Department of Fisheries and Oceans
Small Craft Harbours
Porpoise Bay – Boat Grid Remediation
Boat Grid Pile Photo

Department of Fisheries and Oceans
Small Craft Harbours
Porpoise Bay – Boat Grid Remediation
Spot Sounding Data

Summary Table of Field Driving Details

Pile location	Pile type	Orig. Pile length	Hammer Type	Final Penetration (m)	Refusal / Elevation	Final Blow Count/Inch	Start Time	Finish Time	Comments
Wharfhead									
24A edge	Timber	60’	Drop	7.9	R	1/1	11:15	12:00	Org Pen 12ft
24C edge	Timber	60’	Drop	5.3	R	2/1	13:44	13:49	Org Pen 12.5ft
24E fender	Timber	60’	Drop	7.9	R	1/1	n/a	n/a	Org Pen 12ft
24F fender N	Timber	60’	Drop	7.3	R	1/1	n/a	n/a	n/a
24F fender E	Timber	60’	Drop	7.9	R	1/1	n/a	n/a	Org Pen 17ft
23A edge	Timber	60’	Drop	8.2	R	1/1	8:00	8:30	Org Pen 17ft
23D int.	Timber	60’	Drop	7.9	R	2/1	11:30	12:00	Org Pen 18ft
22D int.	Timber	60’	Drop	7.6	R	n/a	n/a	n/a	n/a
Approach	Timber								
18C edge	Timber	60’	Drop	8.5	R	1/1	13:45	14:10	Org Pen 15ft
15C edge	Timber	60’	Drop	5.18	R	1/1	8:58	9:05	Org Pen 15ft
8D int.	Timber	60’	Drop	5.5	R	5/.5	15:22	15:24	Org Pen 10ft
5E edge	Timber	60’	Drop	5.1	R	4/1	11:32	11:43	Org Pen 10ft
Floats Mooring									
Grp B - 3	Timber	60’	Drop	6.1.	R	2/1	n/a	n/a	Broken 2ft +mudline*
Grp D - 3	Timber	60’	Drop	6.4	R	1/1	13:30	13:54	Org Pen 18ft
Grp F - 3	Timber	60’	Drop	5.1	R	1/1	n/a	n/a	Stop on ring refusal
Grp F - 4	Timber	60’	Drop	2.4	R	1/1	n/a	n/a	Org Pen 8ft.
New Grp NW	Timber	70’	Drop	4.9	R	1/1	13:05	13:25	n/a
New Grp NE	Timber	60’	Drop	4.6	R	1/1	13:41	14:03	n/a
New Grp SW	Timber	60’	Drop	4.5	R	1/.5	14:23	14:47	Head split at refusal *
New Grp SE	Timber	70’	Drop	4.1	R	1/.5	15:43	16:06	n/a *

Hammer Type – *3000# Drop Hammer*

Refusal - *all specs set by or pile refusals approved by Small Craft Harbours' Project Authority (PA)*
Refusal/Elevation – Did driving stop because it couldn’t be driven deeper/Couldn’t be driven further because the pile top was the same height as adjacent piles.
Minimum Penetration – Should be *5m* **Measure** the extracted pile from bottom to the mud line to determine the original drive depth.

***Note:** GrpB-3 Org pile broken +2 ft. above mudline and inside dolphin group. Not a hazard to navigation
GrpF-3 Refusal at 5.1m pen. Stop driving. Ringing on blow and head splitting
GrpF-4 Refusal at 2.4m pen. Org pen at 2.4m. Hard refusal ringing on final blows
New Grp NW, NE, SW, SE – Refusal penetration determined by soil conditions. All stop on ringing blow and zero advancement
New Grp SW, SE – Both piles had bends starting at 3m to 3.5m below pile top prior to driving

Stantec Consulting Ltd.
4370 Dominion Street, 5th Floor
Burnaby, BC V5G 4L7
Tel: (604) 436-3014
Fax: (604) 436-3752

VIA EMAIL

February 17, 2012

Project No: 123110279

Department of Fisheries and Oceans Canada Pacific Region Real Property and Technical Support Division

Attention: Mr. Dedar Boparai

Dear Mr. Boparai:

Reference: Phase II ESA Data Report – Porpoise Bay SCH PS06130

1 INTRODUCTION

Stantec Consulting Ltd. (Stantec) conducted a Phase II Environmental Site Assessment (ESA) of the Class C Small Craft Harbour legally described as District Lot 6374, Group 1, New Westminster District in Sechelt, British Columbia, herein referred to as the "Site". The Fisheries and Oceans Canada (F&OC) Site Number is PS06130. A Phase I ESA was conducted for Fisheries and Oceans Canada in support of real property management. The purpose of this letter report is to provide a description of the investigation completed and summary of the results obtained in appropriate Appendices.

2 SITE WORKS

Stantec along with members of the Department of Fisheries and Oceans Canada (DFO) completed the field work portion of the Phase II ESA from December 12, 2011 to December 21, 2011. The work on site was completed according to the Preliminary Conceptual Site Model and Work Plan dated November 16, 2011.

There were two site visits completed as part of the field program for the Phase II ESA. The initial site visit completed on December 12, 2011 involved sediment sampling, borehole / monitoring well / soil vapour wells and pore-water well installation. Beck Drilling from Richmond, BC were present to

complete the borehole advancement and installation of monitoring wells, soil vapour wells and pore-water wells.

The second site visit on December 21, 2011 involved completing the sampling of groundwater, pore-water and soil vapour.

2.1 Scope of Work

The following scope of work completed as part of the Phase II ESA for the Site:

- Collected 20 including two duplicate sediment samples from the sub-tidal area of the Site from a DFO supplied vessel and submitted these samples for analysis of PCOCs to Caro Analytical Laboratories located in Richmond, BC;
- Advanced 5 boreholes (3 completed as groundwater monitoring wells and 2 completed as soil vapour wells) to a maximum investigative depth of 6.1 meters below grade (mbg) to investigate the uplands portion of the Site;
- Installed 2 pore-water wells to investigate the inter-tidal zone of the Site;
- Obtained 4 including one duplicate groundwater sample from the previously installed groundwater wells and submitted to Caro Analytical Laboratories for analysis of the PCOCs as per the Work Plan submitted;
- Obtained 2 soil vapour samples from the previously installed soil vapour wells and submitted these samples to Caro Analytical Laboratories for analysis of the PCOCs as per the work plan submitted; and,
- Obtained 2 pore-water samples from the pore-water wells and submitted these samples to Caro Analytical Laboratories for analysis of the PCOCs as per the work plan submitted.

2.2 APECs and PCOCs

The following table summarizes the APECs and PCOCs which were investigated as part of the Phase II ESA as per the conceptual model and work plan previously submitted to DFO:

Table 2-1: APECs and PCOCs

APEC #	APEC Name	APEC Potential Source(s)	PCOCs	Potentially Impacted Media	Potentially Impacted Properties/ Lots	On-Site APEC(s) Moving Off-Site	Off-Site APEC(s) Moving On-Site
On-Site							
1	Boat Grid	Boat maintenance activites	LEPH/HEPH PAH Metals organotins	Sediment	District Lot 6374	No evidence observed	N/A
2	Dock Use Activities	Boat maintenance activites	LEPH/HEPH PAH metals organotins	Sediment	District Lot 6374	No evidence observed	N/A
3	Parking Lot Runoff	Vehicle emmissions	LEPH/HEPH PAH Metals	Sediment, Pore Water	District Lot 6374	No evidence observed	N/A
4	Storm Sewer Outfall	Sewage components	LEPH/HEPH PAH metals	Sediment, Pore Water	District Lot 6374	No evidence observed	N/A
5	Fill	Fill Materials	metals	Soil	District Lot 6374	No evidence observed	N/A
Off-Site							
6	Westcoast Air Fuelling Facilities	Fuel storage and dispensing	BETX, VPH, LEPH n-decane, n-hexane, MTBE, styrene CCME F1-F4 PAH Metals	Sediment, soil, ground water, vapour	District Lot 6374	N/A	Moderate possibility of groundwater impacts based on monitor wells adjacent to property line.
7	Royal Reach Marina	Boat maintenance activites	LEPH/HEPH PAH Metals organotins	Sediment	District Lot 6374	N/A	No evidence observed

3 SUMMARY OF DATA

The data obtained from the Phase II ESA is summarized into the following appendices for your reference:

- Appendix A – Site Figures
- Appendix B – Borehole Logs
- Appendix C – Site Photos
- Appendix D – Analytical Tables
- Appendix E – Laboratory Certificates

4 CARRIED FORWARD AEC'S AND COC'S

The following table outlines the AEC's and COC's that were carried forward for consideration in further investigations for the property:

AEC			COCs	Impacted Media	Impacted Properties/ Lots
#	Name	Source(s)			
On-Site					
1	Boat Grid	Boat maintenance activites	**Metals**: Copper **PAHs**: Acenaphthylene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthacene, Chrysene, Benzo(a)pyrene, Debenzo(a,h)anthracene and Total CSR PAHs	Sediment	District Lot 6374

5 LIMITATIONS

This report has been prepared for the sole benefit of the Department of Fisheries and Oceans Canada. The report may not be used by any other person or entity, with the exception of the British Columbia Ministry of Environment without the express written consent of Stantec or the Department of Fisheries and Oceans Canada.

Any uses which a third party makes of this report, or any reliance on decisions made based on it, are the responsibility of such third parties. Stantec accepts no responsibility for damages, if any, suffered

by any third party as a result of decisions made or actions based on this report. The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted engineering and scientific practices current at the time the work was performed. Conclusions presented in this report should not be construed as legal advice.

The conclusions presented in this report represent the best technical judgment of Stantec based on the data obtained from the work. The conclusions are based on the Site conditions encountered by Stantec at the time the work was performed at specific testing and/or sampling locations, and can only be extrapolated to an undefined limited area around these locations. The extent of the limited area depends on the soil and groundwater conditions, as well as the history of the Site reflecting natural, construction and other activities. In addition, analysis has been carried out for a limited number of chemical parameters, and it should not be inferred that other chemical species are not present. Due to the nature of the investigation and the limited data available, Stantec cannot warrant against undiscovered environmental liabilities.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein. This report was prepared by Tyler Joyce, C.Tech., and reviewed by Peter Reid, M.Eng., P.Eng.

We trust that this letter report and the information supplied in the appendices meets your requirements for the data report and that if you have any questions or require any additional information that you do not hesitate to contact the undersigned at 604-436-3014.

Respectfully submitted,

Stantec Consulting Ltd.

Reviewed by:

Original signed by:

Tyler Joyce, C.Tech.
Project Manager

Original signed by:

Peter Reid, M.Eng., P.Eng.
Senior Reviewer

Appendix A: Site Figures
Appendix B: Borehole Logs
Appendix C: Site Photos
Appendix D: Analtyical Tables
Appendix E: Laboratory Certificates

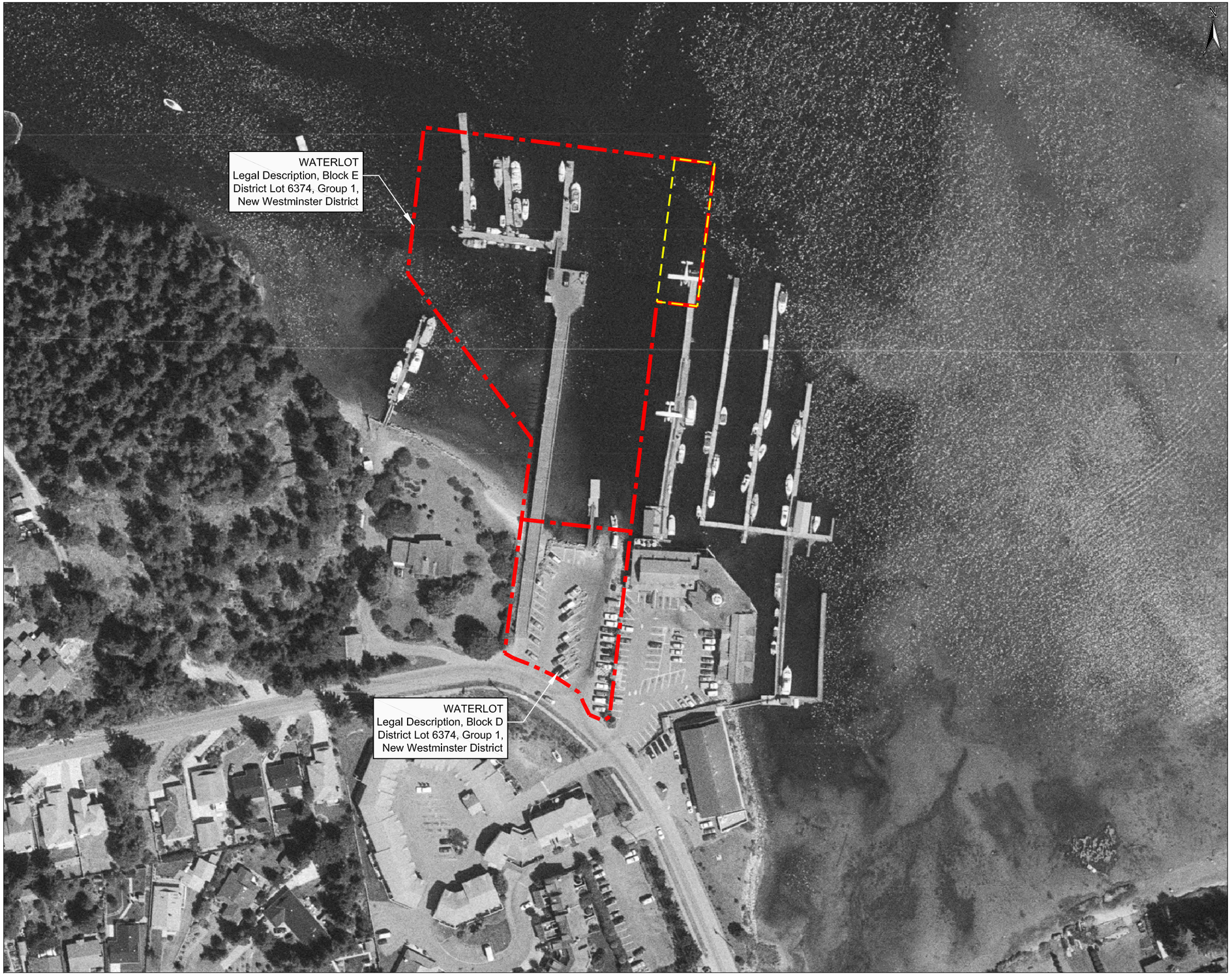
Reference: Phase II ESA Data Report – Porpoise Bay SCH PS06130

TJ/PR

File Name and Path: [p:_oracle projects\pc 1231 er\10279_foc_ph2_esa_s_cove_and_p_bay\report\porpoise bay\rpt_phase ii esa data report\rpt_phase ii esa draft porpoise bay.docx]

APPENDIX A

Site Figures



LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 1998-07-26_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL YEAR 1998

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

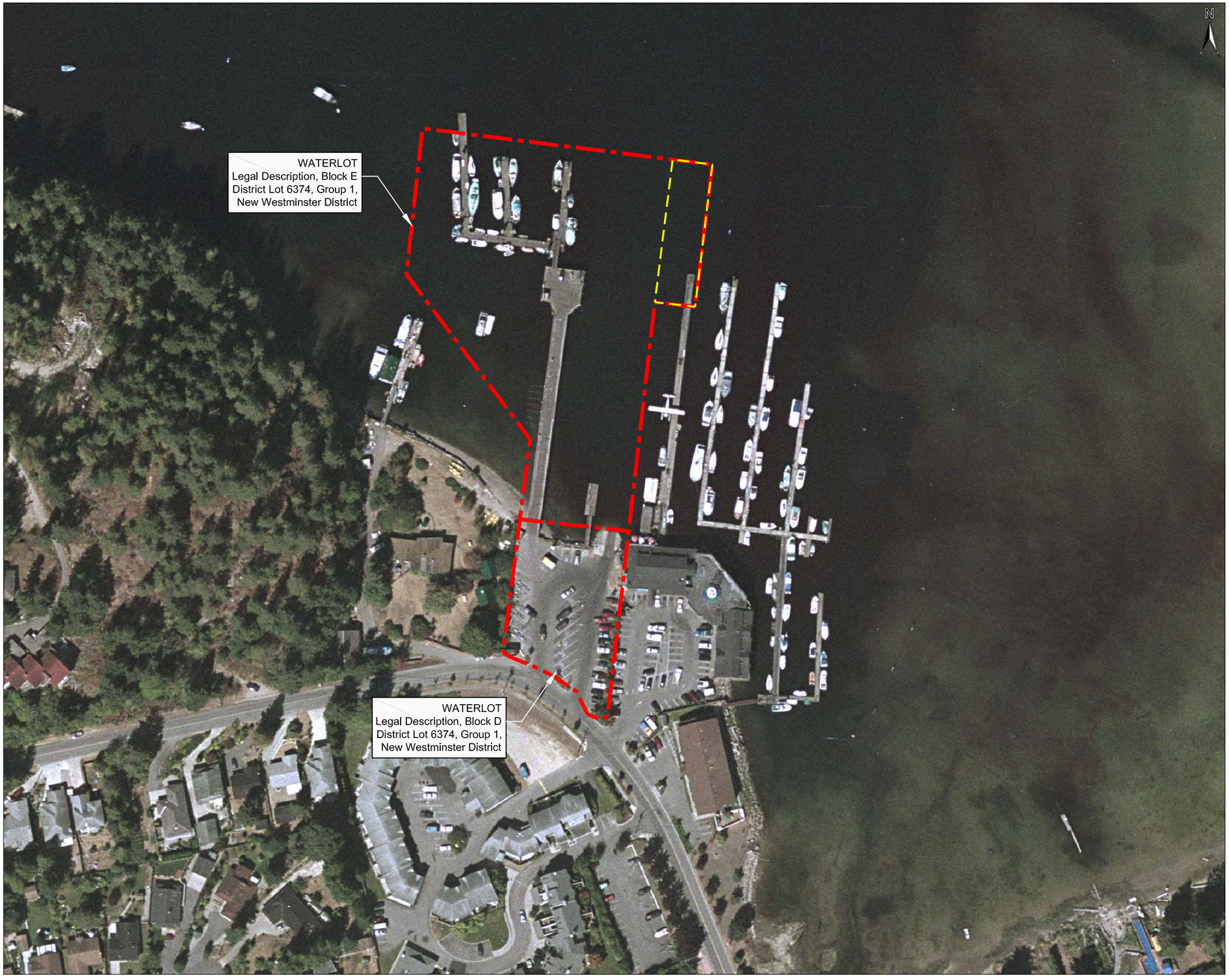
Client:
FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

DRAWN BY:	CHECKED BY:	PLOT SIZE:	*Date:*
NP		11X17"	JANUARY 2012

Stantec

FIGURE 10

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 10_Historic Site Detail Year 1998.dwg PRINTED: Feb 08, 2012



LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 2004-09-03_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL YEAR 2004

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

Stantec

FIGURE 11

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 11_Historic Site Detail Year 2004.dwg PRINTED: Feb 08, 2012

LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 2009-09-12_PorpoiseBay_PS06130.tiff

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL
YEAR 2009

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	*Date:*
NP		11X17"	JANUARY 2012

Stantec

FIGURE 12

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 12_Historic Site Detail Year 2009.dwg PRINTED: Feb 08, 2012

LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho Photo, 2010-08-28_PorpoiseBay_PS06130_8bit.tif

Scale 1:1500

30 15 0 15 30
metres

Title: HISTORIC SITE DETAIL YEAR 2010

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	*Date:*
NP		11X17"	JANUARY 2012

Stantec

FIGURE 13

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 13_Historic Site Detail Year 2010.dwg PRINTED: Feb 08, 2012

SOURCES

- Oblique aerial photograph, 2008-08-03, 2:23pm, PORPOISE_BAY_006.jpg, Fisheries & Oceans Canada
- Photograph facing South

Title: PORPOISE BAY SITE OVERVIEW

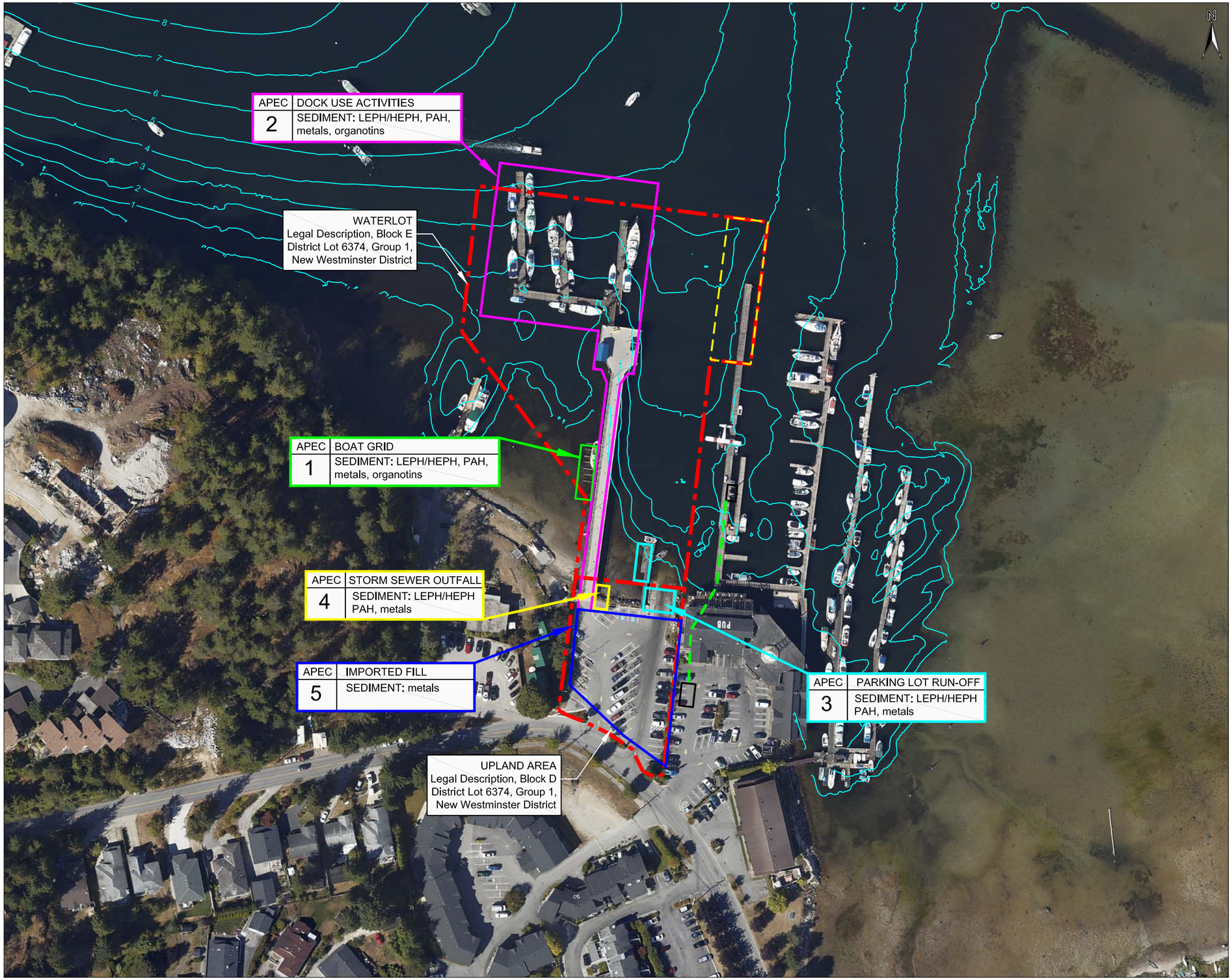
Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

FIGURE 14

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 14_PorpoiseBaySiteOverview.dwg PRINTED: Jan 10, 2012



LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:1500

30 15 0 15 30 metres

Title: ON-SITE APECs & PCOCs

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

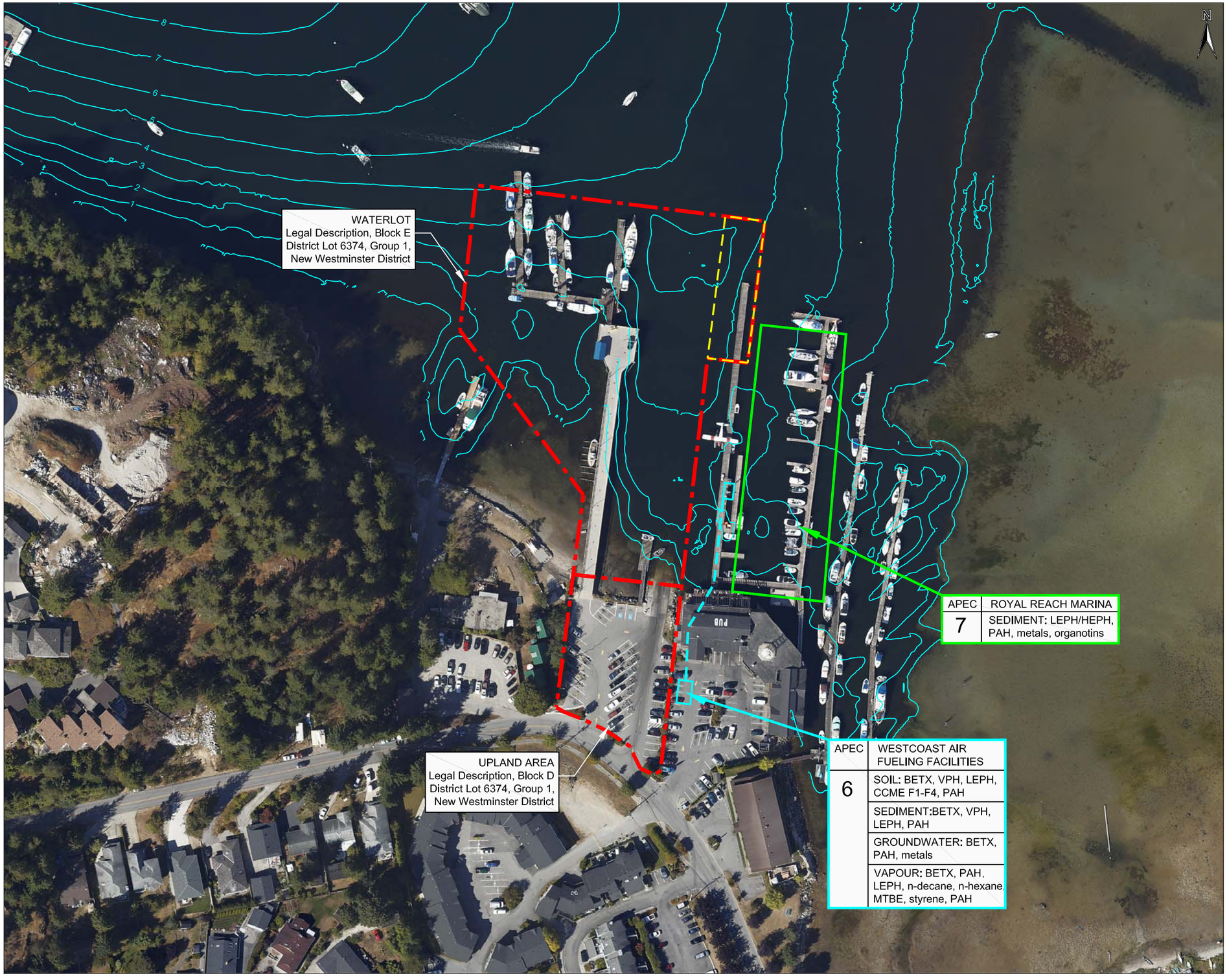
Client: FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

Stantec

FIGURE 15

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 15_On-site APECs & PCOCs.dwg PRINTED: Feb 07, 2012



APEC	ROYAL REACH MARINA
7	SEDIMENT: LEPH/HEPH, PAH, metals, organotins

APEC	WESTCOAST AIR FUELING FACILITIES
6	SOIL: BETX, VPH, LEPH, CCME F1-F4, PAH
	SEDIMENT:BETX, VPH, LEPH, PAH
	GROUNDWATER: BETX, PAH, metals
	VAPOUR: BETX, PAH, LEPH, n-decane, n-hexane, MTBE, styrene, PAH

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:1500

30 15 0 15 30
metres

Title: OFF-SITE APECs & PCOCs

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

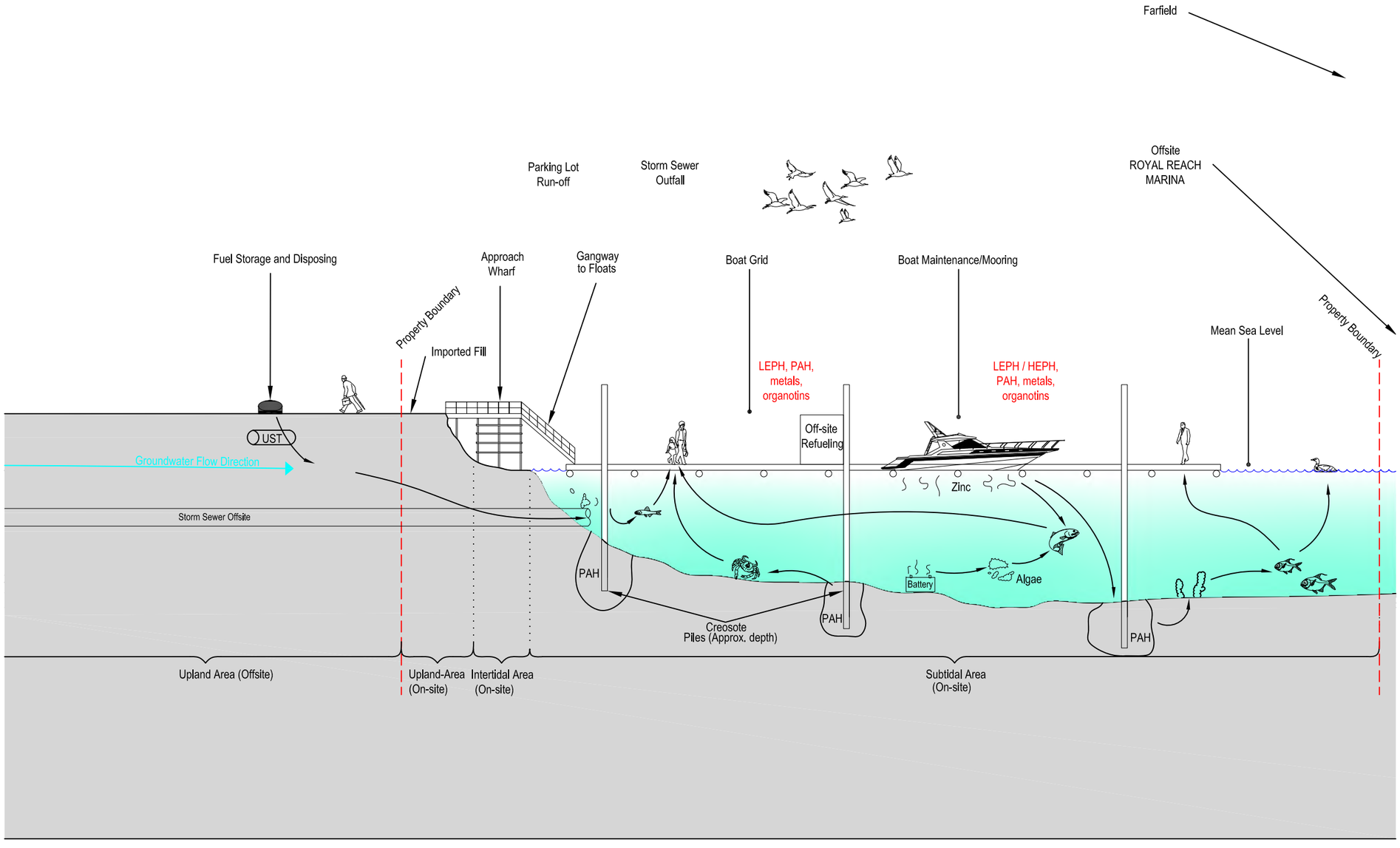
DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

Stantec

FIGURE 16

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 16_Off-site APECs & PCOCs.dwg PRINTED: Feb 07, 2012



THIS DRAWING IS NOT TO SCALE.

Title:

SITE CONCEPTUAL SITE MODEL

Project:

PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

Client:

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

FIGURE 17

Stantec

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 17_ConceptualModel.dwg PRINTED: Feb 07, 2012

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- MW1 MONITORING WELL
- SE001 SEDIMENT SAMPLE
- PW17 POREWATER WELL
- VW2 SOIL VAPOUR WELL

NOTE:

SE016-NR - NO RECOVER OF SEDIMENT AT THIS LOCATION

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:1500

30 15 0 15 30 metres

Title: INVESTIGATION POINTS

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

FIGURE 18

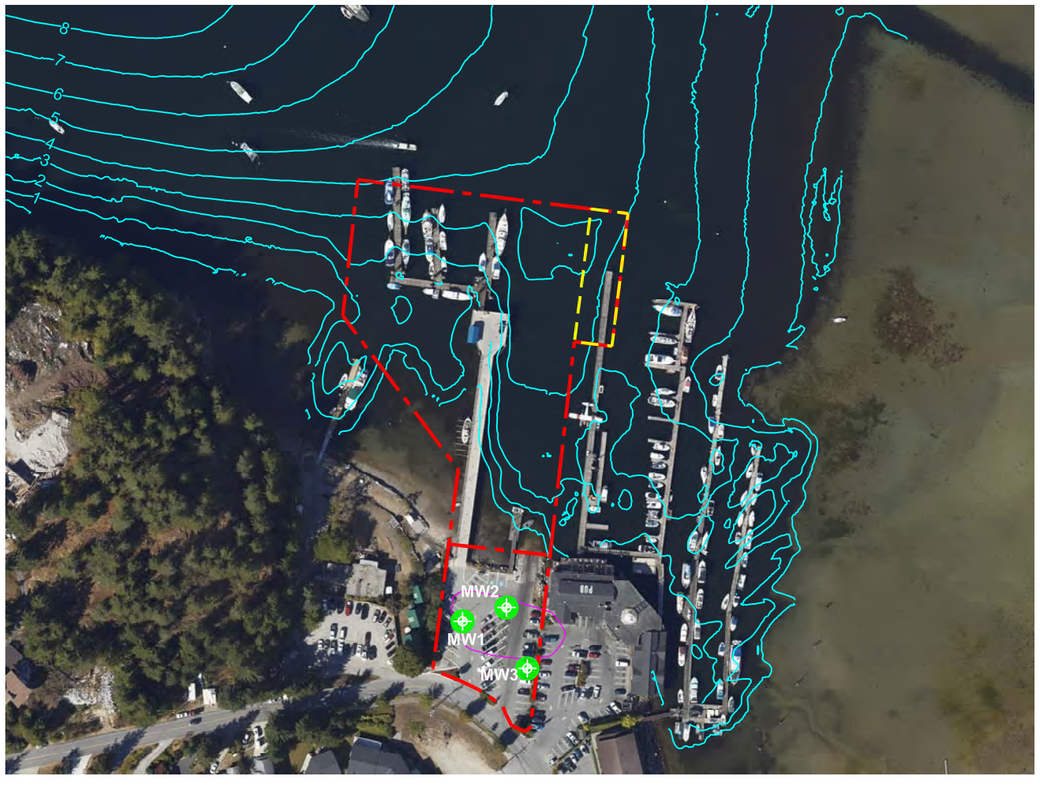
R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 18_InvestigationPoints.dwg PRINTED: Feb 07, 2012

HYDROCARBON AND MTBE PARAMETERS IN SOIL

CCME PHC CWS					0.030[1] / 0.0068[2]	0.37[1] / 0.08[2]	0.082[1] / 0.018[2]	11[1] / 2.4[2]	50	ns	ns	ns	ns	ns	ns	320[1] / 320[2]	260[1] / 260[2]	1700[1] / 2500[2]	3300[1] / 6600[2]
Notes					*b8*	*b2*	*b2*	*b2*	*b2*	*a*	*c2*	*i*	*i*	*a*	*a*				
CSR CL					2.5	25	20	50	50	200	700	2000	5000	2000	5000	ns	ns	ns	ns
APEC Investigated	**Sample**	**Date**	**Depth [m]**	**Soil Type****	Benzene	Toluene	Ethylbenzene	Xylenes	Styrene	VPHs	MTBE	EPHs10-19	EPHs19-32	LEPHs	HEPHs	F1 (C6-C10)	F2 (C10-C16)	F3 (C16-C34)	F4 (C34-C50)
Fill	PS06130-001-1112-SO 005	12-Dec-11	2.3 - 2.8	Coarse	<0.05	<0.34	<0.08	<0.17	<0.08	42.3	<0.08	<250	250	<250*	250*	22	<100	<200	<200
	PS06130-002-1112-SO 002	12-Dec-11	1.1 - 1.4	Coarse	<0.03	<0.20	<0.05	<0.10	<0.05	<20.0	<0.05	<250	<250	<250*	<250*	<20	<100	<200	<200
	PS06130-002-1112-SO 004	12-Dec-11	2.4 - 3.0	Coarse	<0.04	<0.25	<0.06	<0.13	<0.06	24.6	<0.06	<250	<250	<250*	<250*	<20	<100	<200	<200
Westcoast Air Fuelling Facilites	PS06130-003-1112-SO 002	12-Dec-11	1.2 - 1.4	Coarse	<0.03	<0.20	<0.05	<0.10	<0.05	32.6	<0.05	<250	<250	<250*	<250*	<20	<100	<200	<200
	PS06130-003-1112-SO 004	12-Dec-11	2.4 - 3.0	Coarse	<0.03	<0.20	<0.05	<0.10	<0.05	<20.0	<0.05	<250	<250	<250*	<250*	<20	<100	<200	<200
	PS06130-003-1112-SO 904 (DUP)	12-Dec-11		Coarse	<0.03	<0.20	<0.05	<0.10	<0.05	<20.0	<0.05	<250	<250	<250*	<250*	<20	<100	<200	<200

Note Descriptions:

a - CSR, Schedule 4 Generic Numerical Soil Standards
b2 - CSR, Schedule 5 Matrix Numerical Soil Standards - Toxicity to soil invertebrates and plants
b8 - CSR, Schedule 5 Matrix Numerical Soil Standards - Groundwater flow to surface water used by aquatic life, marine
c2 - CSR, Schedule 10 Commercial, Industrial Soil Standard
i - BC MOE Clarification on Hydrocarbon Analytical Methods and Standards, May 23, 2003
- Detectable concentration
CSR CL - Contaminated Site Regulations Commercial Land use standards
CCME PHC CWS - Canadian Council Ministers of the Environment Canada Wide Standards for Petroleum Hydrocarbons
SQG - Soil Quality Guidelines
ppm (µg/g) - soil parameter concentrations expressed in parts per million (micrograms per dry gram), unless otherwise indicated
BTEX - benzene, toluene, ethylbenzene, and xylenes in soil or groundwater
VPHs - volatile (C6-10) petroleum hydrocarbons, excluding BTEX concentrations in soil
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed
1 - Guideline is for coarse grain soils
2 - Guideline is for fine grain soils
LEPH - Light extractable petroleum hydrocarbons
HEPH - Heavy extractable petroleum hydrocarbons
* - EPH results are compared to LEPH / HEPH results to be conservative
** - Soil type was designated based on the results of grain size analysis completed in house



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- MW1 MONITORING WELL
- SOIL SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE GUIDELINE OR STANDARD

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title: SOIL - PETROLEUM HYDROCARBON ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	*Date:*
NP		11X17"	JANUARY 2012

Stantec

FIGURE 19

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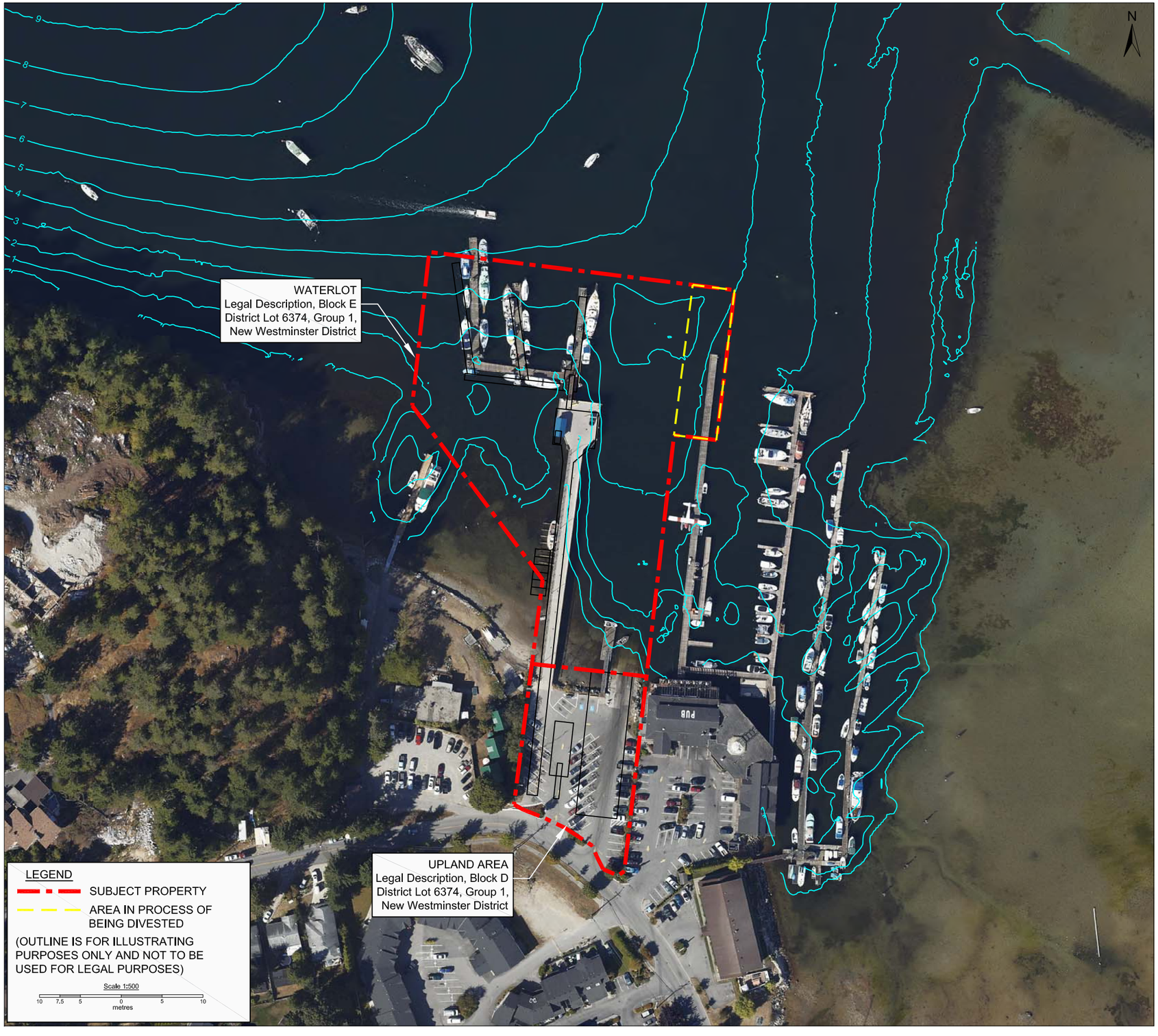

