg dry	11.6		94	85-116			
Tin	1.2	0.2	mg/kg dry	1.10		109	78-120			
Uranium	0.77	0.05	mg/kg dry	0.940		82	80-102			
Vanadium	51.7	0.4	mg/kg dry	54.9		94	87-116			
Zinc	66	2	mg/kg dry	67.5		97	91-113			
Strong Acid Leachable Metals, Batch B6J1473										
Blank (B6J1473-BLK1)				Prepared: 2016-10-24, Analyzed: 2016-10-25						
Antimony	< 0.1	0.1	mg/kg dry							
Zinc	< 2	2	mg/kg dry							
Duplicate (B6J1473-DUP1)			**Source: 6101130-25RE1**	Prepared: 2016-10-24, Analyzed: 2016-10-25						
Antimony	1.0	0.1	mg/kg dry		2.6			93	60	RPD
Zinc	494	2	mg/kg dry		535			8	30	
Reference (B6J1473-SRM1)				Prepared: 2016-10-24, Analyzed: 2016-10-25						
Antimony	6.5	0.1	mg/kg dry	6.27		104	73-138			
Zinc	66	2	mg/kg dry	67.5		98	91-113			
Strong Acid Leachable Metals, Batch B6J1666										
Blank (B6J1666-BLK1)				Prepared: 2016-10-26, Analyzed: 2016-10-26						
Antimony	< 0.1	0.1	mg/kg dry							
Arsenic	< 0.4	0.4	mg/kg dry							
Barium	< 1	1	mg/kg dry							
Beryllium	< 0.1	0.1	mg/kg dry							
Boron	< 2	2	mg/kg dry							
Cadmium	< 0.04	0.04	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.1	0.1	mg/kg dry							
Copper	< 0.2	0.2	mg/kg dry							
Lead	< 0.2	0.2	mg/kg dry							
Lithium	< 0.1	0.1	mg/kg dry							
Manganese	< 0.4	0.4	mg/kg dry							
Mercury	< 0.04	0.04	mg/kg dry							
Molybdenum	< 0.1	0.1	mg/kg dry							
Nickel	< 0.4	0.4	mg/kg dry							
Selenium	< 0.5	0.5	mg/kg dry							
Silver	< 0.2	0.2	mg/kg dry							
Strontium	< 0.2	0.2	mg/kg dry							
Thallium	< 0.1	0.1	mg/kg dry							
Tin	< 0.2	0.2	mg/kg dry							
Uranium	< 0.05	0.05	mg/kg dry							
Vanadium	< 0.4	0.4	mg/kg dry							
Zinc	< 2	2	mg/kg dry							
Reference (B6J1666-SRM1)				Prepared: 2016-10-26, Analyzed: 2016-10-26						
Antimony	6.0	0.1	mg/kg dry	6.27		96	73-138			
Arsenic	14.6	0.4	mg/kg dry	15.4		95	87-106			
Barium	80	1	mg/kg dry	80.6		99	72-119			

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6101130
REPORTED 2016-11-08

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
Strong Acid Leachable Metals, Batch B6J1666, Continued										
Reference (B6J1666-SRM1), Continued				Prepared: 2016-10-26, Analyzed: 2016-10-26						
Beryllium	0.6	0.1	mg/kg dry	0.544		118	73-128			
Boron	3	2	mg/kg dry	2.68		125	58-139			
Cadmium	0.22	0.04	mg/kg dry	0.230		94	88-121			
Chromium	26.4	1.0	mg/kg dry	27.2		97	91-113			
Cobalt	11.7	0.1	mg/kg dry	12.5		93	90-109			
Copper	42.1	0.2	mg/kg dry	44.9		94	92-112			
Lead	12.9	0.2	mg/kg dry	14.4		90	89-111			
Lithium	11.2	0.1	mg/kg dry	9.26		121	73-124			
Manganese	1030	0.4	mg/kg dry	1100		94	93-112			
Mercury	0.08	0.04	mg/kg dry	0.0980		77	74-126			
Molybdenum	0.7	0.1	mg/kg dry	0.738		97	93-120			
Nickel	16.5	0.4	mg/kg dry	17.4		95	93-110			
Strontium	12.0	0.2	mg/kg dry	11.6		103	85-116			
Tin	0.9	0.2	mg/kg dry	1.10		81	78-120			
Uranium	0.77	0.05	mg/kg dry	0.940		82	80-102			
Vanadium	52.2	0.4	mg/kg dry	54.9		95	87-116			
Zinc	67	2	mg/kg dry	67.5		99	91-113			
TCLP Metals, Batch B6K0177										
Blank (B6K0177-BLK1)				Prepared: 2016-11-02, Analyzed: 2016-11-03						
Antimony	< 0.005	0.005	mg/L							
Arsenic	< 0.010	0.010	mg/L							
Barium	< 1.0	1.0	mg/L							
Beryllium	< 0.050	0.050	mg/L							
Boron	< 0.50	0.50	mg/L							
Cadmium	< 0.001	0.001	mg/L							
Chromium	< 0.050	0.050	mg/L							
Cobalt	< 0.020	0.020	mg/L							
Copper	< 0.10	0.10	mg/L							
Iron	< 1.0	1.0	mg/L							
Lead	< 0.010	0.010	mg/L							
Mercury	< 0.001	0.001	mg/L							
Nickel	< 0.10	0.10	mg/L							
Selenium	< 0.020	0.020	mg/L							
Silver	< 0.001	0.001	mg/L							
Thallium	< 0.010	0.010	mg/L							
Uranium	< 0.020	0.020	mg/L							
Vanadium	< 0.050	0.050	mg/L							
Zinc	< 0.50	0.50	mg/L							
Zirconium	< 0.050	0.050	mg/L							
Duplicate (B6K0177-DUP1)			**Source: 6101130-06**	Prepared: 2016-11-02, Analyzed: 2016-11-03						
Antimony	< 0.005	0.005	mg/L		< 0.005				33	
Arsenic	< 0.010	0.010	mg/L		< 0.010				51	
Barium	< 1.0	1.0	mg/L		< 1.0				34	
Beryllium	< 0.050	0.050	mg/L		< 0.050				50	
Boron	< 0.50	0.50	mg/L		< 0.50				30	
Cadmium	< 0.001	0.001	mg/L		< 0.001				28	
Chromium	< 0.050	0.050	mg/L		< 0.050				30	
Cobalt	< 0.020	0.020	mg/L		< 0.020				31	
Copper	< 0.10	0.10	mg/L		< 0.10				45	
Iron	53	1.0	mg/L		56			7	17	
Lead	< 0.010	0.010	mg/L		< 0.010				61	
Mercury	< 0.001	0.001	mg/L		< 0.001				23	
Nickel	< 0.10	0.10	mg/L		< 0.10				16	

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6101130
REPORTED 2016-11-08

Analyte	Result	MRL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
TCLP Metals, Batch B6K0177, Continued										
Duplicate (B6K0177-DUP1), Continued		**Source: 6101130-06**		Prepared: 2016-11-02, Analyzed: 2016-11-03						
Selenium	< 0.020	0.020	mg/L		< 0.020				20	
Silver	< 0.001	0.001	mg/L		< 0.001				50	
Thallium	< 0.010	0.010	mg/L		< 0.010				21	
Uranium	< 0.020	0.020	mg/L		< 0.020				30	
Vanadium	< 0.050	0.050	mg/L		< 0.050				26	
Zinc	< 0.50	0.50	mg/L		< 0.50				28	
Zirconium	< 0.050	0.050	mg/L		< 0.050				50	
TCLP Non-Volatile Extraction Details, Batch B6K0096										
Blank (B6K0096-BLK1)				Prepared: 2016-11-03, Analyzed: 2016-11-03						
Extraction Fluid pH	4.89		pH units							
Final Extract pH	4.88		pH units							
Duplicate (B6K0096-DUP1)		**Source: 6101130-06**		Prepared: 2016-11-03, Analyzed: 2016-11-03						
Extraction Fluid pH	4.89		pH units		4.89			< 1		
Final Extract pH	6.41		pH units		6.44			< 1		

QC Qualifiers:

RPD	Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).
SRM	Recovery of one or more analytes on Standard Reference Material (SRM) analysis are outside of control limits.