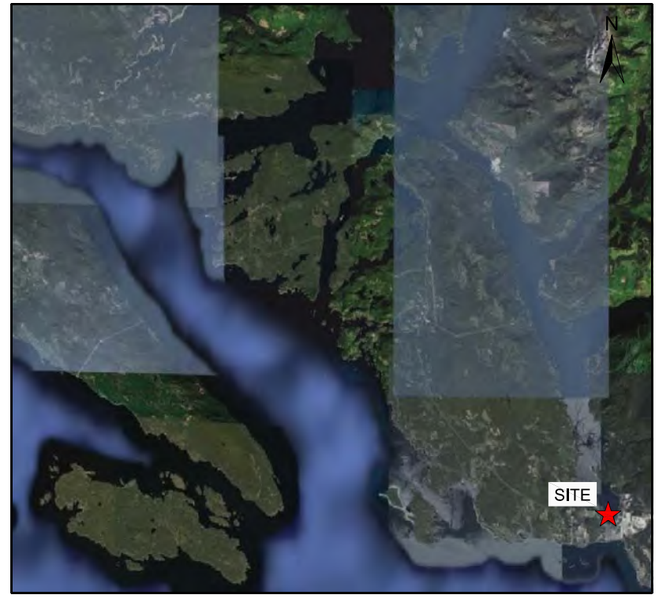

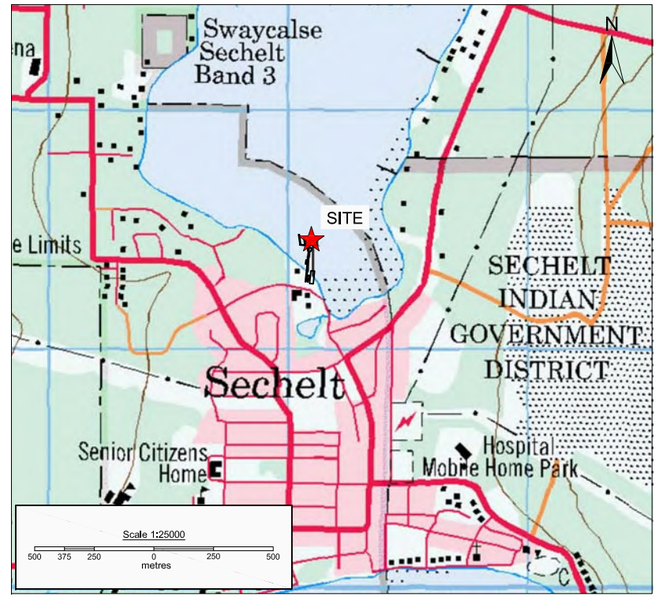

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Title: SITE LOCATION

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

FIGURE 1

Stantec

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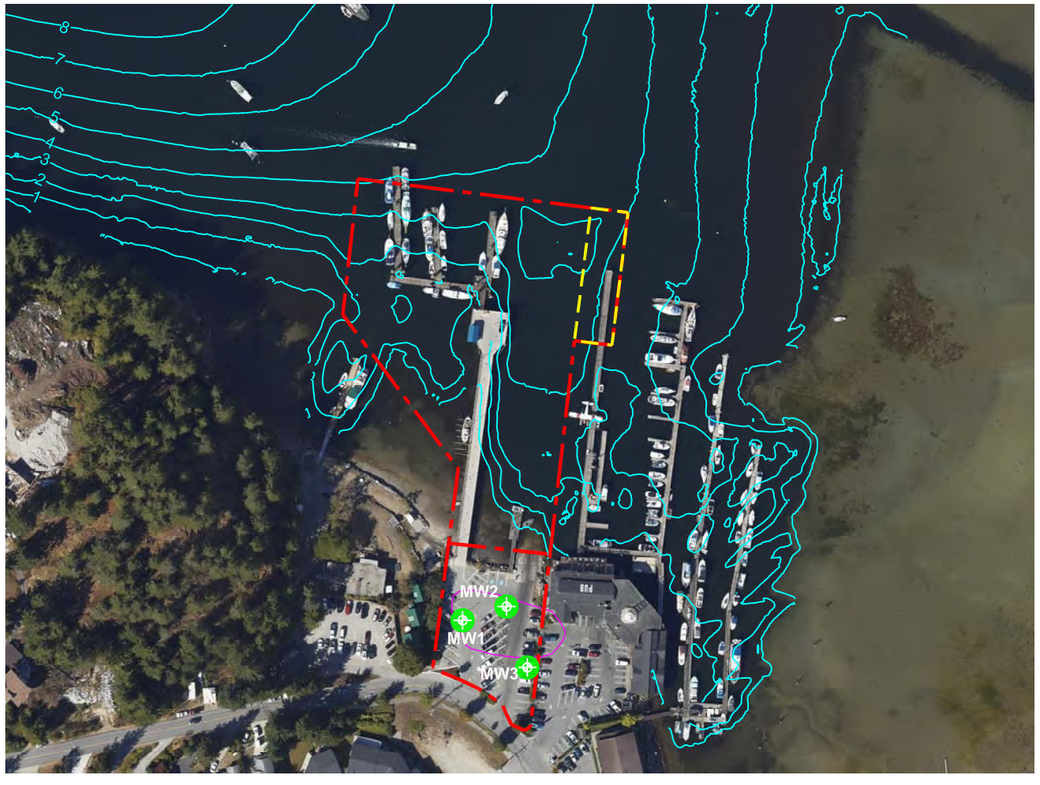
INORGANIC SUBSTANCES - METALS IN SOIL

					Antimony (Sb)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Thallium (Tl)	Tin (Sn)	Uranium (U)	Vanadium (V)	Zinc (Zn)
CSR Regional Background Quality				ns	15	20	300	1.5	ns	0.4	80	30	150	60	ns	0.15	1	60	2	1	ns	4	ns	100	90
CCME SQG				ns	40	12	2000	8	ns	22	87	300	91	260	ns	24	40	50	2.9	40	1	300	33	130	360
			Notes		*a*	*b8*	*b8*	*a*	*a*	*b1, b8*	*b8*	*a*	*b3, b6*	*b1, b6*	*c2*	*b1*	*a*	*a*	*a*	*a*	*a*	*a*	*a*	*a*	*b3, b8*
CSR CL				ns	40	15	1500	8	ns	pH <7.0 -- 2 pH 7.0-<7.5 -- 3.5 pH 7.5-<8.0 -- 35 100	60	300	pH <5.0 -- 90 pH 5.0-<5.5 -- 100 pH 5.5-<6.0 -- 200 250	pH <5.5 -- 150 pH 5.5-<6.0 -- 250 1000	19000	40	40	500	10	40	ns	300	ns	ns	pH <6.0 -- 150 pH 6.0-<6.5 -- 300 600
APEC Investigated	**Sample**	**Date**	**Depth [m]**	**pH**																					
Fill	PS06130-001-1112-SO 005	12-Dec-11	2.3 - 2.8	7	0.2	2.6	15.6	<0.1	34.2	0.45	6.5	2.1	12	12.5	105	0.06	5.1	3.5	<0.5	<0.2	<0.1	2	1.9	15.4	38.1
	PS06130-001-1112-SO 008	12-Dec-11	4.3 - 4.6	7.3	0.2	2.7	17.1	0.2	6	0.42	6.8	2.3	9	4.6	103	<0.05	1.9	3.6	0.5	<0.2	<0.1	0.3	1	18.1	37.6
	PS06130-002-1112-SO 002	12-Dec-11	1.1 - 1.4	6.8	0.1	1.9	51.4	<0.1	<2.0	0.55	6.5	4	26	2.6	193	<0.05	0.9	5.2	<0.5	<0.2	0.1	0.3	0.6	29	22.4
	PS06130-002-1112-SO 004	12-Dec-11	2.4 - 3.0	7.3	0.1	3.4	18.3	0.1	6	1.09	7.4	1.9	7.7	6	103	<0.05	2.9	3.3	<0.5	<0.2	<0.1	1.1	1.7	14.7	25.4
Westcoast Air Refuelling Facilities	PS06130-003-1112-SO 002	12-Dec-11	1.2 - 1.4	5.8	0.1	2.3	13.3	0.1	<2.0	0.11	3.8	1.4	4.7	1.6	81.7	<0.05	1.6	2.3	<0.5	<0.2	<0.1	<0.2	1.6	11	11.6
	PS06130-003-1112-SO 004	12-Dec-11	2.4 - 3.0	6.9	0.1	2.8	60.4	0.2	11.9	1.12	7.6	3.2	16	2	174	<0.05	0.8	4.8	0.8	<0.2	<0.1	<0.2	4.5	21.6	96.4
	PS06130-003-1112-SO 904 (DUP)	12-Dec-11		6.9	<0.1	3.2	60.2	<0.1	10.6	1.52	8.9	2.7	17.6	2.1	142	<0.05	1.5	4.6	0.7	<0.2	<0.1	0.2	1.2	21.8	110

Note Descriptions:

a - CSR, Schedule 4 Generic Numerical Soil Standards
b1 - CSR, Schedule 5 Matrix Numerical Soil Standards - Intake of contaminated soil
b3 - CSR, Schedule 5 Matrix Numerical Soil Standards - Toxicity to soil invertebrates and plants
b6 - CSR, Schedule 5 Matrix Numerical Soil Standards - Groundwater flow to surface water used by aquatic life
b8 - CSR, Schedule 5 Matrix Numerical Soil Standards - Groundwater flow to surface water used by aquatic life, marine
c2 - CSR, Schedule 10 Commercial, Industrial Soil Standard
CSR CL - Contaminated Site Regulations Commercial Land use standards
CCME SQG - Canadian Council of Ministers of the Environment Soil Quality Guidelines
Detectable concentration
ppm (µg/g) - soil parameter concentrations expressed in parts per million (micrograms per dry gram), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- MW1 MONITORING WELL
- SOIL SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR CL OR STANDARD

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title: SOIL - METAL ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

FIGURE 20

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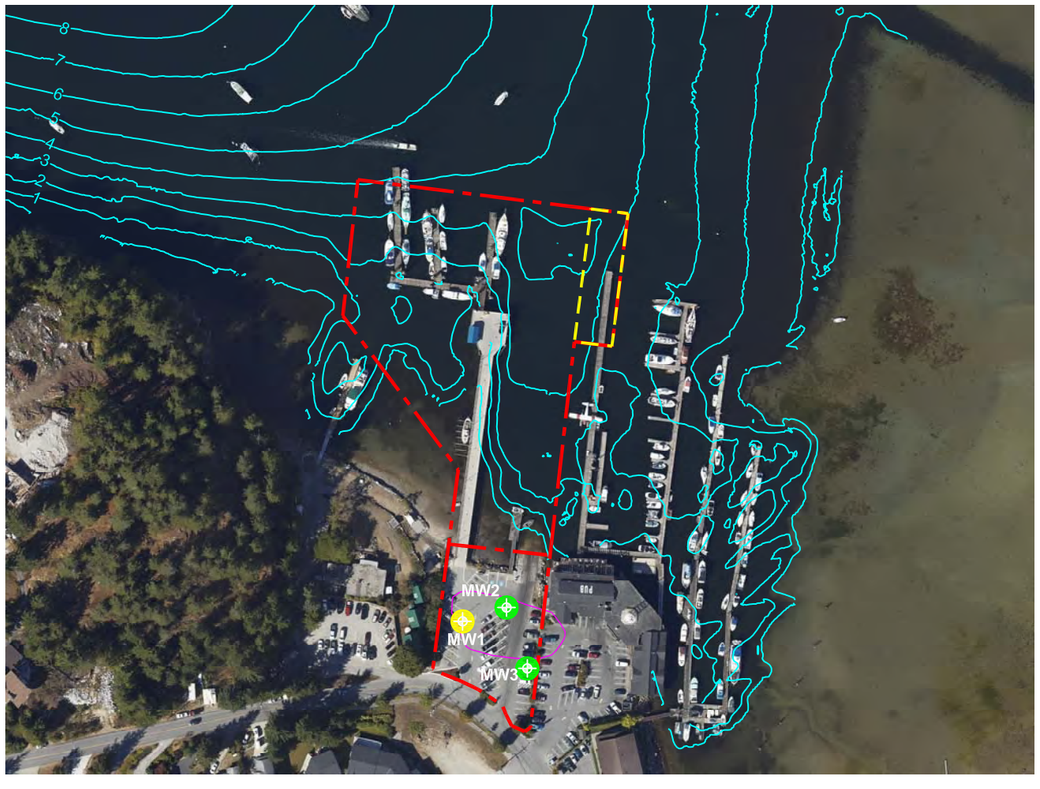
PAHs IN SOIL

				Notes	j1	j2	j2	j2	j4	j5	j5			j5	j1	j2	j5	j2	j2	j5	j6	j7
CCME SQG					32	0.28	320	10	1.4	10	10	ns	ns	10	180	0.25	10	0.013	0.046	100	5.3	≤1.0
				Notes				a	b3	a	a			a			a	a	a	a		
CSR CL					ns	ns	ns	10	10	10	10	ns	ns	10	ns	ns	10	50	50	100	ns	ns
APEC Investigated	**Sample**	**Date**	**Depth [m]**		anthracene	acenaphthene	acenaphthylene	benzo[a]anthracene	benzo[a]pyrene	benzo[b]fluoranthene	benzo[k]fluoranthene	benzo[g,h,i]perylene	Chrysene	dibenz[a,h]anthracene	fluoranthene	fluorene	indeno(1,2,3-cd)pyrene	naphthalene	phenanthrene	pyrene	B[a]P TEP	IACR
Fill	PS06130-001-1112-SO 005	12-Dec-11	2.3 - 2.8		0.0556	<0.00500	0.0343	0.255	0.266	0.299	0.164	0.152	0.282	0.0725	0.782	0.0413	0.138	<0.0150	**0.154**	0.581	0.43	**4.9**
	PS06130-002-1112-SO 002	12-Dec-11	1.1 - 1.4		<0.0100	<0.00500	0.0161	0.0564	0.0104	0.0342	0.0252	0.0287	0.0316	<0.00500	0.035	<0.0100	0.0352	<0.0150	0.0252	0.0397	0.03	0.6
	PS06130-002-1112-SO 004	12-Dec-11	2.4 - 3.0		0.0144	<0.00500	<0.00500	0.0606	<0.0100	0.037	0.0224	0.0298	0.0269	<0.00500	0.0567	<0.0100	0.0409	<0.0150	<0.0200	0.0459	0.02	0.6
	PS06130-003-1112-SO 002	12-Dec-11	1.2 - 1.4		<0.0100	<0.00500	<0.00500	<0.0100	0.0332	<0.0100	<0.0100	<0.0100	<0.0100	<0.00500	0.0129	<0.0100	<0.0100	<0.0150	<0.0200	<0.0200	0.03	0.1
West Coast Refuelling Facilities	PS06130-003-1112-SO 004	12-Dec-11	2.4 - 3.0		<0.0100	<0.00500	<0.00500	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.00500	<0.0100	<0.0100	<0.0100	<0.0150	<0.0200	<0.0200	0.00	0
	PS06130-003-1112-SO 904 (DUP)	12-Dec-11			<0.0100	<0.00500	<0.00500	<0.0100	0.0343	<0.0100	<0.0100	<0.0100	<0.0100	<0.00500	0.0126	<0.0100	<0.0100	<0.0150	<0.0200	<0.0200	0.03	0.1

Note Descriptions:

a - CSR, Schedule 4 Generic Numerical Soil Standards
b3 - CSR, Schedule 5 Matrix Numerical Soil Standards - Toxicity to soil invertebrates and plants
CSR CL - Contaminated Site Regulations Commercial Land use standards
CCME SQG - Canadian Council of Ministers of the Environment Soil Quality Guidelines
- Result exceeds CSR CL
- Result exceeds CCME SQG
- Detectable concentration
ppm (µg/g) - soil parameter concentrations expressed in parts per million (micrograms per dry gram), unless otherw ise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed
j1 - CCME Soil Quality Guideline Commercial Use, Soil contact (SQG_{sc})
j2 - CCME Soil Quality Criteria, protection of Freshw ater Aquatic Life (SQG_{FL})
j3 - CCME Soil Quality Guideline Commercial Use, Soil contact (SQGsc)
j4 - CCME Soil Quality Guideline Commercial Use, Provisional SQG_{E}
j5 - CCME Interim Soil Quality Criteria, Commercial
j6 - CCME Human Health guideline for 10x6 incremental lifetime cancer risk
j7 - CCME protection of groundw ater check value



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- MW1 MONITORING WELL
- SOIL SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR CL OR STANDARD
- SOIL SAMPLE CONCENTRATION IS GREATER THAN THE CCME GUIDELINE

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title: SOIL - PAHs ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

FIGURE 21

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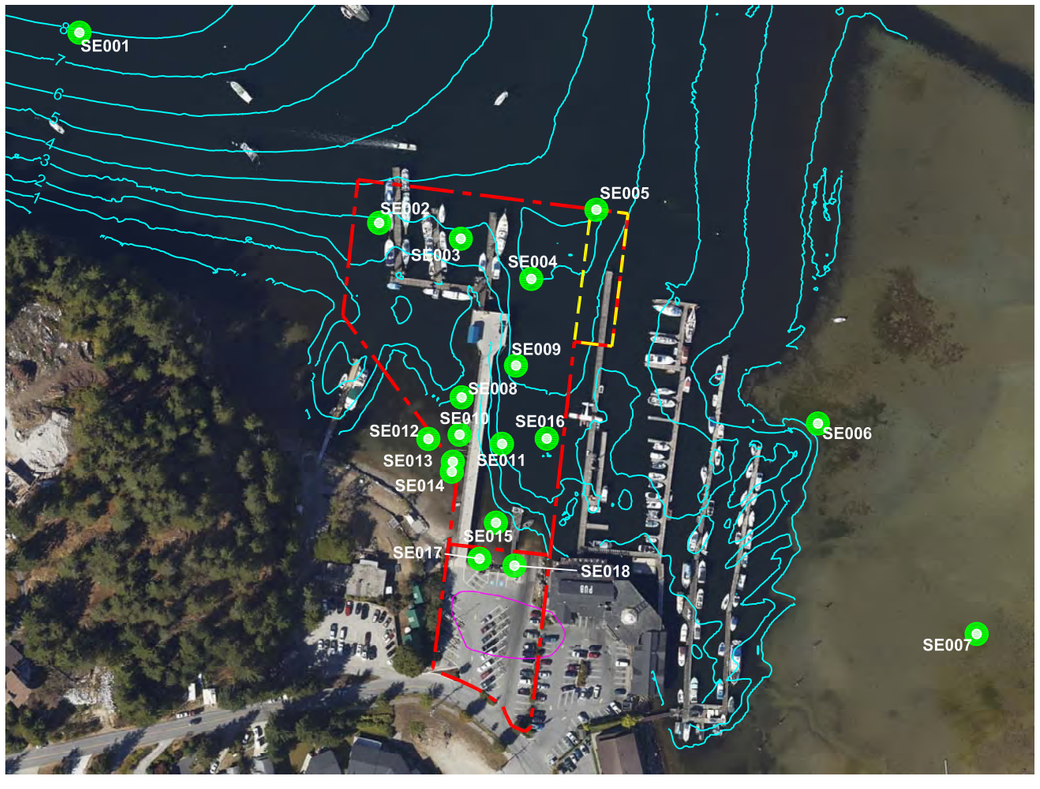
HYDROCARBON PARAMETERS IN SEDIMENT

CCME CWS					ns	ns	ns	ns	260[1] / 260[2]	1700[1] / 2500[2]
				Notes	*i*	*i*	*a*	*a*		
CSR CL					2000	5000	2000	5000	ns	ns
APEC Investigated	**Sample**	**Date**	**Depth [m]**	**Soil Classification*****	EPHs10-19	EPHs19-32	LEPHs	HEPHs	F2 (C10-C16)*	F3 (C16-C34)**
Local Reference Sites	PS06130-001-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-005-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-006-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-007-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
Dock Use Activities	PS06130-002-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-003-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-009-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-011-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	334	<250	331	<250	334
	PS06130-015-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
Boat Grid	PS06130-008-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-010-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-010-1112-SE901 (DUP)	12-Dec-11		coarse	<250	<250	<250	<250	<250	<250
	PS06130-012-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-013-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-014-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
Storm Sewer Outfall	PS06130-017-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-017-1112-SE901 (DUP)	12-Dec-11		coarse	<250	380	<250	379	<250	380
Parking Lot Runoff	PS06130-018-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	588	<250	586	<250	588
Westcoast Air Refuelling Facilities / Royal Reach Marina	PS06130-004-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250
	PS06130-016-1112-SE001	12-Dec-11	0 - 0.05	coarse	<250	<250	<250	<250	<250	<250

Note Descriptions:

note - As per the DFO Terms of Reference document (Version 2011-03-31) the EPH is sediment values are being compared to the CCME CWS F2 and F3 fraction and the CSR LEPH/HEPH
a - CSR, Schedule 4 Generic Numerical Soil Standards
i - BC MOE Clarification on Hydrocarbon Analytical Methods and Standards, May 23, 2003
- Detectable concentration
CSR CL - Contaminated Site Regulations Commercial Land use Standards
CCME CWS - Canadian Council Ministers of the Environment Canada Wide Standards for Petroleum Hydrocarbons
ppm (µg/g) - soil parameter concentrations expressed in parts per million (micrograms per dry gram), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed
1 - Guideline is for coarse grain soils
2 - Guideline is for fine grain soils
* - The results for EPH10-19 are being compared to the F2 CCME CWS guideline to be conservative
** - The results for EPH 19-32 are being compared to the F3 CCME CWS guideline to be conservative
*** - Soil type was designated based on the results of grain size analysis completed in-house



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- **SE001** ● SEDIMENT SAMPLE
- SEDIMENT SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR SQG OR STANDARD

SOURCES

Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009

Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title: SEDIMENT - PETROLEUM HYDROCARBON ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	*Date:*
NP		11X17"	JANUARY 2012

FIGURE 22

INORGANIC SUBSTANCES - METALS IN SEDIMENT

CSR Regional Background Quality				ns	15	20	300	1.5	ns	0.4	80	30	150	60	ns	0.15	1	60	2	1	ns	ns	4	ns	100	90
EPA Screening Level Objective*				ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.03	ns	ns	ns	ns
CCME Ocean Disposal Guidelines				ns	ns	7.24	ns	ns	ns	0.6	52.3	ns	18.7	30.2	ns	0.75	ns	ns	ns	ns	ns	ns	ns	ns	ns	124
CCME Sediment Quality Guideline				ISQG	ns	7.24	ns	ns	ns	0.7	52.3	ns	18.7	30.2	ns	0.13	ns	n	ns	ns	ns	ns	ns	ns	ns	124
				PEL	ns	41.6	ns	ns	ns	4.2	160	ns	108	112	ns	0.7	ns	ns	ns	ns	ns	ns	ns	ns	ns	271
			Notes			*a*				*a*	*a*		*a*	*a*		*a*										*a*
CSR SQC_{ICS}				ns	ns	50	ns	ns	ns	5	190	ns	130	130	ns	0.84	ns	ns	ns	ns	ns	ns	ns	ns	ns	330
APEC Investigated	**Sample**	**Date**	**Depth [m]**	**pH**	**Antimony (Sb)**	**Arsenic (As)**	**Barium (Ba)**	**Beryllium (Be)**	**Boron (B)**	**Cadmium (Cd)**	**Chromium (Cr)**	**Cobalt (Co)**	**Copper (Cu)**	**Lead (Pb)**	**Manganese (Mn)**	**Mercury (Hg)**	**Molybdenum (Mo)**	**Nickel (Ni)**	**Selenium (Se)**	**Silver (Ag)**	**Thallium (Tl)**	**Tributyl Tin**	**Tin (Sn)**	**Uranium (U)**	**Vanadium (V)**	**Zinc (Zn)**
Local Reference Sites	PS06130-001-1112-SE001	12-Dec-11	0 - 0.05	7.2	<0.1	1.6	11.2	<0.1	3.7	**1.02**	3.2	1.1	3.4	0.8	51.3	<0.05	0.5	2.3	<0.5	<0.2	0.2	--	<0.2	0.4	4.9	9.9
	PS06130-005-1112-SE001	12-Dec-11	0 - 0.05	7.6	<0.1	2	9.3	<0.1	5.3	**1.08**	3	0.9	4	1.1	47.3	<0.05	0.6	1.9	<0.5	<0.2	0.1	--	<0.2	0.4	4.6	11.7
	PS06130-006-1112-SE001	12-Dec-11	0 - 0.05	7.8	<0.1	1.2	8.7	<0.1	4.1	0.16	2.9	0.9	2	0.9	48.1	<0.05	0.3	1.7	<0.5	<0.2	<0.1	<0.001	<0.2	0.2	4.6	8
	PS06130-007-1112-SE001	12-Dec-11	0 - 0.05	8.1	<0.1	0.8	7.9	<0.1	2.7	0.04	3.4	1.1	1.9	1.2	58.7	<0.05	0.1	1.9	<0.5	<0.2	<0.1	--	<0.2	0.2	5.9	8.8
Dock Use Activities	PS06130-002-1112-SE001	12-Dec-11	0 - 0.05	8.1	0.1	2.6	13	<0.1	6.5	**0.81**	4.3	1.2	**30.7**	6.2	56.1	<0.05	0.8	2.7	<0.5	<0.2	0.1	--	0.9	0.3	6.2	43.4
	PS06130-003-1112-SE001	12-Dec-11	0 - 0.05	7.7	0.2	4.2	16.3	<0.1	23.3	**1.72**	7.3	1.5	**76.3**	9.2	65.7	0.06	4	3.8	<0.5	<0.2	0.2	<0.001	2.5	1.5	9.5	45.6
	PS06130-009-1112-SE001	12-Dec-11	0 - 0.05	7.7	25.5	3.7	13.4	<0.1	19.8	**1.75**	7.7	1.5	17.4	11.4	61.2	0.1	2.5	3.9	<0.5	<0.2	0.1	<0.001	1	1.2	8.3	35.3
	PS06130-011-1112-SE001	12-Dec-11	0 - 0.05	7.2	0.3	**8.7**	18.6	<0.1	79.9	**1.79**	12.6	2.1	**50.9**	13.3	84.7	0.11	7.2	7.3	1.5	<0.2	0.1	--	2.1	4.6	19.4	52.7
	PS06130-015-1112-SE001	12-Dec-11	0 - 0.05	7.5	<0.1	1.1	10.5	<0.1	6.5	0.14	4.9	1.9	6.9	2.6	88.6	<0.05	0.5	2.6	<0.5	<0.2	<0.1	--	0.2	0.5	9.8	16
Boat Grid	PS06130-008-1112-SE001	12-Dec-11	0 - 0.05	7.9	<0.1	1	10.8	<0.1	5.6	0.2	4.6	1.6	8.6	1.9	78.3	0.07	0.4	2.4	<0.5	<0.2	<0.1	--	0.5	0.4	7.1	14.5
	PS06130-010-1112-SE001	12-Dec-11	0 - 0.05	8.6	<0.1	1.4	24.4	<0.1	4.1	0.09	4.2	1.4	**109**	3.5	70.9	**0.23**	0.2	2.6	<0.5	<0.2	<0.1	<0.001	0.7	0.2	8.1	18.7
	PS06130-010-1112-SE001-RE1	*12-Dec-11*		*8.6*	*<0.1*	*0.9*	*16*	*<0.1*	*4*	*0.1*	*4*	*1.2*	**243**	*7.6*	*74.8*	*0.08*	*0.2*	*2.8*	*<0.5*	*<0.2*	*<0.1*	--	*0.8*	*0.2*	*8.7*	*22.5*
	PS06130-010-1112-SE001-RE2	*12-Dec-11*		*8.6*	*0.2*	*1*	*13*	*<0.1*	*3.6*	*0.1*	*3.9*	*1.3*	**98.2**	*6.9*	*75.5*	*0.1*	*0.2*	*2.9*	*<0.5*	*<0.2*	*<0.1*	--	*0.6*	*0.3*	*9.4*	*18.6*
	PS06130-010-1112-SE901 (DUP)	12-Dec-11		8.5	0.2	3.2	30	<0.1	5.1	0.09	4.4	1.4	**390**	88	67.5	**0.47**	0.4	3.5	<0.5	<0.2	<0.1	--	3.2	0.2	6.9	37.4
	PS06130-010-1112-SE901 (DUP)-RE1	*12-Dec-11*		*8.5*	*0.2*	*3.7*	*28*	*<0.1*	*4.3*	*0.08*	*4.4*	*1.3*	**454**	*73.5*	*69.4*	**0.74**	*0.4*	*3.6*	*<0.5*	*<0.2*	*<0.1*	--	*2.8*	*0.3*	*8.2*	*41.5*
	PS06130-010-1112-SE901 (DUP)-RE2	*12-Dec-11*		*8.5*	*0.2*	*2.3*	*33.3*	*<0.1*	*4.9*	*0.1*	*6.5*	*1.4*	**330**	*108*	*69.7*	**0.76**	*0.4*	*4.5*	*<0.5*	*<0.2*	*<0.1*	--	*2.6*	*0.3*	*8.8*	*34.6*
	PS06130-012-1112-SE001	12-Dec-11	0 - 0.05	8.5	<0.1	1.1	12.9	<0.1	4.8	0.1	6.3	1.9	7.3	1.9	90.1	<0.05	0.1	2.9	<0.5	<0.2	<0.1	--	<0.2	0.4	13.3	17.8
	PS06130-013-1112-SE001	12-Dec-11	0 - 0.05	8.6	<0.1	1.3	59.6	<0.1	14.8	0.21	3.5	1.1	**335**	12.3	43.3	0.09	1.3	6.2	<0.5	<0.2	<0.1	<0.001	1.9	0.6	5.1	98.4
	PS06130-013-1112-SE001-RE1	*12-Dec-11*		*8.6*	*0.2*	*1*	*77.5*	*<0.1*	*11.5*	*0.21*	*4.2*	*1*	**341**	*14.6*	*53.3*	**0.16**	*1.2*	*6.2*	*<0.5*	*<0.2*	*<0.1*	--	*2.8*	*0.6*	*7.4*	*95.6*
	PS06130-013-1112-SE001 -RE2	*12-Dec-11*		*8.6*	*0.1*	*1.2*	*39.7*	*<0.1*	*14.2*	*0.21*	*3.4*	*1*	**502**	*9.8*	*43.6*	**0.22**	*1.3*	*6.8*	*<0.5*	*<0.2*	*<0.1*	--	*2.3*	*0.7*	*6.1*	*91.8*
	PS06130-014-1112-SE001	12-Dec-11	0 - 0.05	8.6	<0.1	0.8	35.2	<0.1	4.2	0.05	3.8	1.7	**132**	**58.5**	78.8	<0.05	2	3.7	<0.5	<0.2	<0.1	--	0.4	0.2	7.1	27.7
	PS06130-014-1112-SE001 -RE1	*12-Dec-11*		*8.6*	*<0.1*	*0.8*	*28.7*	*<0.1*	*4.2*	*0.05*	*6.4*	*1.9*	**277**	*11.2*	*92.5*	*0.05*	*0.2*	*5*	*<0.5*	*<0.2*	*<0.1*	--	*1.1*	*0.2*	*10.4*	*29.9*
	PS06130-014-1112-SE001 -RE2	*12-Dec-11*		*8.6*	*0.1*	*0.7*	*22.4*	*<0.1*	*4.4*	*0.07*	*4*	*1.3*	**141**	*6.6*	*70.1*	*0.08*	*0.2*	*4*	*<0.5*	*<0.2*	*<0.1*	--	*1.2*	*0.2*	*8.6*	*40.9*
Storm Sewer Outfall	PS06130-017-1112-SE001	12-Dec-11	0 - 0.05	7.3	0.2	2.5	20.9	<0.1	29.5	0.14	5.6	1.9	12.3	4.8	213	<0.05	0.5	3.2	<0.5	<0.2	<0.1	--	0.4	0.8	10.9	30.4
	PS06130-017-1112-SE901 (DUP)	12-Dec-11		7.3	0.2	2.6	20.4	<0.1	19.8	0.12	4.7	1.7	10.9	4.2	205	<0.05	0.4	2.8	<0.5	<0.2	<0.1	--	0.8	0.6	9.9	26.6
Parking Lot Runoff	PS06130-018-1112-SE001	12-Dec-11	0 - 0.05	6.7	0.4	4.3	32.3	<0.1	47.7	0.32	9.3	2.2	**24.5**	10.3	108	0.1	2.4	6.8	0.7	<0.2	<0.1	--	0.6	2.8	16.7	42.6
Westcoast Air Refuelling Facilities / Royal Reach Marina	PS06130-004-1112-SE001	12-Dec-11	0 - 0.05	7.6	0.2	1.7	15.9	<0.1	9.7	**1.86**	3.9	1.4	12.3	16.1	58.3	<0.05	1.6	2.5	<0.5	<0.2	0.1	--	1.3	0.8	5.7	24.9
	PS06130-016-1112-SE001	12-Dec-11	0 - 0.05	7.7	<0.1	1.5	11.4	<0.1	6.9	0.36	4.1	1.4	5.7	1.9	67.3	<0.05	0.7	2.4	<0.5	<0.2	<0.1	--	0.2	0.7	8.2	14.2

Note Descriptions:

a - CSR, Schedule 9 Generic Numerical Sediment Criteria (as per the DFO TOR (Version 2011-03-31) the sediment quality criteria chosen is for typical environments)

* - US EPA (1996). Recommendations for Screening Values for Tributyltin in Sediments at Superfund Sites in Puget Sound, Washington

CSR SQC_{ICS} Contaminated Site Regulations Sediment Quality Criteria for typical contaminated sites

CCME SQG - Canadian Council of Ministers of the Environment Sediment Quality Guidelines

ISQG - Interim Sediment Quality Guideline

PEL - probable effect levels

- Result exceeds CSR SQG_{ICS}

- Result exceeds CCME SQG

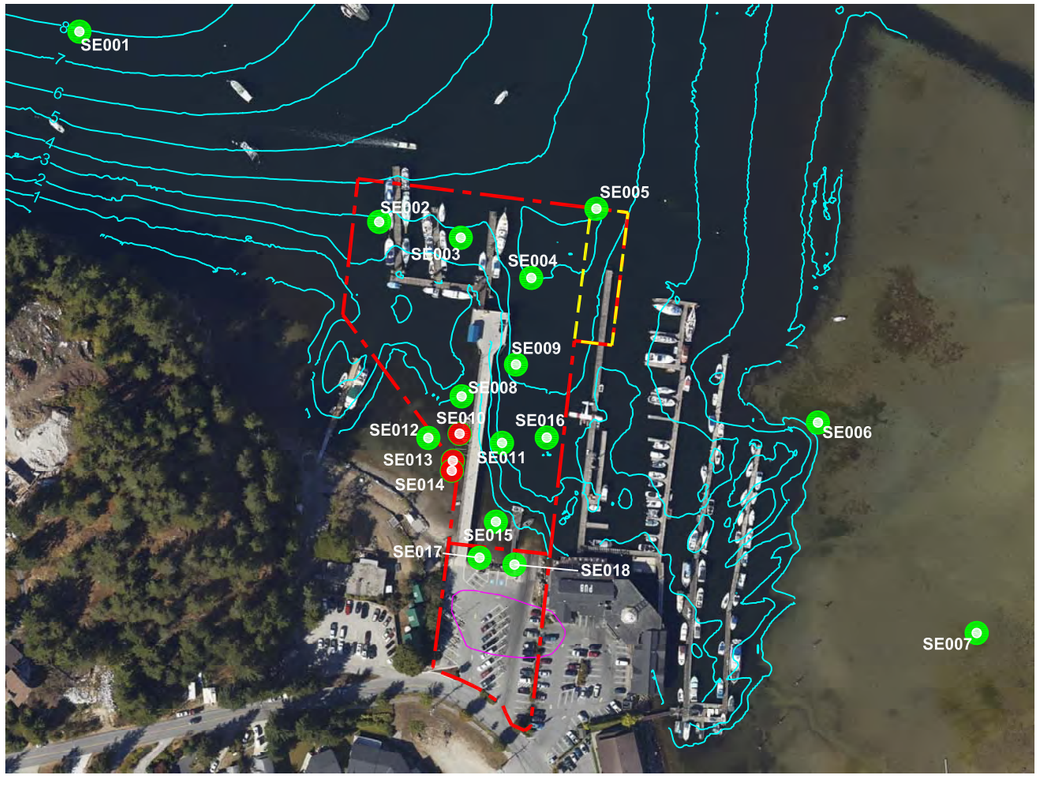
- Sample concentration is below regional background

ppm (µg/g) - soil parameter concentrations expressed in parts per million (micrograms per dry gram), unless otherwise indicated

<- - less than analytical detection limit indicated

"--" - sample not analyzed for parameter indicated

ns - no standard listed



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- **SE001** ● SEDIMENT SAMPLE
- SEDIMENT SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR SQG STANDARD
- SEDIMENT SAMPLE CONCENTRATION IS GREATER THAN THE APPLICABLE CSR SQG STANDARD

NOTE:

SAMPLES SE010 AND SE014 WERE REANALYZED IN DUPLICATE TO CONFIRM CONCENTRATIONS AND HIGHEST CONCENTRATION IS HIGHLIGHTED ON FIGURE.

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000

50 25 0 25 50 metres

Title: SEDIMENT - METAL ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT PS06130, CLASS C SMALL CRAFT HARBOUR PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

FIGURE 23

Stantec

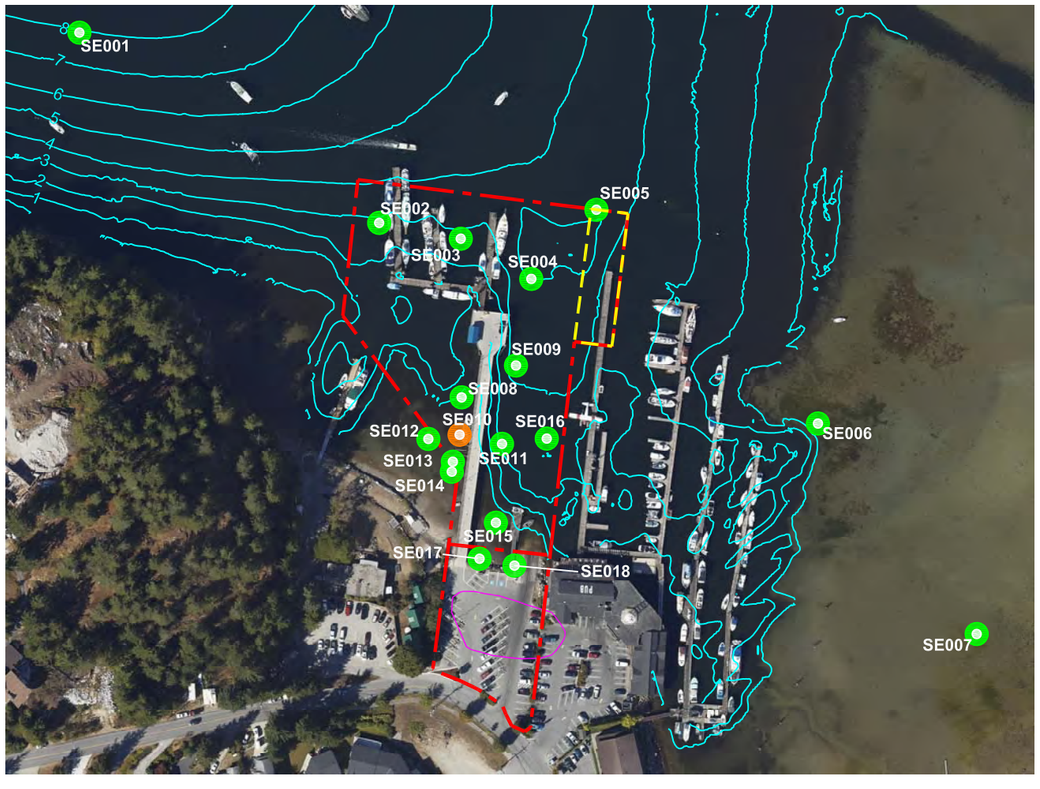
R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 19 - Fig 31.dwg PRINTED: Feb 08, 2012

PAHs IN SEDIMENT

CCME Ocean Disposal Guidelines				ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	2.5
CCME Sediment Quality Guidelines			**ISQG**	0.0202	0.0469	0.00671	0.00587	0.0748	0.0888	ns	ns	ns	0.108	0.00622	0.113	0.0212	ns	0.0346	0.0867	0.153	ns
			PEL	0.201	0.245	0.0889	0.128	0.693	0.763	ns	ns	ns	0.846	0.135	1.494	0.144	ns	0.391	0.544	1.398	ns
			Notes	*a*	*a*	*a*	*a*	*a*	*a*				*a*	*a*	*a*	*a*		*a*	*a*	*a*	*a*
CSR SQG$_{ICS}$				0.24	0.29	0.11	0.15	0.83	0.92	ns	ns	ns	1	0.16	1.8	0.17	ns	0.47	0.65	1.7	20
APEC Investigated	**Sample**	**Date**	**Depth [m]**	**2-methylnaphthalene**	**anthracene**	**acenaphthene**	**acenaphthylene**	**benzo(a)anthracene**	**benzo(a)pyrene**	**benzo(b)fluoranthene**	**benzo(k)fluoranthene**	**benzo(g,h,i)perylene**	**Chrysene**	**dibenz(a,h)anthracene**	**fluoranthene**	**fluorene**	**indeno(1,2,3-cd)pyrene**	**naphthalene**	**phenanthrene**	**pyrene**	**Total PAHs**
Local Reference Sites	PS06130-001-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	<0.0100	<0.00500	<0.00500	0.0691	0.0504	<0.0100	<0.0100	<0.0100	0.0273	<0.00500	0.0877	<0.0100	<0.0100	<0.0150	0.073	0.0601	0.44
	PS06130-005-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	<0.0100	<0.00500	<0.00500	0.0585	0.0542	<0.0100	<0.0100	<0.0100	0.0174	<0.00500	0.0277	<0.0100	<0.0100	<0.0150	0.0335	0.026	0.27
	PS06130-006-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	<0.0100	<0.00500	<0.00500	<0.0100	0.0401	<0.0100	<0.0100	<0.0100	<0.0100	<0.00500	0.0149	<0.0100	<0.0100	<0.0150	0.0205	<0.0200	0.16
	PS06130-007-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	<0.0100	<0.00500	<0.00500	<0.0100	0.0339	<0.0100	<0.0100	<0.0100	<0.0100	<0.00500	0.0156	<0.0100	<0.0100	<0.0150	<0.0200	<0.0200	0.16
Dock Use Activities	PS06130-002-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	0.0205	<0.00500	**0.0205**	**0.0869**	<0.0100	0.0697	0.0412	<0.0100	0.0657	<0.00500	**0.122**	<0.0100	0.0487	<0.0150	**0.107**	0.118	0.58
	PS06130-003-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	0.0428	<0.00500	**0.0285**	**0.179**	<0.0100	0.143	0.17	0.0827	**0.255**	<0.00500	**0.374**	<0.0100	0.0874	<0.0150	**0.141**	**0.357**	1.39
	PS06130-009-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	0.051	<0.00500	**0.0327**	**0.291**	**0.276**	0.293	0.47	0.122	**0.625**	**0.074**	**0.885**	<0.0100	0.129	<0.0150	**0.137**	**0.845**	3.21
	PS06130-011-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	0.142	**0.0536**	**0.0563**	**0.54**	**0.38**	0.364	0.35	0.213	**0.747**	**0.127**	**0.758**	<0.0100	0.207	<0.0150	**0.405**	**0.834**	**3.94**
	PS06130-015-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	0.0138	<0.00500	<0.00500	0.052	<0.0100	0.0542	0.0368	0.0361	0.074	<0.00500	0.107	<0.0100	0.0355	<0.0150	0.0617	0.0929	0.45
Boat Grid	PS06130-008-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	<0.0100	<0.00500	**0.0112**	0.0481	<0.0100	0.0462	0.0466	0.0267	0.0551	<0.00500	0.0864	<0.0100	0.0303	<0.0150	0.0414	0.0637	0.36
	PS06130-010-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	**0.0575**	0.0189	**0.0166**	**0.17**	**0.13**	0.208	0.149	0.0789	**0.387**	**0.0465**	**0.304**	<0.0100	0.0861	<0.0150	**0.116**	**0.291**	1.52
	PS06130-010-1112-SE901 (DUP)	12-Dec-11		<0.0100	0.403	**0.347**	**0.0973**	**2.76**	**1.6**	2.14	1.46	0.571	**3.1**	**0.215**	**1.5**	**0.248**	0.544	<0.0150	**1.96**	**3.97**	**22.8**
	PS06130-012-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	0.0108	<0.00500	<0.00500	0.0481	<0.0100	0.0393	0.0311	0.025	0.0388	<0.00500	0.0521	<0.0100	0.034	<0.0150	0.0343	0.0389	0.27
	PS06130-013-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	**0.0889**	0.0377	**0.0329**	0.451	**0.382**	0.601	0.326	0.162	**0.802**	**0.0909**	**1.29**	**0.0359**	0.181	<0.0150	**0.254**	**0.713**	**4.11**
	PS06130-014-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	<0.0100	<0.00500	<0.00500	**0.0996**	<0.0100	0.074	0.0653	0.0487	0.0977	<0.00500	0.0951	<0.0100	0.0586	<0.0150	0.0506	0.0695	0.47
Storm Sewer Outfall	PS06130-017-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	**0.0912**	<0.00500	**0.0343**	**0.444**	**0.366**	0.393	0.498	0.156	**0.575**	**0.0937**	**1.68**	<0.0100	0.172	<0.0150	**0.279**	**1.12**	**4.63**
	PS06130-017-1112-SE901 (DUP)	12-Dec-11		<0.0100	0.0181	<0.00500	<0.00500	**0.124**	0.0858	0.0677	0.0707	<0.0100	0.0711	<0.00500	**0.191**	<0.0100	<0.0100	<0.0150	0.069	0.142	0.68
Parking Lot Runoff	PS06130-018-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	0.0599	<0.00500	**0.0457**	**0.212**	**0.115**	0.381	0.156	0.175	**0.411**	<0.00500	**0.72**	<0.0100	0.158	<0.0150	0.177	**0.462**	2.19
Westcoast Air Refuelling Facilities / Royal Reach Marina	PS06130-004-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	0.0221	<0.00500	**0.0145**	**0.0805**	<0.0100	0.0503	0.0618	0.034	0.0966	<0.00500	0.0801	<0.0100	0.0388	<0.0150	0.037	0.0898	0.45
	PS06130-016-1112-SED01	12-Dec-11	0 - 0.05	<0.0100	<0.0100	<0.00500	<0.00500	0.047	0.0581	<0.0100	<0.0100	<0.0100	0.0196	<0.00500	0.0385	<0.0100	<0.0100	<0.0150	<0.0200	0.0259	0.26

Note Descriptions:

a - CSR, Schedule 9 Generic Numerical Sediment Criteria (as per the DFO TOR (Version 2011-03-31) the sediment results are compared to the criteria for typical environments)
b3 - CSR, Schedule 5 Matrix Numerical Soil Standards - Toxicity to soil invertebrates and plants
CSR SQG$_{ICS}$ Contaminated Site Regulations Sediment Quality Criteria typical contaminated sites
CCME SQG - Canadian Council of Ministers of the Environment Sediment Quality Guidelines
ISQG - Interim Sediment Quality Guideline
PEL - probable effect levels
Result exceeds CSR SQG, however as sediment sample was obtained within 3 meters of a creosote pole utilized for the boat grid the beneficial use exemption applies as sample was obtained within 5 meters from that structure.
Result exceeds both CCME ISQG
ppm (µg/g) - soil parameter concentrations expressed in parts per million (micrograms per dry gram), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- **SE001** ● SEDIMENT SAMPLE
- SEDIMENT SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR SQG OR STANDARD
- SEDIMENT SAMPLE CONCENTRATION IS GREATER THAN THE APPLICABLE CSR SQG STANDARD, HOWEVER FALLS WITH BENEFICIAL USE EXCEPTION

NOTE:

SEDIMENT SAMPLES OBTAINED WITHIN 5 m OF CREOSOTE TREATED STRUCTURE FALL WITHIN FOC RPSS BENEFICIAL USE EXCEPTION AND THEREFORE ARE CONSIDERED TO NOT BE CONTAIMINATED.