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6101130
REPORTED 2016-11-08

		6101130-01	6101130-02	6101130-03	6101130-04	6101130-05	6101130-06
		Soil	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
		2016-10-14	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**
		PS06021-000-1610-SE014	**PS06021-000-1610-SE015**	**PS06021-000-1610-SE016**	**PS06021-000-1610-SE017**	**PS06021-000-1610-SE018**	**PS06021-000-1610-SE019**
General Parameters	pH (1:2 H2O Solution) (pH units)	7.5	8.5	6.6	8.4	7.5	8.4
Salinity Parameters (Sat. Paste Extract)	Chloride, Saturated Paste (mg/kg dry)						7720
	Sodium, Saturated Paste (mg/kg dry)						5200
TCLP Non-Volatile Extraction Details	Extraction Fluid pH (pH units)						4.89
	Final Extract pH (pH units)						6.44
Strong Acid Leachable Metals	Antimony (mg/kg dry)	0.3	0.5	< 0.1	0.4	< 0.1	1.4
	Arsenic (mg/kg dry)	1.4	2.0	1.3	3.5	1.8	11.6
	Barium (mg/kg dry)	23	21	20	14	22	172
	Beryllium (mg/kg dry)	0.1	0.1	0.1	< 0.1	0.1	< 0.1
	Boron (mg/kg dry)	2	4	2	9	2	25
	Cadmium (mg/kg dry)	0.06	0.18	0.05	0.30	0.05	5.28
	Chromium (mg/kg dry)	16.9	17.0	13.8	17.9	13.7	30.1
	Cobalt (mg/kg dry)	7.8	6.0	6.9	6.7	7.0	7.0
	Copper (mg/kg dry)	30.9	321	29.6	126	25.8	4700
	Lead (mg/kg dry)	4.2	25.4	0.7	14.5	0.7	84.3
	Lithium (mg/kg dry)	4.2	5.8	4.0	5.1	3.8	7.3
	Manganese (mg/kg dry)	236	173	207	183	202	196
	Mercury (mg/kg dry)	< 0.04	1.16	0.04	0.13	< 0.04	2.93
	Molybdenum (mg/kg dry)	0.2	1.5	0.4	0.9	0.2	3.7
	Nickel (mg/kg dry)	12.7	11.3	11.5	13.4	11.5	19.7
	Selenium (mg/kg dry)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6
	Silver (mg/kg dry)	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.6
	Strontium (mg/kg dry)	28.4	31.6	20.8	80.4	21.6	347
	Thallium (mg/kg dry)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
	Tin (mg/kg dry)	0.5	6.4	0.3	1.2	0.2	27.1
	Uranium (mg/kg dry)	0.34	0.48	0.27	0.55	0.26	1.41
	Vanadium (mg/kg dry)	82.6	72.7	76.3	78.8	72.4	64.2
	Zinc (mg/kg dry)	110	209	28	168	26	2620
TCLP Metals	Antimony (mg/L)						< 0.005
	Arsenic (mg/L)						< 0.010
	Barium (mg/L)						< 1.0
	Beryllium (mg/L)						< 0.050
	Boron (mg/L)						< 0.50
	Cadmium (mg/L)						< 0.001
	Chromium (mg/L)						< 0.050
	Cobalt (mg/L)						< 0.020
	Copper (mg/L)						< 0.10
	Iron (mg/L)						56
	Lead (mg/L)						< 0.010
	Mercury (mg/L)						< 0.001
	Nickel (mg/L)						< 0.10
	Selenium (mg/L)						< 0.020
	Silver (mg/L)						< 0.001
	Thallium (mg/L)						< 0.010

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6101130
REPORTED 2016-11-08

		6101130-01	6101130-02	6101130-03	6101130-04	6101130-05	6101130-06
		Soil	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
		2016-10-14	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**
		PS06021-000-1610-SE014	**PS06021-000-1610-SE015**	**PS06021-000-1610-SE016**	**PS06021-000-1610-SE017**	**PS06021-000-1610-SE018**	**PS06021-000-1610-SE019**
TCLP Metals	Uranium (mg/L)						< 0.020
	Vanadium (mg/L)						< 0.050
	Zinc (mg/L)						< 0.50
	Zirconium (mg/L)						< 0.050

		6101130-07	6101130-08	6101130-09	6101130-10	6101130-11	6101130-12
		Soil	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
		2016-10-14	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**
		PS06021-000-1610-SE020	**PS06021-000-1610-SE021**	**PS06021-000-1610-SE022**	**PS06021-000-1610-SE023**	**PS06021-000-1610-SE024**	**PS06021-000-1610-SE025**
General Parameters	pH (1:2 H2O Solution) (pH units)	6.3	8.1	6.2	8.5	8.2	8.3
Strong Acid Leachable Metals	Antimony (mg/kg dry)	0.1	1.6	0.4	2.9	5.1	2.4
	Arsenic (mg/kg dry)	1.5	8.3	3.5	10.8	10.5	8.7
	Barium (mg/kg dry)	11	20	18	78	18	23
	Beryllium (mg/kg dry)	0.1	0.1	0.1	0.1	< 0.1	0.2
	Boron (mg/kg dry)	3	16	5	9	4	14
	Cadmium (mg/kg dry)	0.31	1.01	0.78	0.88	0.55	0.62
	Chromium (mg/kg dry)	14.0	21.1	17.4	22.9	16.4	20.9
	Cobalt (mg/kg dry)	6.3	7.3	6.8	6.7	6.8	8.0
	Copper (mg/kg dry)	36.1	218	58.9	1930	234	290
	Lead (mg/kg dry)	9.3	40.1	21.3	76.1	43.7	41.3
	Lithium (mg/kg dry)	5.8	8.5	7.2	6.6	6.3	10.5
	Manganese (mg/kg dry)	180	203	184	180	177	211
	Mercury (mg/kg dry)	0.07	1.11	0.16	2.86	2.12	0.62
	Molybdenum (mg/kg dry)	1.2	3.9	5.2	2.5	1.6	2.8
	Nickel (mg/kg dry)	12.3	15.2	15.2	18.2	13.1	15.9
	Selenium (mg/kg dry)	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5
	Silver (mg/kg dry)	< 0.2	< 0.2	0.2	0.3	< 0.2	0.3
	Strontium (mg/kg dry)	20.6	32.8	24.8	240	41.2	55.2
	Thallium (mg/kg dry)	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Tin (mg/kg dry)	0.7	6.3	1.2	16.0	6.7	4.0
	Uranium (mg/kg dry)	0.55	1.23	1.50	0.85	0.56	0.98
	Vanadium (mg/kg dry)	68.9	77.3	71.2	68.4	71.5	78.8
	Zinc (mg/kg dry)	59	171	108	554	180	180