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title: SEDIMENT - PAHs ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

FIGURE 24

Stantec

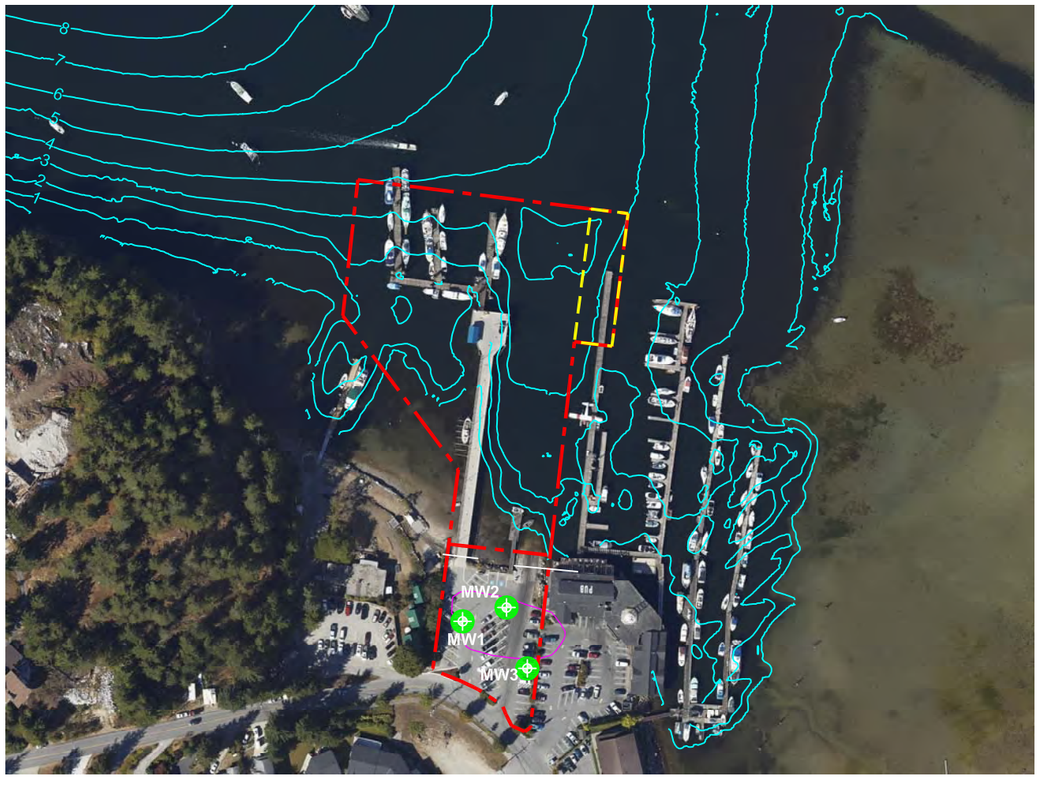
R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 19 - Fig 31.dwg PRINTED: Feb 08, 2012

GENERAL HYDROCARBONS AND MTBE PARAMETERS IN GROUNDWATER

CCME FIQG				200[1]/9800[2]	83[1]/240000[2]	41000[1]/150000[2]	18000[1]/74000[2]	72[1,2]	ns	ns	4300[1]/5000[2]	ns	ns	9100[1]/9900[2]	1300[1]/3100[2]
CSR AWM				1000	3300	2500	ns	720	1500	15000	4400	5000	500	ns	ns
			Notes	*d*	*d*	*d*	*d*	*d*	*d*	*e*	*d*	*e*	*d*		
APEC Investigated	**Sample**	**Date**	**Soil Type***	benzene	toluene	ethylbenzene	xylenes	styrene	VPHw	VHw 6-10	MTBE	EPHw 10-19	LEPHw	F1	F2
Fill	PS06130-001-112-GW001	21-Dec-11	Coarse	<0.5	<1.0	<1.0	<2.0	<1.0	<100	<100	<1.0	<100	<100	<100	<100
	PS06130-002-112-GW001	21-Dec-11	Coarse	<0.5	<1.0	<1.0	<2.0	<1.0	<100	<100	<1.0	<100	<100	<100	<100
Westcoast Air Refuelling Facilities	PS06130-003-112-GW001	21-Dec-11	Coarse	<0.5	<1.0	<1.0	<2.0	<1.0	<100	<100	<1.0	<100	<100	<100	<100
	PS06130-003-112-GW901 (DUP)		Coarse	<0.5	<1.0	<1.0	<2.0	<1.0	<100	<100	<1.0	<100	<100	<100	<100

Note Descriptions:

CSR AWM - Contaminated Site Regulations Aquatic Life standards for the protection of Marine Aquatic Life
CCME FIQG - Federal Interim Groundwater Quality Guidelines
d - CSR, Schedule 6 Generic Numerical Water Standards
e - CSR, Protocol 7 for the Regulation of Petroleum Hydrocarbons in Water
Detectable concentration
ppb (µg/L) - water parameter concentrations expressed in parts per billion (micrograms per Litre), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed
1 - Guideline is for coarse grain soils
2 - Guideline is for fine grain soils
* - Soil type was designated based on the results of grain size analysis completed in-house



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- MW1 ϕ MONITORING WELL
- GROUNDWATER SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR AWM STANDARD

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title:
GROUNDWATER - PETROLEUM HYDROCARBON ANALYTICAL SUMMARY

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	*Date:*
NP		11X17"	JANUARY 2012

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FIGURE 25

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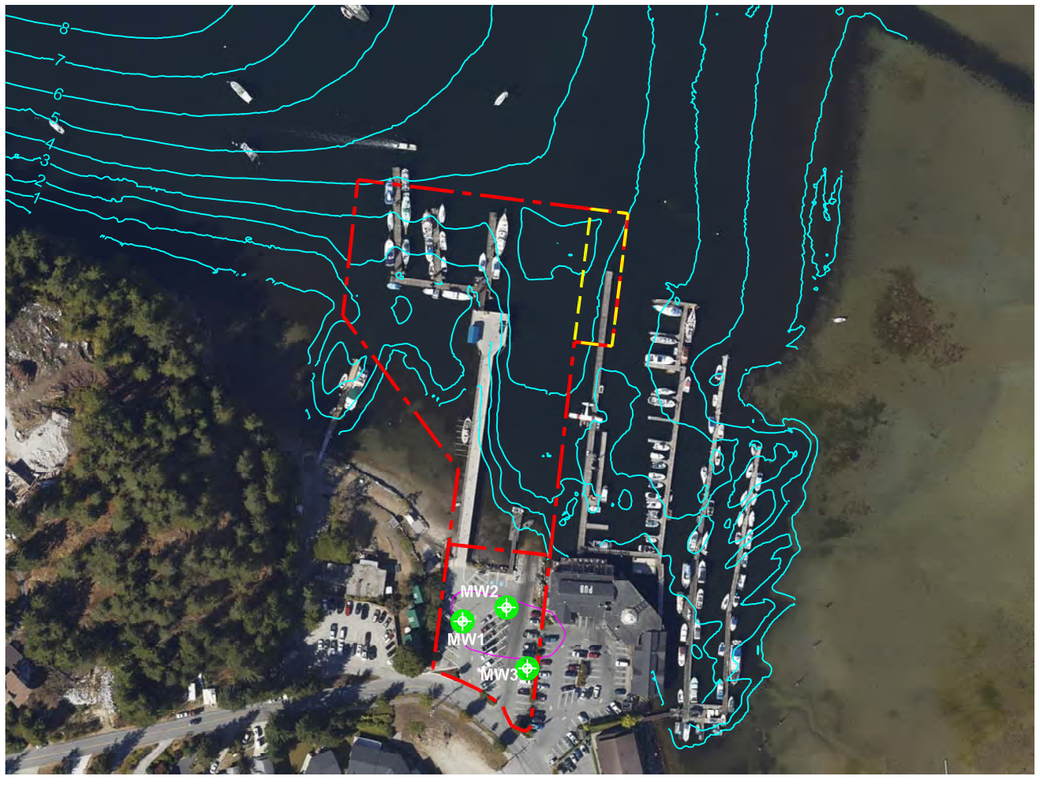
INORGANIC SUBSTANCES - METALS IN GROUNDWATER

CCME FIQG						ns	1600[1,2]	5[1,2]	500[1,2]	5.3[1,2]	5000[1,2]	0.017[1,2]	ns	8.9[1,2]	ns	2[1,2]	300[1,2]	2[1,2]	ns	ns	0.016[1,2]	73[1,2]	83[1,2]	1[1,2]	0.1[1,2]	ns	ns	0.8[1,2]	100[1,2]	300[1,2]	ns	10[1,2]
CSR AWM						ns	200	125	5000	1000	50000	1	ns	150,560	40	20	ns	20	ns	ns	1	10000	83	540	15	ns	ns	3	1000	1000	ns	100
					Notes	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*
APEC Investigated	**Sample**	**Date**	**pH**	**H**	**Soil Type**	**Aluminum (Al)**	**Antimony (Sb)**	**Arsenic (As)**	**Barium (Ba)**	**Beryllium (Be)**	**Boron (B)**	**Cadmium (Cd)**	**Calcium (Ca)**	**Chromium (Cr)**	**Cobalt (Co)**	**Copper (Cu)**	**Iron (Fe)**	**Lead (Pb)**	**Magnesium (Mg)**	**Manganese (Mn)**	**Mercury (Hg)**	**Molybdenum (Mo)**	**Nickel (Ni)**	**Selenium (Se)**	**Silver (Ag)**	**Sodium (Na)**	**Strontium (Sr)**	**Thallium (Tl)**	**Titanium (Ti)**	**Uranium (U)**	**Vanadium (V)**	**Zinc (Zn)**
Fill	PS06130-001-112-GW001	21-Dec-11	7.26	262	Coarse	<50	<20	16	<50	<1	699	<0.1	33900	<5	2.64	<2	3350	<1	43000	505	<0.2	4.9	<2	<5	<5	118000	334	<0.2	<50	3.08	<10	<40
	PS06130-002-112-GW001	21-Dec-11	6.81	276	Coarse	<50	<20	<5	<50	<1	282	<0.1	62100	<5	<0.5	2.6	1480	1.2	29400	200	<0.2	3.2	<2	<5	<5	155000	459	<0.2	<50	1.69	<10	<40
Westcoast Air Refuelling Facilities	PS06130-003-112-GW001	21-Dec-11	6.75	102	Coarse	61	<20	9.4	<50	<1	136	<0.1	16100	<5	<0.5	<2	3660	<1	15000	73.7	<0.2	3.8	<2	<5	<5	24900	149	<0.2	<50	0.71	33	<40
	PS06130-003-112-GW901 (DUP)		6.74	105	Coarse	89	<20	9.5	<50	<1	139	<0.1	16700	<5	<0.5	<2	3770	<1	15400	77.9	<0.2	3.9	<2	<5	<5	25400	155	<0.2	<50	0.73	34	<40

Note Descriptions:

CSR AWM - Contaminated Site Regulations Aquatic Life standards for the protection of Marine Aquatic Life
CCME FIQG - CCME Federal Interim Groundwater Quality Guidelines
d - CSR, Schedule 6 Generic Numerical Water Standards
Detectable concentration
ppb (µg/L) - water parameter concentrations expressed in parts per billion (micrograms per Litre), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed
H - water hardness in mg/L CaCO3
1 - Guideline is for coarse grain soils
2 - Guideline is for fine grain soils



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- MW1 MONITORING WELL
- GROUNDWATER SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR AWM STANDARD

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title: GROUNDWATER- METALS ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	*Date:*
NP		11X17"	JANUARY 2012

FIGURE 26

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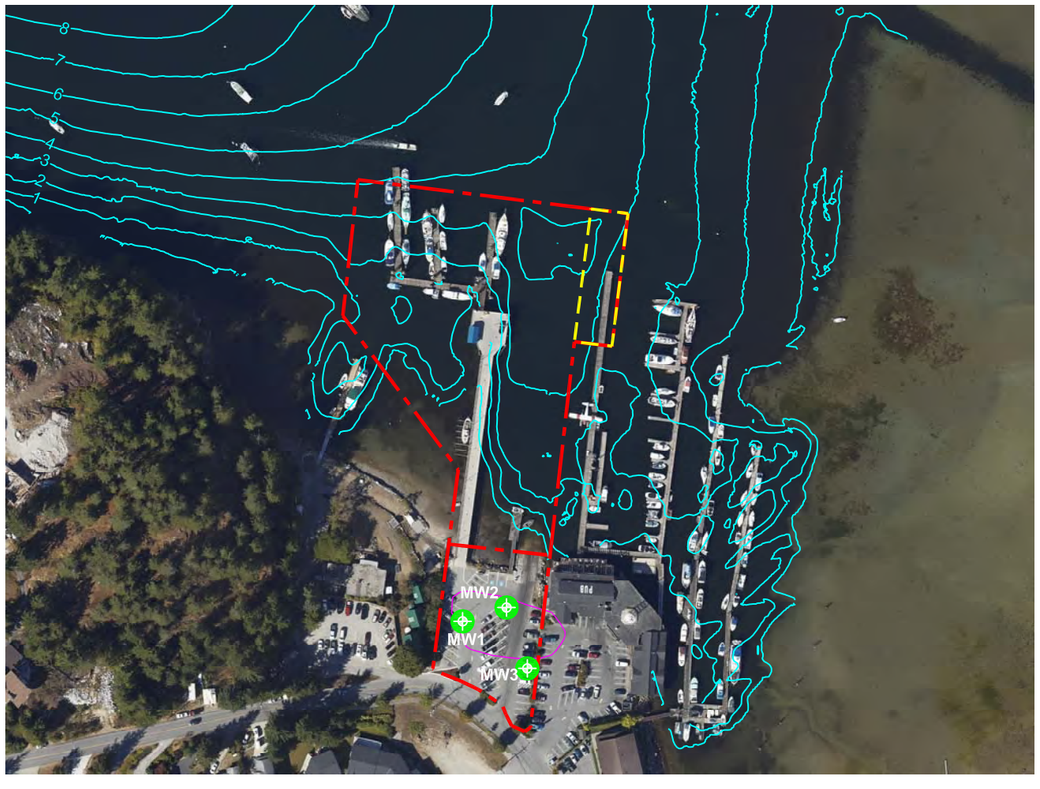
PAHs IN GROUNDWATER

CCME FIQG				5.8[1,2]	46[1,2]	ns	0.012[1,2]	0.018[1,2]	0.015[1] / 0.017[2]	0.48[1,2]	0.17[1] / 0.21[2]	0.48[1,2]	1.4[1,2]	0.26[1] / 0.28[2]	0.04[1,2]	3[1,2]	0.21[1] / 0.23[2]	1.1[1,2]	0.4[1,2]	0.025[1,2]	ns
CSR AWM				60	ns	0.5	1	1	0.1	ns	ns	ns	1	ns	2	120	ns	10	3	0.2	34
			Notes	*d*		*d*	*d*	*d*	*d*				*d*		*d*	*d*		*d*	*d*	*d*	*d*
APEC Investigated	**Sample**	**Date**	**Soil Type***	Acenaphthene	Acenaphthylene	Acridine	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Ideno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene	Quinoline
Fill	PS06130-001-112-GW001	21-Dec-11	Coarse	0.26	<0.05	<0.10	0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.05	<0.05	<0.30	<0.10	<0.02	<0.10
	PS06130-002-112-GW001	21-Dec-11	Coarse	<0.05	<0.05	<0.10	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.05	<0.05	<0.30	<0.10	<0.02	<0.10
Westcoast Air Refuelling Facility	PS06130-003-112-GW001	21-Dec-11	Coarse	<0.05	<0.05	<0.10	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.05	<0.05	<0.30	<0.10	<0.02	<0.10
	PS06130-003-112-GW901 (DUP)		Coarse	<0.05	<0.05	<0.10	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.05	<0.05	<0.30	<0.10	<0.02	<0.10

Note Descriptions:

CSR AWM - Contaminated Site Regulations Aquatic Life standards for the protection of Marine Aquatic Life
CCME FIQG - CCME Federal Interim Groundwater Quality Guidelines
d - CSR, Schedule 6 Generic Numerical Water Standards
Detectable concentration
ppb (µg/L) - water parameter concentrations expressed in parts per billion (micrograms per Litre), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed
1 - Guideline is for coarse grain soils
2 - Guideline is for fine grain soils
* - Soil type was designated based on the results of grain size analysis completed in-house



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- MW1 MONITORING WELL
- GROUNDWATER SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR AWM STANDARD

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title: GROUNDWATER- PAHs ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	*Date:*
NP		11X17"	JANUARY 2012

FIGURE 27

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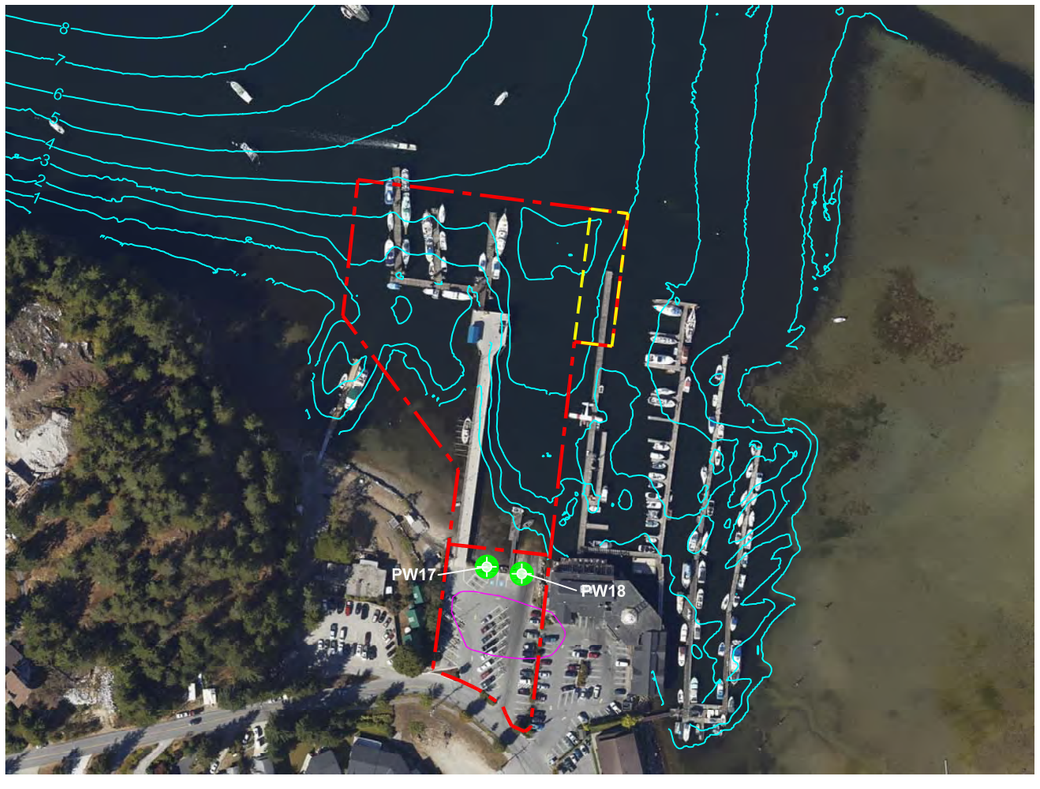
GENERAL HYDROCARBONS AND MTBE PARAMETERS IN POREWATER

CCME Interim Canadian Water Quality Guidelines			110	215	25	ns	ns	ns	ns	5000	ns	ns
BC Water Quality Guidelines			110	0.5	250	30	72	ns	ns	440	ns	ns
CSR AWM			1000	3300	2500	ns	720	1500	15000	4400	5000	500
		Notes	*d*	*d*	*d*	*d*	*d*	*d*	*e*	*d*	*e*	*d*
APEC Investigated	**Sample**	**Date**	benzene	toluene	ethylbenzene	xylenes	styrene	VPHw	VHw 6-10	MTBE	EHw 10-19	LEPHw
Storm Sewer Outfall	PS06130-017-112-IW001	21-Dec-11	--	--	--	--	--	--	--	--	<100	<100
Parking Lot Runoff	PS06130-018-112-IW001	21-Dec-11	--	--	--	--	--	--	--	--	<100	<100

Note Descriptions:

CSR AWM - Contaminated Site Regulations Aquatic Life standards for the protection of Marine Aquatic Life
d - CSR, Schedule 6 Generic Numerical Water Standards
e - CSR, Protocol 7 for the Regulation of Petroleum Hydrocarbons in Water
ppb (µg/L) - water parameter concentrations expressed in parts per billion (micrograms per Litre), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed



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LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- PW17 POREWATER WELL
- POREWATER SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR AWM STANDARD

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title: POREWATER - PETROLEUM HYDROCARBON ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY: NP	CHECKED BY:	PLOT SIZE: 11X17"	Date: JANUARY 2012

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FIGURE 28

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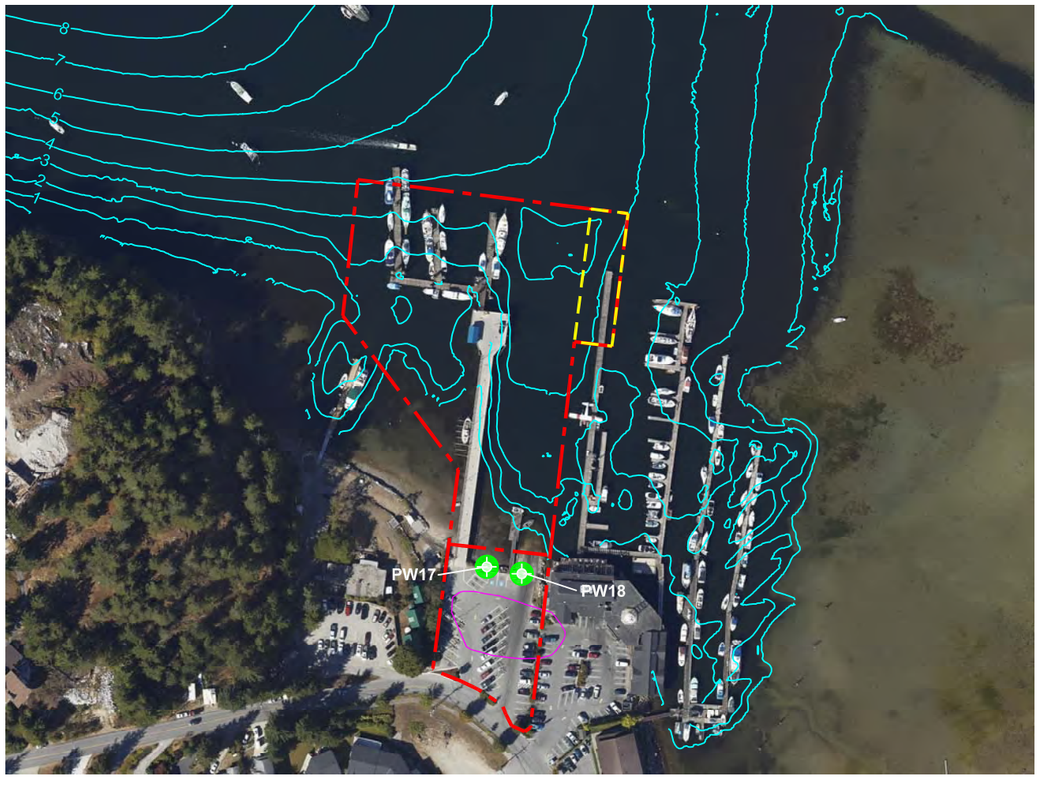
INORGANIC SUBSTANCES - METALS IN POREWATER

CCME Interim Water Quality Guidelines					ns	ns	12.5	ns	ns	ns	0.12	ns	ns	ns	ns	ns	ns	ns	ns	0.016	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
BC Water Quality Guidelines					ns	ns	12.5	500	100	1200	0.12	ns	1.5,56	ns	3	350	140	ns	100	ns	ns	8.3	2	3	ns	ns	ns	ns	100	50	10*,55**			
CSR AWM					ns	200	125	5000	1000	50000	1	ns	150,560	40	20	ns	20	ns	ns	1	10000	83	540	15	ns	ns	3	1000	1000	ns	100			
Notes					*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*
APEC Investigated	**Sample**	**Date**	**pH**	**H**	**Conductivity**	**Aluminum (Al)**	**Antimony (Sb)**	**Arsenic (As)**	**Barium (Ba)**	**Beryllium (Be)**	**Boron (B)**	**Cadmium (Cd)**	**Calcium (Ca)**	**Chromium (Cr)**	**Cobalt (Co)**	**Copper (Cu)**	**Iron (Fe)**	**Lead (Pb)**	**Magnesium (Mg)**	**Manganese (Mn)**	**Mercury (Hg)**	**Molybdenum (Mo)**	**Nickel (Ni)**	**Selenium (Se)**	**Silver (Ag)**	**Sodium (Na)**	**Strontium (Sr)**	**Thallium (Tl)**	**Titanium (Ti)**	**Uranium (U)**	**Vanadium (V)**	**Zinc (Zn)**		
Storm Sewer Outfall	PS06130-017-112-W001	21-Dec-11	7.2	3440	30500	<50	<20	<5	159	<1	2770	0.52	241000	<5	1.28	3.1	<100	<1	689000	74.5	<0.2	7.5	6.7	<5	<0.5	5850000	4210	<0.2	<50	2.03	<10	<40		
Parking Lot Runoff	PS06130-018-112-W001	21-Dec-11	7.02	3400	28300	<50	<20	<5	175	<1	2850	0.79	252000	<5	1.43	3	<100	<1	673000	126	<0.2	7.6	9.4	<5	<0.5	807000	4100	0.22	<50	2.36	<10	<40		

Note Descriptions:

CSR AWM - Contaminated Site Regulations Aquatic Life standards for the protection of Marine Aquatic Life
d - CSR, Schedule 6 Generic Numerical Water Standards
Detectable concentration
ppb (µg/L) - water parameter concentrations expressed in parts per billion (micrograms per Litre), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed
H - water hardness in mg/L CaCO3
*- guideline is to protect from chronic effects and should be the average concentration of total zinc
** - guideline is to protect from acute effects and total Zinc concentrations should not exceed 55 ug/L



N

LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)

SUSPECTED ARCHAEOLOGICAL SITE

AREA IN PROCESS OF BEING DIVESTED

PW17 POREWATER WELL

POREWATER SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR AWM STANDARD

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title:
POREWATER - METALS ANALYTICAL SUMMARY

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

Stantec

FIGURE 29

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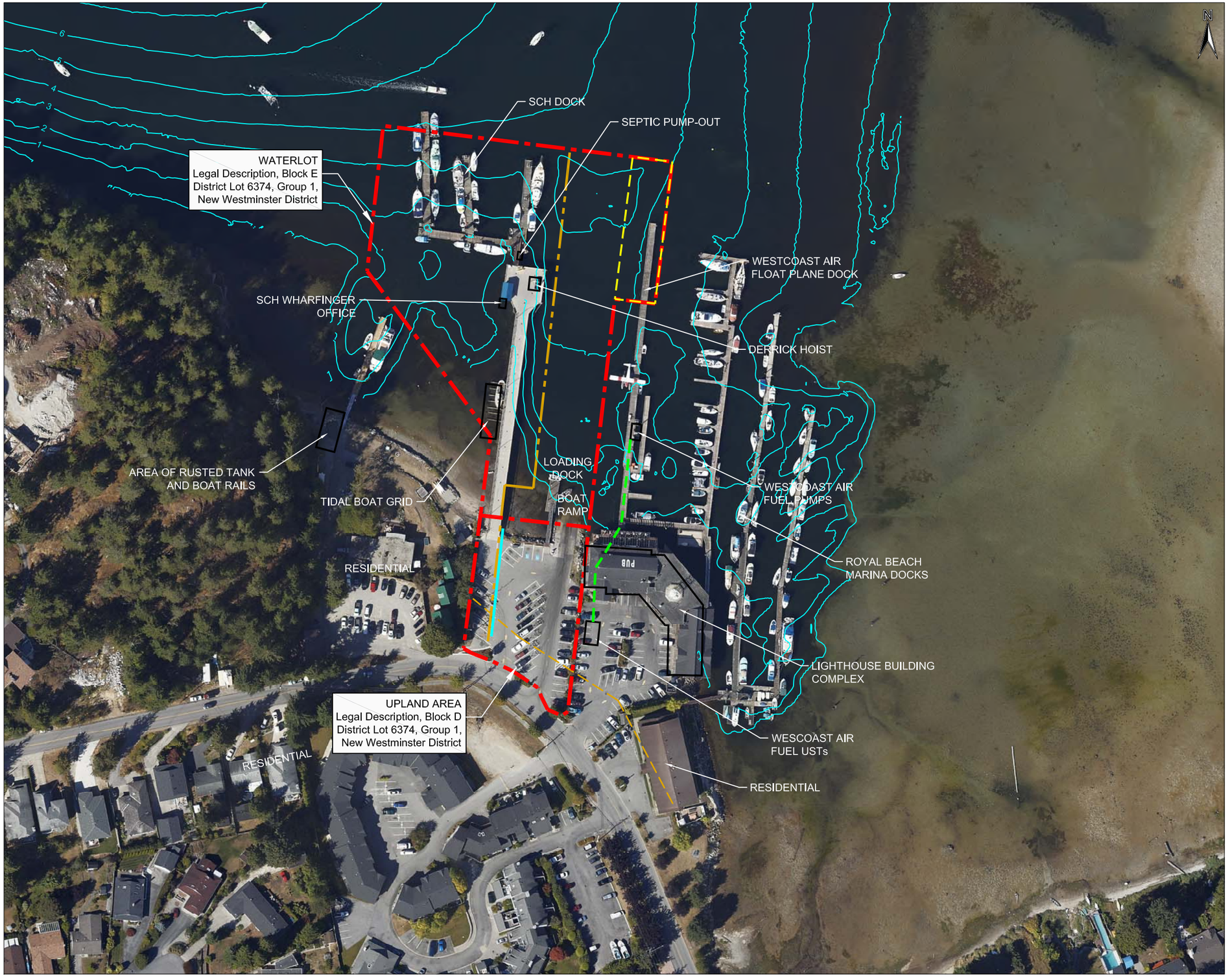


LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- STORM SEWER
- WESTCOAST AIR FUEL LINE
- APPROXIMATE LOCATION OF FORMER LOT LINE
- APPROXIMATE LOCATION OF FORMER SHORE LINE
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:500

10 7.5 5 0 5 10
metres

Title:

SITE PLAN

Project:

PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

Client:

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

Stantec

FIGURE 2

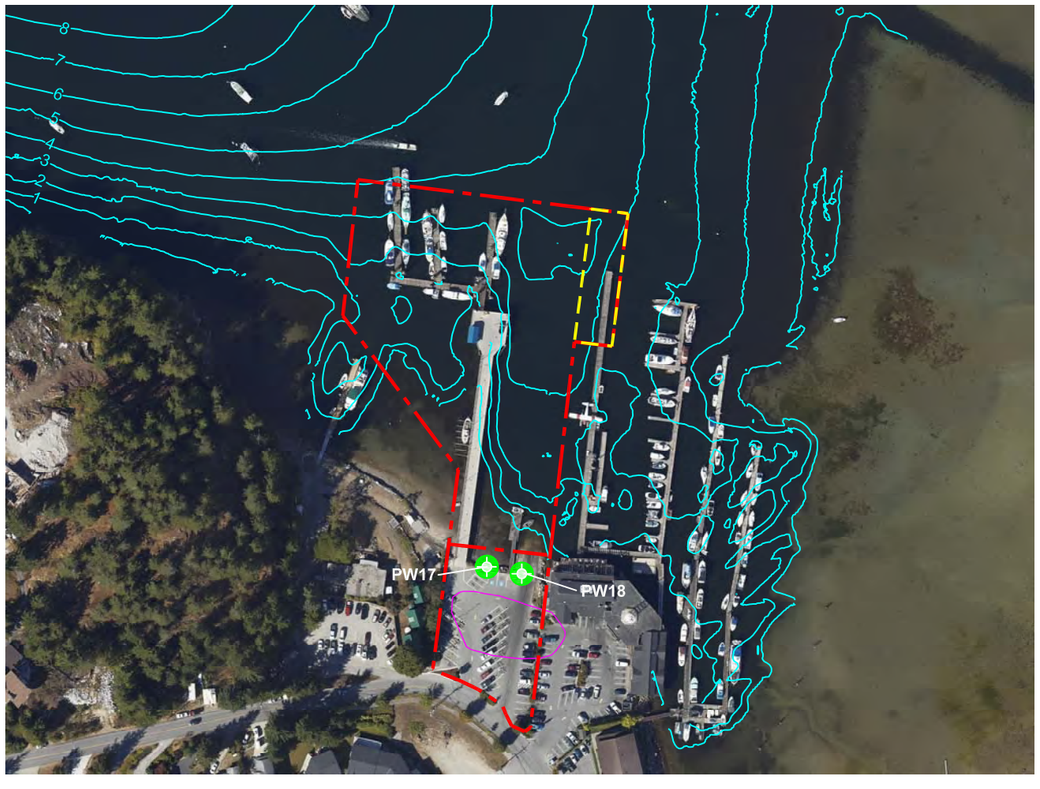
R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 2_Site Plan.dwg PRINTED: Feb 07, 2012

INORGANIC SUBSTANCES - METALS IN POREWATER

CCME Interim Water Quality Guidelines					ns	ns	12.5	ns	ns	ns	0.12	ns	ns	ns	ns	ns	ns	ns	ns	0.016	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
BC Water Quality Guidelines					ns	ns	12.5	500	100	1200	0.12	ns	1.5,56	ns	3	350	140	ns	100	ns	ns	8.3	2	3	ns	ns	ns	ns	100	50	10*,55**			
CSR AWM					ns	200	125	5000	1000	50000	1	ns	150,560	40	20	ns	20	ns	ns	1	10000	83	540	15	ns	ns	3	1000	1000	ns	100			
Notes					*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*	*d*
APEC Investigated	**Sample**	**Date**	**pH**	**H**	**Conductivity**	**Aluminum (Al)**	**Antimony (Sb)**	**Arsenic (As)**	**Barium (Ba)**	**Beryllium (Be)**	**Boron (B)**	**Cadmium (Cd)**	**Calcium (Ca)**	**Chromium (Cr)**	**Cobalt (Co)**	**Copper (Cu)**	**Iron (Fe)**	**Lead (Pb)**	**Magnesium (Mg)**	**Manganese (Mn)**	**Mercury (Hg)**	**Molybdenum (Mo)**	**Nickel (Ni)**	**Selenium (Se)**	**Silver (Ag)**	**Sodium (Na)**	**Strontium (Sr)**	**Thallium (Tl)**	**Titanium (Ti)**	**Uranium (U)**	**Vanadium (V)**	**Zinc (Zn)**		
Storm Sewer Outfall	PS06130-017-112-W001	21-Dec-11	7.2	3440	30500	<50	<20	<5	159	<1	2770	0.52	241000	<5	1.28	3.1	<100	<1	689000	74.5	<0.2	7.5	6.7	<5	<0.5	5850000	4210	<0.2	<50	2.03	<10	<40		
Parking Lot Runoff	PS06130-018-112-W001	21-Dec-11	7.02	3400	28300	<50	<20	<5	175	<1	2850	0.79	252000	<5	1.43	3	<100	<1	673000	126	<0.2	7.6	9.4	<5	<0.5	807000	4100	0.22	<50	2.36	<10	<40		

Note Descriptions:

CSR AWM - Contaminated Site Regulations Aquatic Life standards for the protection of Marine Aquatic Life
d - CSR, Schedule 6 Generic Numerical Water Standards
Detectable concentration
ppb (µg/L) - water parameter concentrations expressed in parts per billion (micrograms per Litre), unless otherwise indicated
< - less than analytical detection limit indicated
"--" - sample not analyzed for parameter indicated
ns - no standard listed
H - water hardness in mg/L CaCO3
*- guideline is to protect from chronic effects and should be the average concentration of total zinc
** - guideline is to protect from acute effects and total Zinc concentrations should not exceed 55 ug/L



N

LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)

SUSPECTED ARCHAEOLOGICAL SITE

AREA IN PROCESS OF BEING DIVESTED

PW17 POREWATER WELL

POREWATER SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR AWM STANDARD

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000
50 25 0 25 50
metres

Title:
POREWATER - METALS ANALYTICAL SUMMARY

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

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FIGURE 29

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 19 - Fig 31.dwg PRINTED: Feb 08, 2012

HYDROCARBONS AND NAPHTHALENE IN SOIL VAPOUR							
CSR Regional Background Quality				Westcoast Air Refuelling Facilties			
Parameter	Units	ACC Standard CL	1/100th	PS06130-002-1112-SV001		PS06130-003-1112-SV002	
			Standard	Concentration Detected (ug/m^3)	Outdoor Attenuation (0.0001)	Concentration Detected (ug/m^3)	Outdoor Attenuation (0.0001)
Benzene	µg/m^3	4	0.04	1.2	0.00012000	0.05	0.000005
Ethylbenzene	µg/m^3	3000	30	0.42	0.00004200	< 0.1	0.00001
Toluene	µg/m^3	15000	150	1.7	0.00017000	< 1	0.0001
Xylenes (Total)	µg/m^3	300	3	2.9	0.00029000	< 0.5	0.00005
Styrene	µg/m^3	3000	30	< 0.1	0.00001000	< 0.1	0.00001
n-Decane	µg/m^3	8000	80	0.34	0.00003400	< 0.3	0.00003
n-Hexane	µg/m^3	2000	20	< 1	0.00010000	< 1	0.0001
C6-C13 Hydrocarbons (VPHv)	µg/m^3	3000	30	530	0.05300000	< 200	0.02
1,2,4-trimethylbenzene	µg/m^3	20	0.2	0.97	0.00009700	< 0.2	0.00002
1,2-dibromoethane	µg/m^3	1	0.01	< 0.1	0.00001000	< 0.1	0.00001
1,2-dichloroethane	µg/m^3	1	0.01	< 0.03	0.00000300	< 0.03	0.000003
1,3,5-trimethylbenzene	µg/m^3	20	0.2	0.32	0.00003200	< 0.2	0.00002
1,3-Butadiene	µg/m^3	6	0.06	< 0.2	0.00002000	< 0.2	0.00002
Isopropylbenzene	µg/m^3	1000	10	< 0.1	0.00001000	< 0.1	0.00001
Methylcyclohexane	µg/m^3	9000	90	0.23	0.00002300	< 0.2	0.00002
Methyl-tert-butylether (MTBE)	µg/m^3	9000	90	< 0.2	0.00002000	< 0.2	0.00002
Naphthalene	µg/m^3	9	0.09	0.23	0.00002300	< 0.1	0.00001

Note Descriptions:

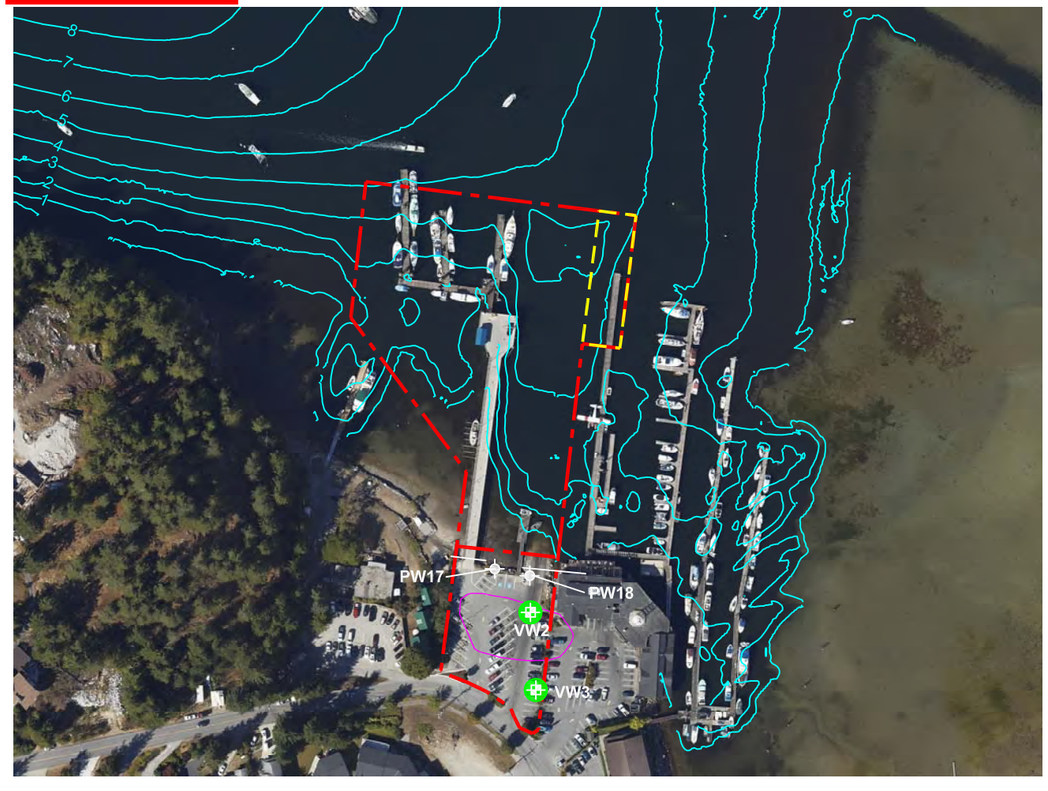
ACC Standard CL - Air Concentration Criteria Standards for Commerical Land use