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6101130
REPORTED 2016-11-08

		6101130-14	6101130-16	6101130-17	6101130-18	6101130-19	6101130-20
		Soil	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
		2016-10-14	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**
		PS06021-000-1610-SE027	**PS06021-000-1610-SE029**	**PS06021-000-1610-SE030**	**PS06021-000-1610-SE031**	**PS06021-000-1610-SE032**	**PS06021-000-1610-SE033**
General Parameters	pH (1:2 H2O Solution) (pH units)	8.2	8.0	6.1	8.1	7.9	8.8
Strong Acid Leachable Metals	Antimony (mg/kg dry)	1.0	1.7	0.8	21.2	0.5	0.5
	Arsenic (mg/kg dry)	9.4	9.0	5.8	35.3	4.6	3.0
	Barium (mg/kg dry)	27	23	19	42	19	23
	Beryllium (mg/kg dry)	0.2	0.2	0.2	0.2	0.1	0.1
	Boron (mg/kg dry)	25	17	6	21	10	9
	Cadmium (mg/kg dry)	1.00	1.02	1.08	1.41	0.73	0.20
	Chromium (mg/kg dry)	29.8	23.3	19.3	32.5	19.3	19.5
	Cobalt (mg/kg dry)	8.0	7.6	7.3	8.5	7.6	7.0
	Copper (mg/kg dry)	667	206	81.3	440	91.7	244
	Lead (mg/kg dry)	59.7	42.7	30.7	205	23.8	22.3
	Lithium (mg/kg dry)	10.3	9.0	8.5	9.1	8.9	5.2
	Manganese (mg/kg dry)	214	216	208	219	214	186
	Mercury (mg/kg dry)	0.72	0.45	0.28	1.54	0.51	0.43
	Molybdenum (mg/kg dry)	5.5	4.6	4.8	7.9	3.3	1.5
	Nickel (mg/kg dry)	19.9	16.9	15.5	19.5	16.0	14.4
	Selenium (mg/kg dry)	0.7	0.7	0.6	0.7	0.5	< 0.5
	Silver (mg/kg dry)	0.3	0.2	< 0.2	0.4	< 0.2	< 0.2
	Strontium (mg/kg dry)	42.2	33.3	32.6	47.0	36.0	223
	Thallium (mg/kg dry)	0.1	0.1	< 0.1	0.1	< 0.1	< 0.1
	Tin (mg/kg dry)	7.1	6.6	1.9	12.4	2.1	2.2
	Uranium (mg/kg dry)	1.47	1.43	1.63	1.82	1.20	0.46
	Vanadium (mg/kg dry)	78.1	77.8	78.7	76.1	83.2	79.7
	Zinc (mg/kg dry)	222	187	150	433	105	164

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6101130
REPORTED 2016-11-08

		6101130-21	6101130-22	6101130-24	6101130-25	6101130-27	6101130-31
		Soil	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
		2016-10-14	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**	**2016-10-14**
		PS06021-000-1610-SE034	**PS06021-000-1610-SE934**	**PS06021-000-1610-SE036**	**PS06021-000-1610-SE936**	**PS06021-000-1610-SE038**	**PS06021-000-1610-SE041**
General Parameters	pH (1:2 H2O Solution) (pH units)	8.4	8.4	8.6	8.5	8.5	7.8
Strong Acid Leachable Metals	Antimony (mg/kg dry)	0.3	0.3	1.8	2.6	0.7	1.0
	Arsenic (mg/kg dry)	3.7	3.0	8.2	8.5	6.2	7.8
	Barium (mg/kg dry)	17	18	75	49	22	25
	Beryllium (mg/kg dry)	0.1	< 0.1	0.1	0.1	0.2	0.1
	Boron (mg/kg dry)	10	10	15	15	20	27
	Cadmium (mg/kg dry)	0.25	0.26	0.78	0.64	0.69	0.84
	Chromium (mg/kg dry)	16.7	15.6	21.2	22.5	19.9	22.4
	Cobalt (mg/kg dry)	6.3	6.0	6.6	6.6	6.9	6.5
	Copper (mg/kg dry)	201	136	1180	794	117	133
	Lead (mg/kg dry)	14.0	11.7	51.6	57.2	22.3	119
	Lithium (mg/kg dry)	5.0	4.9	6.1	6.2	9.1	7.3
	Manganese (mg/kg dry)	168	170	176	184	193	189
	Mercury (mg/kg dry)	0.14	0.23	1.39	1.80	0.16	0.38
	Molybdenum (mg/kg dry)	0.9	0.6	1.7	1.8	2.8	4.0
	Nickel (mg/kg dry)	12.3	11.8	20.1	15.2	13.9	15.4
	Selenium (mg/kg dry)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7
	Silver (mg/kg dry)	< 0.2	< 0.2	< 0.2	< 0.2	0.3	0.2
	Strontium (mg/kg dry)	186	267	305	300	32.6	37.0
	Thallium (mg/kg dry)	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.1
	Tin (mg/kg dry)	1.4	1.4	8.9	7.6	1.9	4.1
	Uranium (mg/kg dry)	0.47	0.43	0.79	0.77	1.24	1.43
	Vanadium (mg/kg dry)	71.2	70.1	65.5	64.6	77.9	64.4
	Zinc (mg/kg dry)	142	117	672	438	126	172