"--" - sample not analyzed for parameter indicated

< - less than analytical detection limit indicated

1/100th Standard quoted based on ITRC data of maxiumum anticipated seasonal variation

Result exceeds applicable indoor air standard



N

LEGEND

- WATER LOT (OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)
- BATHYMETRIC DEPTH CONTOURS (1m INTERVAL)
- SUSPECTED ARCHAEOLOGICAL SITE
- AREA IN PROCESS OF BEING DIVESTED
- PW17 POREWATER WELL
- VW2 SOIL VAPOUR WELL
- SOIL VAPOUR SAMPLE CONCENTRATION IS LESS THAN THE APPLICABLE CSR SCHEDULE 11 STANDARDS

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Aerial photo, 2010-08-28

Scale 1:4000

50 25 0 25 50 metres

Title: SOIL VAPOUR ANALYTICAL SUMMARY

Project: PHASE II ENVIRONMENTAL SITE ASSESSMENT PS06130, CLASS C SMALL CRAFT HARBOUR PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

FIGURE 31

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R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 19 - Fig 31.dwg PRINTED: Feb 08, 2012

LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 1957-06-06_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL
YEAR 1957

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

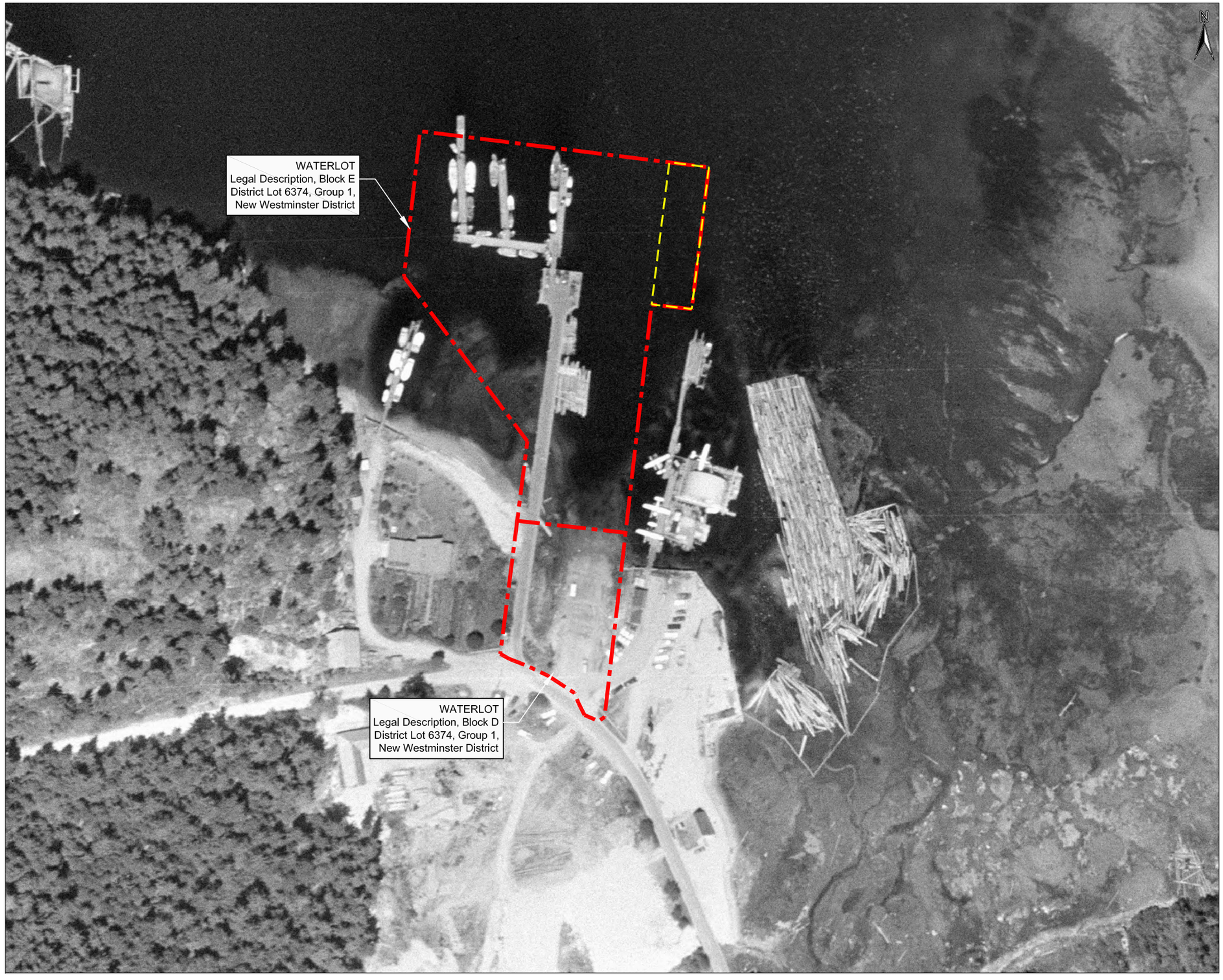
Client:
FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT
DIVISION

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

Stantec

FIGURE 3

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 3_Historic Site Detail Year 1957.dwg PRINTED: Feb 08, 2012



LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 1967-07-02_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL YEAR 1967

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

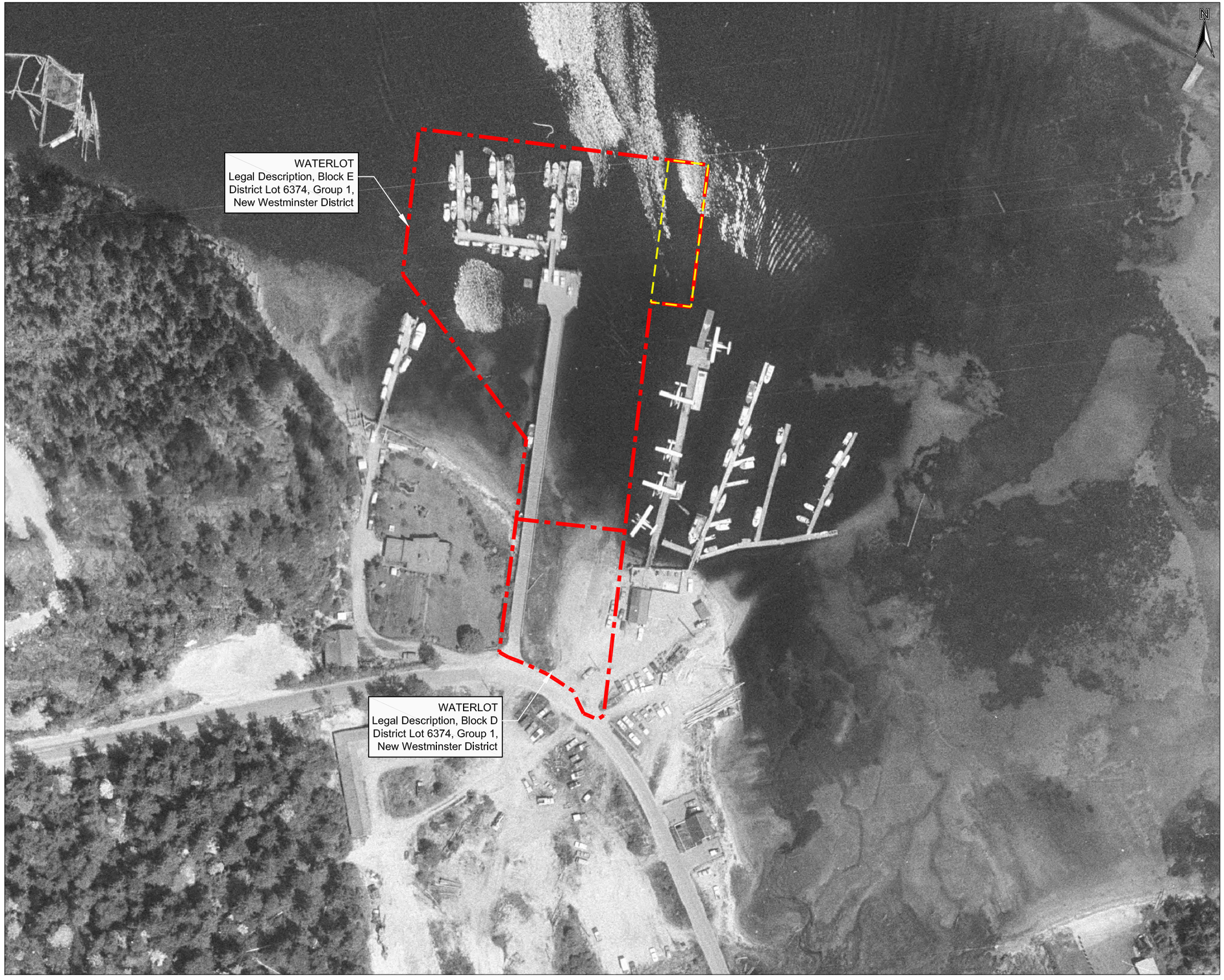
Client:
FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

DRAWN BY: NP	CHECKED BY:	PLOT SIZE: 11X17"	Date: JANUARY 2012

Stantec

FIGURE 4

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 4_Historic Site Detail Year 1967.dwg PRINTED: Feb 08, 2012



LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 1974-05-17_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL YEAR 1974

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

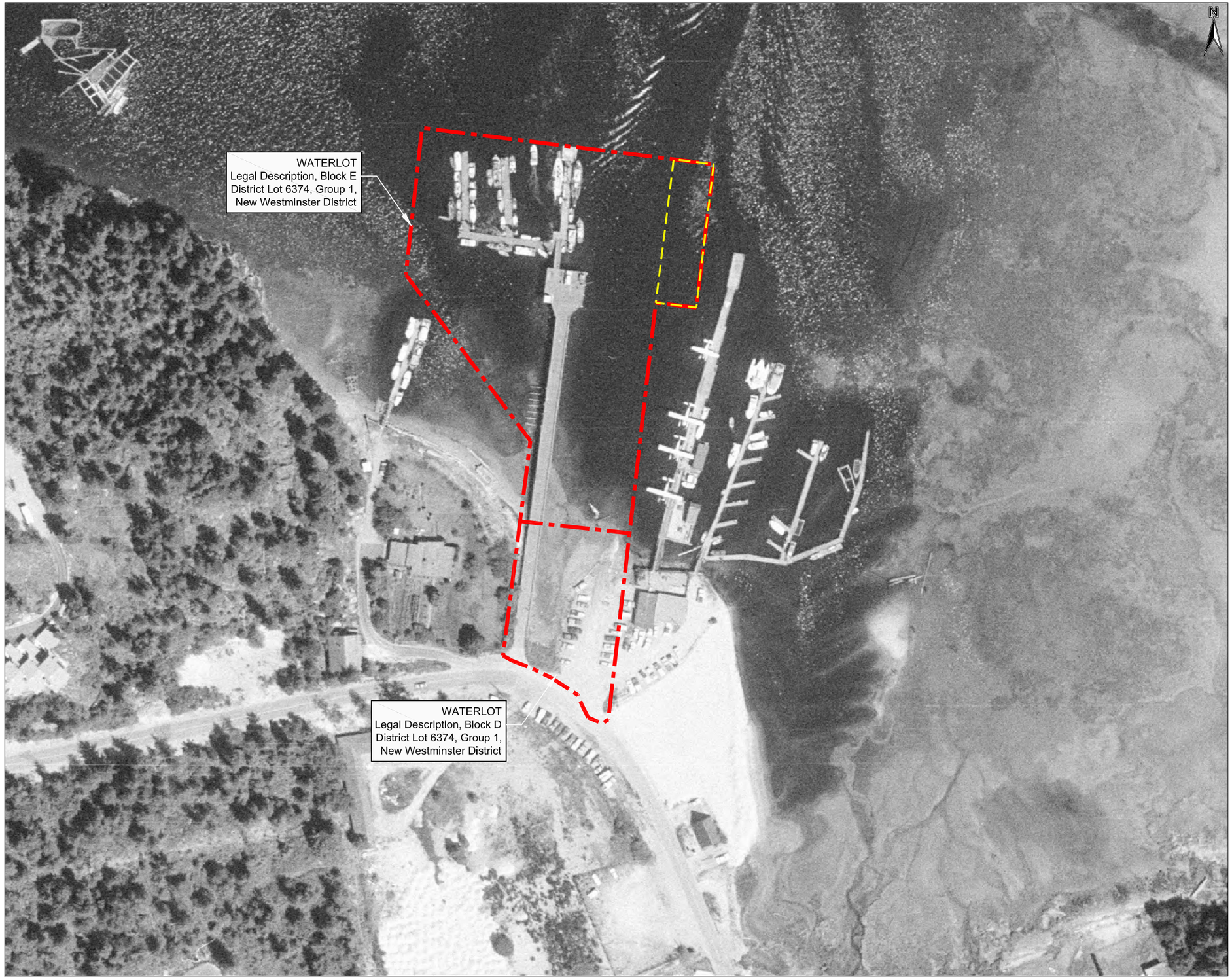
Client:
FISHERIES AND OCEANS CANADA PACIFIC REGION
REAL PROPERTY AND TECHNICAL SUPPORT DIVISION

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

Stantec

FIGURE 5

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 5_Historic Site Detail Year 1974.dwg PRINTED: Feb 08, 2012



LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 1980-07-21_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:

HISTORIC SITE DETAIL YEAR 1980

Project:

PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

Client:

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

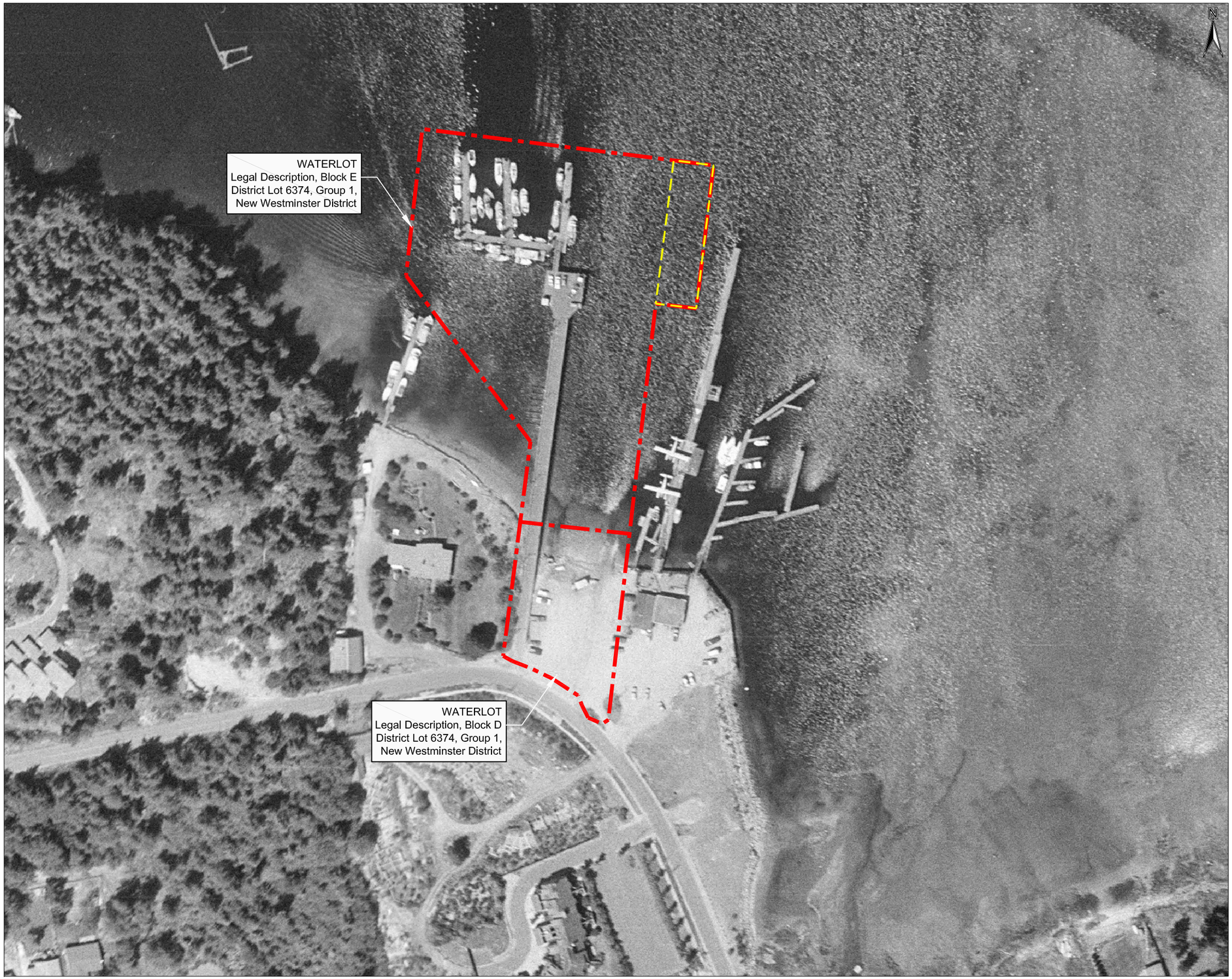
DRAWN BY:	CHECKED BY:	PLOT SIZE:
NP		11X17"

Date: JANUARY 2012

Stantec

FIGURE 6

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 6_Historic Site Detail Year 1980.dwg PRINTED: Feb 08, 2012



LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 1985-06-26_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL YEAR 1985

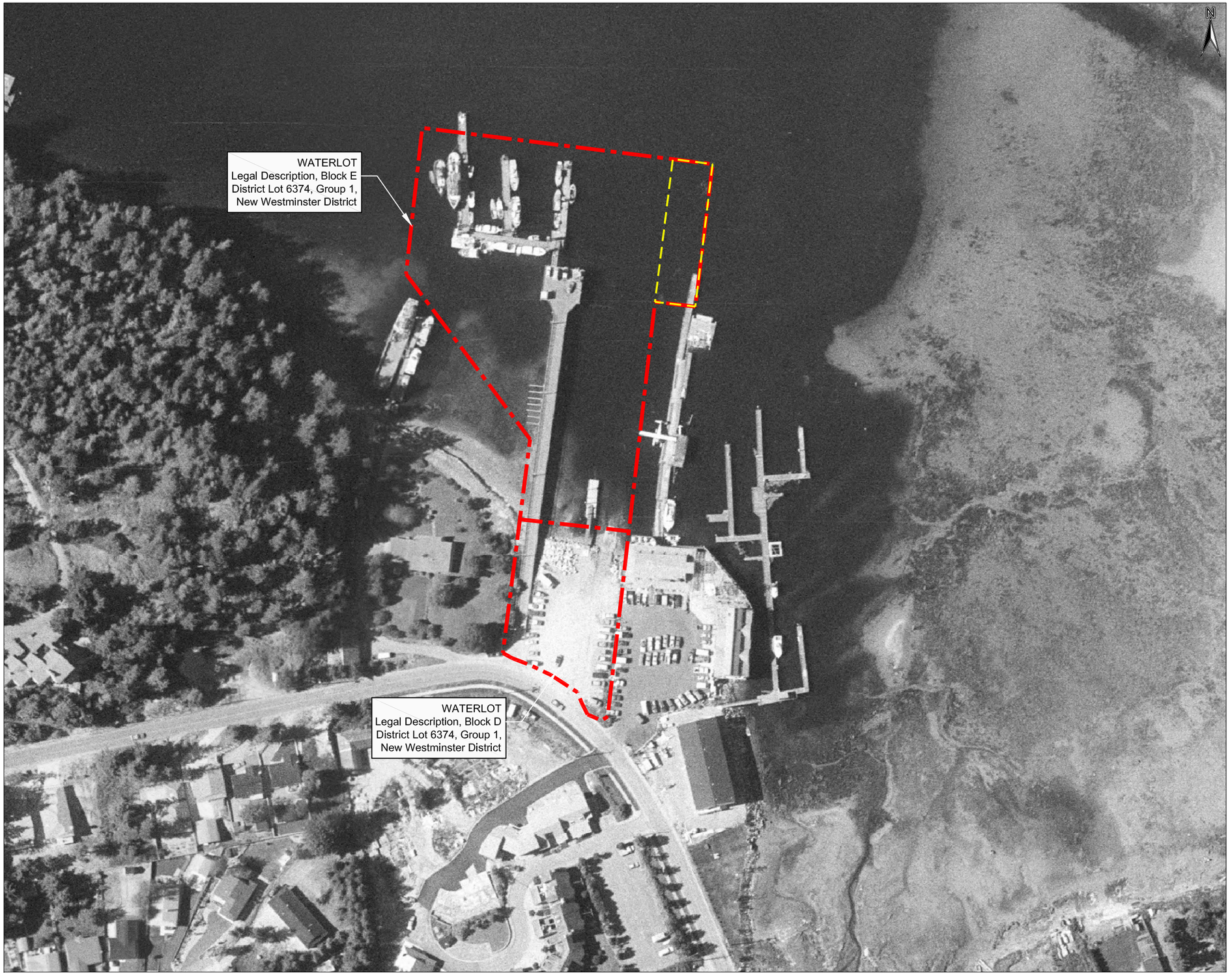
Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

FIGURE 7

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 7_Historic Site Detail Year 1985.dwg PRINTED: Feb 08, 2012



LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 1990-06-21_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL YEAR 1990

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY: NP	CHECKED BY:	PLOT SIZE: 11X17"	Date: JANUARY 2012

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FIGURE 8

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 8_Historic Site Detail Year 1990.dwg PRINTED: Feb 08, 2012

LEGEND

WATER LOT
(OUTLINE IS FOR ILLUSTRATING PURPOSES ONLY AND NOT TO BE USED FOR LEGAL PURPOSES)

AREA IN PROCESS OF BEING DIVESTED

SOURCES

- Survey Plan of Blocks D and E of District Lot 6374, GP.1, N.W.D, Dated June 2009
- Ortho photo, 1994-09-05_Porpoise_Bay_PS06130.tif

Scale 1:1500

30 15 0 15 30
metres

Title:
HISTORIC SITE DETAIL YEAR 1994

Project:
PHASE II ENVIRONMENTAL SITE ASSESSMENT
PS06130, CLASS C SMALL CRAFT HARBOUR
PORPOISE BAY, BC

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

DRAWN BY:	CHECKED BY:	PLOT SIZE:	Date:
NP		11X17"	JANUARY 2012

Stantec

FIGURE 9

R:\2010Stantec\123110279_DFO_PorpoiseBay\CAD\Phase2ESA\123110279_Fig 9_Historic Site Detail Year 1994.dwg PRINTED: Feb 08, 2012

APPENDIX B

Borehole Logs

CLIENT: **FISHERIES AND OCEANS CANADA**
PROJECT: **Porpoise Bay SCH**
PS06130
Sechelt, BC

BOREHOLE RECORD

PROJECT NO: **123110279**
SURFACE ELEVATION: **2.64 m**
SITE DATUM: **Geodetic**

BOREHOLE NO:
Location #1

DEPTH [m]	SOIL TYPE	SOIL DESCRIPTION	SAMPLE TYPE	BLOW COUNT	COMBUSTIBLE VAPOUR LEVEL [ppmv] (1 / 10 / 100 / 1000 / 10000)	SAMPLE ID / Analysis [If Requested]	WELL COMPLETION	WATER LEVEL	COMPLETION NOTES	ELEVATION [m]
0.0		**ASPHALT**					roadbox, jplug, cement			
0.2		**SAND** fine to medium grain sand, some sub-rounded gravel, grey / brown, dry								
0.4										
0.6						**001**				2.0
0.8										
1.0									bentonite seal	
1.2						**002**				
1.4										
1.6		**sandy SILT** fine grain sand, some organics, reddish / brown, dry			10	**003**				1.0
1.8									GW = 1.83 mbg	
2.0		**SAND & GRAVEL LENS** medium grain sand, angular gravel, grey, moist				**004**			10/20 silica sand	
2.2										
2.4						**005** CSR PHC, F1-F4, PAHs, Metals, TOC				
2.6					25					
2.8		- wet at 8.5' (2.59m) **SAND & GRAVEL** medium grain sand, angular gravel, grey, wet			10	**006**				0.0
3.0										
3.2										
3.4		- color change to grey at 11' (3.35m)								
3.6					5	**007** TOC			50 mm 010 slot PVC pipe	-1.0
3.8										
4.0										
4.2										
4.4		**SAND** some gravel, trace silt, reddish / brown, wet			25	**008** Metals				
4.6										-2.0
4.8										
5.0					5	**009**				
5.2										
5.4										
5.6										-3.0
5.8						**010**				
6.0										

End of borehole at 6.1 m

Completion Information:
Screened interval from 2.1 m to 5.2 m below surface

Top of Pipe (TOP) Elevation = **2.550** m

Groundwater Information:
Depth to groundwater from TOP = **1.74** m ()

Groundwater Samples obtained on December 16, 2011 for the following analysis:
BTEX/VPH/Styrene/MTBE, LEPH/PAH, F1-F4, Dissolved Metals

All Samples ID's are prefixed with PS06130-001-1112-xxx, where xxx refers to the sample ID shown.

Note:
CSR PHC - refers to CSR Petroleum Hydrocarbons which include BTEX/VPH/MTBE/Styrene, EPH10-19, EPH19-32 and LEPH/HEPH

INVESTIG. METHOD: Solid Stem Auger
INVESTIG. DATE: December 12, 2011
LOGGED BY: TJ

Sample Notes: Auger Sample

Stantec

CLIENT: **FISHERIES AND OCEANS CANADA**
PROJECT: **Porpoise Bay SCH**
PS06130
Sechelt, BC

BOREHOLE RECORD

PROJECT NO: **123110279**
SURFACE ELEVATION: **2.18 m**
SITE DATUM: **Geodetic**

BOREHOLE NO:
Location #2

DEPTH [m]	SOIL TYPE	SOIL DESCRIPTION	SAMPLE TYPE	BLOW COUNT	COMBUSTIBLE VAPOUR LEVEL [ppmv] (1 / 10 / 100 / 1000 / 10000)	SAMPLE ID / Analysis [If Requested]	WELL COMPLETION	WATER LEVEL	COMPLETION NOTES	ELEVATION [m]
0.0		**ASPHALT**							roadbox, jplug, cement	2.0
0.2		**SAND** fine to medium grain sand, brown, dry			50	-001				
0.4										
0.6		**SAND & GRAVEL** fine grain sand, angular gravel, some silt, grey, dry							bentonite seal	
0.8										
1.0										1.0
1.2					10	002 CSR PHC, LEPH, HEPH, F1-F4, PAHs, Metals				
1.4		**SAND & GRAVEL** medium grain sand, angular gravel, grey, moist - wet at 5' (1.52m)							GW = 1.41 mbg	
1.6										
1.8										
2.0						003				0.0
2.2		**SAND & GRAVEL** fine grain sand, angular gravel, some peices of wood, brown, wet								
2.4										
2.6										
2.8					25	004 CSR PHC, LEPH, HEPH, F1-F4, PAHs, Metals				
3.0									50 mm 010 slot PVC pipe	
3.2										-1.0
3.4		**SAND** fine grain sand, trace silt, grey, wet								
3.6					20	005				
3.8		- color change to reddish / brown at 12.5' (3.81m)								
4.0										
4.2					5	006				-2.0
4.4										

End of borehole at 4.6 m

Completion Information:
Screened interval from 1.5 m to 4.6 m below surface

Top of Pipe (TOP) Elevation = **2.144** m

Groundwater Information:
Depth to groundwater from TOP = **1.37** m ()

Groundwater Samples obtained on December 16, 2011 for the following analysis:
BTEX/VPH/Styrene/MTBE, LEPH/PAH, F1-F4, Dissolved Metals

All Samples ID's are prefixed with PS06130-001-1112-xxx, where xxx refers to the sample ID shown.

Note:
CSR PHC - refers to CSR Petroleum Hydrocarbons which include BTEX/VPH/MTBE/Styrene, EPH10-19, EPH19-32 and LEPH/HEPH

INVESTIG. METHOD: Solid Stem Auger
INVESTIG. DATE: December 12, 2011
LOGGED BY: TJ

Sample Notes: Auger Sample

Stantec

CLIENT: **FISHERIES AND OCEANS CANADA**
PROJECT: **Porpoise Bay SCH**
PS06130
Sechelt, BC

BOREHOLE RECORD

PROJECT NO: **123110279**
SURFACE ELEVATION: **2.53 m**
SITE DATUM: **Geodetic**

BOREHOLE NO: **Location #3**

DEPTH [m]	SOIL TYPE	SOIL DESCRIPTION	SAMPLE TYPE	BLOW COUNT	COMBUSTIBLE VAPOUR LEVEL [ppmv] (1 / 10 / 100 / 1000 / 10000)	SAMPLE ID / Analysis [If Requested]	WELL COMPLETION	WATER LEVEL	COMPLETION NOTES	ELEVATION [m]
0.0		**ASPHALT**					roadbox, jplug, cement			
0.2		**SAND & GRAVEL** fine to medium grain sand, angular gravel, grey / brown, dry								
0.4										
0.6						**001**				2.0
0.8									bentonite seal	
1.0										
1.2					25	**002** CSR PHC, LEPH, HEPH, F1-F4, PAHs, Metals				
1.4									10/20 silica sand	
1.6		**SAND** fine grain sand, grey, moist								1.0
1.8										
2.0					15	**003**			GW = 1.79 mbg	
2.2										
2.4		**silty SAND** peices of wood, brown, moist - wet at 8' (2.44m)								
2.6						**004 / 904** CSR PHC, LEPH, HEPH, F1-F4, PAHs, Metals				0.0
2.8					25					
3.0									50 mm 010 slot PVC pipe	
3.2		**SAND** fine grain sand, trace silt, reddish/brown, wet								
3.4										
3.6						**005**				-1.0
3.8										
4.0										
4.2										
4.4						**006**				-2.0

End of borehole at 4.6 m

Completion Information:
Screened interval from 1.5 m to 4.6 m below surface

Top of Pipe (TOP) Elevation = **2.473** m

Groundwater Information:
Depth to groundwater from TOP = **1.74** m ()

Groundwater Samples obtained on December 16, 2011 for the following analysis:
BTEX/VPH/Styrene/MTBE, LEPH/PAH, F1-F4, Dissolved Metals

All Samples ID's are prefixed with PS06130-001-1112-xxx, where xxx refers to the sample ID shown.

Note:
CSR PHC - refers to CSR Petroleum Hydrocarbons which include BTEX/VPH/MTBE/Styrene, EPH10-19, EPH19-32 and LEPH/HEPH

INVESTIG. METHOD: Solid Stem Auger
INVESTIG. DATE: December 12, 2011
LOGGED BY: TJ

Sample Notes: Auger Sample

Stantec

CLIENT: **FISHERIES AND OCEANS CANADA**
PROJECT: **Porpoise Bay SCH**
PS06130
Sechelt, BC

BOREHOLE RECORD

PROJECT NO: **123110279**
SURFACE ELEVATION: **0.68 m**
SITE DATUM: **Geodetic**

BOREHOLE NO:
Porewater Location #17

DEPTH [m]	SOIL TYPE	SOIL DESCRIPTION	SAMPLE TYPE	BLOW COUNT	COMBUSTIBLE VAPOUR LEVEL [ppmv] (1 / 10 / 100 / 1000 / 10000)	SAMPLE ID / Analysis [If Requested]	WELL COMPLETION	WATER LEVEL	COMPLETION NOTES	ELEVATION [m]
-1.4									Porewater sampler constructed usting a 0.75" diamter PVC pipe placed inside a 2" diameter PVC pipe and the anulus was filled with 10/20 sand.	2.0
-1.2										
-1.0										
-0.8										
-0.6										
-0.4										1.0
-0.2										
0.0		Ground Surface								
		SAND & GRAVEL								
0.2		End of borehole at 0.3 m Completion Information: Screened interval from 0.1 m to 0.3 m below surface Top of Pipe (TOP) Elevation = **2.180** m Porewater sample obtained on December 16, 2011 for te following analysis: LEPH/PAH, Dissolved Metals								

INVESTIG. METHOD: Direct Push
INVESTIG. DATE: December 12, 2011
LOGGED BY: TJ

Sample Notes:

Stantec

CLIENT: **FISHERIES AND OCEANS CANADA**
PROJECT: **Porpoise Bay SCH**
PS06130
Sechelt, BC

BOREHOLE RECORD

PROJECT NO: **123110279**
SURFACE ELEVATION: **0.68 m**
SITE DATUM: **Geodetic**

BOREHOLE NO:
Porewater Location#18

DEPTH [m]	SOIL TYPE	SOIL DESCRIPTION	SAMPLE TYPE	BLOW COUNT	COMBUSTIBLE VAPOUR LEVEL [ppmv] (1 / 10 / 100 / 1000 / 10000)	SAMPLE ID / Analysis [If Requested]	WELL COMPLETION	WATER LEVEL	COMPLETION NOTES	ELEVATION [m]
-1.4									Porewater sampler constructed usting a 0.75" diamter PVC pipe placed inside a 2" diameter PVC pipe and the anulus was filled with 10/20 sand.	2.0
-1.2										
-1.0										
-0.8										
-0.6										
-0.4										1.0
-0.2										
0.0		Ground Surface								
		SAND & GRAVEL								
0.2		End of borehole at 0.3 m Completion Information: Screened interval from 0.1 m to 0.3 m below surface Top of Pipe (TOP) Elevation = **2.180** m Porewater sample obtained on December 16, 2011 for te following analysis: LEPH/PAH, Dissolved Metals								

INVESTIG. METHOD: Direct Push
INVESTIG. DATE: December 12, 2011
LOGGED BY: TJ

Sample Notes:

Stantec

CLIENT: **FISHERIES AND OCEANS CANADA**
PROJECT: **Porpoise Bay SCH**
PS06130
Sechelt, BC

BOREHOLE RECORD

PROJECT NO: **123110279**
SURFACE ELEVATION: **2.18 m**
SITE DATUM: **Geodetic**

BOREHOLE NO:
SV Location#2

DEPTH [m]	SOIL TYPE	SOIL DESCRIPTION	SAMPLE TYPE	BLOW COUNT	COMBUSTIBLE VAPOUR LEVEL [ppmv] (1 / 10 / 100 / 1000 / 10000)	SAMPLE ID / Analysis [If Requested]	WELL COMPLETION	WATER LEVEL	COMPLETION NOTES	ELEVATION [m]
0.2		Refer to the borehole logs for stratigraphy description							roadbox, jplug, cement	2.0
0.4										
0.6									bentonite seal	
0.8										
1.0									50 mm 010 slot PVC pipe	
		End of borehole at 1.1 m Completion Information: Screened interval from 0.9 m to 1.1 m below surface Top of Pipe (TOP) Elevation = **2.174** m Soil vapour sample obtained on December 16, 2011 and submitted for Schedule 11 parameters								

INVESTIG. METHOD: Solid Stem Auger
INVESTIG. DATE: December 12, 2011
LOGGED BY: TJ

Sample Notes:

Stantec

CLIENT: **FISHERIES AND OCEANS CANADA**
PROJECT: **Porpoise Bay SCH**
PS06130
Sechelt, BC

BOREHOLE RECORD

PROJECT NO: **123110279**
SURFACE ELEVATION: **2.53 m**
SITE DATUM: **Geodetic**

BOREHOLE NO:
SV Location#3

DEPTH [m]	SOIL TYPE	SOIL DESCRIPTION	SAMPLE TYPE	BLOW COUNT	COMBUSTIBLE VAPOUR LEVEL [ppmv] (1 / 10 / 100 / 1000 / 10000)	SAMPLE ID / Analysis [If Requested]	WELL COMPLETION	WATER LEVEL	COMPLETION NOTES	ELEVATION [m]
0.2		Refer to the borehole logs for stratigraphy description							roadbox, jplug, cement	
0.4										
0.6									bentonite seal	2.0
0.8										
1.0									50 mm 010 slot PVC pipe	
		End of borehole at 1.1 m Completion Information: Screened interval from 0.9 m to 1.1 m below surface Top of Pipe (TOP) Elevation = **2.473** m Soil vapour sample obtained on December 16, 2011 and submitted for Schedule 11 parameters								

INVESTIG. METHOD: Solid Stem Auger
INVESTIG. DATE: December 12, 2011
LOGGED BY: TJ

Sample Notes:

Stantec

APPENDIX C

Site Photos

APPENDIX D

Analytical Tables

Table 1 - Groundwater Observations Porpoise Bay Small Craft Harbour (PS06130)

Monitor Well ID	Date	Time	Wellspace Vapour Level (ppmv)	Top of Screened Interval below grade (m)	Bottom of Screened Interval below grade (m)	Top of Screened Interval (m asl)	Bottom of Screened Interval (m asl)	Elevation [1] at T.O.P. (m)	Elevation [1] at Grade (m)	Depth to Water from T.O.P.* (m)	Depth to Water below Grade (m)	Apparent NAPL Thickness (mm)	Groundwater Elevation (m asl)
Location #1	16-Dec-11	11:02	25	2.1	5.2	0.54	-2.557	2.550	2.643	1.736	1.83	nill	0.814
Location #2	16-Dec-11	11:00	140	1.5	4.6	0.68	-2.418	2.144	2.182	1.370	1.41	nill	0.774
Location #3	16-Dec-11	10:58	LTDL	1.5	4.6	1.03	-2.073	2.473	2.527	1.735	1.79	nill	0.738

Notes:

m - metres
m asl - metres above sea level
ppmv - parts per million by volume
T.O.P - top of pipe
* - for water columns less than 5 cm (i.e. height of end-cap) monitoring well was inferred to be dry.
[1] - elevations are referenced to a geodedtic datum
LTDL - less than instrument detection limit
N.A. - not available
nm - not measured

Table 2 - LEPH/HEPH/PAH Concentrations in Sediment Porpoise Bay Small Craft Harbour (PS06130)

Parameters	CCME Guidelines Marine[1]		CSR Criteria Marine[2]		CEPA[3]	Screening Values	Recommended Maximum Allowable RPD	Units	Detection Limit[4]	Local Reference Sites				Dock Use Activities					
APEC/Issue										Local Reference Sites				Dock Use Activities					
Station ID (DFO)										PS06130-001-1112-SE001	PS06130-005-1112-SE001	PS06130-006-1112-SE001	PS06130-007-1112-SE001	PS06130-002-1112-SE001	PS06130-003-1112-SE001	PS06130-009-1112-SE001	PS06130-011-1112-SE001	PS06130-015-1112-SE001
APEC(s) Represented by Sample										Local Reference Sites				Dock Use Activities					
Sample ID										PS06130-001-1112-SE001	PS06130-005-1112-SE001	PS06130-006-1112-SE001	PS06130-007-1112-SE001	PS06130-002-1112-SE001	PS06130-003-1112-SE001	PS06130-009-1112-SE001	PS06130-011-1112-SE001	PS06130-015-1112-SE001
Lab ID#										CL10289-01	CL10289-05	CL10289-06	CL10289-07	CL10289-02	CL10289-03	CL10289-09	CL10289-12	CL10289-16
Sample Depth (m)										0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05
Sample Collection Date (D/M/Y)										12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011
Sample Extraction Data (D/M/Y)										19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011
Sample Analysis Date (D/M/Y0										20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011
Physical Tests																		
Moisture	ns	ns	ns	ns	ns	ns	ns	%	0.3	20.3	27.1	24.8	25.3	25.6	43.9	36.7	68.8	21.1
pH	ns	ns	ns	ns	ns	ns	ns	pH	0.01	7.2	7.6	7.8	8.1	8.1	7.7	7.7	7.2	7.5
Particle Size																		
% Gravel (>2mm)	ns	ns	ns	ns	ns	ns	ns	%	1	--	--	--	--	--	--	--	--	--
% Sand (2.0mm - 0.063mm)	ns	ns	ns	ns	ns	ns	ns	%	1	--	--	--	--	--	--	--	94	--
% Silt (0.063nn - 4 um)	ns	ns	ns	ns	ns	ns	ns	%	1	--	--	--	--	--	--	--	4	--
% Clay (<4um)	ns	ns	ns	ns	ns	ns	ns	%	1	--	--	--	--	--	--	--	<2	--
Grain Size >0.075mm (#200) (CCME Coarse)	ns	ns	ns	ns	ns	ns	ns	%	0.1	--	--	--	--	--	--	--	82.4	--
Grain Size<>0.075mm (#200) (CCME Fine)	ns	ns	ns	ns	ns	ns	ns	%	0.1	--	--	--	--	--	--	--	17.6	--
Total Organic Carbon	ns	ns	ns	ns	ns	ns	ns	mg/kg	500	--	--	0.46	--	--	1.5	2	--	--
Petroleum Hydrocarbons (CCMW CWS*)																		
F1 (nC6-nC10) - BTEX	ns	ns	ns	ns	ns	ns	40%	mg/kg	10	--	--	--	--	--	--	--	--	--
F2 (>nC10-nC16 Hydrocarbons)	ns	ns	ns	ns	ns	ns	40%	mg/kg	30	<250	<250	<250	<250	<250	<250	<250	<250	<250
F3 (>nC16-nC34 Hydrocarbons)	ns	ns	ns	ns	ns	ns	40%	mg/kg	50	<250	<250	<250	<250	<250	<250	<250	334	<250
F4 (>nC35+ Hydrocarbons)	ns	ns	ns	ns	ns	ns	40%	mg/kg	50	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH)																		
LEPH (corrected for PAHs)	ns	ns	ns	ns	ns	500	40%	mg/kg	100	<250	<250	<250	<250	<250	<250	<250	<250	<250
HEPH (corrected for PAHs)	ns	ns	ns	ns	ns	2070	40%	mg/kg	100	<250	<250	<250	<250	<250	<250	<250	331	<250
EPH (C10-C19)	ns	ns	ns	ns	ns	500	40%	mg/kg	100	<250	<250	<250	<250	<250	<250	<250	<250	<250
EPH (C19-C32)	ns	ns	ns	ns	ns	2075	40%	mg/kg	100	<250	<250	<250	<250	<250	<250	<250	334	<250
Polycyclic Aromatic Hydrocarbons (PAH)																		
Napthalene*	0.0346	0.391	0.24	0.47	ns	0.20	50%	mg/kg	0.01	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150
2-Methylnapthalene*	0.0202	0.201	0.12	0.24	ns	0.10	50%	mg/kg	0.01	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Acenaphthylene*	0.00587	0.128	0.079	0.15	ns	0.25	50%	mg/kg	0.01	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0536	<0.00500
Acenaphthene*	0.00671	0.0889	0.055	0.11	ns	0.10	50%	mg/kg	0.01	<0.00500	<0.00500	<0.00500	<0.00500	0.0205	0.0285	0.0327	0.0563	<0.00500
Fluorene*	0.0212	0.144	0.089	0.17	ns	0.10	50%	mg/kg	0.01	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Phenanthrene*	0.0867	0.544	0.34	0.65	ns	0.95	50%	mg/kg	0.01	0.073	0.0335	0.0205	<0.0200	0.107	0.141	0.137	0.405	0.0617
Anthracene*	0.0469	0.245	0.15	0.29	ns	0.50	50%	mg/kg	0.01	<0.0100	<0.0100	<0.0100	<0.0100	0.0205	0.0428	0.051	0.142	0.0138
Fluoranthene*	0.113	1.494	0.93	1.8	ns	2.40	50%	mg/kg	0.01	0.0877	0.0277	0.0149	0.0156	0.122	0.374	0.885	0.758	0.107
Pyrene*	0.153	1.398	0.87	1.7	ns	2.80	50%	mg/kg	0.01	0.0601	0.026	<0.0200	<0.0200	0.118	0.357	0.845	0.834	0.0929
Benzo(a)anthracene*	0.0748	0.693	0.43	0.83	ns	1.15	50%	mg/kg	0.01	0.0691	0.0585	<0.0100	<0.0100	0.0869	0.179	0.291	0.54	0.052
Chrysene*	0.108	0.846	0.52	1	ns	1.55	50%	mg/kg	0.01	0.0273	0.0174	<0.0100	<0.0100	0.0657	0.255	0.625	0.747	0.074
Benzo(ba)fluoranthene	ns	ns	ns	ns	ns	1.65	50%	mg/kg	0.01	<0.0100	<0.0100	<0.0100	<0.0100	0.0697	0.143	0.293	0.364	0.0542
Benzo(k)fluoranthene	ns	ns	ns	ns	ns	1.00	50%	mg/kg	0.01	<0.0100	<0.0100	<0.0100	<0.0100	0.0412	0.17	0.47	0.35	0.0368
Benzo(a)pyrene*	0.0888	0.763	0.47	0.92	ns	1.00	50%	mg/kg	0.01	0.0504	0.0542	0.0401	0.0339	<0.0100	<0.0100	<0.0100	0.276	0.38
Indeno(1,2,3-cd)pyrene	ns	ns	ns	ns	ns	0.85	50%	mg/kg	0.01	<0.0100	<0.0100	<0.0100	<0.0100	0.0487	0.0874	0.129	0.207	0.0355
Dibenzo(a,h)anthracene*	0.00622	0.135	0.084	0.16	ns	0.20	50%	mg/kg	0.01	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.074	0.127	<0.00500
Benzo(g,h,i)perylene	ns	ns	ns	ns	ns	0.85	50%	mg/kg	0.01	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0827	0.122	0.213	0.0361
Total PAH[7]	ns	ns	ns	ns	ns	2.5	50%	mg/kg	0.02	0.3676	0.2173	0.0755	0.0495	0.7002	1.8604	4.2307	5.1769	0.564
Total CSR PAH[8]	ns	ns	ns	ns	ns	10	50%	mg/kg	0.02	0.3676	0.1999	0.0755	0.0495	0.5406	1.3773	3.2167	4.0429	0.4014

Parameters	Boat Grid							Storm Sewer Outfall			Parking Lot Run-off	Westcoast Re-fuelling Facilities	
APEC/Issue	Boat Grid							Storm Sewer Outfall			Parking Lot Run-off	Westcoast Re-fuelling Facilities	
Station ID (DFO)	PS06130-008-1112-SE001	PS06130-010-1112-SE001	PS06130-010-1112-SE901 (DUP)	RPD	PS06130-012-1112-SE001	PS06130-013-1112-SE001	PS06130-014-1112-SE001	PS06130-017-1112-SE001	PS06130-017-1112-SE901 (DUP)	RPD	PS06130-018-1112-SE001	PS06130-004-1112-SE001	PS06130-016-1112-SE001
APEC(s) Represented by Sample	Boat Grid							Storm Sewer Outfall			Parking Lot Run-off	Westcoast Re-fuelling Facilities	
Sample ID	PS06130-008-1112-SE001	PS06130-010-1112-SE001	PS06130-010-1112-SE901 (DUP)	PS06130-010-1112-SE001	PS06130-012-1112-SE001	PS06130-013-1112-SE001	PS06130-014-1112-SE001	PS06130-017-1112-SE001	PS06130-017-1112-SE901 (DUP)	PS06130-017-1112-SE001	PS06130-018-1112-SE001	PS06130-004-1112-SE001	PS06130-016-1112-SE001
Lab ID#	CL10289-08	CL10289-10	CL10289-11	--	CL10289-13	CL10289-14	CL10289-15	CL10289-18	CL10289-19		CL10289-20	CL10289-04	CL10289-18
Sample Depth (m)	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05
Sample Collection Date (D/M/Y)	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011
Sample Extraction Data (D/M/Y)	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011
Sample Analysis Date (D/M/Y0	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011
Physical Tests													
Moisture	26.2	21.5	25.4	--	22.1	36.7	43.3	43.5	49.6	--	70.5	24.9	25.3
pH	7.9	8.6	8.5	--	8.5	8.6	8.6	7.3	7.3	--	6.7	7.6	7.7
Particle Size													
% Gravel (>2mm)	--	--	--	--	--	--	--	--	--	--	--	--	--
% Sand (2.0mm - 0.063mm)	--	--	--	--	--	--	--	--	--	--	--	96	--
% Silt (0.063nn - 4 um)	--	--	--	--	--	--	--	--	--	--	--	2	--
% Clay (<4um)	--	--	--	--	--	--	--	--	--	--	--	2	--
Grain Size >0.075mm (#200) (CCME Coarse)	--	--	--	--	--	--	--	--	--	--	--	92.2	--
Grain Size<>0.075mm (#200) (CCME Fine)	--	--	--	--	--	--	--	--	--	--	--	7.8	--
Total Organic Carbon	--	3.1	--	--	--	4.3	--	--	--	--	--	--	--
Petroleum Hydrocarbons (CCMW CWS*)													
F1 (nC6-nC10) - BTEX	--	--	--	--	--	--	--	--	--	--	--	--	--
F2 (>nC10-nC16 Hydrocarbons)	<250	<250	<250	nc	<250	<250	<250	<250	<250	nc	<250	<250	<250
F3 (>nC16-nC34 Hydrocarbons)	<250	<250	<250	nc	<250	<250	<250	<250	380	nc	588	<250	<250
F4 (>nC35+ Hydrocarbons)	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH)													
LEPH (corrected for PAHs)	<250	<250	<250	nc	<250	<250	<250	<250	<250	nc	<250	<250	<250
HEPH (corrected for PAHs)	<250	<250	<250	nc	<250	<250	<250	<250	379	nc	586	<250	<250
EPH (C10-C19)	<250	<250	<250	nc	<250	<250	<250	<250	<250	nc	<250	<250	<250
EPH (C19-C32)	<250	<250	<250	nc	<250	<250	<250	<250	380	nc	588	<250	<250
Polycyclic Aromatic Hydrocarbons (PAH)													
Napthalene*	<0.0150	<0.0150	<0.0150	nc	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150	nc	<0.0150	<0.0150	<0.0150
2-Methylnapthalene*	<0.0100	<0.0100	<0.0100	nc	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	nc	<0.0100	<0.0100	<0.0100
Acenaphthylene*	<0.00500	0.0189	0.347	1738%	<0.00500	0.0377	<0.00500	<0.00500	<0.00500	nc	<0.00500	<0.00500	<0.00500
Acenaphthene*	<0.00500	0.0166	0.0973	486%	<0.00500	0.0329	<0.00500	0.0343	<0.00500	nc	0.0457	0.0145	<0.00500
Fluorene*	<0.0100	<0.0100	0.248	nc	<0.0100	0.0359	<0.0100	<0.0100	<0.0100	nc	<0.0100	<0.0100	<0.0100
Phenanthrene*	0.0414	0.116	1.86	1503%	0.0343	0.254	0.0506	0.279	0.069	75%	0.177	0.037	<0.0200
Anthracene*	<0.0100	0.0575	0.403	601%	0.0108	0.0889	<0.0100	0.0912	0.0181	80%	0.0599	0.0221	<0.0100
Fluorantheme*	0.0864	0.304	8.5	2696%	0.0521	1.29	0.0951	1.68	0.191	89%	0.72	0.0801	0.0385
Pyrene*	0.0637	0.291	3.57	1127%	0.0389	0.713	0.0695	1.12	0.142	87%	0.462	0.0898	0.0259
Benzo(a)anthracene*	0.0481	0.17	2.76	1524%	0.0481	0.451	0.0996	0.444	0.124	72%	0.212	0.0805	0.047
Chrysene*	0.0551	0.387	3.6	830%	0.0388	0.802	0.0977	0.575	0.0711	88%	0.411	0.0966	0.0196
Benzo(ba)fluoranthene	0.0462	0.208	2.14	929%	0.0393	0.601	0.074	0.393	0.0677	83%	0.381	0.0503	<0.0100
Benzo(k)fluoranthene	0.0466	0.149	1.46	880%	0.0311	0.326	0.0653	0.498	0.0707	86%	0.156	0.0618	<0.0100
Benzo(a)pyrene*	<0.0100	0.13	1.6	1131%	<0.0100	0.382	<0.0100	0.366	0.0858	77%	0.115	<0.0100	0.0581
Indeno(1,2,3-cd)pyrene	0.0303	0.0861	0.544	532%	0.034	0.181	0.0586	0.172	<0.0100	nc	0.158	0.0388	<0.0100
Dibenzo(a,h)anthracene*	<0.00500	0.0465	0.216	365%	<0.00500	0.0909	<0.00500	0.0937	<0.00500	nc	<0.00500	<0.00500	<0.00500
Benzo(g,h,i)perylene	0.0267	0.0789	0.571	624%	0.025	0.162	0.0487	0.156	<0.0100	nc	0.175	0.034	<0.0100
Total PAH[7]	0.4557	2.0595	27.9163	1255%	0.3524	5.4483	5.9022	5.9022	0.8394	86%	3.0726	0.6055	0.1891
Total CSR PAH[8]	0.3059	1.5375	23.2013	1409%	0.223	3.3763	0.3148	4.6832	0.701	85%	2.2026	0.4206	0.1891

Notes:

1. Canadian Sediment Quality Guidelines for the Protection of Aquatic Life, Canadian Environmental Quality Guidelines CCME, 1999, updated 2001, 2002, 2004, 2006, 2007 and 2008. Interim Sediment Quality Guidelines (ISQG) and Probable Effects Level (PEL)
2. BC Contaminated Sites Regulation, with ammendments to January 1, 2009. BC CSR Schedule 9, Generic Numeric Sediment Criteria, Sensitive (SQG $_{SCS}$) and Typical (SQC $_{TCS}$) Sediments.
3. Canadian Environmental Protection Act (CEPA), 1999. Disposal at Sea Regulations (DSR) Lower Level concentrations above which further testing is required for sea disposal
4. Detection limits provided are for typical samples and may not reflect the detection limit obtained by the lab due to interference or sample dilution
5. Where calculations involve a non-detected value, a null value is used.
6. Where the screening level derivation involves a non-detected value, the value of the detection limit is used in the calculation.
7. Screening Level set as per Department of Fisheries and Oceans (DFO) directive at 5 times the highest background reference value.
8. Total PAHs comprise the list of 13 PAHs (denoted with a "*") as described in CSR Schedule 9, footnote 12. Where calculations involve a non-detect value, a null value is used.

Units and Symbols:

m	= meters
mg/kg	= milligrams per kilogram
--	= sample not analyzed for parameter shown
<	= sample concentration is below the laboratory detection limit

Sediment Quality Analysis

ns	= no Standard, Guideline, Criterion or Screening Level exsists
	= Standard, Guideline, Criterion or Screening Level no applied at the Site
x	= exceeds the applicable CEPA DSR Level
x	= exceeds the applicable CSR Criterion
x	= exceeds both the CEPA DSR Screening Level and CSR Criterion
x	= exceeds screening value of 5 x highest measured reference background concentration (only highlighted if concentration does not exceed any other criterion/screening level)

Quality Assurance / Quality Control (QA/QC)

Field Duplicates	= PS06130-010-1112-SE901 / PS06130-017-1112-SE901
nc	= not calculated as one or both the duplicate values is less than 5 times the applicable detection limit
RPD	= relative percent difference
x	= exceeds the recommmeded allowed RPD

Table 3 - Metal Concentrations in Sediments Porpoise Bay Small Craft Harbour (PS06130)

Parameters	CCME Guidelines Marine[1] ISQG	CCME Guidelines Marine[1] PEL	CSR Criteria Marine[2] SQC_{SCS}	CSR Criteria Marine[2] SQC_{TCS}	CEPA[3] DSR Screening Level	Screening Values: Published Values	Screening Values: 5x Highest Background	Recommended Maximum Allowable RPD	Units	Detection Limit[4]
Physical Tests										
Moisture	ns	ns	ns	ns	ns	ns	ns	ns	%	0.3
pH	ns	ns	ns	ns	ns	ns	ns	ns	pH	0.01
Particle Size										
% Gravel (>2mm)	ns	ns	ns	ns	ns	ns	ns	ns	%	1
% Sand (2.0mm - 0.063mm)	ns	ns	ns	ns	ns	ns	ns	ns	%	1
% Silt (0.063nn - 4 um)	ns	ns	ns	ns	ns	ns	ns	ns	%	1
% Clay (<4um)	ns	ns	ns	ns	ns	ns	ns	ns	%	1
Grain Size >0.075mm (#200) (CCME Coarse)	ns	ns	ns	ns	ns	ns	ns	ns	%	0.1
Grain Size<>0.075mm (#200) (CCME Fine)	ns	ns	ns	ns	ns	ns	ns	ns	%	0.1
Total Organic Carbon	ns	ns	ns	ns	ns	ns	ns	ns	mg/kg	500
Total Metals										
Aluminum (Al)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	100
Antimony (Sb)	ns	ns	ns	ns	ns	ns	<0.1	30%	mg/kg	0.1
Arsenic (As)	7.24	41.6	26	50	ns	ns	8	30%	mg/kg	0.2
Barium (Ba)	ns	ns	ns	ns	ns	ns	56	30%	mg/kg	0.1
Beryllium (Be)	ns	ns	ns	ns	ns	ns	<0.1	30%	mg/kg	0.1
Bismuth (Bi)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	0.1
Cadmium (Cd)	0.7	4.2	2.6	5	0.6	ns	5.4	30%	mg/kg	0.05
Calcium (Ca)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	100
Chromium (Cr)	52.3	160	99	190	ns	ns	17	30%	mg/kg	1
Cobalt (Co)	ns	ns	ns	ns	ns	ns	5.5	30%	mg/kg	0.3
Copper (Cu)	18.7	108	67	130	ns	ns	17	30%	mg/kg	0.5
Iron (Fe)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	100
Lead (Pb)	30.2	112	69	130	ns	ns	6.00	30%	mg/kg	0.1
Magnesium (Mg)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	100
Manganese (Mn)	ns	ns	ns	ns	ns	ns	293.5	30%	mg/kg	0.2
Mercury (Hg)	0.13	0.7	0.43	0.84	0.75	ns	<0.05	30%	mg/kg	0.05
Molybdenum (Mo)	ns	ns	ns	ns	ns	ns	3.00	30%	mg/kg	0.1
Nickel (Ni)	ns	ns	ns	ns	ns	ns	11.5	30%	mg/kg	0.8
Phosphorus (P)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	10
Potassium (K)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	100
Selenium (Se)	ns	ns	ns	ns	ns	ns	<0.5	30%	mg/kg	0.5
Silver (Ag)	ns	ns	ns	ns	ns	ns	<0.2	30%	mg/kg	0.05
Sodium (Na)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	100
Strontium (Sr)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	0.1
Thallilum (Tl)	ns	ns	ns	ns	ns	ns	1.00	30%	mg/kg	0.05
Tin (Sn)	ns	ns	ns	ns	ns	ns	<0.2	30%	mg/kg	0.1
Titanium (Ti)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	1
Vanadium (V)	ns	ns	ns	ns	ns	ns	29.50	30%	mg/kg	2
Zinc (Zn)	124	271	170	330	ns	ns	58.5	30%	mg/kg	1
Zirconium (Zr)	ns	ns	ns	ns	ns	ns	--	30%	mg/kg	0.5
Organotin										
Tributyltin (TBT)	ns	ns	ns	ns	ns	ns	--	ns	mg/kg	0.001
SEM Metals										
Antimony - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	
Arsenic - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	
Cadmium - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	0.0002
Chromium - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	
Copper - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	0.004
Lead - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	0.002
Nickel - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	0.0003
Silver - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	
Zinc - SEM	ns	ns	ns	ns	ns	ns	--	ns	umole/g	0.008
Organics										
Acid Volatile Sulphide	ns	ns	10	ns	ns	1	ns	50%	mg/kg	0.02

APEC/Issue	Local Reference Sites				Dock Use Activities					Boat Grid					
Station ID (DFO)	PS06130-001-1112-SE001	PS06130-005-1112-SE001	PS06130-006-1112-SE001	PS06130-007-1112-SE001	PS06130-002-1112-SE001	PS06130-003-1112-SE001	PS06130-009-1112-SE001	PS06130-011-1112-SE001	PS06130-015-1112-SE001	PS06130-008-1112-SE001	PS06130-010-1112-SE001	PS06130-010-1112-SE901 (DUP)	RPD	PS06130-010-1112-SE001-RE1	PS06130-010-1112-SE001-RE2
APEC(s) Represented by Sample	Local Reference Sites				Dock Use Activities					Boat Grid					
Sample ID	PS06130-001-1112-SE001	PS06130-005-1112-SE001	PS06130-006-1112-SE001	PS06130-007-1112-SE001	PS06130-002-1112-SE001	PS06130-003-1112-SE001	PS06130-009-1112-SE001	PS06130-011-1112-SE001	PS06130-015-1112-SE001	PS06130-008-1112-SE001	PS06130-010-1112-SE001	PS06130-010-1112-SE901 (DUP)	PS06130-010-1112-SE001	PS06130-010-1112-SE001-RE1	PS06130-010-1112-SE001-RE2
Lab ID#	CL10289-01	CL10289-05	CL10289-06	CL10289-07	CL10289-02	CL10289-03	CL10289-09	CL10289-12	CL10289-16	CL10289-08	CL10289-10	CL10289-11	--	CL10289-10RE1	CL10289-10RE2
Sample Depth (m)	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05
Sample Collection Date (D/M/Y)	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011
Sample Extraction Data (D/M/Y)	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	1/30/2012	1/30/2012
Sample Analysis Date (D/M/Y0	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	1/31/2012	1/31/2012
Physical Tests															
Moisture	20.3	27.1	24.8	25.3	25.6	43.9	36.7	68.8	21.1	26.2	21.5	25.4	--	--	--
pH	7.2	7.6	7.8	8.1	8.1	7.7	7.7	7.2	7.5	7.9	8.6	8.5	--	--	--
Particle Size															
% Gravel (>2mm)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
% Sand (2.0mm - 0.063mm)	--	--	--	--	--	--	--	94	--	--	--	--	--	--	--
% Silt (0.063nn - 4 um)	--	--	--	--	--	--	--	4	--	--	--	--	--	--	--
% Clay (<4um)	--	--	--	--	--	--	--	<2	--	--	--	--	--	--	--
Grain Size >0.075mm (#200) (CCME Coarse)	--	--	--	--	--	--	--	82.4	--	--	--	--	--	--	--
Grain Size<>0.075mm (#200) (CCME Fine)	--	--	--	--	--	--	--	17.6	--	--	--	--	--	--	--
Total Organic Carbon	--	--	0.46	--	--	1.5	2	--	--	--	3.1	--	--	--	--
Total Metals															
Aluminum (Al)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony (Sb)	<0.1	<0.1	<0.1	<0.1	0.1	0.2	25.5	0.3	<0.1	<0.1	<0.1	0.2	nc	<0.1	0.2
Arsenic (As)	1.6	2	1.2	0.8	2.6	4.2	3.7	8.7	1.1	1	1.4	3.2	129%	0.9	1
Barium (Ba)	11.2	9.3	8.7	7.9	13	16.3	13.4	18.6	10.5	10.8	24.4	30	23%	16	13
Beryllium (Be)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nc	<0.1	<0.1
Bismuth (Bi)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	1.02	1.08	0.16	0.04	0.81	1.72	1.75	1.79	0.14	0.2	0.09	0.09	nc	0.1	0.1
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	3.2	3	2.9	3.4	4.3	7.3	7.7	12.6	4.9	4.6	4.2	4.4	nc	4	3.9
Cobalt (Co)	1.1	0.9	0.9	1.1	1.2	1.5	1.5	2.1	1.9	1.6	1.4	1.4	nc	1.2	1.3
Copper (Cu)	3.4	4	2	1.9	30.7	76.3	17.4	50.9	6.9	8.6	109	390	258%	243	98.2
Iron (Fe)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead (Pb)	0.8	1.1	0.9	1.2	6.2	9.2	11.4	13.3	2.6	1.9	3.5	88	2414%	7.6	6.9
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese (Mn)	51.3	47.3	48.1	58.7	56.1	65.7	61.2	84.7	88.6	78.3	70.9	67.5	5%	74.8	75.5
Mercury (Hg)	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.1	0.11	<0.05	0.07	0.23	0.47	104%	0.08	0.1
Molybdenum (Mo)	0.5	0.6	0.3	0.1	0.8	4	2.5	7.2	0.5	0.4	0.2	0.4	nc	0.2	0.2
Nickel (Ni)	2.3	1.9	1.7	1.9	2.7	3.8	3.9	7.3	2.6	2.4	2.6	3.5	35%	2.8	2.9
Phosphorus (P)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium (K)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	nc	<0.5	<0.5
Silver (Ag)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nc	<0.2	<0.2
Sodium (Na)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Strontium (Sr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallilum (Tl)	0.2	0.1	<0.1	<0.1	0.1	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	nc	<0.1	<0.1
Tin (Sn)	<0.2	<0.2	<0.2	<0.2	0.9	2.5	1	2.1	0.2	0.5	0.7	3.2	357%	0.8	0.6
Titanium (Ti)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (V)	4.9	4.6	4.6	5.9	6.2	9.5	8.3	19.4	9.8	7.1	8.1	6.9	15%	8.7	9.4
Zinc (Zn)	9.9	11.7	8	8.8	43.4	45.6	35.3	52.7	16	14.5	18.7	37.4	100%	22.5	18.6
Zirconium (Zr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Organotin															
Tributyltin (TBT)	--	--	<0.001	--	--	<0.001	<0.001	--	--	--	<0.001	--	--	--	--
SEM Metals															
Antimony - SEM	--	--	0	--	--	0	0	--	--	--	0	--	--	--	--
Arsenic - SEM	--	--	0	--	--	0	0	--	--	--	0	--	--	--	--
Cadmium - SEM	--	--	0	--	--	0.01	0.01	--	--	--	0	--	--	--	--
Chromium - SEM	--	--	0	--	--	0	0	--	--	--	0	--	--	--	--
Copper - SEM	--	--	0.01	--	--	0.05	0.02	--	--	--	0.68	--	--	--	--
Lead - SEM	--	--	0	--	--	0.04	0	--	--	--	0.15	--	--	--	--
Nickel - SEM	--	--	0	--	--	0	0	--	--	--	0	--	--	--	--
Silver - SEM	--	--	0	--	--	0	0	--	--	--	0	--	--	--	--
Zinc - SEM	--	--	0.03	--	--	0.43	0.25	--	--	--	0.63	--	--	--	--
Organics															
Acid Volatile Sulphide	--	--	0.48	--	--	5.7	5.8	--	--	--	1.9	--	--	--	--

APEC/Issue	Boat Grid									Storm Sewer Outfall			Parking Lot Run-off	Westcoast Re-fuelling Facilities	
Station ID (DFO)	PS06130-010-1112-SE901 (DUP)-RE1	PS06130-010-1112-SE901 (DUP) - RE2	PS06130-012-1112-SE001	PS06130-013-1112-SE001	PS06130-013-1112-SE001-RE1	PS06130-013-1112-SE001 -RE2	PS06130-014-1112-SE001	PS06130-015-1112-SE001 -RE1	PS06130-015-1112-SE001-RE2	PS06130-017-1112-SE001	PS06130-017-1112-SE901 (DUP)	RPD	PS06130-018-1112-SE001	PS06130-004-1112-SE001	PS06130-016-1112-SE001
APEC(s) Represented by Sample	Boat Grid									Storm Sewer Outfall			Parking Lot Run-off	Westcoast Re-fuelling Facilities	
Sample ID	PS06130-010-1112-SE901 (DUP)-RE1	PS06130-010-1112-SE901 (DUP)-RE2	PS06130-012-1112-SE001	PS06130-013-1112-SE001	PS06130-013-1112-SE001 -RE1	PS06130-013-1112-SE001-RE2	PS06130-014-1112-SE001	PS06130-015-1112-SE001-RE1	PS06130-015-1112-SE001-RE2	PS06130-017-1112-SE001	PS06130-017-1112-SE901 (DUP)	PS06130-017-1112-SE001	PS06130-018-1112-SE001	PS06130-004-1112-SE001	PS06130-016-1112-SE001
Lab ID#	CL10289-11-RE1	CL10289-11-RE2	CL10289-13	CL10289-14	CL10289-14RE1	CL10289-14RE2	CL10289-15	CL10289-16RE1	CL10289-16RE2	CL10289-18	CL10289-19	--	CL10289-20	CL10289-04	CL10289-18
Sample Depth (m)	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05	0 - 0.05
Sample Collection Date (D/M/Y)	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011
Sample Extraction Data (D/M/Y)	1/30/2012	1/30/2012	19/12/2011	19/12/2011	1/30/2012	1/30/2012	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011	19/12/2011
Sample Analysis Date (D/M/Y0	1/31/2012	1/31/2012	20/12/2011	20/12/2011	1/31/2012	1/31/2012	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011
Physical Tests															
Moisture	--	--	22.1	36.7	--	--	43.3	21.1	21.1	43.5	49.6	--	70.5	24.9	25.3
pH	--	--	8.5	8.6	--	--	8.6	7.5	7.5	7.3	7.3	--	6.7	7.6	7.7
Particle Size															
% Gravel (>2mm)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
% Sand (2.0mm - 0.063mm)	--	--	--	--	--	--	--	--	--	--	--	--	--	96	--
% Silt (0.063nn - 4 um)	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--
% Clay (<4um)	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--
Grain Size >0.075mm (#200) (CCME Coarse)	--	--	--	--	--	--	--	--	--	--	--	--	--	92.2	--
Grain Size<>0.075mm (#200) (CCME Fine)	--	--	--	--	--	--	--	--	--	--	--	--	--	7.8	--
Total Organic Carbon	--	--	--	4.3	--	--	--	--	--	--	--	--	--	--	--
Total Metals															
Aluminum (Al)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony (Sb)	0.2	0.2	<0.1	<0.1	0.2	0.1	<0.1	<0.1	0.1	0.2	0.2	nc	0.4	0.2	<0.1
Arsenic (As)	3.7	2.3	1.1	1.3	1	1.2	0.8	0.8	0.7	2.5	2.6	4%	4.3	1.7	1.5
Barium (Ba)	28	33.3	12.9	59.6	77.5	39.7	35.2	28.7	22.4	20.9	20.4	2%	32.3	15.9	11.4
Beryllium (Be)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nc	<0.1	<0.1	<0.1
Bismuth (Bi)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	0.08	0.1	0.1	0.21	0.21	0.21	0.05	0.05	0.07	0.14	0.12	14%	0.32	1.86	0.36
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	4.4	6.5	6.3	3.5	4.2	3.4	3.8	6.4	4	5.6	4.7	nc	9.3	3.9	4.1
Cobalt (Co)	1.3	1.4	1.9	1.1	1	1	1.7	1.9	1.3	1.9	1.7	11%	2.2	1.4	1.4
Copper (Cu)	454	330	7.3	335	341	502	132	277	141	12.3	10.9	11%	24.5	12.3	5.7
Iron (Fe)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead (Pb)	73.5	108	1.9	12.3	14.6	9.8	58.5	11.2	6.6	4.8	4.2	13%	10.3	16.1	1.9
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese (Mn)	69.4	69.7	90.1	43.3	53.3	43.6	78.8	92.5	70.1	213	205	4%	108	58.3	67.3
Mercury (Hg)	0.74	0.79	<0.05	0.09	0.16	0.22	<0.05	0.05	0.08	<0.05	<0.05	nc	0.1	<0.05	<0.05
Molybdenum (Mo)	0.4	0.4	0.1	1.3	1.2	1.3	2	0.2	0.2	0.5	0.4	nc	2.4	1.6	0.7
Nickel (Ni)	3.6	4.5	2.9	6.2	6.2	6.8	3.7	5	4	3.2	2.8	13%	6.8	2.5	2.4
Phosphorus (P)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium (K)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nc	0.7	<0.5	<0.5
Silver (Ag)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nc	<0.2	<0.2	<0.2
Sodium (Na)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Strontium (Sr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallilum (Tl)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nc	<0.1	0.1	<0.1
Tin (Sn)	2.8	2.6	<0.2	1.9	2.8	2.3	0.4	1.1	1.2	0.4	0.8	nc	0.6	1.3	0.2
Titanium (Ti)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (V)	8.2	8.8	13.3	5.1	7.4	6.1	7.1	10.4	8.6	10.9	9.9	nc	16.7	5.7	8.2
Zinc (Zn)	41.5	34.6	17.8	98.4	95.6	91.8	27.7	29.9	40.9	30.4	26.6	13%	42.6	24.9	14.2
Zirconium (Zr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Organotin															
Tributyltin (TBT)	--	--	--	<0.001	--	--	--	--	--	--	--		--	--	--
SEM Metals															
Antimony - SEM	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Arsenic - SEM	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Cadmium - SEM	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Chromium - SEM	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Copper - SEM	--	--	--	0.5	--	--	--	--	--	--	--	--	--	--	--
Lead - SEM	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Nickel - SEM	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Silver - SEM	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Zinc - SEM	--	--	--	0.48	--	--	--	--	--	--	--	--	--	--	--
Organics															
Acid Volatile Sulphide	--	--	--	1.9	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. Canadian Sediment Quality Guidelines for the Protection of Aquatic Life, Canadian Environmental Quality Guidelines CCME, 1999, updated 2001, 2002, 2004, 2006, 2007 and 2008. Interim Sediment Quality Guidelines (ISQG) and Probable Effects Level (PEL)
2. BC Contaminated Sites Regulation, with ammendments to January 1, 2009. BC CSR Schedule 9, Generic Numeric Sediment Criteria, Sensitive (SQG $_{SCS}$) and Typical (SQC $_{TCS}$) Sediments.
3. Canadian Environmental Protection Act (CEPA), 1999. Disposal at Sea Regulations (DSR) Lower Level concentrations above which further testing is required for sea disposal
4. Detection limits provided are for typical samples and may not reflect the detection limit obtained by the lab due to interference or sample dilution
5. Where calculations involve a non-detected value, a null value is used.
6. Where the screening level derivation involves a non-detected value, the value of the detection limit is used in the calculation.
7. Screening Level set as per Department of Fisheries and Oceans (DFO) directive at 5 times the highest background reference value.
8. Total PAHs comprise the list of 13 PAHs (denoted with a "*") as described in CSR Schedule 9, footnote 12. Where calculations involve a non-detect value, a null value is used.

Units and Symbols:

m	= meters
mg/kg	= milligrams per kilogram
--	= sample not analyzed for parameter shown
<	= sample concentration is below the laboratory detection limit

Sediment Quality Analysis

ns	= no Standard, Guideline, Criterion or Screening Level exsists
(grey)	= Standard, Guideline, Criterion or Screening Level no applied at the Site
x (yellow)	= exceeds the applicable CEPA DSR Level
x (orange)	= exceeds the applicable CSR Criterion
x (red)	= exceeds both the CEPA DSR Screening Level and CSR Criterion
x (blue)	= exceeds screening value of 5 x highest measured reference background concentration (only highlighted if concentration does not exceed any other criterion/screening level)

Quality Assurance / Quality Control (QA/QC)

Field Duplicates	= PS06130-010-1112-SE901, PS06130-017-1112-SE901
nc	= not calculated as one or both the duplicate values is less than 5 times the applicable detection limit
RPD	= relative percent difference
x (green)	= exceeds the recommeded allowed RPD

Table 4 - BTEX and CWS PHCs Concentrations in Soil Porpoise Bay Small Craft Harbour (PS06130)

Parameters	CCME Guidelines[1] Commercial		CSR Standards[2]		Recommended Maximum Allowable RPD	Units	Detection Limit[3]								
	Coarse Grain	Fine Grain	Commercial (CL) [Marine]	Commercial (CL) [Drinking Water]											
APEC/Issue								Fill				West Coast Air Refuelling Facilities			
Station ID (DFO)								PS06130-001-1112-SO005	PS06130-001-1112-SO007	PS06130-002-1112-SO002	PS06130-002-1112-SO004	PS06130-003-1112-SO002	PS06130-003-1112-SO004	PS06130-003-1112-SO904 (DUP)	RPD
APEC(s) Represented by Sample								Fill				West Coast Air Refuelling Facilities			
Sample ID								PS06130-001-1112-SO005	PS06130-001-1112-SO007	PS06130-002-1112-SO002	PS06130-002-1112-SO004	PS06130-003-1112-SO002	PS06130-003-1112-SO004	PS06130-003-1112-SO904 (DUP)	PS06130-003-1112-SO004
Lab ID#								CL10293-01	CL10293-02	CL10293-04	CL10293-05	CL10293-06	CL10293-07	CL10293-08	CL10293-07
Sample Depth (m)								2.3 - 2.8	3.4 - 3.8	1.1 - 1.4	2.4 - 3.0	1.2 - 1.4	2.4 - 3.0		
Sample Collection Date (D/M/Y)								12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011
Sample Extraction Data (D/M/Y)								16/12/2011	16/12/2011	16/12/2011	16/12/2011	16/12/2011	16/12/2011	16/12/2011	16/12/2011
Sample Analysis Date (D/M/Y0								24/12/2011	24/12/2011	24/12/2011	24/12/2011	24/12/2011	24/12/2011	24/12/2011	24/12/2011
Physical Tests															
Headspace Vapour Concentration [4]	ns	ns	ns	ns	ns	ppmv	5	25	5	10	25	25	25	25	--
Moisture	ns	ns	ns	ns	ns	%	0.1	40.4	--	7.1	20.2	13.4	10.5	15.8	34%
Grain Size >0.075mm (#200) (CCME Coarse)	ns	ns	ns	ns	ns	%	--	86.8	96.5	--	--	94.1	--	--	--
Grain Size<>0.075mm (#200) (CCME Fine)	ns	ns	ns	ns	ns	%	--	13.2	3.5	--	--	5.9	--	--	--
Total Organic Carbon	ns	ns	ns	ns	ns	%	0.05	2.6	6.9	--	--	--	--	--	--
Monocyclic Aromatic Hydrocarbons															
Benzene	0.03	0.0068	2.5[b]	0.04[c]	40%	mg/kg	0.05	<0.05	--	<0.03	<0.04	<0.03	<0.03	<0.03	nc
Ethylbenzene	0.082	0.018	20[b]	7[c]	40%	mg/kg	0.08	<0.08	--	<0.05	<0.06	<0.05	<0.05	<0.05	nc
Styrene	50*	50*	50[a]	50[a]	40%	mg/kg	0.08	<0.08	--	<0.05	<0.06	<0.05	<0.05	<0.05	nc
Toluene	0.37	0.08	25[b]	2.5[c]	40%	mg/kg	0.34	<0.34	--	<0.20	<0.25	<0.20	<0.20	<0.20	nc
m & p-Xylene	ns	ns	ns	ns	40%	mg/kg	--	--	--	--	--	--	--	--	--
o-Xylene	ns	ns	ns	ns	40%	mg/kg	--	--	--	--	--	--	--	--	--
Xylenes (Total)	11	2.4	50[b]	20[c]	40%	mg/kg	0.17	<0.17	--	<0.10	<0.13	<0.10	<0.10	<0.10	nc
Volatile Petroleum Hydrocarbons (VPH)[5]															
VPH (C6-C10)-BTEX	ns	ns	200[a]	200[a]	40%	mg/kg	20.0	42.3	--	<20.0	24.6	32.6	<20.0	<20.0	nc
VH (C6-C10)	ns	ns	ns	ns	40%	mg/kg	20	43	--	<20	25	33	<20	--	nc
Petroleum Hydrocarbons (CCME CWS[4])															
F1 (nC6-nC10)	320 (240++)	320 (170++)	ns	ns	40%	mg/kg	20	22	--	<20	<20	<20	<20	<20	nc
F2 (>nC10-nC16)	260	260 (230++)	ns	ns	40%	mg/kg	100	<100	--	<100	<100	<100	<100	<100	nc
F3 (>nC16-nC34)	1700	2500	ns	ns	40%	mg/kg	200	<200	--	<200	<200	<200	<200	<200	nc
F4 (>nC35)	3300	6600	ns	ns	40%	mg/kg	200	<200	--	<200	<200	<200	<200	<200	nc

Notes:

1. Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health, Canadian Environmental Quality Guidelines CCME, 1999, updated 2001, 2002, 2004, 2006, 2007 and 2008. Commercial Land Use Guidelines

Fine Grain = Fine-grain soil is defined as median grain size as less than 75um as defined by the American Society for Testing and Materials (includes surface and subsurface soils)

Coarse-Grain = Coarse-grain soils are defined as median grain size greater than 75um as defined by the American Society for Testing and Materials (includes surface and subsurface soils)

* = CCME interim remediation criteria for soil that have not been replaced by the Canadian Soil Quality Guidelines

+ = CCME Canada Wide Standards (CWS) for Petroleum Hydrocarbon Constituents (includes subsurface soils), Tier 1

++ = only applicable if groundwater used as drinking water at the Site

2. BC Contaminated Sites Regulation, with ammendments to January 1, 2009. Commercial Land-use Standards

a = BC CSR Schedule 4 Generic Numerical Soil Standards

b = BC CSR Schedule 5, Matrix Numerical Soil Standards, Lowest standard to protect intake of Contaminated Soil, Toxicity to invertabrates and Plants, and Groundwater flow to Marine Aquatic Life

c = BC CSR Schedule 5, Matrix Numerical Soil Standards, Lowest standard to protect intake of Contaminated Soil, Toxicity to invertabrates and Plants, and Groundwater used for drinking water

d = BC CSR Schedule 10, Generic Numerical Soil and Water Standards

3. Detection Limts provided are for typical smaples and may not reflect the detection limit obtained by the lab due to interference or sample dilution

4. Headspace vapour concentration measure in-field at time of sampling using a combustible gas detector meter

Units and Symbols:

m	= meters
mg/kg	= milligrams per kilogram
--	= sample not analyzed for parameter shown
<	= sample concentration is below the laboratory detection limit

Soil Quality Analysis

ns	= no Standard, Guideline, Criterion or Screening Level exsists
	= Standard, Guideline, Criterion or Screening Level no applied at the Site
x	= exceeds the applicable CCME Commercial land use Guideline
x	= exceeds the applicable CSR Commercial (CL) land use standard
x	= exceeds both the CCME Co Guideline and CSR CL Standard

Quality Assurance / Quality Control (QA/QC)

Field Duplicates	= PS06130-003-1112-SO904
nc	= not calculated as one or both the duplicate values is less than 5 times the applicable detection limit
RPD	= relative percent difference
x	= exceeds the recommeded allowed RPD

Table 5 - LEPH/HEPH/PAH Concentrations in Soil Porpoise Bay Small Craft Harbour (PS06130)

APEC/Issue							Fill			West Coast Air Refuelling Facilities				
Station ID (DFO)							PS06130-001-1112-SO 005	PS06130-002-1112-SO 002	PS06130-002-1112-SO 004	PS06130-003-1112-SO 002	PS06130-003-1112-SO 004	PS06130-003-1112-SO 904 (DUP)	RPD	
APEC(s) Represented by Sample							Fill			West Coast Air Refuelling Facilities				
Sample ID							PS06130-001-1112-SO005	PS06130-002-1112-SO 002	PS06130-002-1112-SO 004	PS06130-003-1112-SO 002	PS06130-003-1112-SO 004	PS06130-003-1112-SO 904 (DUP)	PS06130-003-1112-SO 004	
Lab ID#							CL10293-01	CL10293-04	CL10293-05	CL10293-06	CL10293-07	CL10293-08	CL10293-07	
Sample Depth (m)							2.3 - 2.8	1.1 - 1.4	2.4 - 3.0	1.2 - 1.4		2.4 - 3.0		
Sample Collection Date (D/M/Y)							12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	
Sample Extraction Data (D/M/Y)							20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	
Sample Analysis Date (D/M/Y0							22/12/2011	22/12/2011	22/12/2011	22/12/2011	22/12/2011	22/12/2011	22/12/2011	
Parameters	**CCME Guidelines[1]**	**CSR Standards[2]**		**Recommended Maximum Allowable RPD**	**Units**	**Detection Limit[3]**								
	Commercial	**Commercial (CL) [Marine]**	**Commercial (CL) [Drinking Water]**											
Physical Tests														
Headspace Vapour Concentration [4]	ns	ns	ns	ns	ppmv	5	25	10	25	25	25	25	--	
Moisture	ns	ns	ns	ns	%	0.3	40.4	7.1	20.2	13.4	10.5	15.8	34%	
Extractable Petroleum Hydrocarbons														
LEPH (corrected for PAHs)	ns	2000[a]	2000[a]	40%	mg/kg	250	<250*	<250*	<250*	<250*	<250*	<250*	nc	
HEPH (corrected for PAHs)	ns	5000[a]	5000[a]	40%	mg/kg	250	250*	<250*	<250*	<250*	<250*	<250*	nc	
EPH (C10 - C19)	ns	ns	ns	40%	mg/kg	250	<250	<250	<250	<250	<250	<250	nc	
EPH (C19 - C32)	ns	ns	ns	40%	mg/kg	250	250	<250	<250	<250	<250	<250	nc	
Polycyclic Aromatic Hydrocarbons														
Napthalene	22	50[a]	50[a]	50%	mg/kg	0.0150	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150	nc	
2-Methylnapthalene	ns	ns	ns	50%	mg/kg	0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	nc	
Acenaphthylene	ns	ns	ns	50%	mg/kg	0.00500	0.0343	0.0161	<0.00500	<0.00500	<0.00500	<0.00500	nc	
Acenaphthene	ns	ns	ns	50%	mg/kg	0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	nc	
Fluorene	ns	ns	ns	50%	mg/kg	0.0100	0.0413	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	nc	
Phenanthrene	50*	50[a]	50[a]	50%	mg/kg	0.0200	0.154	0.0252	<0.0200	<0.0200	<0.0200	<0.0200	nc	
Anthracene	ns	ns	ns	50%	mg/kg	0.0100	0.0556	<0.0100	0.0144	<0.0100	<0.0100	<0.0100	nc	
Fluoranthene	ns	ns	ns	50%	mg/kg	0.0100	0.782	0.0350	0.0567	0.0129	<0.0100	0.0126	nc	
Pyrene	100*	100[a]	100[a]	50%	mg/kg	0.0200	0.581	0.0397	0.0459	<0.0200	<0.0200	<0.0200	nc	
Benzo[a]anthracene	10*	10[a]	10[a]	50%	mg/kg	0.0100	0.255	0.0564	0.0606	<0.0100	<0.0100	<0.0100	nc	
Chrysene	ns	ns	ns	50%	mg/kg	0.0100	0.282	0.0316	0.0269	<0.0100	<0.0100	<0.0100	nc	
Benzo[b+j]fluoranthene	10*	10[a]	10[a]	50%	mg/kg	0.0100	0.299	0.0342	0.037	<0.0100	<0.0100	<0.0100	nc	
Benzo[k]fluoranthene	10*	10[a]	10[a]	50%	mg/kg	0.0100	0.164	0.0252	0.0224	<0.0100	<0.0100	<0.0100	nc	
Benzo[a]pyrene	0.7	10[b]	10[b]	50%	mg/kg	0.0100	0.266	0.0104	<0.0100	0.0332	<0.0100	0.0343	nc	
Indeno[1,2,3-cd]pyrene	10*	10[a]	10[a]	50%	mg/kg	0.0100	0.138	0.0352	0.0409	<0.0100	<0.0100	<0.0100	nc	
Debenzo[ah]anthracene	10*	10[a]	10[a]	50%	mg/kg	0.00500	0.0725	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	nc	
benzo(g,h,i)perylene	ns	ns	ns	50%	mg/kg	0.0100	0.152	0.0287	0.0298	<0.0100	<0.0100	<0.0100	nc	

Notes:

1. Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health, Canadian Environmental Quality Guidelines CCME, 1999, updated 2001, 2002, 2004, 2006, 2007 and 2008. Commercial Land Use Guidelines

   * = CCME interim remediation criteria for soil that have not been replaced by the Canadian Soil Quality Guidelines

2. BC Contaminated Sites Regulation, with ammendments to January 1, 2009. Commercial Land-use Standards

   a = BC CSR Schedule 4 Generic Numerical Soil Standards

   b = BC CSR Schedule 5, Matrix Numerical Soil Standards, Lowest standard to protect intake of Contaminated Soil, Toxicity to invertabrates and Plants, and Groundwater flow to Marine Aquatic Life

3. Detection Limts provided are for typical smaples and may not reflect the detection limit obtained by the lab due to interference or sample dilution

4. Headspace vapour concentration measure in-field at time of sampling using a combustible gas detector meter

Units and Symbols:

m	= meters
mg/kg	= milligrams per kilogram
--	= sample not analyzed for parameter shown
<	= sample concentration is below the laboratory detection limit