REPORTED TO	SNC-Lavalin Inc. (Nanaimo)	**WORK ORDER**	6101130
PROJECT	640978	**REPORTED**	2016-11-08

		6101130-32 **Soil** **2016-10-14** **PS06021-000-1610-SE042**
General Parameters	pH (1:2 H2O Solution) (pH units)	8.6
Strong Acid Leachable Metals	Antimony (mg/kg dry)	8.8
	Arsenic (mg/kg dry)	17.7
	Barium (mg/kg dry)	54
	Beryllium (mg/kg dry)	0.1
	Boron (mg/kg dry)	10
	Cadmium (mg/kg dry)	0.35
	Chromium (mg/kg dry)	27.8
	Cobalt (mg/kg dry)	7.8
	Copper (mg/kg dry)	566
	Lead (mg/kg dry)	63.2
	Lithium (mg/kg dry)	5.9
	Manganese (mg/kg dry)	205
	Mercury (mg/kg dry)	0.39
	Molybdenum (mg/kg dry)	2.2
	Nickel (mg/kg dry)	17.6
	Selenium (mg/kg dry)	< 0.5
	Silver (mg/kg dry)	< 0.2
	Strontium (mg/kg dry)	55.9
	Thallium (mg/kg dry)	< 0.1
	Tin (mg/kg dry)	9.5
	Uranium (mg/kg dry)	0.47
	Vanadium (mg/kg dry)	77.2
	Zinc (mg/kg dry)	276

APPENDIX 3: REVISION HISTORY

REPORTED TO SNC-Lavalin Inc. (Nanaimo)
PROJECT 640978

WORK ORDER 6101130
REPORTED 2016-11-08

Sample ID	Changed	Change	Analysis	Analyte(s)
6101130-21RE1	2016-10-21	Added	SALM by ICPMS	Zinc
6101130-22RE1	2016-10-21	Added	SALM by ICPMS	Zinc
6101130-24RE1	2016-10-21	Added	SALM by ICPMS	Antimony
6101130-25RE1	2016-10-21	Added	SALM by ICPMS	Antimony, Zinc
6101130-12	2016-10-25	Added	Metals, SALM by ICPMS (BC CSR) + pH Pkg	
6101130-14	2016-10-25	Added	Metals, SALM by ICPMS (BC CSR) + pH Pkg	
6101130-27	2016-10-25	Added	Metals, SALM by ICPMS (BC CSR) + pH Pkg	
6101130-21	2016-10-28	Result Revised	SALM by ICPMS	Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Lithium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Strontium, Thallium, Tin, Uranium, Vanadium, Zinc
6101130-25	2016-10-28	Result Revised	SALM by ICPMS	Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Lithium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Strontium, Thallium, Tin, Uranium, Vanadium, Zinc
6101130-06	2016-11-01	Added	Saturated Paste Chloride (mg/kg)	
6101130-06	2016-11-01	Added	Saturated Paste Extraction	
6101130-06	2016-11-01	Added	Saturated Paste Sodium (mg/kg)	
6101130-06	2016-11-01	Added	TCLP Metals by ICPMS	

CAR ANALYTICAL
Caring About Results.

* 6 1 0 1 1 3 0 *

4:30

CARO BC COC, Rev 2015-09

CHAIN OF CUSTODY RECORD

COC# 640978-2016-01 PAGE 1 OF 3

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Chris Trenholm	12-Oct-16	HM DHL	10/18/16
	TIME: 17:00		TIME: 9:30

PROJECT: 640978

PROJECT INFO: Campbell River Small Craft Harbour

TURNAROUND TIME REQUESTED:
Routine: (5-7 Days) ☐
Rush: 1 Day* ☐ 2 Day* ☒ 3 Day* ☐
Other* ____
*Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Regs on Report? ☐
Canadian Drinking Water Quality Guidelines ☒
BC Drinking Water Protection Act / Reg. ☐
BC CSR ☒ AB TIER 1 ☐ CCME ☒ OTHER* ☒
AL ☐ PL ☐ RL ☐ CL ☐ IL ☐ AW ☐ IW ☐ LW ☐

REPORT TO:
COMPANY: SNC-Lavalin
ADDRESS: 890 Crace Street, unit 202
Nanaimo, BC, V9R 2T3
CONTACT: Meredith Guest
TEL/FAX: 250-716-9000
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
DATA FORMAT: EXCEL ☒ WATERTRAX ☐ ESdat ☐ EQuIS ☒ BC EMS ☐ OTHER* ☐
EMAIL 1: meredith.guest@snclavalin.com
EMAIL 2: didi.grimes@snclavalin.com
EMAIL 3: chris.trenholm@snclavalin.com; scott.mosel

INVOICE TO: SAME AS REPORT TO ☐
COMPANY: Fisheries & Oceans Canada
ADDRESS: Suite 200-401 Burrard Street
Vancouver, BC, V6C 3S4
CONTACT: ~~Cheri LaCoste~~ Scott Moseley
TEL/FAX:
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
EMAIL 1: scott.moseley@dfo-mpo.gc.ca
EMAIL 2:
EMAIL 3:
PO #:

** NEW ** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, check here: ☐

SAMPLED BY: C. Trenholm / D. Grimes

CLIENT SAMPLE ID:	MATRIX: DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE DD-MMM-YY	TIME HH:MM	COMMENTS: CHLORINATED	FILTERED	PRESERVED	(e.g. flow/volume media ID/notes)
PS06021-000-1610-SE 014				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 015				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 016				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 017				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 018				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 019				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 020				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 021				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 022				✓	2	14-Oct-16	10:00				Sediment
PS06021-000-1610-SE 023				✓	2	14-Oct-16	11:00				Sediment
PS06021-000-1610-SE 024				✓	2	14-Oct-16	11:00				Sediment
PS06021-000-1610-SE 025				✓	2	14-Oct-16	11:00				Sediment

ANALYSES REQUESTED:

BTEX ☐ VPH ☐	PHC F1 ☐	VOC ☐ VPH ☐	PHC F2-F4 ☐	EPH ☐	PAH ☐ L/HEPH ☐	PHENOLS Chlorinated ☐ Non-Chlor. ☐	PCB ☐ GLYCOLS ☐ HAA ☐	PESTICIDES ☐ ACID HERBICIDES ☐	METALS - WATER TOTAL Hg ☐	METALS - WATER DISSOLVED Hg ☐	METALS - SOIL (SALM) ☐ inc. pH ☐	pH ☐ EC ☐ ALK ☐	TSS ☐ VSS ☐ TDS ☐	BOD ☐ COD ☐	TOG ☐ MOG ☐	FECAL COLIFORMS ☐ HPC ☐	TOTAL COLIFORMS ☐ E.coli ☐	ASBESTOS	CCME Metals	CSR	HOLD
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X
																			X	X	X

SHIPPING INSTRUCTIONS: Return Cooler(s) ☐
Supplies Needed:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days ☐ 90 Days ☐ Longer Date (Surcharges will Apply): ____

*** OTHER INSTRUCTIONS:**
Please provide a draft of the Invoice to Meredith Guest and Chris Trenholm of SNC upon sample recceipt.
Please use CCME / CSR Sediment standards/guidelines

PAYMENT:
CHEQUE ☐
CREDIT ☐
DEBIT ☐
CASH ☐
INVOICE ☐

SAMPLE RECEIPT CONDITION:
COOLER 1 (°C): ____ ICE: Y ☐ N ☐
COOLER 2 (°C): ____ ICE: Y ☐ N ☐
COOLER 3 (°C): ____ ICE: Y ☐ N ☐
CUSTODY SEALS INTACT: NA ☐ Y ☐ N ☐

CARO ANALYTICAL SERVICES

Caring About Results... Obviously

☒ 110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599

☐ 102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893

☐ 17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC# 640978-2016-02 PAGE 2 OF 3

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Chris Trenholm	14-Oct-16		
	TIME: 17:00		TIME:

PROJECT: 640978

PROJECT INFO: Campbell River Small Craft Harbour

REPORT TO:
COMPANY: SNC-Lavalin
ADDRESS: 890 Crace Street, unit 202
Nanaimo, BC, V9R 2T3
CONTACT: Meredith Guest
TEL/FAX: 250-716-9000
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
DATA FORMAT: EXCEL ☒ WATERTRAX ☐ ESdat ☐ EQuIS ☒ BC EMS ☐ OTHER* ☐
EMAIL 1: meredith.guest@snclavalin.com
EMAIL 2: didi.grimes@snclavalin.com
EMAIL 3: chris.trenholm@snclavalin.com; scott.mos[illegible]