Soil Quality Analysis

ns	= no Standard, Guideline, Criterion or Screening Level exsists
	= Standard, Guideline, Criterion or Screening Level no applied at the Site
x	= exceeds the applicable CCME Commercial land use Guideline
x	= exceeds the applicable CSR Commercial (CL) land use standard
x	= exceeds both the CCME Co Guideline and CSR CL Standard

Quality Assurance / Quality Control (QA/QC)

Field Duplicates	= PS06130-003-1112-SO904
nc	= not calculated as one or both the duplicate values is less than 5 times the applicable detection limit
RPD	= relative percent difference
x	= exceeds the recommeded allowed RPD

Table 6 - Metals Concentrations in Soil Porpoise Bay Small Craft Harbour (PS06130)

						APEC/Issue	Fill				West Coast Air Refuelling Facilities				
						Station ID (DFO)	PS06130-001-1112-SO 005	PS06130-001-1112-SO 008	PS06130-002-1112-SO 002	PS06130-002-1112-SO 004	PS06130-003-1112-SO 002	PS06130-003-1112-SO 004	PS06130-003-1112-SO 904 (DUP)	RPD
						APEC(s) Represented by Sample	Fill				West Coast Air Refuelling Facilities			
						Sample ID	PS06130-001-1112-SO 005	PS06130-001-1112-SO 008	PS06130-002-1112-SO 002	PS06130-002-1112-SO 004	PS06130-003-1112-SO 002	PS06130-003-1112-SO 004	PS06130-003-1112-SO 904 (DUP)	PS06130-003-1112-SO 004
						Lab ID#	CL10293-01	CL10293-01	CL10293-04	CL10293-05	CL10293-06	CL10293-07	CL10293-08	CL10293-07
						Sample Depth (m)	2.3 - 2.8	4.3 - 4.6	1.1 - 1.4	2.4 - 3.0	1.2 - 1.4	2.4 - 3.0		
						Sample Collection Date (D/M/Y)	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12/12/2011	12-Dec-11	12-Dec-11	12-Dec-11
						Sample Extraction Data (D/M/Y)	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011	20/12/2011
						Sample Analysis Date (D/M/Y0	22/12/2011	22/12/2011	22/12/2011	22/12/2011	22/12/2011	22/12/2011	22/12/2011	22/12/2011
Parameters	**CCME Guidelines[1]**	**CSR Standards[2]**		**BC Regional Background Concentration Estimates[3]**	Recommended Maximum Allowable RPD	Units	Detection Limit3							
	Commercial	**Commercial (CL) [Marine]**	**Commercial (CL) [Drinking Water]**											
Physical Tests														
Moisture	ns	ns	ns		ns	%	0.1	40.4	--	7.1	20.2	13.4	10.5	15.8	34%
Soluble (2:1) pH	ns	ns	ns		ns	pH	0.1	7	7.3	6.8	7.3	5.8	6.9	6.9	0%
Total Metals															
Aluminum (Al)	ns	ns	ns	ns	30%	mg/kg	100	--	--	--	--	--	--	--	--
Antimony (Sb)	40*	40[a]	40[a]	15	30%	mg/kg	0.1	0.2	0.2	0.1	0.1	0.1	0.1	<0.1	nc
Arsenic (As)	12	15	15	20	30%	mg/kg	0.2	2.6	2.7	1.9	3.4	2.3	2.8	3.2	13%
Barium (Ba)	2000	1500	400	300	30%	mg/kg	0.1	15.6	17.1	51.4	18.3	13.3	60.4	60.2	0%
Beryllium (Be)	8*	8[a]	8[a]	1.5	30%	mg/kg	0.1	<0.1	0.2	<0.1	0.1	0.1	0.2	<0.1	nc
Bismuth (Bi)	ns	ns	ns	ns	30%	mg/kg	0.1	--	--	--	--	--	--	--	--
Cadmium (Cd)	22	ns	ns	0.4	30%	mg/kg	0.05	0.45	0.42	0.55	1.09	0.11	1.12	1.52	26%
pH:<6.5	ns	2	1.5	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:6.5 - <7.0	ns	2	3	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:7.0 - <7.5	ns	3.5	15	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:7.5 - <8.0	ns	35	100	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:>8.0	ns	100	100	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
Calcium (Ca)	ns	ns	ns	ns	30%	mg/kg	100	--	--	--	--	--	--	--	--
Chromium (Cr)	87	60	60	80	30%	mg/kg	1	6.5	6.8	6.5	7.4	3.8	7.6	8.9	15%
Cobalt (Co)	300*	300[a]	300[a]	30	30%	mg/kg	0.3	2.1	2.3	4	1.9	1.4	3.2	2.7	19%
Copper (Cu)	91	ns	250	150	30%	mg/kg	0.5	12	9	26	7.7	4.7	16	17.6	9%
pH:<5.0	ns	90	ns	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:5.0 - <5.5	ns	100	ns	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:5.5 - <6.0	ns	200	ns	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:>6.0	ns	250	ns	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
Iron (Fe)	ns	ns	ns	ns	30%	mg/kg	100	--	--	--	--	--	--	--	--
Lead (Pb)	260	ns	ns	60	30%	mg/kg	0.1	12.5	4.6	2.6	6	1.6	2	2.1	5%
pH:<5.5	ns	150	100	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:5.5 - <6.0	ns	250	100	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:6.0 - <6.5	ns	1000	250	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:>6.5	ns	1000	1000	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
Magnesium (Mg)	ns	ns	ns	ns	30%	mg/kg	100	--	--	--	--	--	--	--	--
Manganese (Mn)	ns	ns	ns	ns	30%	mg/kg	0.2	105	103	193	103	81.7	174	142	23%
Mercury (Hg)	24	40	40	0.15	30%	mg/kg	0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nc
Molybdenum (Mo)	40*	40[a]	40[a]	1	30%	mg/kg	0.1	5.1	1.9	0.9	2.9	1.6	0.8	1.5	47%
Nickel (Ni)	50	500[a]	500[a]	60	30%	mg/kg	0.8	3.5	3.6	5.2	3.3	2.3	4.8	4.6	4%
Phosphorus (P)	ns	ns	ns	ns	30%	mg/kg	10	--	--	--	--	--	--	--	--
Potassium (K)	ns	ns	ns	ns	30%	mg/kg	100	--	--	--	--	--	--	--	--
Selenium (Se)	2.9	10[a]	10[a]	2	30%	mg/kg	0.5	<0.5	0.5	<0.5	<0.5	<0.5	0.8	0.7	14%
Silver (Ag)	40*	40[a]	40[a]	1	30%	mg/kg	0.05	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	nc
Sodium (Na)	ns	ns	ns	ns	30%	mg/kg	100	--	--	--	--	--	--	--	--
Strontium (Sr)	ns	ns	ns	ns	30%	mg/kg	0.1	--	--	--	--	--	--	--	--
Thallilum (Tl)	1	ns	ns	ns	30%	mg/kg	0.05	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	nc
Tin (Sn)	300*	300[a]	300[a]	4	30%	mg/kg	0.1	2	0.3	0.3	1.1	<0.2	<0.2	0.2	nc
Titanium (Ti)	ns	ns	ns	ns	30%	mg/kg	1	--	--	--	--	--	--	--	--
Vanadium (V)	130*	ns	ns	100	30%	mg/kg	2	15.4	18.1	29	14.7	11	21.6	21.8	1%
Zinc (Zn)	360	ns	ns	90	30%	mg/kg	1	38.1	37.6	22.4	25.4	11.6	96.4	110	12%
pH:<5.0	ns	150	150	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:5.0 - <5.5	ns	150	200	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:5.5 - <6.0	ns	150	300	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:6.0 - <6.5	ns	150	600	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:6.5 - <7.0	ns	300	600	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
pH:>7.0	ns	600	600	ns	--	mg/kg	--	--	--	--	--	--	--	--	--
Zirconium (Zr)	ns	ns	ns	ns	--	mg/kg	--	--	--	--	--	--	--	--	--

Notes:

1. Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health, Canadian Environmental Quality Guidelines CCME, 1999, updated 2001, 2002, 2004, 2006, 2007 and 2008. Commercial Land Use Guidelines

* = CCME interim remediation criteria for soil that have not been replaced by the Canadian Soil Quality Guidelines

2. BC Contaminated Sites Regulation, with ammendments to January 1, 2009. Commercial Land-use Standards

a = BC CSR Schedule 4 Generic Numerical Soil Standards

b = BC CSR Schedule 5, Matrix Numerical Soil Standards, Lowest standard to protect intake of Contaminated Soil, Toxicity to invertabrates and Plants, and Groundwater flow to Marine Aquatic Life

c = BC CSR Schedule 5, Matrix Numerical Soil Standards, Lowest standard to protect intake of Contaminated Soil, Toxicity to invertabrates and Plants, and Groundwater used for drinking water

3.Regional background soil quality estimates (at depths <3m below grade) as developed by MOE and presented in Protocol 4 (October 12, 2010)

4. Detection Limts provided are for typical smaples and may not reflect the detection limit obtained by the lab due to interference or sample dilution

Units and Symbols:

m = meters

mg/kg = milligrams per kilogram

-- = sample not analyzed for parameter shown

< = sample concentration is below the laboratory detection limit

Sediment Quality Analysis

ns = no Standard, Guideline, Criterion or Screening Level exsists

= Standard, Guideline, Criterion or Screening Level no applied at the Site

x = exceeds the applicable CCME Commercial land use Guideline

x = exceeds the applicable CSR Commercial (CL) land use standard

x = exceeds both the CCME Co Guideline and CSR CL Standard

Quality Assurance / Quality Control (QA/QC)

Field Duplicates = PS06130-003-1112-SO904

nc = not calculated as one or both the duplicate values is less than 5 times the applicable detection limit

RPD = relative percent difference

x = exceeds the recommeded allowed RPD

Table 7 - MAH and VPH Concentrations in Groundwater Porpoise Bay Small Craft Harbour (PS06130)

										APEC/Issue	Fill		West Coast Air Refuelling Facilities					
										Station ID (DFO)	PS06130-001-112-GW001	PS06130-002-112-GW001	PS06130-003-112-GW001	PS06130-003-112-GW901 (DUP)	RPD			
										APEC(s) Represented by Sample	Fill		West Coast Air Refuelling Facilities					
										Sample ID	PS06130-001-112-GW001	PS06130-002-112-GW001	PS06130-003-112-GW001	PS06130-003-112-GW901 (DUP)	PS06130-003-112-GW001			
										Lab ID#	CL10395-01	CL10395-02	CL10395-03	CL10395-04	CL10395-03 / CL10395-04			
										Sample Collection Date (D/M/Y)	21-Dec-11	21-Dec-11	21-Dec-11	21-Dec-11	21-Dec-11			
										Sample Extraction Data (D/M/Y)	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11			
										Sample Analysis Date (D/M/Y0	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11			
Parameters	**Federal Interim Groundwater Quality Guidelines (Commerical Marine)[5]**			**CCME Guideline [1]**	**Canadian Drinking Water Quality Guidelines [7]**	**CSR Standards[2]**		**BC Water Quality Guidelines[3]**	**Units**	**Detection Limit[4]**								
	Tier 2[6]		**Tier 3 [7]**															
	Fine	**Coarse**		**Marine**		**Marine**	**Drinking Water**											
Physical Tests																		
Headspace Vapour Concentration [4]	ns	ns	ns	ns	ns	ns	ns	ns	ppmv	0.1	25	140	LTDL					
Temperature (Field Measured)	ns	ns	ns	ns	ns	ns	ns	ns	°C	0.1	10.9	11.2	10.9					
Monocyclic Aromatic Hydrocarbons (MAHs)[5]																		
Benzene	9800	200	1100	110	5	1000	5	110	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	nc			
Ethylbenzene	150000	11000	250	25	2.4[a]	2500	2.4	ns	µg/L	0.5	<1.0	<1.0	<1.0	<1.0	nc			
Styrene	ns	51000	ns	ns	ns	720	ns	ns	µg/L	0.5	<1.0	<1.0	<1.0	<1.0	nc			
Toluene	240000	8900	2150	215	24[a]	3300	24	ns	µg/L	0.5	<1.0	<1.0	<1.0	<1.0	nc			
m & p-Xylene	ns	ns	ns	ns	ns	ns	ns	ns	µg/L	1	--	--	--	--	--			
o-Xylene	ns	ns	ns	ns	ns	ns	ns	ns	µg/L	0.5	--	--	--	--	--			
Xylenes (Total)	74000	48000	ns	ns	300[a]	ns	300	ns	µg/L	1	<2.0	<2.0	<2.0	<2.0	nc			
Volatile Petroleum Hydrocarbons (VPH)[5]																		
VPH (C6-C10)-BTEX	ns	ns	ns	ns	ns	1500	ns	ns	µg/L	300	<100	<100	<100	<100	nc			
VH (C6-C10)	ns	ns	ns	ns	ns	15000	15000	ns	µg/L	300	<100	<100	<100	<100	nc			
F1 (nC6-nC10)	9900	9100	ns	ns	ns	ns	ns	ns	µg/L	--	<100	<100	<100	<100	nc			
F2 (>nC10-nC16)	3100	3100	ns	ns	ns	ns	ns	ns	µg/L	--	<100	<100	<100	<100	nc			

Notes:

1. Canadian Water Quality Guidelines for the Protection of Aquatic Life, Canadian Environmental Quality Guidelines CCME, 1999, updated 2001, 2002, 2004, 2006, 2007 and 2008. Marine (Awm) and Freshwater (Awf) Aquatic Life
2. BC Contaminated Sites Regulation, with ammendments to January 1, 2009. Generic Numerical Standards, Marine (Awm) and Freshwater (Awf) Aquatic Life
3. BC Approved and Working Water Quality Guidelines (WQG) (Criteria), BC Ministry of Environment. Criteria for protection of Marine Aquatic Life. Current as of March 2011
4. Detection limits provided are for typical samples and may not reflect the detection limt obtained by the lab due to interference or sample dilution
5. Federal Interim Groundwater Quality Guidelines (FIGQG) for contaminated sites (May 2010). Guidelines to protect Commercial Marine Uses.
6. Tier 2 guideline presented uses lowest guideline for the protection of inhalation, soil organisms direct contact and marine life exposure pathways
7. The approach used to derive the Federal Tier 3 Guidelines was harmonized with the approach used to derive the BC CSR groundwater standards.
8. Federal Drinking Water Quality Guidelines (Decemeber 2010). Only guidelines approved or affirmed as of 2010 are presented

a - guideline to protect aesthetic objectives

Units and Symbols:

m	= meters
mg/L	= milligrams per liter
--	= sample not analyzed for parameter shown
<	= sample concentration is below the laboratory detection limit
ug/L	= micrograms per liter

Sediment Quality Analysis

ns	= no Standard, Guideline, Criterion or Screening Level exsists
	= Standard, Guideline, Criterion or Screening Level no applied at the Site
x	= exceeds the applicable FIGQG
x	= exceeds the applicable CSR CSR Standard or BC WQG
x	= exceeds both the FIGQG and CSR Standard/WQG

Quality Assurance / Quality Control (QA/QC)

Field Duplicates	= PS06130-003-112-GW001
nc	= not calculated as one or both the duplicate values is less than 5 times the applicable detection limit
RPD	= relative percent difference
x	= exceeds the recommeded allowed RPD

Table 8 - LEPH/HEPH/PAH Concentrations in Groundwater Porpoise Bay Small Craft Harbour (PS06130)

Parameters	Federal Interim Groundwater Quality Guidelines (Commerical Marine)[5]			CCME Guideline [1]	Canadian Drinking Water Quality Guidelines [7]	CSR Standards[2]		BC Water Quality Guidelines[3]	Recommended Maximum Allowable RPD	Units	Detection Limit[4]						
	Tier 2 [6]		Tier 3 [7]														
	Fine	Coarse		Marine		Marine	Drinking Water										
APEC/Issue												Fill		West Coast Air Refuelling Facilities			Storm Sewer Outall	Parking Lot Runoff
Station ID (DFO)												PS06130-001-112-GW001	PS06130-002-112-GW001	PS06130-003-112-GW001	PS06130-003-112-GW901 (DUP)	RPD	PS06130-017-112-IW001	PS06130-018-112-IW001
APEC(s) Represented by Sample												Fill		West Coast Air Refuelling Facilities			Storm Sewer Outall	Parking Lot Runoff
Sample ID												PS06130-001-112-GW001	PS06130-002-112-GW001	PS06130-003-112-GW001	PS06130-003-112-GW901 (DUP)	PS06130-003-112-GW001 / PS06130-003-112-GW901	PS06130-017-112-IW001	PS06130-018-112-IW001
Lab ID#												CL10395-01	CL10395-02	CL10395-03	CL10395-04	CL10395-03 / CL10395-04	CL10395-05	CL10395-06
Sample Collection Date (D/M/Y)												21-Dec-11	21-Dec-11	21-Dec-11	21-Dec-11	21-Dec-11	21-Dec-11	21-Dec-11
Sample Extraction Data (D/M/Y)												28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11
Sample Analysis Date (D/M/Y0												28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11	28-Dec-11
Physical Tests																		
Headspace Vapour Concentration [4]	ns	ns	ns	ns	ns	ns	ns	ns	ns	ppmv	5	25	140	LTDL		--	25	LTDL
Temperature (Field Measured)	ns	ns	ns	ns	ns	ns	ns	ns	ns	°c	0.1	10.9	11.2	10.9		--	6.1	6.1
Extractable Petroleum Hydrocarbons																		
LEPH (nC10 - nC19 Corrected)	ns	ns	ns	ns	ns	500	ns	ns	30%	µg/L	80	<100	<100	<100	<100	nc	<100	<100
HEPH (nC19 - nC32 Corrected)	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	80	<100	<100	<100	<100	nc	<100	<100
EPH (nC10 - nC19 Not Corrected for PAHs)	ns	ns	ns	ns	ns	5000	ns	ns	30%	µg/L	80	<100	<100	<100	<100	nc	<100	<100
EPH (nC19 - nC32 Not Corrected for PAHs)	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	80	<100	<100	<100	<100	nc	<100	<100
Polycyclic Aromatic Hydrocarbons																		
Napthalene	1.4	1.4	14	1.4	ns	10	ns	1	30%	µg/L	0.05	<0.30	<0.30	<0.30	<0.30	nc	<0.30	<0.30
2-Methylnapthalene	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	0.05	--	--	--	--	--	--	--
Quinoline	ns	ns	ns	ns	ns	34	ns	ns	30%	µg/L	0.05	<0.10	<0.10	<0.10	<0.10	nc	<0.10	<0.10
Acenaphthylene	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	0.01	0.26	<0.05	<0.05	<0.05	nc	<0.05	<0.05
Acenaphthene	ns	ns	ns	ns	ns	60	ns	6	30%	µg/L	0.01	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05
Fluorene	ns	ns	ns	ns	ns	120	ns	12	30%	µg/L	0.01	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05
Phenanthrene	ns	ns	ns	ns	ns	3	ns	ns	30%	µg/L	0.01	<0.10	<0.10	<0.10	<0.10	nc	<0.10	<0.10
Anthracene	320	320	ns	ns	ns	1	ns	ns	30%	µg/L	0.01	0.01	<0.01	<0.01	<0.01	nc	0.01	<0.01
Acridine	ns	ns	ns	ns	ns	0.5	ns	ns	30%	µg/L	0.05	<0.10	<0.10	<0.10	<0.10	nc	<0.10	<0.10
Fluoranthene	860	860	ns	ns	ns	2	ns	ns	30%	µg/L	0.01	<0.04	<0.04	<0.04	<0.04	nc	0.07	<0.04
Pyrene	ns	ns	ns	ns	ns	0.2	ns	ns	30%	µg/L	0.01	<0.02	<0.02	<0.02	<0.02	nc	0.17	<0.02
Benzo[a]anthracene	ns	ns	ns	ns	ns	1	ns	ns	30%	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	nc	0.02	<0.01
Chrysene	ns	ns	ns	ns	ns	1	ns	0.1	30%	µg/L	0.01	<0.05	<0.05	<0.05	<0.05	nc	0.06	<0.05
Benzo[b+j]fluoranthene	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	0.01	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05
Benzo[k]fluoranthene	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	0.01	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05
Benzo[a]pyrene	6.6	6.6	ns	ns	0.01	0.1	0.01	0.01	30%	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	nc	0.02	<0.01
Indeno[1,2,3-cd]pyrene	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	0.02	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05
Dibenzo[ah]anthracene	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	0.02	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05
benzo(g,h,i)perylene	ns	ns	ns	ns	ns	ns	ns	ns	30%	µg/L	0.02	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05

Notes:

1. Canadian Water Quality Guidelines for the Protection of Aquatic Life, Canadian Environmental Quality Guidelines CCME, 1999, updated 2001, 2002, 2004, 2006, 2007 and 2008. Marine (Awm) and Freshwater (Awf) Aquatic Life
2. BC Contaminated Sites Regulation, with ammendments to January 1, 2009. Generic Numerical Standards, Marine (Awm) and Freshwater (Awf) Aquatic Life
3. BC Approved and Working Water Quality Guidelines (WQG) (Criteria), BC Ministry of Environment. Criteria for protection of Marine Aquatic Life. Current as of March 2011
4. Detection limits provided are for typical samples and may not reflect the detection limt obtained by the lab due to interference or sample dilution
5. Federal Interim Groundwater Quality Guidelines (FIGQG) for contaminated sites (May 2010). Guidelines to protect Commercial Marine Uses.
6. Tier 2 guideline presented uses lowest guideline for the protection of inhalation, soil organisms direct contact and marine life exposure pathways
7. The approach used to derive the Federal Tier 3 Guidelines was harmonized with the approach used to derive the BC CSR groundwater standards.
8. Federal Drinking Water Quality Guidelines (Decemeber 2010). Only guidelines approved or affirmed as of 2010 are presented

a - guideline to protect aesthetic objectives

Units and Symbols:

m = meters
mg/L = milligrams per liter
-- = sample not analyzed for parameter shown
< = sample concentration is below the laboratory detection limit
ug/L = micrograms per liter

Sediment Quality Analysis

ns = no Standard, Guideline, Criterion or Screening Level exsists
= Standard, Guideline, Criterion or Screening Level no applied at the Site

x = exceeds the applicable FIGQG
x = exceeds the applicable CSR CSR Standard or BC WQG
x = exceeds both the FIGQG and CSR Standard/WQG

Quality Assurance / Quality Control (QA/QC)

Field Duplicates = PS06130-003-112-GW901
nc = not calculated as one or both the duplicate values is less than 5 times the applicable detection limit
RPD = relative percent difference
x = exceeds the recommeded allowed RPD

Table 9 - Metals (Dissolved) Concentrations in Groundwater Porpoise Bay Small Craft Harbour (PS06130)

Parameters	Federal Interim Groundwater Quality Guidelines (Commerical Marine)[5]			CCME Guideline [1]	Canadian Drinking Water Quality Guidelines [7]	CSR Standards[2]		BC Water Quality Guidelines[3]	Recommended Maximum Allowable RPD	Units	Detection Limit[4]						
	Tier 2[6]		Tier 3 [7]														
	Fine	Coarse		Marine		Marine	Drinking Water										
APEC/Issue												Fill		West Coast Air Refuelling Facilities			Storm Sewer Outall	Parking Lot Runoff
Station ID (DFO)												PS06130-001-112-GW001	PS06130-002-112-GW001	PS06130-003-112-GW001	PS06130-003-112-GW901 (DUP)	RPD	PS06130-017-112-IW001	PS06130-018-112-IW001
APEC(s) Represented by Sample												Fill		West Coast Air Refuelling Facilities			Storm Sewer Outall	Parking Lot Runoff
Sample ID												PS06130-001-112-GW001	PS06130-002-112-GW001	PS06130-003-112-GW001	PS06130-003-112-GW901 (DUP)	PS06130-003-112-GW001 / PS06130-003-112-GW901	PS06130-017-112-IW001	PS06130-018-112-IW001
Lab ID#												CL10395-01	CL10395-02	CL10395-03	CL10395-04	CL10395-03 / CL10395-04	CL10395-05	CL10395-06
Sample Collection Date (D/M/Y)												21/12/2011	21/12/2011	21/12/2011	21/12/2011	21/12/2011	21/12/2011	21/12/2011
Sample Extraction Data (D/M/Y)												28/12/2011	28/12/2011	28/12/2011	28/12/2011	28/12/2011	28/12/2011	28/12/2011
Sample Analysis Date (D/M/Y0)												28/12/2011	28/12/2011	28/12/2011	28/12/2011	28/12/2011	28/12/2011	28/12/2011
Physical Tests																		
Conductivity (Field Measured)	ns	ns	ns	ns	ns	ns	ns	ns	ns	µS/cm	1	929	1288	461	461	--	>3999	>3999
pH (Field Measured)	7.0 - 8.7	7.0 - 8.7	7.0 - 8.7	7.0 - 8.7	6.5 - 8.5 [a]	ns	ns	7.0 - 8.7	ns	pH	0.01	6.47	6.39	6.47	6.47	--	6.79	6.91
Conductivity (Lab Measured)	ns	ns	ns	ns	ns	ns	ns	ns	ns	µS/cm	2	--	--	--	--	--	30500	28300
pH (Lab Measured)	7.0 - 8.7	7.0 - 8.7	7.0 - 8.7	7.0 - 8.7	6.5 - 8.5 [a]	ns	ns	7.0 - 8.7	ns	pH	0.01	7.26	6.81	6.75	6.74	--	7.2	7.02
Hardness (CaCO3)	ns	ns	ns	ns	ns	ns	ns	ns	ns	mg/L	0.5	262	276	102	105	--	3440	3400
Dissolved Metals																		
Dissolved Aluminum (Al)	ns	ns	ns	ns	100 [a]	ns	9500	ns	20%	µg/L	3	<50	<50	61	89	31%	<50	<50
Dissolved Antimony (Sb)	ns	ns	ns	ns	6	200	6	ns	20%	µg/L	0.5	<20	<20	<20	<20	nc	<20	<20
Dissolved Arsenic (As)	12.5	12.5	125	12.5	10	125	10	12.5	20%	µg/L	0.1	16	<5	9.4	9.5	1%	<5	<5
Dissolved Barium (Ba)	500	500	ns	ns	1000	5000	1000	500	20%	µg/L	1	<50	<50	<50	<50	nc	159	175
Dissolved Beryllium (Be)	100	100	ns	ns	ns	1000	ns	100	20%	µg/L	0.1	<1	<1	<1	<1	nc	<1	<1
Dissolved Bismuth (Bi)	ns	ns	ns	ns	ns	ns	ns	ns	20%	µg/L	1	--	--	--	--	--	--	--
Dissolved Boron (Bo)	5000	5000	ns	ns	ns	50000	5000	1200	20%	µg/L	50	699	282	136	139	2%	2770	2850
Dissolved Cadmium (Cd)	0.12	0.12	1.2	0.12	5	1	5	0.12	20%	µg/L	0.01	<0.1	<0.1	<0.1	<0.1	nc	0.52	0.79
Dissolved Chromium (Cr)	56	56	ns	ns	50	ns	50	ns	20%	µg/L	1	<5	<5	<5	<5	nc	<5	<5
Dissolved Cobalt (Co)	ns	ns	ns	ns	ns	40	ns	ns	20%	µg/L	0.5	2.64	<0.5	<0.5	<0.5	nc	1.28	1.43
Dissolved Copper (Cu)	2	2	ns	ns	1000 [a]	20	1000	2	20%	µg/L	0.2	<2	2.6	<2	<2	nc	3.1	3
Dissolved Iron (Fe)	ns	ns	ns	ns	300 [a]	ns	6500	ns	20%	µg/L	5	3350	1480	3660	3770	3%	<100	<100
Dissolved Lead (Pb)	2	2	ns	ns	10	20	10	2	20%	µg/L	0.2	<1	1.2	<1	<1	nc	<1	<1
Dissolved Lithium (Li)	ns	ns	ns	ns	ns	ns	730	ns	20%	µg/L	5	--	--	--	--	--	--	--
Dissolved Manganese (Mn)	ns	ns	ns	ns	50 [a]	ns	550	100	20%	µg/L	1	505	200	73.7	77.9	5%	74.5	126
Dissolved Mecury (Hg)	0.016	0.016	0.16	0.016	1	1	1	0.02	20%	µg/L	0.02	<0.2	<0.2	<0.2	<0.2	nc	<0.2	<0.2
Dissolved Molybdenum (Mo)	ns	ns	ns	ns	ns	10000	250	ns	20%	µg/L	1	4.9	3.2	3.8	3.9	3%	7.5	7.6
Dissolved Nickel (Ni)	83	83	ns	ns	ns	83	ns	8.3	20%	µg/L	1	<2	<2	<2	<2	nc	6.7	9.4
Dissolved Selenium (Se)	54	54	ns	ns	10	540	10	2	20%	µg/L	0.5	<5	<5	<5	<5	nc	<5	<5
Dissolved Silicon (Si)	ns	ns	ns	ns	ns	ns	ns	ns	20%	µg/L	100	--	--	--	--	--	--	--
Dissolved Silver (Ag)	1.5	1.5	ns	ns	ns	15	ns	1.5	20%	µg/L	0.02	<0.5	<0.5	<0.5	<0.5	nc	<0.5	<0.5
Dissolved Strontium (Sr)	ns	ns	ns	ns	ns	ns	22000	ns	20%	µg/L	5	334	459	149	155	4%	4210	4100
Dissolved Thallium (Tl)	ns	ns	ns	ns	ns	3	ns	ns	20%	µg/L	0.05	<0.2	<0.2	<0.2	<0.2	nc	<0.2	0.22
Dissolved Tin (Sn)	ns	ns	ns	ns	ns	ns	22000	ns	20%	µg/L	5	--	--	--	--	--	--	--
Dissolved Titanium (Ti)	ns	ns	ns	ns	ns	1000	ns	ns	20%	µg/L	5	<50	<50	<50	<50	nc	<50	<50
Dissolved Uranium (U)	ns	ns	ns	ns	20	1000	20	100	20%	µg/L	0.1	3.08	1.69	0.71	0.73	3%	2.03	2.36
Dissolved Vanadium (V)	ns	ns	ns	ns	ns	ns	ns	50	20%	µg/L	5	<10	<10	33	34	3%	<10	<10
Dissolved Zinc (Zn)	10	10	ns	ns	5000 [a]	100	5000	10	20%	µg/L	5	<40	<40	<40	<40	nc	<40	<40
Dissolved Zirconium (Zr)	ns	ns	ns	ns	ns	ns	ns	ns	20%	µg/L	0.5	--	--	--	--	--	--	--
Dissolved Calcium (Ca)	ns	ns	ns	ns	ns	ns	ns	ns	20%	µg/L	0.05	33900	62100	16100	16700	4%	241000	252000
Dissolved Magnesium (Mg)	ns	ns	ns	ns	ns	ns	100000	ns	20%	µg/L	0.05	43000	29400	15000	15400	3%	689000	673000
Dissolved Potassium (K)	ns	ns	ns	ns	ns	ns	ns	ns	20%	µg/L	0.05	--	--	--	--	--	--	--
Dissolved Sodium (Na)	ns	ns	ns	ns	ns	ns	200000	ns	20%	µg/L	0.05	118000	155000	24900	25400	2%	5850000	807000
Dissolved Sulphur (S)	ns	ns	ns	ns	ns	ns	ns	ns	20%	µg/L	3	--	--	--	--	--	--	--

Notes:

1. Canadian Water Quality Guidelines for the Protection of Aquatic Life, Canadian Environmental Quality Guidelines CCME, 1999, updated 2001, 2002, 2004, 2006, 2007 and 2008. Marine (Awm) and Freshwater (Awf) Aquatic Life

2. BC Contaminated Sites Regulation, with ammendments to January 1, 2009. Generic Numerical Standards, Marine (Awm) and Freshwater (Awf) Aquatic Life

3. BC Approved and Working Water Quality Guidelines (WQG) (Criteria), BC Ministry of Environment. Criteria for protection of Marine Aquatic Life. Current as of March 2011

4. Detection limits provided are for typical samples and may not reflect the detection limt obtained by the lab due to interference or sample dilution

5. Federal Interim Groundwater Quality Guidelines (FIGQG) for contaminated sites (May 2010). Guidelines to protect Commercial Marine Uses.

6. Tier 2 guideline presented uses lowest guideline for the protection of inhalation, soil organisms direct contact and marine life exposure pathways

7. The approach used to derive the Federal Tier 3 Guidelines was harmonized with the approach used to derive the BC CSR groundwater standards.

8. Federal Drinking Water Quality Guidelines (Decemeber 2010). Only guidelines approved or affirmed as of 2010 are presented

a - guideline to protect aesthetic objectives

Units and Symbols:

m = meters

mg/L = milligrams per liter

-- = sample not analyzed for parameter shown

< = sample concentration is below the laboratory detection limit

ug/L = micrograms per liter

Sediment Quality Analysis

ns = no Standard, Guideline, Criterion or Screening Level exsists

= Standard, Guideline, Criterion or Screening Level no applied at the Site

x = exceeds the applicable FIGQG

x = exceeds the applicable CSR CSR Standard or BC WQG

x = exceeds both the FIGQG and CSR Standard/WQG

Quality Assurance / Quality Control (QA/QC)

Field Duplicates = PS06130-003-112-GW901

nc = not calculated as one or both the duplicate values is less than 5 times the applicable detection limit

RPD = relative percent difference

x = exceeds the recommeded allowed RPD

Table 10 - Vapour Well Monitoring Summary Porpoise Bay Small Craft Harbour (PS06130)

APEC Investigated	VW ID	Pipe Diameter (m)	Depth of Well (m)	Well Volume (m^3)	Flow Rate (m^3/min)	Purging Time (mins)	Sampling Time (mins)
Westcoast Air Refuelling Facilities	PS06130-002-1112-SV001	0.0254	1.1	0.000557096	0.0001	20.00	100.00
	PS06130-003-1112-SV002	0.0254	1.1	0.000557096	0.0001	20.00	100.00

Table 11 - Hydrocarbons and Napthalene in Soil Vapour Porpoise Bay Small Craft Harbour (PS06130)

APEC Investigated				Westcoast Air Refuelling Facilties			
Parameter	Units	ACC Standard CL	1/100th	PS06130-002-1112-SV001		PS06130-003-1112-SV002	
			Standard	Concentration Detected (ug/m^3)	Outdoor Attenuation (0.0001)	Concentration Detected (ug/m^3)	Outdoor Attenuation (0.0001)
Benzene	µg/m^3	4	0.04	1.2	0.00012000	0.05	0.000005
Ethylbenzene	µg/m^3	3000	30	0.42	0.00004200	< 0.1	0.00001
Toluene	µg/m^3	15000	150	1.7	0.00017000	< 1	0.0001
Xylenes (Total)	µg/m^3	300	3	2.9	0.00029000	< 0.5	0.00005
Styrene	µg/m^3	3000	30	< 0.1	0.00001000	< 0.1	0.00001
n-Decane	µg/m^3	8000	80	0.34	0.00003400	< 0.3	0.00003
n-Hexane	µg/m^3	2000	20	< 1	0.00010000	< 1	0.0001
C6-C13 Hydrocarbons (VPHv)	µg/m^3	3000	30	530	0.05300000	< 200	0.02
1,2,4-trimethylbenzene	µg/m^3	20	0.2	0.97	0.00009700	< 0.2	0.00002
1,2-dibromoethane	µg/m^3	1	0.01	< 0.1	0.00001000	< 0.1	0.00001
1,2-dichloroethane	µg/m^3	1	0.01	< 0.03	0.00000300	< 0.03	0.000003
1,3,5-trimethylbenzene	µg/m^3	20	0.2	0.32	0.00003200	< 0.2	0.00002
1,3-Butadiene	µg/m^3	6	0.06	< 0.2	0.00002000	< 0.2	0.00002
Isopropylbenzene	µg/m^3	1000	10	< 0.1	0.00001000	< 0.1	0.00001
Methylcyclohexane	µg/m^3	9000	90	0.23	0.00002300	< 0.2	0.00002
Methyl-tert-butylether (MTBE)	µg/m^3	9000	90	< 0.2	0.00002000	< 0.2	0.00002
Naphthalene	µg/m^3	9	0.09	0.23	0.00002300	< 0.1	0.00001

Note Descriptions:

ACC Standard CL - Air Concentration Criteria Standards for Commerical Land use

"--" - sample not analyzed for parameter indicated

< - less than analytical detection limit indicated

1/100th - Standard quoted based on ITRC data of maximum anticipated seasonal variation

Result exceeds applicable indoor air standard

APPENDIX E

Laboratory Certificates

CERTIFICATE OF ANALYSIS

CLIENT **Stantec Consulting Ltd. (Burnaby)**
500 - 4370 Dominion Street
Burnaby BC TEL 778 32801041
V5G 4L7 FAX N/A

ATTENTION **Tyler Joyce**

RECEIVED / TEMP	Dec-14-11 14:00 / 6.0 °C	**WORK ORDER**	CL10289
REPORTED	Feb-06-12	**PROJECT**	Porpoise Bay
		PROJECT INFO	9506130-DFO, 123110279-Stantec

General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done 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 document. This analytical report must be reproduced in its entirity. 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.

- All solids results are reported on a dry weight basis unless otherwise noted

- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  mg/L = milligrams per litre, equivalent to parts per million (ppm)
  ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  ug/g = micrograms per gram, equivalent to parts per million (ppm)
  ug/m3 = micrograms per cubic meter of air

- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

CARO Analytical Services

Final Review Per: **Paul Thandi, B.Sc., PChem For Patrick Novak, B.Sc., PChem**
Business Manager, Richmond

Locations:

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SAMPLE DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Feb-06-12

Strong Acid Leachable Metals

PS06130-010-1112-SE001 (CL10289-10) Matrix: Soil Sampled: Dec-12-11

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.4**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**24.4**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**4.1**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.09**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.2**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**109**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**3.5**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**70.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.23**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.7**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**8.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**18.7**	2.0	ug/g	Dec-19-11	Dec-20-11	

PS06130-010-1112-SE001 (CL10289-10RE1) Matrix: Soil Sampled: Dec-12-11

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
Antimony	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Arsenic	**0.9**	0.4	ug/g	Jan-30-12	Jan-31-12	
Barium	**16.0**	1.0	ug/g	Jan-30-12	Jan-31-12	
Beryllium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Boron	**4.0**	2.0	ug/g	Jan-30-12	Jan-31-12	
Cadmium	**0.10**	0.04	ug/g	Jan-30-12	Jan-31-12	
Chromium	**4.0**	1.0	ug/g	Jan-30-12	Jan-31-12	
Cobalt	**1.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Copper	**243**	0.2	ug/g	Jan-30-12	Jan-31-12	
Lead	**7.6**	0.2	ug/g	Jan-30-12	Jan-31-12	
Manganese	**74.8**	0.4	ug/g	Jan-30-12	Jan-31-12	
Mercury	**0.08**	0.05	ug/g	Jan-30-12	Jan-31-12	
Molybdenum	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Nickel	**2.8**	0.4	ug/g	Jan-30-12	Jan-31-12	
Selenium	< 0.5	0.5	ug/g	Jan-30-12	Jan-31-12	
Silver	< 0.2	0.2	ug/g	Jan-30-12	Jan-31-12	
Thallium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Tin	**0.8**	0.2	ug/g	Jan-30-12	Jan-31-12	
Uranium	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Vanadium	**8.7**	0.4	ug/g	Jan-30-12	Jan-31-12	
Zinc	**22.5**	2.0	ug/g	Jan-30-12	Jan-31-12	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Feb-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-010-1112-SE001 (CL10289-10RE2) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Arsenic	**1.0**	0.4	ug/g	Jan-30-12	Jan-31-12	
Barium	**13.0**	1.0	ug/g	Jan-30-12	Jan-31-12	
Beryllium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Boron	**3.6**	2.0	ug/g	Jan-30-12	Jan-31-12	
Cadmium	**0.10**	0.04	ug/g	Jan-30-12	Jan-31-12	
Chromium	**3.9**	1.0	ug/g	Jan-30-12	Jan-31-12	
Cobalt	**1.3**	0.1	ug/g	Jan-30-12	Jan-31-12	
Copper	**98.2**	0.2	ug/g	Jan-30-12	Jan-31-12	
Lead	**6.9**	0.2	ug/g	Jan-30-12	Jan-31-12	
Manganese	**75.5**	0.4	ug/g	Jan-30-12	Jan-31-12	
Mercury	**0.10**	0.05	ug/g	Jan-30-12	Jan-31-12	
Molybdenum	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Nickel	**2.9**	0.4	ug/g	Jan-30-12	Jan-31-12	
Selenium	< 0.5	0.5	ug/g	Jan-30-12	Jan-31-12	
Silver	< 0.2	0.2	ug/g	Jan-30-12	Jan-31-12	
Thallium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Tin	**0.6**	0.2	ug/g	Jan-30-12	Jan-31-12	
Uranium	**0.3**	0.1	ug/g	Jan-30-12	Jan-31-12	
Vanadium	**9.4**	0.4	ug/g	Jan-30-12	Jan-31-12	
Zinc	**18.6**	2.0	ug/g	Jan-30-12	Jan-31-12	
PS06130-010-1112-SE901 (CL10289-11) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**3.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**30.0**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**5.1**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.09**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.4**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**390**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**88.0**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**67.5**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.47**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**3.5**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**3.2**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**6.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**37.4**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-010-1112-SE901 (CL10289-11RE1) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Feb-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-010-1112-SE901 (CL10289-11RE1) Matrix: Soil Sampled: Dec-12-11, Continued						
Arsenic	**3.7**	0.4	ug/g	Jan-30-12	Jan-31-12	
Barium	**28.0**	1.0	ug/g	Jan-30-12	Jan-31-12	
Beryllium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Boron	**4.3**	2.0	ug/g	Jan-30-12	Jan-31-12	
Cadmium	**0.08**	0.04	ug/g	Jan-30-12	Jan-31-12	
Chromium	**4.4**	1.0	ug/g	Jan-30-12	Jan-31-12	
Cobalt	**1.3**	0.1	ug/g	Jan-30-12	Jan-31-12	
Copper	**454**	0.2	ug/g	Jan-30-12	Jan-31-12	
Lead	**73.5**	0.2	ug/g	Jan-30-12	Jan-31-12	
Manganese	**69.4**	0.4	ug/g	Jan-30-12	Jan-31-12	
Mercury	**0.74**	0.05	ug/g	Jan-30-12	Jan-31-12	
Molybdenum	**0.4**	0.1	ug/g	Jan-30-12	Jan-31-12	
Nickel	**3.6**	0.4	ug/g	Jan-30-12	Jan-31-12	
Selenium	< 0.5	0.5	ug/g	Jan-30-12	Jan-31-12	
Silver	< 0.2	0.2	ug/g	Jan-30-12	Jan-31-12	
Thallium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Tin	**2.8**	0.2	ug/g	Jan-30-12	Jan-31-12	
Uranium	**0.3**	0.1	ug/g	Jan-30-12	Jan-31-12	
Vanadium	**8.2**	0.4	ug/g	Jan-30-12	Jan-31-12	
Zinc	**41.5**	2.0	ug/g	Jan-30-12	Jan-31-12	
PS06130-010-1112-SE901 (CL10289-11RE2) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Arsenic	**2.3**	0.4	ug/g	Jan-30-12	Jan-31-12	
Barium	**33.3**	1.0	ug/g	Jan-30-12	Jan-31-12	
Beryllium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Boron	**4.9**	2.0	ug/g	Jan-30-12	Jan-31-12	
Cadmium	**0.10**	0.04	ug/g	Jan-30-12	Jan-31-12	
Chromium	**6.5**	1.0	ug/g	Jan-30-12	Jan-31-12	
Cobalt	**1.4**	0.1	ug/g	Jan-30-12	Jan-31-12	
Copper	**330**	0.2	ug/g	Jan-30-12	Jan-31-12	
Lead	**108**	0.2	ug/g	Jan-30-12	Jan-31-12	
Manganese	**69.7**	0.4	ug/g	Jan-30-12	Jan-31-12	
Mercury	**0.79**	0.05	ug/g	Jan-30-12	Jan-31-12	
Molybdenum	**0.4**	0.1	ug/g	Jan-30-12	Jan-31-12	
Nickel	**4.5**	0.4	ug/g	Jan-30-12	Jan-31-12	
Selenium	< 0.5	0.5	ug/g	Jan-30-12	Jan-31-12	
Silver	< 0.2	0.2	ug/g	Jan-30-12	Jan-31-12	
Thallium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Tin	**2.6**	0.2	ug/g	Jan-30-12	Jan-31-12	
Uranium	**0.3**	0.1	ug/g	Jan-30-12	Jan-31-12	
Vanadium	**8.8**	0.4	ug/g	Jan-30-12	Jan-31-12	
Zinc	**34.6**	2.0	ug/g	Jan-30-12	Jan-31-12	
PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.3**	0.4	ug/g	Dec-19-11	Dec-20-11	