INVOICE TO: SAME AS REPORT TO ☐
COMPANY: Fisheries & Oceans Canada
ADDRESS: Suite 200-401 Burrard Street
Vancouver, BC, V6C 3S4
CONTACT: ~~Cheri LaCoste~~ Scott Moseley
TEL/FAX:
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
EMAIL 1: scott.moseley@dfo-mpo.gc.ca
EMAIL 2:
EMAIL 3:
PO #:

TURNAROUND TIME REQUESTED:
Routine: (5-7 Days) ☐
Rush: 1 Day* ☐ 2 Day* ☒ 3 Day* ☐
Other*
*Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Regs on Report? ☐
Canadian Drinking Water Quality Guidelines ☒
BC Drinking Water Protection Act / Reg. ☐
BC CSR ☒ AB TIER 1 ☐ CCME ☒ OTHER* ☒
AL ☐ PL ☐ RL ☐ CL ☐ IL ☐ AW ☐ IW ☐ LW ☐

** NEW ** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, check here: ☐

SAMPLED BY: C. Trenholm / D. Grimes

CLIENT SAMPLE ID:	MATRIX: DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE DD-MMM-YY	TIME HH:MM	COMMENTS: CHLORINATED	FILTERED	PRESERVED	(e.g. flow/volume media ID/notes)	HOLD
PS06021 - 000 - 1610 - SE 026				✓	2	14-Oct-16	11:00				Sediment	X
PS06021 - 000 - 1610 - SE 027				✓	2	14-Oct-16	11:00				Sediment	X
PS06021 - 000 - 1610 - SE 028				✓	2	14-Oct-16	11:00				Sediment	X
PS06021 - 000 - 1610 - SE 029				✓	2	14-Oct-16	11:00				Sediment	X
PS06021 - 000 - 1610 - SE 030				✓	2	14-Oct-16	12:00				Sediment	X
PS06021 - 000 - 1610 - SE 031				✓	2	14-Oct-16	12:00				Sediment	X
PS06021 - 000 - 1610 - SE 032				✓	2	14-Oct-16	12:00				Sediment	X
PS06021 - 000 - 1610 - SE 033				✓	2	14-Oct-16	12:00				Sediment	X
PS06021 - 000 - 1610 - SE 034				✓	2	14-Oct-16	13:00				Sediment	X
PS06021 - 000 - 1610 - SE ~~035~~ 934				✓	2	14-Oct-16	13:00				Sediment	X
PS06021 - 000 - 1610 - SE ~~036~~ 035				✓	2	14-Oct-16	13:00				Sediment	X
PS06021 - 000 - 1610 - SE 036				✓	2	14-Oct-16	13:00				Sediment	X

ANALYSES REQUESTED:

BTEX ☐ VPH ☐ PHC F1 ☐ | VOC ☐ VPH ☐ | EPH ☐ PHC F2-F4 ☐ | PAH ☐ L/HEPH ☐ | PHENOLS Chlorinated ☐ Non-Chlor. ☐ | PCB ☐ GLYCOLS ☐ HAA ☐ | PESTICIDES ☐ ACID HERBICIDES ☐ | METALS - WATER TOTAL ☐ Hg | METALS - WATER DISSOLVED ☐ Hg | METALS - SOIL (SALM) ☐ inc. pH ☐ | pH ☐ EC ☐ ALK ☐ | TSS ☐ VSS ☐ TDS ☐ | BOD ☐ COD ☐ | TOG ☐ MOG ☐ | FECAL COLIFORMS ☐ HPC ☐ | TOTAL COLIFORMS ☐ E.coli ☐ | ASBESTOS | Metals CSR | HOLD

SHIPPING INSTRUCTIONS: Return Cooler(s) ☐
Supplies Needed:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days ☐ 90 Days ☐ Longer Date (Surcharges will Apply): _____

*** OTHER INSTRUCTIONS:**
Please provide a draft of the invoice to Meredith Guest and Chris Trenholm of SNC upon sample recceipt.
Please use CCME / CSR Sediment standards/guidelines

PAYMENT:
CHEQUE ☐
CREDIT ☐
DEBIT ☐
CASH ☐
INVOICE ☐

SAMPLE RECEIPT CONDITION:
COOLER 1 (°C): _____ ICE: Y ☐ N ☐
COOLER 2 (°C): _____ ICE: Y ☐ N ☐
COOLER 3 (°C): _____ ICE: Y ☐ N ☐
CUSTODY SEALS INTACT: NA ☐ Y ☐ N ☐

CARO
ANALYTICAL SERVICES
Caring About Results... Obviously

☒ 110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599

☐ 102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893

☐ 17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC# 640978-2016-03 PAGE 3 OF 3

RELINQUISHED BY:	DATE: 19-Oct-16	RECEIVED BY:	DATE:
Chris Trenholm	TIME: 17:00		TIME:

PROJECT: 640978

PROJECT INFO: Campbell River Small Craft Harbour

REPORT TO:
COMPANY: SNC-Lavalin
ADDRESS: 890 Crace Street, unit 202
Nanaimo, BC, V9R 2T3
CONTACT: Meredith Guest
TEL/FAX: 250-716-9000
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
DATA FORMAT: EXCEL ☒ WATERTRAX ☐ ESdat ☐ EQuIS ☒ BC EMS ☐ OTHER* ☐
EMAIL 1: meredith.guest@snclavalin.com
EMAIL 2: didi.grimes@snclavalin.com
EMAIL 3: chris.trenholm@snclavalin.com; scott.mose

INVOICE TO: SAME AS REPORT TO ☐
COMPANY: Fisheries & Oceans Canada
ADDRESS: Suite 200-401 Burrard Street
Vancouver, BC, V6C 3S4
CONTACT: ~~Cher LaCoste~~ Scott Moseley
TEL/FAX:
DELIVERY METHOD: EMAIL ☒ MAIL ☐ OTHER* ☐
EMAIL 1: scott.moseley@dfo-mpo.gc.ca
EMAIL 2:
EMAIL 3:
PO #:

TURNAROUND TIME REQUESTED:
Routine: (5-7 Days) ☐
Rush: 1 Day* ☐ 2 Day* ☒ 3 Day* ☐
Other*
*Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Regs on Report? ☐
Canadian Drinking Water Quality Guidelines ☒
BC Drinking Water Protection Act / Reg. ☐
BC CSR ☒ AB TIER 1 ☐ CCME ☒ OTHER* ☒
AL ☐ PL ☐ RL ☐ CL ☐ IL ☐ AW ☐ IW ☐ LW ☐

** NEW ** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, check here: ☐

SAMPLED BY: C. Trenholm / D. Grimes

CLIENT SAMPLE ID:	MATRIX: DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE DD-MMM-YY	TIME HH:MM	COMMENTS: CHLORINATED	FILTERED	PRESERVED	(e.g. flow/volume media ID/notes)	BTEX ☐ VPH ☐ PHC F1 ☐	VOC ☐ VPH ☐	EPH ☐ PHC F2-F4 ☐	PAH ☐ L/HEPH ☐	PHENOLS Chlorinated ☐ Non-Chlor. ☐	PCB ☐ GLYCOLS ☐ HAA ☐	PESTICIDES ☐ ACID HERBICIDES ☐	METALS - WATER TOTAL Hg ☐	METALS - WATER DISSOLVED Hg ☐	METALS - SOIL (SALM) ☐ inc. pH ☐	pH ☐ EC ☐ ALK ☐	TSS ☐ VSS ☐ TDS ☐	BOD ☐ COD ☐	TOG ☐ MOG ☐	FECAL COLIFORMS ☐ HPC ☐	TOTAL COLIFORMS ☐ E.coli ☐	ASBESTOS	Metals CSR							HOLD
PS06021-000-1610-SE 036				✓	2	14-Oct-16	13:00				Sediment																			X							X
PS06021-000-1610-SE 037				✓	2	14-Oct-16	13:00				Sediment																										X
PS06021-000-1610-SE 038				✓	2	14-Oct-16	13:30				Sediment																										X
PS06021-000-1610-SE 039				✓	2	14-Oct-16	13:30				Sediment																										X
PS06021-000-1610-SE 040				✓	2	14-Oct-16	13:30				Sediment																										X
PS06021-000-1610-SE 041				✓	2	14-Oct-16	13:30				Sediment																										X
PS06021-000-1610-SE 042				✓	2	14-Oct-16	13:30				Sediment																										X
~~PS06021-000-1610-SE~~				~~✓~~	~~2~~	~~14-Oct-16~~					~~Sediment~~																										
~~PS06021-000-1610-SE~~				~~✓~~	~~2~~	~~14-Oct-16~~					~~Sediment~~																										
~~PS06021-000-1610-SE~~				~~✓~~	~~2~~	~~14-Oct-16~~					~~Sediment~~																										
~~PS06021-000-1610-SE~~				~~✓~~	~~2~~	~~14-Oct-16~~					~~Sediment~~																										

SHIPPING INSTRUCTIONS: Return Cooler(s) ☐
Supplies Needed:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days ☐ 90 Days ☐ Longer Date (Surcharges will Apply):

*** OTHER INSTRUCTIONS:**
Please provide a draft of the Invoice to Meredith Guest and Chris Trenholm of SNC upon sample receipt.
Please use CCME / CSR Sediment standards/guidelines

PAYMENT:
CHEQUE ☐
CREDIT ☐
DEBIT ☐
CASH ☐
INVOICE ☐

SAMPLE RECEIPT CONDITION:
COOLER 1 (°C): _____ ICE: Y ☐ N ☐
COOLER 2 (°C): _____ ICE: Y ☐ N ☐
COOLER 3 (°C): _____ ICE: Y ☐ N ☐
CUSTODY SEALS INTACT: NA ☐ Y ☐ N ☐