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CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Feb-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11, Continued						
Barium	**59.6**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**14.8**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.21**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**3.5**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**335**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**12.3**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**43.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.09**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**1.3**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**6.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**1.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.6**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**5.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**98.4**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-013-1112-SE001 (CL10289-14RE1) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Arsenic	**1.0**	0.4	ug/g	Jan-30-12	Jan-31-12	
Barium	**77.5**	1.0	ug/g	Jan-30-12	Jan-31-12	
Beryllium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Boron	**11.5**	2.0	ug/g	Jan-30-12	Jan-31-12	
Cadmium	**0.21**	0.04	ug/g	Jan-30-12	Jan-31-12	
Chromium	**4.2**	1.0	ug/g	Jan-30-12	Jan-31-12	
Cobalt	**1.0**	0.1	ug/g	Jan-30-12	Jan-31-12	
Copper	**341**	0.2	ug/g	Jan-30-12	Jan-31-12	
Lead	**14.6**	0.2	ug/g	Jan-30-12	Jan-31-12	
Manganese	**53.3**	0.4	ug/g	Jan-30-12	Jan-31-12	
Mercury	**0.16**	0.05	ug/g	Jan-30-12	Jan-31-12	
Molybdenum	**1.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Nickel	**6.2**	0.4	ug/g	Jan-30-12	Jan-31-12	
Selenium	< 0.5	0.5	ug/g	Jan-30-12	Jan-31-12	
Silver	< 0.2	0.2	ug/g	Jan-30-12	Jan-31-12	
Thallium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Tin	**2.8**	0.2	ug/g	Jan-30-12	Jan-31-12	
Uranium	**0.6**	0.1	ug/g	Jan-30-12	Jan-31-12	
Vanadium	**7.4**	0.4	ug/g	Jan-30-12	Jan-31-12	
Zinc	**95.6**	2.0	ug/g	Jan-30-12	Jan-31-12	
PS06130-013-1112-SE001 (CL10289-14RE2) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Jan-30-12	Jan-31-12	
Arsenic	**1.2**	0.4	ug/g	Jan-30-12	Jan-31-12	
Barium	**39.7**	1.0	ug/g	Jan-30-12	Jan-31-12	

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Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-013-1112-SE001 (CL10289-14RE2) Matrix: Soil Sampled: Dec-12-11, Continued						
Beryllium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Boron	**14.2**	2.0	ug/g	Jan-30-12	Jan-31-12	
Cadmium	**0.21**	0.04	ug/g	Jan-30-12	Jan-31-12	
Chromium	**3.4**	1.0	ug/g	Jan-30-12	Jan-31-12	
Cobalt	**1.0**	0.1	ug/g	Jan-30-12	Jan-31-12	
Copper	**502**	0.2	ug/g	Jan-30-12	Jan-31-12	
Lead	**9.8**	0.2	ug/g	Jan-30-12	Jan-31-12	
Manganese	**43.6**	0.4	ug/g	Jan-30-12	Jan-31-12	
Mercury	**0.22**	0.05	ug/g	Jan-30-12	Jan-31-12	
Molybdenum	**1.3**	0.1	ug/g	Jan-30-12	Jan-31-12	
Nickel	**6.8**	0.4	ug/g	Jan-30-12	Jan-31-12	
Selenium	< 0.5	0.5	ug/g	Jan-30-12	Jan-31-12	
Silver	< 0.2	0.2	ug/g	Jan-30-12	Jan-31-12	
Thallium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Tin	**2.3**	0.2	ug/g	Jan-30-12	Jan-31-12	
Uranium	**0.7**	0.1	ug/g	Jan-30-12	Jan-31-12	
Vanadium	**6.1**	0.4	ug/g	Jan-30-12	Jan-31-12	
Zinc	**91.8**	2.0	ug/g	Jan-30-12	Jan-31-12	
PS06130-014-1112-SE001 (CL10289-15) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**0.8**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**35.2**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**4.2**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.05**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**3.8**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.7**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**132**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**58.5**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**78.8**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**2.0**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**3.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.4**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**7.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**27.7**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-014-1112-SE001 (CL10289-15RE1) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Arsenic	**0.8**	0.4	ug/g	Jan-30-12	Jan-31-12	
Barium	**28.7**	1.0	ug/g	Jan-30-12	Jan-31-12	
Beryllium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	

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Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-014-1112-SE001 (CL10289-15RE1) Matrix: Soil Sampled: Dec-12-11, Continued						
Boron	**4.2**	2.0	ug/g	Jan-30-12	Jan-31-12	
Cadmium	**0.05**	0.04	ug/g	Jan-30-12	Jan-31-12	
Chromium	**6.4**	1.0	ug/g	Jan-30-12	Jan-31-12	
Cobalt	**1.9**	0.1	ug/g	Jan-30-12	Jan-31-12	
Copper	**277**	0.2	ug/g	Jan-30-12	Jan-31-12	
Lead	**11.2**	0.2	ug/g	Jan-30-12	Jan-31-12	
Manganese	**92.5**	0.4	ug/g	Jan-30-12	Jan-31-12	
Mercury	**0.05**	0.05	ug/g	Jan-30-12	Jan-31-12	
Molybdenum	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Nickel	**5.0**	0.4	ug/g	Jan-30-12	Jan-31-12	
Selenium	< 0.5	0.5	ug/g	Jan-30-12	Jan-31-12	
Silver	< 0.2	0.2	ug/g	Jan-30-12	Jan-31-12	
Thallium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Tin	**1.1**	0.2	ug/g	Jan-30-12	Jan-31-12	
Uranium	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Vanadium	**10.4**	0.4	ug/g	Jan-30-12	Jan-31-12	
Zinc	**29.9**	2.0	ug/g	Jan-30-12	Jan-31-12	
PS06130-014-1112-SE001 (CL10289-15RE2) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Jan-30-12	Jan-31-12	
Arsenic	**0.7**	0.4	ug/g	Jan-30-12	Jan-31-12	
Barium	**22.4**	1.0	ug/g	Jan-30-12	Jan-31-12	
Beryllium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Boron	**4.4**	2.0	ug/g	Jan-30-12	Jan-31-12	
Cadmium	**0.07**	0.04	ug/g	Jan-30-12	Jan-31-12	
Chromium	**4.0**	1.0	ug/g	Jan-30-12	Jan-31-12	
Cobalt	**1.3**	0.1	ug/g	Jan-30-12	Jan-31-12	
Copper	**141**	0.2	ug/g	Jan-30-12	Jan-31-12	
Lead	**6.6**	0.2	ug/g	Jan-30-12	Jan-31-12	
Manganese	**70.1**	0.4	ug/g	Jan-30-12	Jan-31-12	
Mercury	**0.08**	0.05	ug/g	Jan-30-12	Jan-31-12	
Molybdenum	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Nickel	**4.0**	0.4	ug/g	Jan-30-12	Jan-31-12	
Selenium	< 0.5	0.5	ug/g	Jan-30-12	Jan-31-12	
Silver	< 0.2	0.2	ug/g	Jan-30-12	Jan-31-12	
Thallium	< 0.1	0.1	ug/g	Jan-30-12	Jan-31-12	
Tin	**1.2**	0.2	ug/g	Jan-30-12	Jan-31-12	
Uranium	**0.2**	0.1	ug/g	Jan-30-12	Jan-31-12	
Vanadium	**8.6**	0.4	ug/g	Jan-30-12	Jan-31-12	
Zinc	**40.9**	2.0	ug/g	Jan-30-12	Jan-31-12	

ANALYSIS / REPORT INFORMATION

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Feb-06-12

Analysis Description	**Method Reference(s)** (* = modified from) **Preparation**	**Analysis**	**LAB**
Strong Acid Leachable Metals	SALM V.2 (BCMOE)	EPA 6020A	RMD

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The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control 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 for.

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.

Strong Acid Leachable Metals, Batch B1L0245

Blank (B1L0245-BLK1) — Prepared: Dec-19-11, Analyzed: Dec-20-11

Analyte	Result	Reporting Limit	Units
Antimony	< 0.1	0.1	ug/g
Arsenic	< 0.4	0.4	ug/g
Barium	< 1.0	1.0	ug/g
Beryllium	< 0.1	0.1	ug/g
Boron	< 2.0	2.0	ug/g
Cadmium	< 0.04	0.04	ug/g
Chromium	< 1.0	1.0	ug/g
Cobalt	< 0.1	0.1	ug/g
Copper	< 0.2	0.2	ug/g
Lead	< 0.2	0.2	ug/g
Manganese	< 0.4	0.4	ug/g
Mercury	< 0.05	0.05	ug/g
Molybdenum	< 0.1	0.1	ug/g
Nickel	< 0.4	0.4	ug/g
Selenium	< 0.5	0.5	ug/g
Silver	< 0.2	0.2	ug/g
Thallium	< 0.1	0.1	ug/g
Tin	< 0.2	0.2	ug/g
Uranium	< 0.1	0.1	ug/g
Vanadium	< 0.4	0.4	ug/g
Zinc	< 2.0	2.0	ug/g

Blank (B1L0245-BLK2) — Prepared: Dec-19-11, Analyzed: Dec-20-11

Analyte	Result	Reporting Limit	Units
Antimony	< 0.1	0.1	ug/g
Arsenic	< 0.4	0.4	ug/g
Barium	< 1.0	1.0	ug/g
Beryllium	< 0.1	0.1	ug/g
Boron	< 2.0	2.0	ug/g
Cadmium	< 0.04	0.04	ug/g
Chromium	< 1.0	1.0	ug/g
Cobalt	< 0.1	0.1	ug/g
Copper	< 0.2	0.2	ug/g
Lead	< 0.2	0.2	ug/g
Manganese	< 0.4	0.4	ug/g
Mercury	< 0.05	0.05	ug/g
Molybdenum	< 0.1	0.1	ug/g
Nickel	< 0.4	0.4	ug/g
Selenium	< 0.5	0.5	ug/g
Silver	< 0.2	0.2	ug/g
Thallium	< 0.1	0.1	ug/g
Tin	< 0.2	0.2	ug/g
Uranium	< 0.1	0.1	ug/g
Vanadium	< 0.4	0.4	ug/g

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CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Strong Acid Leachable Metals, Batch B1L0245, Continued										
Blank (B1L0245-BLK2), Continued				Prepared: Dec-19-11, Analyzed: Dec-20-11						
Zinc	< 2.0	2.0	ug/g							
Reference (B1L0245-SRM1)				Prepared: Dec-19-11, Analyzed: Dec-20-11						
Antimony	8.9	0.1	ug/g	7.30		122	62-158			
Arsenic	23.0	0.4	ug/g	23.2		99	83-112			
Barium	326	1.0	ug/g	294		111	61-128			
Beryllium	0.3	0.1	ug/g	0.410		72	57-141			
Boron	45.3	2.0	ug/g	38.0		119	57-139			
Cadmium	2.27	0.04	ug/g	1.98		115	76-128			
Chromium	46.3	1.0	ug/g	48.0		96	88-118			
Cobalt	7.9	0.1	ug/g	8.75		90	87-113			
Copper	289	0.2	ug/g	296		98	89-115			
Lead	177	0.2	ug/g	166		107	85-115			
Manganese	256	0.4	ug/g	253		101	88-114			
Mercury	2.88	0.05	ug/g	2.88		100	65-144			
Molybdenum	5.2	0.1	ug/g	4.57		113	83-126			
Nickel	31.0	0.4	ug/g	31.6		98	90-112			
Selenium	1.3	0.5	ug/g	1.02		128	64-157			
Silver	1.08	0.2	ug/g	1.17		92	60-111			
Thallium	0.4	0.1	ug/g	0.450		90	79-102			
Tin	20.5	0.2	ug/g	19.1		107	74-123			
Uranium	1.5	0.1	ug/g	1.64		92	75-106			
Vanadium	72.8	0.4	ug/g	74.4		98	83-124			
Zinc	334	2.0	ug/g	337		99	86-118			
Reference (B1L0245-SRM2)				Prepared: Dec-19-11, Analyzed: Dec-20-11						
Antimony	9.5	0.1	ug/g	7.30		130	62-158			
Arsenic	23.8	0.4	ug/g	23.2		103	83-112			
Barium	303	1.0	ug/g	294		103	61-128			
Beryllium	0.5	0.1	ug/g	0.410		110	57-141			
Boron	42.2	2.0	ug/g	38.0		111	57-139			
Cadmium	2.27	0.04	ug/g	1.98		114	76-128			
Chromium	47.2	1.0	ug/g	48.0		98	88-118			
Cobalt	8.0	0.1	ug/g	8.75		91	87-113			
Copper	292	0.2	ug/g	296		99	89-115			
Lead	174	0.2	ug/g	166		105	85-115			
Manganese	258	0.4	ug/g	253		102	88-114			
Mercury	2.95	0.05	ug/g	2.88		102	65-144			
Molybdenum	5.1	0.1	ug/g	4.57		112	83-126			
Nickel	30.6	0.4	ug/g	31.6		97	90-112			
Selenium	1.3	0.5	ug/g	1.02		127	64-157			
Silver	1.07	0.2	ug/g	1.17		92	60-111			
Thallium	0.4	0.1	ug/g	0.450		89	79-102			
Tin	20.0	0.2	ug/g	19.1		105	74-123			
Uranium	1.5	0.1	ug/g	1.64		92	75-106			
Vanadium	73.5	0.4	ug/g	74.4		99	83-124			
Zinc	341	2.0	ug/g	337		101	86-118			
Strong Acid Leachable Metals, Batch B2A0519										
Blank (B2A0519-BLK1)				Prepared: Jan-30-12, Analyzed: Jan-31-12						
Antimony	< 0.1	0.1	ug/g							
Arsenic	< 0.4	0.4	ug/g							
Barium	< 1.0	1.0	ug/g							
Beryllium	< 0.1	0.1	ug/g							
Boron	< 2.0	2.0	ug/g							
Cadmium	< 0.04	0.04	ug/g							
Chromium	< 1.0	1.0	ug/g							
Cobalt	< 0.1	0.1	ug/g							
Copper	< 0.2	0.2	ug/g							
Lead	< 0.2	0.2	ug/g							
Manganese	< 0.4	0.4	ug/g							
Mercury	< 0.05	0.05	ug/g							
Molybdenum	< 0.1	0.1	ug/g							
Nickel	< 0.4	0.4	ug/g							

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Feb-06-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Strong Acid Leachable Metals, Batch B2A0519, Continued										
Blank (B2A0519-BLK1), Continued				Prepared: Jan-30-12, Analyzed: Jan-31-12						
Selenium	< 0.5	0.5	ug/g							
Silver	< 0.2	0.2	ug/g							
Thallium	< 0.1	0.1	ug/g							
Tin	< 0.2	0.2	ug/g							
Uranium	< 0.1	0.1	ug/g							
Vanadium	< 0.4	0.4	ug/g							
Zinc	< 2.0	2.0	ug/g							
Duplicate (B2A0519-DUP1)				**Source: CL10289-10RE1**	Prepared: Jan-30-12, Analyzed: Jan-31-12					
Antimony	0.2	0.1	ug/g		< 0.1				40	
Arsenic	0.9	0.4	ug/g		0.9				30	
Barium	13.8	1.0	ug/g		16.0			15	30	
Beryllium	< 0.1	0.1	ug/g		< 0.1				40	
Boron	3.9	2.0	ug/g		4.0				30	
Cadmium	0.10	0.04	ug/g		0.10				30	
Chromium	5.0	1.0	ug/g		4.0				30	
Cobalt	1.6	0.1	ug/g		1.2			26	30	RPD
Copper	133	0.2	ug/g		243			58	30	RPD
Lead	18.0	0.2	ug/g		7.6			81	40	RPD
Manganese	91.1	0.4	ug/g		74.8			20	30	
Mercury	0.18	0.05	ug/g		0.08				40	
Molybdenum	0.4	0.1	ug/g		0.2				40	
Nickel	3.4	0.4	ug/g		2.8			18	30	
Selenium	< 0.5	0.5	ug/g		< 0.5				30	
Silver	< 0.2	0.2	ug/g		< 0.2				40	
Thallium	< 0.1	0.1	ug/g		< 0.1				30	
Tin	0.6	0.2	ug/g		0.8				40	
Uranium	0.3	0.1	ug/g		0.2				30	
Vanadium	10.3	0.4	ug/g		8.7			17	30	
Zinc	27.6	2.0	ug/g		22.5			20	30	
Reference (B2A0519-SRM1)				Prepared: Jan-30-12, Analyzed: Jan-31-12						
Antimony	10.5	0.1	ug/g	7.30		144	62-158			
Arsenic	24.6	0.4	ug/g	23.2		106	83-112			
Barium	243	1.0	ug/g	294		83	61-128			
Beryllium	0.5	0.1	ug/g	0.410		114	57-141			
Boron	45.5	2.0	ug/g	38.0		120	57-139			
Cadmium	2.25	0.04	ug/g	1.98		114	76-128			
Chromium	52.5	1.0	ug/g	48.0		109	88-118			
Cobalt	8.9	0.1	ug/g	8.75		102	87-113			
Copper	295	0.2	ug/g	296		100	89-115			
Lead	182	0.2	ug/g	166		110	85-115			
Manganese	278	0.4	ug/g	253		110	88-114			
Mercury	3.87	0.05	ug/g	2.88		134	65-144			
Molybdenum	5.5	0.1	ug/g	4.57		121	83-126			
Nickel	29.4	0.4	ug/g	31.6		93	90-112			
Selenium	1.4	0.5	ug/g	1.02		140	64-157			
Silver	1.03	0.2	ug/g	1.17		88	60-111			
Thallium	0.4	0.1	ug/g	0.450		99	79-102			
Tin	21.0	0.2	ug/g	19.1		110	74-123			
Uranium	1.6	0.1	ug/g	1.64		100	75-106			
Vanadium	81.6	0.4	ug/g	74.4		110	83-124			
Zinc	367	2.0	ug/g	337		109	86-118			

QC Qualifiers:

RPD Relative percent difference (RPD) of duplicate analysis are outside of control limits. Data accepted based on acceptable performance of other batch QC.

CERTIFICATE OF ANALYSIS

CLIENT **Stantec Consulting Ltd. (Burnaby)**
500 - 4370 Dominion Street
Burnaby BC TEL 778 32801041
V5G 4L7 FAX N/A

ATTENTION **Tyler Joyce**

RECEIVED / TEMP	Dec-14-11 14:00 / 6.0 °C	**WORK ORDER**	CL10289
REPORTED	Jan-06-12	**PROJECT**	Porpoise Bay
		PROJECT INFO	9506130-DFO, 123110279-Stantec

General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done 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 document. This analytical report must be reproduced in its entirity. 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.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  mg/L = milligrams per litre, equivalent to parts per million (ppm)
  ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  ug/g = micrograms per gram, equivalent to parts per million (ppm)
  ug/m3 = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

CARO Analytical Services

Final Review Per: **Paul Thandi, B.Sc., PChem For Patrick Novak, B.Sc., PChem**
Business Manager, Richmond

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CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
General Parameters						
PS06130-001-1112-SE001 (CL10289-01) Matrix: Soil Sampled: Dec-12-11						
Moisture	**20.3**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.2**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-002-1112-SE001 (CL10289-02) Matrix: Soil Sampled: Dec-12-11						
Moisture	**25.6**	0.1	%	Dec-19-11	Dec-21-11	
pH	**8.1**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-003-1112-SE001 (CL10289-03) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**1.5**	0.05	%	Dec-19-11	Dec-21-11	
Moisture	**43.9**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.7**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-004-1112-SE001 (CL10289-04) Matrix: Soil Sampled: Dec-12-11						
Moisture	**24.9**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.6**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-005-1112-SE001 (CL10289-05) Matrix: Soil Sampled: Dec-12-11						
Moisture	**27.1**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.6**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-006-1112-SE001 (CL10289-06) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**0.46**	0.05	%	Dec-19-11	Dec-21-11	
Moisture	**24.8**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.8**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-007-1112-SE001 (CL10289-07) Matrix: Soil Sampled: Dec-12-11						
Moisture	**25.3**	0.1	%	Dec-19-11	Dec-21-11	
pH	**8.1**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-008-1112-SE001 (CL10289-08) Matrix: Soil Sampled: Dec-12-11						
Moisture	**26.2**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.9**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-009-1112-SE001 (CL10289-09) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**2.0**	0.05	%	Dec-19-11	Dec-21-11	
Moisture	**36.7**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.7**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-010-1112-SE001 (CL10289-10) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**3.1**	0.05	%	Dec-19-11	Dec-21-11	
Moisture	**21.5**	0.1	%	Dec-19-11	Dec-21-11	
pH	**8.6**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-010-1112-SE901 (CL10289-11) Matrix: Soil Sampled: Dec-12-11						
Moisture	**25.4**	0.1	%	Dec-19-11	Dec-21-11	
pH	**8.5**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-011-1112-SE001 (CL10289-12) Matrix: Soil Sampled: Dec-12-11						
Moisture	**68.8**	0.1	%	Dec-19-11	Dec-21-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
General Parameters, Continued						
PS06130-011-1112-SE001 (CL10289-12) Matrix: Soil Sampled: Dec-12-11, Continued						
pH	**7.2**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-012-1112-SE001 (CL10289-13) Matrix: Soil Sampled: Dec-12-11						
Moisture	**22.1**	0.1	%	Dec-19-11	Dec-21-11	
pH	**8.5**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**4.3**	0.05	%	Dec-19-11	Dec-21-11	
Moisture	**36.7**	0.1	%	Dec-19-11	Dec-21-11	
pH	**8.6**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-014-1112-SE001 (CL10289-15) Matrix: Soil Sampled: Dec-12-11						
Moisture	**43.3**	0.1	%	Dec-19-11	Dec-21-11	
pH	**8.6**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-015-1112-SE001 (CL10289-16) Matrix: Soil Sampled: Dec-12-11						
Moisture	**21.1**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.5**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-016-1112-SE001 (CL10289-17) Matrix: Soil Sampled: Dec-12-11						
Moisture	**25.3**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.7**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-017-1112-SE001 (CL10289-18) Matrix: Soil Sampled: Dec-12-11						
Moisture	**43.5**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.3**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-017-1112-SE901 (CL10289-19) Matrix: Soil Sampled: Dec-12-11						
Moisture	**49.6**	0.1	%	Dec-19-11	Dec-21-11	
pH	**7.3**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-018-1112-SE001 (CL10289-20) Matrix: Soil Sampled: Dec-12-11						
Moisture	**70.5**	0.1	%	Dec-19-11	Dec-21-11	
pH	**6.7**	0.1	pH units	Dec-20-11	Dec-21-11	
Particle Size Distribution Analysis						
PS06130-004-1112-SE001 (CL10289-04) Matrix: Soil Sampled: Dec-12-11						
Sand	**96**	2	%	Dec-22-11	Jan-03-12	
Silt	**2**	2	%	Dec-22-11	Jan-03-12	
Clay	**2**	2	%	Dec-22-11	Jan-03-12	
Texture	**Sand**			Dec-22-11	Jan-03-12	
> 75 um	**92.2**	0.1	%	Dec-23-11	Dec-29-11	
Classification	**Coarse**			Dec-23-11	Dec-29-11	
PS06130-011-1112-SE001 (CL10289-12) Matrix: Soil Sampled: Dec-12-11						
Sand	**94**	2	%	Dec-22-11	Jan-03-12	
Silt	**4**	2	%	Dec-22-11	Jan-03-12	
Clay	< 2	2	%	Dec-22-11	Jan-03-12	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Particle Size Distribution Analysis, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-011-1112-SE001 (CL10289-12) Matrix: Soil Sampled: Dec-12-11, Continued						
Texture	**Sand**			Dec-22-11	Jan-03-12	
> 75 um	**82.4**	0.1	%	Dec-23-11	Dec-29-11	
Classification	**Coarse**			Dec-23-11	Dec-29-11	

Strong Acid Leachable Metals

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-001-1112-SE001 (CL10289-01) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**11.2**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**3.7**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**1.02**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**3.2**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**3.4**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**0.8**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**51.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**4.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**9.9**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-002-1112-SE001 (CL10289-02) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**2.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**13.0**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**6.5**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.81**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.3**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**30.7**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**6.2**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**56.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.8**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	**0.1**	0.1	ug/g	Dec-19-11	Dec-20-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-002-1112-SE001 (CL10289-02) Matrix: Soil Sampled: Dec-12-11, Continued						
Tin	**0.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.3**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**6.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**43.4**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-003-1112-SE001 (CL10289-03) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**4.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**16.3**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**23.3**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**1.72**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**7.3**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**76.3**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**9.2**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**65.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.06**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**4.0**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**3.8**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**2.5**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**1.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**9.5**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**45.6**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-004-1112-SE001 (CL10289-04) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**15.9**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**9.7**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**1.86**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**3.9**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**12.3**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**16.1**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**58.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**1.6**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.5**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	**0.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**1.3**	0.2	ug/g	Dec-19-11	Dec-20-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-004-1112-SE001 (CL10289-04) Matrix: Soil Sampled: Dec-12-11, Continued						
Uranium	**0.8**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**5.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**24.9**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-005-1112-SE001 (CL10289-05) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**2.0**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**9.3**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**5.3**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**1.08**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**3.0**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**0.9**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**4.0**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**1.1**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**47.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.6**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**1.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	**0.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**4.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**11.7**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-006-1112-SE001 (CL10289-06) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**8.7**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**4.1**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.16**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**2.9**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**0.9**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**2.0**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**0.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**48.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.3**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**1.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-006-1112-SE001 (CL10289-06) Matrix: Soil Sampled: Dec-12-11, Continued						
Vanadium	**4.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**8.0**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-007-1112-SE001 (CL10289-07) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**0.8**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**7.9**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**2.7**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.04**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**3.4**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**1.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**1.2**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**58.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**1.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**5.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**8.8**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-008-1112-SE001 (CL10289-08) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.0**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**10.8**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**5.6**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.20**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.6**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.6**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**8.6**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**1.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**78.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.07**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.4**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.5**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**7.1**	0.4	ug/g	Dec-19-11	Dec-20-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-008-1112-SE001 (CL10289-08) Matrix: Soil Sampled: Dec-12-11, Continued						
Zinc	**14.5**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-009-1112-SE001 (CL10289-09) Matrix: Soil Sampled: Dec-12-11						
Antimony	**25.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**3.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**13.4**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**19.8**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**1.75**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**7.7**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**17.4**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**11.4**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**61.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.10**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**2.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**3.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	**0.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**1.0**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**1.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**8.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**35.3**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-010-1112-SE001 (CL10289-10) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.4**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**24.4**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**4.1**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.09**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.2**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**109**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**3.5**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**70.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.23**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.7**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**8.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**18.7**	2.0	ug/g	Dec-19-11	Dec-20-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-010-1112-SE901 (CL10289-11) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**3.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**30.0**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**5.1**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.09**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.4**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**390**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**88.0**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**67.5**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.47**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**3.5**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**3.2**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**6.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**37.4**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-011-1112-SE001 (CL10289-12) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.3**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**8.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**18.6**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**79.9**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**1.79**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**12.6**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**2.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**50.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**13.3**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**84.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.11**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**7.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**7.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	**1.5**	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	**0.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**2.1**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**4.6**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**19.4**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**52.7**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-012-1112-SE001 (CL10289-13) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-012-1112-SE001 (CL10289-13) Matrix: Soil Sampled: Dec-12-11, Continued						
Arsenic	**1.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**12.9**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**4.8**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.10**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**6.3**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.9**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**7.3**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**1.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**90.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**13.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**17.8**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**59.6**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**14.8**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.21**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**3.5**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.1**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**335**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**12.3**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**43.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.09**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**1.3**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**6.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**1.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.6**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**5.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**98.4**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-014-1112-SE001 (CL10289-15) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**0.8**	0.4	ug/g	Dec-19-11	Dec-20-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-014-1112-SE001 (CL10289-15) Matrix: Soil Sampled: Dec-12-11, Continued						
Barium	**35.2**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**4.2**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.05**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**3.8**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.7**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**132**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**58.5**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**78.8**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**2.0**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**3.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.4**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**7.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**27.7**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-015-1112-SE001 (CL10289-16) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.1**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**10.5**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**6.5**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.14**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.9**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.9**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**6.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**2.6**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**88.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.2**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**9.8**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**16.0**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-016-1112-SE001 (CL10289-17) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**1.5**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**11.4**	1.0	ug/g	Dec-19-11	Dec-20-11	

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Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-016-1112-SE001 (CL10289-17) Matrix: Soil Sampled: Dec-12-11, Continued						
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**6.9**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.36**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.1**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**5.7**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**1.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**67.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.7**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.4**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.2**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.7**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**8.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**14.2**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-017-1112-SE001 (CL10289-18) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**2.5**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**20.9**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**29.5**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.14**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**5.6**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.9**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**12.3**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**4.8**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**213**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.5**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**3.2**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.4**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.8**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**10.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**30.4**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-017-1112-SE901 (CL10289-19) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**2.6**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**20.4**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	

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Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-017-1112-SE901 (CL10289-19) Matrix: Soil Sampled: Dec-12-11, Continued						
Boron	**19.8**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.12**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**4.7**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**1.7**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**10.9**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**4.2**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**205**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	< 0.05	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**2.8**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	< 0.5	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.8**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**0.6**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**9.9**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**26.6**	2.0	ug/g	Dec-19-11	Dec-20-11	
PS06130-018-1112-SE001 (CL10289-20) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Arsenic	**4.3**	0.4	ug/g	Dec-19-11	Dec-20-11	
Barium	**32.3**	1.0	ug/g	Dec-19-11	Dec-20-11	
Beryllium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Boron	**47.7**	2.0	ug/g	Dec-19-11	Dec-20-11	
Cadmium	**0.32**	0.04	ug/g	Dec-19-11	Dec-20-11	
Chromium	**9.3**	1.0	ug/g	Dec-19-11	Dec-20-11	
Cobalt	**2.2**	0.1	ug/g	Dec-19-11	Dec-20-11	
Copper	**24.5**	0.2	ug/g	Dec-19-11	Dec-20-11	
Lead	**10.3**	0.2	ug/g	Dec-19-11	Dec-20-11	
Manganese	**108**	0.4	ug/g	Dec-19-11	Dec-20-11	
Mercury	**0.10**	0.05	ug/g	Dec-19-11	Dec-20-11	
Molybdenum	**2.4**	0.1	ug/g	Dec-19-11	Dec-20-11	
Nickel	**6.8**	0.4	ug/g	Dec-19-11	Dec-20-11	
Selenium	**0.7**	0.5	ug/g	Dec-19-11	Dec-20-11	
Silver	< 0.2	0.2	ug/g	Dec-19-11	Dec-20-11	
Thallium	< 0.1	0.1	ug/g	Dec-19-11	Dec-20-11	
Tin	**0.6**	0.2	ug/g	Dec-19-11	Dec-20-11	
Uranium	**2.8**	0.1	ug/g	Dec-19-11	Dec-20-11	
Vanadium	**16.7**	0.4	ug/g	Dec-19-11	Dec-20-11	
Zinc	**42.6**	2.0	ug/g	Dec-19-11	Dec-20-11	

Acid Volatile Sulfides and Simultaneously Extracted Metals

PS06130-003-1112-SE001 (CL10289-03) Matrix: Soil Sampled: Dec-12-11						
Acid Volatile Sulfide	**5.7**	0.20	umol/g	Dec-16-11	Dec-30-11	
Antimony - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Arsenic - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	

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Acid Volatile Sulfides and Simultaneously Extracted Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-003-1112-SE001 (CL10289-03) Matrix: Soil Sampled: Dec-12-11, Continued						
Cadmium - SEM	**0.01**		umol/g	Dec-16-11	Dec-30-11	
Chromium - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Copper - SEM	**0.05**		umol/g	Dec-16-11	Dec-30-11	
Lead - SEM	**0.04**		umol/g	Dec-16-11	Dec-30-11	
Nickel - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Silver - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Zinc - SEM	**0.43**		umol/g	Dec-16-11	Dec-30-11	
PS06130-006-1112-SE001 (CL10289-06) Matrix: Soil Sampled: Dec-12-11						
Acid Volatile Sulfide	**0.48**	0.20	umol/g	Dec-16-11	Dec-30-11	
Antimony - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Arsenic - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Cadmium - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Chromium - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Copper - SEM	**0.01**		umol/g	Dec-16-11	Dec-30-11	
Lead - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Nickel - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Silver - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Zinc - SEM	**0.03**		umol/g	Dec-16-11	Dec-30-11	
PS06130-009-1112-SE001 (CL10289-09) Matrix: Soil Sampled: Dec-12-11						
Acid Volatile Sulfide	**5.8**	0.20	umol/g	Dec-16-11	Dec-30-11	
Antimony - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Arsenic - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Cadmium - SEM	**0.01**		umol/g	Dec-16-11	Dec-30-11	
Chromium - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Copper - SEM	**0.02**		umol/g	Dec-16-11	Dec-30-11	
Lead - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Nickel - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Silver - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Zinc - SEM	**0.25**		umol/g	Dec-16-11	Dec-30-11	
PS06130-010-1112-SE001 (CL10289-10) Matrix: Soil Sampled: Dec-12-11						
Acid Volatile Sulfide	**1.9**	0.20	umol/g	Dec-16-11	Dec-30-11	
Antimony - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Arsenic - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Cadmium - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Chromium - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Copper - SEM	**0.68**		umol/g	Dec-16-11	Dec-30-11	
Lead - SEM	**0.15**		umol/g	Dec-16-11	Dec-30-11	
Nickel - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Silver - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	
Zinc - SEM	**0.63**		umol/g	Dec-16-11	Dec-30-11	
PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11						
Acid Volatile Sulfide	**1.9**	0.20	umol/g	Dec-16-11	Dec-30-11	
Antimony - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11	

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Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Acid Volatile Sulfides and Simultaneously Extracted Metals, Continued

PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11, Continued

Arsenic - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11
Cadmium - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11
Chromium - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11
Copper - SEM	**0.50**		umol/g	Dec-16-11	Dec-30-11
Lead - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11
Nickel - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11
Silver - SEM	**0.0**		umol/g	Dec-16-11	Dec-30-11
Zinc - SEM	**0.48**		umol/g	Dec-16-11	Dec-30-11

Aggregate Organic Parameters

PS06130-001-1112-SE001 (CL10289-01) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-002-1112-SE001 (CL10289-02) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-003-1112-SE001 (CL10289-03) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-004-1112-SE001 (CL10289-04) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-005-1112-SE001 (CL10289-05) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-006-1112-SE001 (CL10289-06) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

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Aggregate Organic Parameters, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-007-1112-SE001 (CL10289-07) Matrix: Soil Sampled: Dec-12-11						
EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
LEPHs	< 250	250	mg/kg dry	N/A	N/A	
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
HEPHs	< 250	250	mg/kg dry	N/A	N/A	
PS06130-008-1112-SE001 (CL10289-08) Matrix: Soil Sampled: Dec-12-11						
EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
LEPHs	< 250	250	mg/kg dry	N/A	N/A	
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
HEPHs	< 250	250	mg/kg dry	N/A	N/A	
PS06130-009-1112-SE001 (CL10289-09) Matrix: Soil Sampled: Dec-12-11						
EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
LEPHs	< 250	250	mg/kg dry	N/A	N/A	
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
HEPHs	< 250	250	mg/kg dry	N/A	N/A	
PS06130-010-1112-SE001 (CL10289-10) Matrix: Soil Sampled: Dec-12-11						
EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
LEPHs	< 250	250	mg/kg dry	N/A	N/A	
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
HEPHs	< 250	250	mg/kg dry	N/A	N/A	
PS06130-010-1112-SE901 (CL10289-11) Matrix: Soil Sampled: Dec-12-11						
EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
LEPHs	< 250	250	mg/kg dry	N/A	N/A	
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
HEPHs	< 250	250	mg/kg dry	N/A	N/A	
PS06130-011-1112-SE001 (CL10289-12) Matrix: Soil Sampled: Dec-12-11						
EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
LEPHs	< 250	250	mg/kg dry	N/A	N/A	
EPHs (19-32)	**334**	250	mg/kg dry	Dec-19-11	Dec-21-11	
HEPHs	**331**	250	mg/kg dry	N/A	N/A	
PS06130-012-1112-SE001 (CL10289-13) Matrix: Soil Sampled: Dec-12-11						
EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
LEPHs	< 250	250	mg/kg dry	N/A	N/A	
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
HEPHs	< 250	250	mg/kg dry	N/A	N/A	
PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11						
EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
LEPHs	< 250	250	mg/kg dry	N/A	N/A	
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11	
HEPHs	< 250	250	mg/kg dry	N/A	N/A	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
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Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Aggregate Organic Parameters, Continued

PS06130-014-1112-SE001 (CL10289-15) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-015-1112-SE001 (CL10289-16) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-016-1112-SE001 (CL10289-17) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-017-1112-SE001 (CL10289-18) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	< 250	250	mg/kg dry	N/A	N/A

PS06130-017-1112-SE901 (CL10289-19) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	**380**	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	**379**	250	mg/kg dry	N/A	N/A

PS06130-018-1112-SE001 (CL10289-20) Matrix: Soil Sampled: Dec-12-11

EPHs (10-19)	< 250	250	mg/kg dry	Dec-19-11	Dec-21-11
LEPHs	< 250	250	mg/kg dry	N/A	N/A
EPHs (19-32)	**588**	250	mg/kg dry	Dec-19-11	Dec-21-11
HEPHs	**586**	250	mg/kg dry	N/A	N/A

Organotins

PS06130-003-1112-SE001 (CL10289-03) Matrix: Soil Sampled: Dec-12-11

Tributyl Tin	< 0.001	0.001	mg/kg	Dec-23-11	Dec-30-11

PS06130-006-1112-SE001 (CL10289-06) Matrix: Soil Sampled: Dec-12-11

Tributyl Tin	< 0.001	0.001	mg/kg	Dec-23-11	Dec-30-11

PS06130-009-1112-SE001 (CL10289-09) Matrix: Soil Sampled: Dec-12-11

Tributyl Tin	< 0.001	0.001	mg/kg	Dec-23-11	Dec-30-11

PS06130-010-1112-SE001 (CL10289-10) Matrix: Soil Sampled: Dec-12-11

Tributyl Tin	< 0.001	0.001	mg/kg	Dec-23-11	Dec-30-11

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Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Organotins, Continued

PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11

Tributyl Tin	< 0.001	0.001	mg/kg	Dec-23-11	Dec-30-11	

Polycyclic Aromatic Hydrocarbons

PS06130-001-1112-SE001 (CL10289-01) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0691**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0504**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0273**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0877**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0730**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0601**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*112 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*110 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*92 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	

PS06130-002-1112-SE001 (CL10289-02) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0205**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0205**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0869**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0697**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0412**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0657**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.122**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0487**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.107**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.118**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*109 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Polycyclic Aromatic Hydrocarbons, Continued

PS06130-002-1112-SE001 (CL10289-02) Matrix: Soil Sampled: Dec-12-11, Continued

Surrogate: Acenaphthene-d10	*108 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*90 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*81 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	

PS06130-003-1112-SE001 (CL10289-03) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0285**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0428**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.179**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.143**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0827**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.170**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.255**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.374**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0874**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.141**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.357**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*108 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*106 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*89 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*85 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	

PS06130-004-1112-SE001 (CL10289-04) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0145**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0221**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0805**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0503**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0340**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0618**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0966**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0801**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0388**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0370**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0898**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	

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Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-004-1112-SE001 (CL10289-04) Matrix: Soil Sampled: Dec-12-11, Continued						
Surrogate: Naphthalene-d8	*112 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*112 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*93 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*89 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*87 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-005-1112-SE001 (CL10289-05) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0585**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0542**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0174**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0277**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0335**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0260**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*107 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*107 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*89 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*84 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-006-1112-SE001 (CL10289-06) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0401**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0149**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0205**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
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Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-006-1112-SE001 (CL10289-06) Matrix: Soil Sampled: Dec-12-11, Continued						
Pyrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*95 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*94 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*78 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*77 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*76 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-007-1112-SE001 (CL10289-07) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0339**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0156**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*102 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*100 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*82 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-008-1112-SE001 (CL10289-08) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0112**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0481**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0462**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0267**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0466**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0551**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0864**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0303**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Polycyclic Aromatic Hydrocarbons, Continued

PS06130-008-1112-SE001 (CL10289-08) Matrix: Soil Sampled: Dec-12-11, Continued

Phenanthrene	**0.0414**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Pyrene	**0.0637**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Surrogate: Naphthalene-d8	*104 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Acenaphthene-d10	*106 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Phenanthrene-d10	*85 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Chrysene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Perylene-d12	*85 %*	*60-130*		*Dec-20-11*	*Dec-22-11*

PS06130-009-1112-SE001 (CL10289-09) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthylene	**0.0327**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Anthracene	**0.0510**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) anthracene	**0.291**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) pyrene	**0.276**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (b) fluoranthene	**0.293**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (g,h,i) perylene	**0.122**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (k) fluoranthene	**0.470**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Chrysene	**0.625**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Dibenz (a,h) anthracene	**0.0740**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Fluoranthene	**0.885**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Indeno (1,2,3-cd) pyrene	**0.129**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11
Phenanthrene	**0.137**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Pyrene	**0.845**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Surrogate: Naphthalene-d8	*106 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Acenaphthene-d10	*105 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Phenanthrene-d10	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Chrysene-d12	*85 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Perylene-d12	*89 %*	*60-130*		*Dec-20-11*	*Dec-22-11*

PS06130-010-1112-SE001 (CL10289-10) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthene	**0.0189**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthylene	**0.0166**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Anthracene	**0.0575**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) anthracene	**0.170**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) pyrene	**0.130**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (b) fluoranthene	**0.208**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (g,h,i) perylene	**0.0789**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (k) fluoranthene	**0.149**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Chrysene	**0.387**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Dibenz (a,h) anthracene	**0.0465**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Fluoranthene	**0.304**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Indeno (1,2,3-cd) pyrene	**0.0861**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
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Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-010-1112-SE001 (CL10289-10) Matrix: Soil Sampled: Dec-12-11, Continued						
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.116**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.291**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*105 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*106 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*87 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*84 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*94 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-010-1112-SE901 (CL10289-11) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	**0.347**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0973**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.403**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**2.76**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**1.60**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**2.14**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.571**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**1.46**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**3.60**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	**0.216**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**8.50**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	**0.248**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.544**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**1.86**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**3.57**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*109 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*110 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*90 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*87 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*92 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-011-1112-SE001 (CL10289-12) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	**0.0536**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0563**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.142**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.540**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.380**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.364**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.213**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.350**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.747**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	**0.127**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.758**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
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Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-011-1112-SE001 (CL10289-12) Matrix: Soil Sampled: Dec-12-11, Continued						
Indeno (1,2,3-cd) pyrene	**0.207**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.405**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.834**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*109 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*109 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*90 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*85 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*79 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-012-1112-SE001 (CL10289-13) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0108**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0481**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0393**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0250**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0311**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0388**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0521**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0340**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0343**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0389**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*116 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*118 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*96 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*96 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	**0.0377**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0329**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0889**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.451**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.382**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.601**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.162**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.326**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.802**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	**0.0909**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**1.29**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-013-1112-SE001 (CL10289-14) Matrix: Soil Sampled: Dec-12-11, Continued						
Fluorene	**0.0359**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.181**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.254**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.713**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*106 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*107 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*89 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-014-1112-SE001 (CL10289-15) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0996**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0740**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0487**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0653**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0977**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0951**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0586**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0506**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0695**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*113 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*113 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*91 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*87 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-015-1112-SE001 (CL10289-16) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0138**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0520**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0542**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0361**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0368**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0740**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
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Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Polycyclic Aromatic Hydrocarbons, Continued

PS06130-015-1112-SE001 (CL10289-16) Matrix: Soil Sampled: Dec-12-11, Continued

Fluoranthene	**0.107**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Indeno (1,2,3-cd) pyrene	**0.0355**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11
Phenanthrene	**0.0617**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Pyrene	**0.0929**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Surrogate: Naphthalene-d8	*109 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Acenaphthene-d10	*112 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Phenanthrene-d10	*91 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Chrysene-d12	*84 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Perylene-d12	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*

PS06130-016-1112-SE001 (CL10289-17) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) anthracene	**0.0470**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) pyrene	**0.0581**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Chrysene	**0.0196**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Fluoranthene	**0.0385**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Pyrene	**0.0259**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Surrogate: Naphthalene-d8	*110 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Acenaphthene-d10	*110 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Phenanthrene-d10	*89 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Chrysene-d12	*85 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Perylene-d12	*82 %*	*60-130*		*Dec-20-11*	*Dec-22-11*

PS06130-017-1112-SE001 (CL10289-18) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthylene	**0.0343**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Anthracene	**0.0912**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) anthracene	**0.444**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) pyrene	**0.366**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (b) fluoranthene	**0.393**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (g,h,i) perylene	**0.156**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (k) fluoranthene	**0.498**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Chrysene	**0.575**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11

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Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-017-1112-SE001 (CL10289-18) Matrix: Soil Sampled: Dec-12-11, Continued						
Dibenz (a,h) anthracene	**0.0937**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**1.68**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.172**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.279**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**1.12**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*105 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*106 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*87 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*90 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-017-1112-SE901 (CL10289-19) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0181**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.124**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0858**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0677**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0707**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0711**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.191**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0690**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.142**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*102 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*104 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*84 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*91 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-018-1112-SE001 (CL10289-20) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0457**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0599**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.212**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.115**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.381**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.175**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.156**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	

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Polycyclic Aromatic Hydrocarbons, Continued

PS06130-018-1112-SE001 (CL10289-20) Matrix: Soil Sampled: Dec-12-11, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
Chrysene	**0.411**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.720**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.158**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.177**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.462**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*103 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*105 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	

ANALYSIS / REPORT INFORMATION

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
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Analysis Description	**Method Reference(s)** (* = modified from)		**LAB**
	Preparation	**Analysis**	
AVS + SEM	N/A	General Method	SUB
EPH in Soil	EPA 3570 *	BCMOE	RMD
L/HEPH in Soil/Sediment	N/A	[CALC]	RMD
Total Organic Carbon - Soil	N/A	EPA 9060	KEL
Dry Weight (moisture)	N/A	ASTM D2216	RMD
pH in Soil (1:2 Soil/Water)	N/A	APHA 4500-H+	RMD
Organotins by GC/HRMS	N/A	In-House	SUB
Particle Size - 75um Sieve	N/A	Carter 55.4 *	RMD
Particle Size (Hydrometer)	N/A	Carter 55.3	RMD
PAH in Soil (Low level)	EPA 5035	EPA 8270D	RMD
Strong Acid Leachable Metals	SALM V.2 (BCMOE)	EPA 6020A	RMD

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The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control 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 for.

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	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Aggregate Organic Parameters, Batch B1L0241										
Blank (B1L0241-BLK1)				Prepared: Dec-19-11, Analyzed: Dec-20-11						
EPHs (10-19)	< 250	250	mg/kg wet							
EPHs (19-32)	< 250	250	mg/kg wet							
Duplicate (B1L0241-DUP1)	**Source: CL10289-01**			Prepared: Dec-19-11, Analyzed: Dec-20-11						
EPHs (10-19)	< 250	250	mg/kg dry		< 250				40	
EPHs (19-32)	< 250	250	mg/kg dry		< 250				40	
Reference (B1L0241-SRM2)				Prepared: Dec-19-11, Analyzed: Dec-20-11						
EPHs (10-19)	2600	250	mg/kg wet	3020		86	62-132			
EPHs (19-32)	3620	250	mg/kg wet	4330		84	65-133			
General Parameters, Batch B1L0240										
Duplicate (B1L0240-DUP1)	**Source: CL10289-01**			Prepared: Dec-19-11, Analyzed: Dec-21-11						
Moisture	20.1	0.1	%		20.3			1.0	40	
Duplicate (B1L0240-DUP2)	**Source: CL10289-02**			Prepared: Dec-19-11, Analyzed: Dec-21-11						
Moisture	24.1	0.1	%		25.6			6.0	40	
General Parameters, Batch B1L0267										
Duplicate (B1L0267-DUP1)	**Source: CL10289-02**			Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	8.2	0.1	pH units		8.1			< 1	5	
Duplicate (B1L0267-DUP2)	**Source: CL10289-10**			Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	8.6	0.1	pH units		8.6			< 1	5	
Duplicate (B1L0267-DUP3)	**Source: CL10289-18**			Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	7.5	0.1	pH units		7.3			3	5	
Reference (B1L0267-SRM1)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.4	0.1	pH units	6.10		105	90-115			
Reference (B1L0267-SRM2)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.5	0.1	pH units	6.10		107	90-115			
Reference (B1L0267-SRM3)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.5	0.1	pH units	6.10		106	90-115			

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
General Parameters, Batch B1L0267, Continued										
Reference (B1L0267-SRM4)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.3	0.1	pH units	6.10		104	90-115			
General Parameters, Batch K105574										
Blank (K105574-BLK1)				Prepared: Dec-19-11, Analyzed: Dec-21-11						
Carbon, Total Organic	< 0.05	0.05	%							
Duplicate (K105574-DUP1)			**Source: CL10289-03**	Prepared: Dec-19-11, Analyzed: Dec-21-11						
Carbon, Total Organic	1.73	0.05	%		1.50			14	28	
Reference (K105574-SRM1)				Prepared: Dec-19-11, Analyzed: Dec-21-11						
Carbon, Total Organic	1.81	0.05	%	1.33		136	70-140			
Particle Size Distribution Analysis, Batch B1L0304										
Duplicate (B1L0304-DUP1)			**Source: CL10289-04**	Prepared: Dec-22-11, Analyzed: Jan-03-12						
Sand	90	2	%		96			6	20	
Silt	7	2	%		2				20	
Clay	3	2	%		2				20	
Particle Size Distribution Analysis, Batch B1L0314										
Duplicate (B1L0314-DUP1)			**Source: CL10289-04**	Prepared: Dec-23-11, Analyzed: Dec-29-11						
> 75 um	92.0	0.1	%		92.2			< 1	20	
Reference (B1L0314-SRM1)				Prepared: Dec-23-11, Analyzed: Dec-29-11						
> 75 um	75.1	0.1	%	74.8		100	91-108.7			
Polycyclic Aromatic Hydrocarbons, Batch B1L0247										
Blank (B1L0247-BLK1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	< 0.010	0.010	mg/kg wet							
Acenaphthene	< 0.005	0.005	mg/kg wet							
Acenaphthylene	< 0.005	0.005	mg/kg wet							
Anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) pyrene	< 0.010	0.010	mg/kg wet							
Benzo (b) fluoranthene	< 0.010	0.010	mg/kg wet							
Benzo (g,h,i) perylene	< 0.010	0.010	mg/kg wet							
Benzo (k) fluoranthene	< 0.010	0.010	mg/kg wet							
Chrysene	< 0.010	0.010	mg/kg wet							
Dibenz (a,h) anthracene	< 0.005	0.005	mg/kg wet							
Fluoranthene	< 0.010	0.010	mg/kg wet							
Fluorene	< 0.010	0.010	mg/kg wet							
Indeno (1,2,3-cd) pyrene	< 0.010	0.010	mg/kg wet							
Naphthalene	< 0.015	0.015	mg/kg wet							
Phenanthrene	< 0.020	0.020	mg/kg wet							
Pyrene	< 0.020	0.020	mg/kg wet							
Surrogate: Naphthalene-d8	*2.24*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.16*		*mg/kg wet*	*2.00*		*108*	*50-130*			
Surrogate: Phenanthrene-d10	*1.89*		*mg/kg wet*	*2.00*		*94*	*60-130*			
Surrogate: Chrysene-d12	*1.77*		*mg/kg wet*	*2.00*		*89*	*60-130*			
Surrogate: Perylene-d12	*1.81*		*mg/kg wet*	*2.00*		*91*	*60-130*			
Blank (B1L0247-BLK2)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	< 0.010	0.010	mg/kg wet							
Acenaphthene	< 0.005	0.005	mg/kg wet							
Acenaphthylene	< 0.005	0.005	mg/kg wet							
Anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) pyrene	< 0.010	0.010	mg/kg wet							
Benzo (b) fluoranthene	< 0.010	0.010	mg/kg wet							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Polycyclic Aromatic Hydrocarbons, Batch B1L0247, Continued										
Blank (B1L0247-BLK2), Continued				Prepared: Dec-20-11, Analyzed: Dec-22-11						
Benzo (g,h,i) perylene	< 0.010	0.010	mg/kg wet							
Benzo (k) fluoranthene	< 0.010	0.010	mg/kg wet							
Chrysene	< 0.010	0.010	mg/kg wet							
Dibenz (a,h) anthracene	< 0.005	0.005	mg/kg wet							
Fluoranthene	< 0.010	0.010	mg/kg wet							
Fluorene	< 0.010	0.010	mg/kg wet							
Indeno (1,2,3-cd) pyrene	< 0.010	0.010	mg/kg wet							
Naphthalene	< 0.015	0.015	mg/kg wet							
Phenanthrene	< 0.020	0.020	mg/kg wet							
Pyrene	< 0.020	0.020	mg/kg wet							
Surrogate: Naphthalene-d8	*2.24*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.25*		*mg/kg wet*	*2.00*		*113*	*50-130*			
Surrogate: Phenanthrene-d10	*1.80*		*mg/kg wet*	*2.00*		*90*	*60-130*			
Surrogate: Chrysene-d12	*1.68*		*mg/kg wet*	*2.00*		*84*	*60-130*			
Surrogate: Perylene-d12	*1.87*		*mg/kg wet*	*2.00*		*93*	*60-130*			
LCS (B1L0247-BS1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	2	0.010	mg/kg wet	2.00		83	50-130			
Acenaphthene	2	0.005	mg/kg wet	2.00		113	53-127			
Acenaphthylene	2	0.005	mg/kg wet	2.00		111	52-122			
Anthracene	2	0.010	mg/kg wet	2.00		101	60-122			
Benzo (a) anthracene	2	0.010	mg/kg wet	2.00		111	60-116			
Benzo (a) pyrene	2	0.010	mg/kg wet	2.00		104	60-124			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	2.00		108	60-123			
Benzo (g,h,i) perylene	2	0.010	mg/kg wet	2.00		105	60-125			
Benzo (k) fluoranthene	2	0.010	mg/kg wet	2.00		93	60-128			
Chrysene	2	0.010	mg/kg wet	2.00		105	60-130			
Dibenz (a,h) anthracene	2	0.005	mg/kg wet	2.00		107	60-130			
Fluoranthene	2	0.010	mg/kg wet	2.00		105	60-123			
Fluorene	2	0.010	mg/kg wet	2.00		99	51-124			
Indeno (1,2,3-cd) pyrene	2	0.010	mg/kg wet	2.00		90	60-124			
Naphthalene	2	0.015	mg/kg wet	2.00		109	51-130			
Phenanthrene	2	0.020	mg/kg wet	2.00		110	60-125			
Pyrene	2	0.020	mg/kg wet	2.00		103	60-124			
Surrogate: Naphthalene-d8	*2.25*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.20*		*mg/kg wet*	*2.00*		*110*	*50-130*			
Surrogate: Phenanthrene-d10	*1.87*		*mg/kg wet*	*2.00*		*94*	*60-130*			
Surrogate: Chrysene-d12	*1.84*		*mg/kg wet*	*2.00*		*92*	*60-130*			
Surrogate: Perylene-d12	*1.82*		*mg/kg wet*	*2.00*		*91*	*60-130*			
LCS (B1L0247-BS2)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	2	0.010	mg/kg wet	2.00		78	50-130			
Acenaphthene	2	0.005	mg/kg wet	2.00		113	53-127			
Acenaphthylene	2	0.005	mg/kg wet	2.00		105	52-122			
Anthracene	2	0.010	mg/kg wet	2.00		98	60-122			
Benzo (a) anthracene	2	0.010	mg/kg wet	2.00		88	60-116			
Benzo (a) pyrene	2	0.010	mg/kg wet	2.00		98	60-124			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	2.00		92	60-123			
Benzo (g,h,i) perylene	2	0.010	mg/kg wet	2.00		98	60-125			
Benzo (k) fluoranthene	2	0.010	mg/kg wet	2.00		92	60-128			
Chrysene	2	0.010	mg/kg wet	2.00		107	60-130			
Dibenz (a,h) anthracene	2	0.005	mg/kg wet	2.00		96	60-130			
Fluoranthene	2	0.010	mg/kg wet	2.00		100	60-123			
Fluorene	2	0.010	mg/kg wet	2.00		90	51-124			
Indeno (1,2,3-cd) pyrene	1	0.010	mg/kg wet	2.00		72	60-124			
Naphthalene	2	0.015	mg/kg wet	2.00		105	51-130			
Phenanthrene	2	0.020	mg/kg wet	2.00		102	60-125			
Pyrene	2	0.020	mg/kg wet	2.00		100	60-124			
Surrogate: Naphthalene-d8	*2.18*		*mg/kg wet*	*2.00*		*109*	*50-130*			
Surrogate: Acenaphthene-d10	*2.19*		*mg/kg wet*	*2.00*		*109*	*50-130*			
Surrogate: Phenanthrene-d10	*1.74*		*mg/kg wet*	*2.00*		*87*	*60-130*			
Surrogate: Chrysene-d12	*1.70*		*mg/kg wet*	*2.00*		*85*	*60-130*			
Surrogate: Perylene-d12	*1.65*		*mg/kg wet*	*2.00*		*82*	*60-130*			

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Polycyclic Aromatic Hydrocarbons, Batch B1L0247, Continued										
Duplicate (B1L0247-DUP1)		**Source: CL10289-08**		Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	< 0.010	0.010	mg/kg dry		< 0.010				50	
Acenaphthene	< 0.005	0.005	mg/kg dry		< 0.005				50	
Acenaphthylene	< 0.005	0.005	mg/kg dry		0.011				50	
Anthracene	< 0.010	0.010	mg/kg dry		< 0.010				50	
Benzo (a) anthracene	0.048	0.010	mg/kg dry		0.048				50	
Benzo (a) pyrene	< 0.010	0.010	mg/kg dry		< 0.010				50	
Benzo (b) fluoranthene	0.040	0.010	mg/kg dry		0.046				50	
Benzo (g,h,i) perylene	0.027	0.010	mg/kg dry		0.027				50	
Benzo (k) fluoranthene	0.036	0.010	mg/kg dry		0.047				50	
Chrysene	0.041	0.010	mg/kg dry		0.055				50	
Dibenz (a,h) anthracene	< 0.005	0.005	mg/kg dry		< 0.005				50	
Fluoranthene	0.056	0.010	mg/kg dry		0.086			43	50	
Fluorene	< 0.010	0.010	mg/kg dry		< 0.010				50	
Indeno (1,2,3-cd) pyrene	0.029	0.010	mg/kg dry		0.030				50	
Naphthalene	< 0.015	0.015	mg/kg dry		< 0.015				50	
Phenanthrene	0.029	0.020	mg/kg dry		0.041				50	
Pyrene	0.040	0.020	mg/kg dry		0.064				50	
Surrogate: Naphthalene-d8	*1.82*		*mg/kg dry*	*1.66*		*110*	*50-130*			
Surrogate: Acenaphthene-d10	*1.79*		*mg/kg dry*	*1.66*		*108*	*50-130*			
Surrogate: Phenanthrene-d10	*1.48*		*mg/kg dry*	*1.66*		*89*	*60-130*			
Surrogate: Chrysene-d12	*1.43*		*mg/kg dry*	*1.66*		*86*	*60-130*			
Surrogate: Perylene-d12	*1.48*		*mg/kg dry*	*1.66*		*89*	*60-130*			
Duplicate (B1L0247-DUP2)		**Source: CL10289-20**		Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	< 0.010	0.010	mg/kg dry		< 0.010				50	
Acenaphthene	< 0.005	0.005	mg/kg dry		< 0.005				50	
Acenaphthylene	< 0.005	0.005	mg/kg dry		0.046				50	
Anthracene	0.036	0.010	mg/kg dry		0.060				50	
Benzo (a) anthracene	0.207	0.010	mg/kg dry		0.212			2	50	
Benzo (a) pyrene	0.121	0.010	mg/kg dry		0.115			5	50	
Benzo (b) fluoranthene	0.277	0.010	mg/kg dry		0.381			32	50	
Benzo (g,h,i) perylene	0.143	0.010	mg/kg dry		0.175			20	50	
Benzo (k) fluoranthene	0.209	0.010	mg/kg dry		0.156			29	50	
Chrysene	0.357	0.010	mg/kg dry		0.411			14	50	
Dibenz (a,h) anthracene	< 0.005	0.005	mg/kg dry		< 0.005				50	
Fluoranthene	0.385	0.010	mg/kg dry		0.720			60	50	
Fluorene	< 0.010	0.010	mg/kg dry		< 0.010				50	
Indeno (1,2,3-cd) pyrene	0.142	0.010	mg/kg dry		0.158			11	50	
Naphthalene	< 0.015	0.015	mg/kg dry		< 0.015				50	
Phenanthrene	0.119	0.020	mg/kg dry		0.177			39	50	
Pyrene	0.308	0.020	mg/kg dry		0.462			40	50	
Surrogate: Naphthalene-d8	*6.19*		*mg/kg dry*	*5.97*		*104*	*50-130*			
Surrogate: Acenaphthene-d10	*6.24*		*mg/kg dry*	*5.97*		*105*	*50-130*			
Surrogate: Phenanthrene-d10	*5.17*		*mg/kg dry*	*5.97*		*87*	*60-130*			
Surrogate: Chrysene-d12	*5.13*		*mg/kg dry*	*5.97*		*86*	*60-130*			
Surrogate: Perylene-d12	*5.60*		*mg/kg dry*	*5.97*		*94*	*60-130*			
Reference (B1L0247-SRM1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	1	0.010	mg/kg wet	1.38		89	70-130			
Acenaphthene	0.2	0.005	mg/kg wet	0.130		129	60-140			
Anthracene	0.2	0.010	mg/kg wet	0.310		76	70-130			
Benzo (a) anthracene	4	0.010	mg/kg wet	3.51		109	70-130			
Benzo (a) pyrene	0.4	0.010	mg/kg wet	0.291		121	70-130			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	1.40		114	70-130			
Benzo (g,h,i) perylene	5	0.010	mg/kg wet	4.99		103	70-130			
Benzo (k) fluoranthene	4	0.010	mg/kg wet	3.68		98	70-130			
Chrysene	7	0.010	mg/kg wet	7.62		93	70-130			
Dibenz (a,h) anthracene	6	0.005	mg/kg wet	4.80		116	70-130			
Fluoranthene	4	0.010	mg/kg wet	3.87		100	70-130			
Fluorene	5	0.010	mg/kg wet	5.67		93	70-130			
Indeno (1,2,3-cd) pyrene	2	0.010	mg/kg wet	2.22		90	70-130			
Naphthalene	1	0.015	mg/kg wet	1.20		123	60-140			
Phenanthrene	2	0.020	mg/kg wet	1.90		112	70-130			
Pyrene	0.7	0.020	mg/kg wet	0.670		102	70-130			

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes

Polycyclic Aromatic Hydrocarbons, Batch B1L0247, Continued

Reference (B1L0247-SRM1), Continued — Prepared: Dec-20-11, Analyzed: Dec-22-11

Surrogate: Naphthalene-d8	*2.87*		*mg/kg wet*	*2.58*		*111*	*50-130*			
Surrogate: Acenaphthene-d10	*2.83*		*mg/kg wet*	*2.58*		*110*	*50-130*			
Surrogate: Phenanthrene-d10	*2.41*		*mg/kg wet*	*2.58*		*94*	*60-130*			
Surrogate: Chrysene-d12	*2.34*		*mg/kg wet*	*2.58*		*91*	*60-130*			
Surrogate: Perylene-d12	*2.24*		*mg/kg wet*	*2.58*		*87*	*60-130*			

Reference (B1L0247-SRM2) — Prepared: Dec-20-11, Analyzed: Dec-22-11

2-Methylnaphthalene	2	0.010	mg/kg wet	1.38		114	70-130			
Acenaphthene	0.2	0.005	mg/kg wet	0.130		131	60-140			
Anthracene	0.4	0.010	mg/kg wet	0.310		118	70-130			
Benzo (a) anthracene	4	0.010	mg/kg wet	3.51		115	70-130			
Benzo (a) pyrene	0.3	0.010	mg/kg wet	0.291		99	70-130			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	1.40		124	70-130			
Benzo (g,h,i) perylene	6	0.010	mg/kg wet	4.99		128	70-130			
Benzo (k) fluoranthene	4	0.010	mg/kg wet	3.68		116	70-130			
Chrysene	9	0.010	mg/kg wet	7.62		121	70-130			
Dibenz (a,h) anthracene	6	0.005	mg/kg wet	4.80		126	70-130			
Fluoranthene	5	0.010	mg/kg wet	3.87		119	70-130			
Fluorene	7	0.010	mg/kg wet	5.67		122	70-130			
Indeno (1,2,3-cd) pyrene	3	0.010	mg/kg wet	2.22		129	70-130			
Naphthalene	2	0.015	mg/kg wet	1.20		137	60-140			
Phenanthrene	2	0.020	mg/kg wet	1.90		128	70-130			
Pyrene	0.8	0.020	mg/kg wet	0.670		121	70-130			
Surrogate: Naphthalene-d8	*3.34*		*mg/kg wet*	*2.93*		*114*	*50-130*			
Surrogate: Acenaphthene-d10	*3.37*		*mg/kg wet*	*2.93*		*115*	*50-130*			
Surrogate: Phenanthrene-d10	*2.76*		*mg/kg wet*	*2.93*		*94*	*60-130*			
Surrogate: Chrysene-d12	*2.84*		*mg/kg wet*	*2.93*		*97*	*60-130*			
Surrogate: Perylene-d12	*2.95*		*mg/kg wet*	*2.93*		*101*	*60-130*			

Strong Acid Leachable Metals, Batch B1L0245

Blank (B1L0245-BLK1) — Prepared: Dec-19-11, Analyzed: Dec-20-11

Antimony	< 0.1	0.1	ug/g							
Arsenic	< 0.4	0.4	ug/g							
Barium	< 1.0	1.0	ug/g							
Beryllium	< 0.1	0.1	ug/g							
Boron	< 2.0	2.0	ug/g							
Cadmium	< 0.04	0.04	ug/g							
Chromium	< 1.0	1.0	ug/g							
Cobalt	< 0.1	0.1	ug/g							
Copper	< 0.2	0.2	ug/g							
Lead	< 0.2	0.2	ug/g							
Manganese	< 0.4	0.4	ug/g							
Mercury	< 0.05	0.05	ug/g							
Molybdenum	< 0.1	0.1	ug/g							
Nickel	< 0.4	0.4	ug/g							
Selenium	< 0.5	0.5	ug/g							
Silver	< 0.2	0.2	ug/g							
Thallium	< 0.1	0.1	ug/g							
Tin	< 0.2	0.2	ug/g							
Uranium	< 0.1	0.1	ug/g							
Vanadium	< 0.4	0.4	ug/g							
Zinc	< 2.0	2.0	ug/g							

Blank (B1L0245-BLK2) — Prepared: Dec-19-11, Analyzed: Dec-20-11

Antimony	< 0.1	0.1	ug/g							
Arsenic	< 0.4	0.4	ug/g							
Barium	< 1.0	1.0	ug/g							
Beryllium	< 0.1	0.1	ug/g							
Boron	< 2.0	2.0	ug/g							
Cadmium	< 0.04	0.04	ug/g							
Chromium	< 1.0	1.0	ug/g							
Cobalt	< 0.1	0.1	ug/g							
Copper	< 0.2	0.2	ug/g							

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Strong Acid Leachable Metals, Batch B1L0245, Continued										
Blank (B1L0245-BLK2), Continued				Prepared: Dec-19-11, Analyzed: Dec-20-11						
Lead	< 0.2	0.2	ug/g							
Manganese	< 0.4	0.4	ug/g							
Mercury	< 0.05	0.05	ug/g							
Molybdenum	< 0.1	0.1	ug/g							
Nickel	< 0.4	0.4	ug/g							
Selenium	< 0.5	0.5	ug/g							
Silver	< 0.2	0.2	ug/g							
Thallium	< 0.1	0.1	ug/g							
Tin	< 0.2	0.2	ug/g							
Uranium	< 0.1	0.1	ug/g							
Vanadium	< 0.4	0.4	ug/g							
Zinc	< 2.0	2.0	ug/g							
Duplicate (B1L0245-DUP1)				**Source: CL10289-02** Prepared: Dec-19-11, Analyzed: Dec-20-11						
Antimony	0.1	0.1	ug/g		0.1				40	
Arsenic	2.6	0.4	ug/g		2.6			< 1	30	
Barium	14.4	1.0	ug/g		13.0			10	30	
Beryllium	< 0.1	0.1	ug/g		< 0.1				40	
Boron	6.9	2.0	ug/g		6.5				30	
Cadmium	0.86	0.04	ug/g		0.81			5	30	
Chromium	4.5	1.0	ug/g		4.3				30	
Cobalt	1.3	0.1	ug/g		1.2			5	30	
Copper	35.8	0.2	ug/g		30.7			15	30	
Lead	10.9	0.2	ug/g		6.2			55	40	RPD
Manganese	59.4	0.4	ug/g		56.1			6	30	
Mercury	< 0.05	0.05	ug/g		< 0.05				40	
Molybdenum	0.8	0.1	ug/g		0.8			5	40	
Nickel	2.8	0.4	ug/g		2.7			4	30	
Selenium	< 0.5	0.5	ug/g		< 0.5				30	
Silver	< 0.2	0.2	ug/g		< 0.2				40	
Thallium	0.1	0.1	ug/g		0.1				30	
Tin	1.2	0.2	ug/g		0.9				40	
Uranium	0.4	0.1	ug/g		0.3				30	
Vanadium	6.1	0.4	ug/g		6.2			< 1	30	
Zinc	39.1	2.0	ug/g		43.4			11	30	
Duplicate (B1L0245-DUP2)				**Source: CL10289-12** Prepared: Dec-19-11, Analyzed: Dec-20-11						
Antimony	0.2	0.1	ug/g		0.3				40	
Arsenic	5.9	0.4	ug/g		8.7			39	30	RPD
Barium	17.7	1.0	ug/g		18.6			5	30	
Beryllium	< 0.1	0.1	ug/g		< 0.1				40	
Boron	50.5	2.0	ug/g		79.9			45	30	RPD
Cadmium	1.41	0.04	ug/g		1.79			24	30	
Chromium	10.4	1.0	ug/g		12.6			19	30	
Cobalt	1.8	0.1	ug/g		2.1			14	30	
Copper	37.5	0.2	ug/g		50.9			30	30	
Lead	10.1	0.2	ug/g		13.3			28	40	
Manganese	77.8	0.4	ug/g		84.7			9	30	
Mercury	0.10	0.05	ug/g		0.11				40	
Molybdenum	4.4	0.1	ug/g		7.2			49	40	RPD
Nickel	5.8	0.4	ug/g		7.3			23	30	
Selenium	1.0	0.5	ug/g		1.5				30	
Silver	< 0.2	0.2	ug/g		< 0.2				40	
Thallium	0.1	0.1	ug/g		0.1				30	
Tin	1.4	0.2	ug/g		2.1			40	40	
Uranium	3.0	0.1	ug/g		4.6			42	30	RPD
Vanadium	15.7	0.4	ug/g		19.4			21	30	
Zinc	43.8	2.0	ug/g		52.7			18	30	
Reference (B1L0245-SRM1)				Prepared: Dec-19-11, Analyzed: Dec-20-11						
Antimony	8.9	0.1	ug/g	7.30		122	62-158			
Arsenic	23.0	0.4	ug/g	23.2		99	83-112			
Barium	326	1.0	ug/g	294		111	61-128			
Beryllium	0.3	0.1	ug/g	0.410		72	57-141			
Boron	45.3	2.0	ug/g	38.0		119	57-139			

CARO ANALYTICAL SERVICES

CLIENT Stantec Consulting Ltd. (Burnaby) **WORK ORDER #** CL10289
PROJECT Porpoise Bay **REPORTED** Jan-06-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Strong Acid Leachable Metals, Batch B1L0245, Continued										
Reference (B1L0245-SRM1), Continued				Prepared: Dec-19-11, Analyzed: Dec-20-11						
Cadmium	2.27	0.04	ug/g	1.98		115	76-128			
Chromium	46.3	1.0	ug/g	48.0		96	88-118			
Cobalt	7.9	0.1	ug/g	8.75		90	87-113			
Copper	289	0.2	ug/g	296		98	89-115			
Lead	177	0.2	ug/g	166		107	85-115			
Manganese	256	0.4	ug/g	253		101	88-114			
Mercury	2.88	0.05	ug/g	2.88		100	65-144			
Molybdenum	5.2	0.1	ug/g	4.57		113	83-126			
Nickel	31.0	0.4	ug/g	31.6		98	90-112			
Selenium	1.3	0.5	ug/g	1.02		128	64-157			
Silver	1.08	0.2	ug/g	1.17		92	60-111			
Thallium	0.4	0.1	ug/g	0.450		90	79-102			
Tin	20.5	0.2	ug/g	19.1		107	74-123			
Uranium	1.5	0.1	ug/g	1.64		92	75-106			
Vanadium	72.8	0.4	ug/g	74.4		98	83-124			
Zinc	334	2.0	ug/g	337		99	86-118			
Reference (B1L0245-SRM2)				Prepared: Dec-19-11, Analyzed: Dec-20-11						
Antimony	9.5	0.1	ug/g	7.30		130	62-158			
Arsenic	23.8	0.4	ug/g	23.2		103	83-112			
Barium	303	1.0	ug/g	294		103	61-128			
Beryllium	0.5	0.1	ug/g	0.410		110	57-141			
Boron	42.2	2.0	ug/g	38.0		111	57-139			
Cadmium	2.27	0.04	ug/g	1.98		114	76-128			
Chromium	47.2	1.0	ug/g	48.0		98	88-118			
Cobalt	8.0	0.1	ug/g	8.75		91	87-113			
Copper	292	0.2	ug/g	296		99	89-115			
Lead	174	0.2	ug/g	166		105	85-115			
Manganese	258	0.4	ug/g	253		102	88-114			
Mercury	2.95	0.05	ug/g	2.88		102	65-144			
Molybdenum	5.1	0.1	ug/g	4.57		112	83-126			
Nickel	30.6	0.4	ug/g	31.6		97	90-112			
Selenium	1.3	0.5	ug/g	1.02		127	64-157			
Silver	1.07	0.2	ug/g	1.17		92	60-111			
Thallium	0.4	0.1	ug/g	0.450		89	79-102			
Tin	20.0	0.2	ug/g	19.1		105	74-123			
Uranium	1.5	0.1	ug/g	1.64		92	75-106			
Vanadium	73.5	0.4	ug/g	74.4		99	83-124			
Zinc	341	2.0	ug/g	337		101	86-118			

QC Qualifiers:

RPD Relative percent difference (RPD) of duplicate analysis are outside of control limits. Data accepted based on acceptable performance of other batch QC.

QUALITY CONTROL DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10289
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

CERTIFICATE OF ANALYSIS

CLIENT	**Stantec Consulting Ltd. (Burnaby)**		
	500 - 4370 Dominion Street		
	Burnaby BC	TEL	778 32801041
	V5G 4L7	FAX	N/A
ATTENTION	**Tyler Joyce**		

RECEIVED / TEMP	Dec-14-11 16:00 / 4.0 °C	**WORK ORDER**	CL10293
REPORTED	Jan-03-12	**PROJECT**	Porpoise Bay
COC #(s)	40837.5581	**PROJECT INFO**	9506130-DFO, 123110279-Stantec

General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done 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 document. This analytical report must be reproduced in its entirity. 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.

- All solids results are reported on a dry weight basis unless otherwise noted

- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  mg/L = milligrams per litre, equivalent to parts per million (ppm)
  ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  ug/g = micrograms per gram, equivalent to parts per million (ppm)
  ug/m3 = micrograms per cubic meter of air

- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

CARO Analytical Services

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SAMPLE DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
General Parameters						
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**2.6**	0.05	%	Dec-19-11	Dec-21-11	
Moisture	**40.4**	0.1	%	Dec-16-11	Dec-19-11	
pH	**7.0**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-001-1112-SO 007 (CL10293-02) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**6.9**	0.05	%	Dec-19-11	Dec-21-11	
PS06130-001-1112-SO 008 (CL10293-03) Matrix: Soil Sampled: Dec-12-11						
pH	**7.3**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
Moisture	**7.1**	0.1	%	Dec-16-11	Dec-19-11	
pH	**6.8**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
Moisture	**20.2**	0.1	%	Dec-16-11	Dec-19-11	
pH	**7.3**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
Moisture	**13.4**	0.1	%	Dec-16-11	Dec-19-11	
pH	**5.8**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
Moisture	**10.5**	0.1	%	Dec-16-11	Dec-19-11	
pH	**6.9**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11						
Moisture	**15.8**	0.1	%	Dec-16-11	Dec-19-11	
pH	**6.9**	0.1	pH units	Dec-20-11	Dec-21-11	
Strong Acid Leachable Metals						
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**2.6**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**15.6**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**34.2**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**0.45**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**6.5**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**2.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**12.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**12.5**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**105**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	**0.06**	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**5.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**3.5**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	< 0.5	0.5	ug/g	Dec-20-11	Dec-21-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11, Continued						
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**2.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**1.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**15.4**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**38.1**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-001-1112-SO 008 (CL10293-03) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**2.7**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**17.1**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	**0.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**6.0**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**0.42**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**6.8**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**2.3**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**9.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**4.6**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**103**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**1.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**3.6**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	**0.5**	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**0.3**	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**1.0**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**18.1**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**37.6**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**1.9**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**51.4**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	< 2.0	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**0.55**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**6.5**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**4.0**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**26.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**2.6**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**193**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**0.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**5.2**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	< 0.5	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11, Continued						
Thallium	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**0.3**	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**0.6**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**29.0**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**22.4**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**3.4**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**18.3**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**6.0**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**1.09**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**7.4**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**1.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**7.7**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**6.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**103**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**2.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**3.3**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	< 0.5	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**1.1**	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**1.7**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**14.7**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**25.4**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**2.3**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**13.3**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	< 2.0	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**0.11**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**3.8**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**1.4**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**4.7**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**1.6**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**81.7**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**1.6**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**2.3**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	< 0.5	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11, Continued						
Tin	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**1.6**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**11.0**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**11.6**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**2.8**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**60.4**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	**0.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**11.9**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**1.12**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**7.6**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**3.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**16.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**2.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**174**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**0.8**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**4.8**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	**0.8**	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**4.5**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**21.6**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**96.4**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**3.2**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**60.2**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**10.6**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**1.52**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**8.9**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**2.7**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**17.6**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**2.1**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**142**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**1.5**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**4.6**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	**0.7**	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**0.2**	0.2	ug/g	Dec-20-11	Dec-21-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Strong Acid Leachable Metals, Continued

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11, Continued

Uranium	**1.2**	0.1	ug/g	Dec-20-11	Dec-21-11
Vanadium	**21.8**	0.4	ug/g	Dec-20-11	Dec-21-11
Zinc	**110**	2.0	ug/g	Dec-20-11	Dec-21-11

Aggregate Organic Parameters

PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	**43**	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	**42.3**	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	**250**	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	< 20.0	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	**25**	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	**24.6**	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	**33**	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	**32.6**	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	< 20.0	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	< 20.0	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

CCME CWS Petroleum Hydrocarbons

PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11

CCME PHC F1 (C6-C10)	**22**	20	mg/kg dry	Dec-16-11	Dec-24-11
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
CCME CWS Petroleum Hydrocarbons, Continued						
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11, Continued						
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
Polycyclic Aromatic Hydrocarbons						
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0343**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0556**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.255**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.266**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.299**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.152**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.164**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.282**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	**0.0725**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.782**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	**0.0413**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11, Continued						
Indeno (1,2,3-cd) pyrene	**0.138**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.154**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.581**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*102 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*105 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0161**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0564**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0104**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0342**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0287**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0252**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0316**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0350**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0352**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0252**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0397**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*104 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*107 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0144**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0606**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0370**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0298**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0224**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0269**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0567**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11, Continued						
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0409**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0459**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*102 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*103 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*80 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0332**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0129**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*105 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*107 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*87 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*84 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*85 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Polycyclic Aromatic Hydrocarbons, Continued

PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11, Continued

Fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Pyrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Surrogate: Naphthalene-d8	*103 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Acenaphthene-d10	*108 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Phenanthrene-d10	*89 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Chrysene-d12	*78 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Perylene-d12	*81 %*	*60-130*		*Dec-20-11*	*Dec-22-11*

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) pyrene	**0.0343**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Chrysene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Fluoranthene	**0.0126**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Pyrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Surrogate: Naphthalene-d8	*99 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Acenaphthene-d10	*102 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Phenanthrene-d10	*81 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Chrysene-d12	*78 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Perylene-d12	*79 %*	*60-130*		*Dec-20-11*	*Dec-22-11*

Volatile Organic Compounds

PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11

Benzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11
Ethylbenzene	< 0.08	0.08	mg/kg dry	Dec-16-11	Dec-24-11
Methyl tert-butyl ether	< 0.08	0.08	mg/kg dry	Dec-16-11	Dec-24-11
Toluene	< 0.34	0.34	mg/kg dry	Dec-16-11	Dec-24-11
Xylenes (total)	< 0.17	0.17	mg/kg dry	Dec-16-11	Dec-24-11
Surrogate: Toluene-d8	*99 %*	*74-118*		*Dec-16-11*	*Dec-24-11*
Surrogate: 4-Bromofluorobenzene	*104 %*	*84-115*		*Dec-16-11*	*Dec-24-11*
Surrogate: 1,4-Dichlorobenzene-d4	*103 %*	*82-114*		*Dec-16-11*	*Dec-24-11*

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Volatile Organic Compounds, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
Benzene	< 0.03	0.03	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.20	0.20	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.10	0.10	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*97 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*96 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*92 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
Benzene	< 0.04	0.04	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.06	0.06	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.06	0.06	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.25	0.25	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.13	0.13	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*101 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*97 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*93 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
Benzene	< 0.03	0.03	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.20	0.20	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.10	0.10	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*111 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*89 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*76 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	*S02*
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
Benzene	< 0.03	0.03	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.20	0.20	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.10	0.10	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*97 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*93 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*87 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	
PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11						
Benzene	< 0.03	0.03	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.20	0.20	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.10	0.10	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*101 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*99 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Volatile Organic Compounds, Continued

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11, Continued

Surrogate: 1,4-Dichlorobenzene-d4	*95 %*	*82-114*		*Dec-16-11*	*Dec-24-11*

Sample Qualifiers:

S02 Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

ANALYSIS / REPORT INFORMATION

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analysis Description	**Method Reference(s)** (* = modified from)		**LAB**
	Preparation	**Analysis**	
BTEX/VH/VPH in Soil	N/A	BCMOE	RMD
EPH in Soil	EPA 3570 *	BCMOE	RMD
VH in Soil	EPA 5035	BCMOE	RMD
CCME PHC F1 in Soil	EPA 5035	CCME CWS PHC	RMD
CCME PHC F2-F4 in Soil	EPA 3570 *	CCME CWS PHC	RMD
Total Organic Carbon - Soil	N/A	EPA 9060	KEL
Dry Weight (moisture)	N/A	ASTM D2216	RMD
pH in Soil (1:2 Soil/Water)	N/A	APHA 4500-H+	RMD
PAH in Soil (Low level)	EPA 5035	EPA 8270D	RMD
Strong Acid Leachable Metals	SALM V.2 (BCMOE)	EPA 6020A	RMD
BTEX in Soil	EPA 5035	EPA 8260B	RMD

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The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control 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 for.

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	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Aggregate Organic Parameters, Batch B1L0217										
Blank (B1L0217-BLK1)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
VHs (6-10)	< 20	20	mg/kg dry							
Duplicate (B1L0217-DUP1)		**Source: CL10293-01**		Prepared: Dec-16-11, Analyzed: Dec-24-11						
VHs (6-10)	44	20	mg/kg dry		43				30	
Aggregate Organic Parameters, Batch B1L0220										
Blank (B1L0220-BLK1)				Prepared: Dec-16-11, Analyzed: Dec-17-11						
EPHs (10-19)	< 250	250	mg/kg wet							
EPHs (19-32)	< 250	250	mg/kg wet							
Duplicate (B1L0220-DUP1)		**Source: CL10293-01**		Prepared: Dec-16-11, Analyzed: Dec-17-11						
EPHs (10-19)	< 250	250	mg/kg dry		< 250				40	
EPHs (19-32)	295	250	mg/kg dry		250				40	
Reference (B1L0220-SRM2)				Prepared: Dec-16-11, Analyzed: Dec-17-11						
EPHs (10-19)	3390	250	mg/kg wet	3020		112	62-132			
EPHs (19-32)	4670	250	mg/kg wet	4330		108	65-133			
CCME CWS Petroleum Hydrocarbons, Batch B1L0217										
Blank (B1L0217-BLK1)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry							
LCS (B1L0217-BS2)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
CCME PHC F1 (C6-C10)	302	20	mg/kg dry	311		97	70-115			
Duplicate (B1L0217-DUP1)		**Source: CL10293-01**		Prepared: Dec-16-11, Analyzed: Dec-24-11						
CCME PHC F1 (C6-C10)	23	20	mg/kg dry		22				30	
CCME CWS Petroleum Hydrocarbons, Batch B1L0283										
Blank (B1L0283-BLK1)				Prepared: Dec-21-11, Analyzed: Dec-23-11						
CCME PHC F2 (C10-C16)	< 100	100	mg/kg wet							
CCME PHC F3 (C16-C34)	< 200	200	mg/kg wet							
CCME PHC F4 (C34-C50)	< 200	200	mg/kg wet							
LCS (B1L0283-BS1)				Prepared: Dec-21-11, Analyzed: Dec-23-11						
CCME PHC F2 (C10-C16)	74	10	mg/kg wet	105		71	58-116			
CCME PHC F3 (C16-C34)	180	20	mg/kg wet	302		60	60-116			
CCME PHC F4 (C34-C50)	< 20	20	mg/kg wet	150			70-117			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
CCME CWS Petroleum Hydrocarbons, Batch B1L0283, Continued										
Duplicate (B1L0283-DUP1)		**Source: CL10293-05**		Prepared: Dec-21-11, Analyzed: Dec-23-11						
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry		< 100				40	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry		< 200				40	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry		< 200				40	
Reference (B1L0283-SRM1)				Prepared: Dec-21-11, Analyzed: Dec-23-11						
CCME PHC F2 (C10-C16)	206	10	mg/kg wet	150		137	60-140			
CCME PHC F3 (C16-C34)	533	20	mg/kg wet	385		139	60-140			
CCME PHC F4 (C34-C50)	< 20	20	mg/kg wet	7.00			60-140			
General Parameters, Batch B1L0267										
Reference (B1L0267-SRM1)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.4	0.1	pH units	6.10		105	90-115			
Reference (B1L0267-SRM2)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.5	0.1	pH units	6.10		107	90-115			
Reference (B1L0267-SRM3)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.5	0.1	pH units	6.10		106	90-115			
Reference (B1L0267-SRM4)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.3	0.1	pH units	6.10		104	90-115			
General Parameters, Batch K105574										
Blank (K105574-BLK1)				Prepared: Dec-19-11, Analyzed: Dec-21-11						
Carbon, Total Organic	< 0.05	0.05	%							
Reference (K105574-SRM1)				Prepared: Dec-19-11, Analyzed: Dec-21-11						
Carbon, Total Organic	1.81	0.05	%	1.33		136	70-140			
Polycyclic Aromatic Hydrocarbons, Batch B1L0247										
Blank (B1L0247-BLK1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	< 0.010	0.010	mg/kg wet							
Acenaphthene	< 0.005	0.005	mg/kg wet							
Acenaphthylene	< 0.005	0.005	mg/kg wet							
Anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) pyrene	< 0.010	0.010	mg/kg wet							
Benzo (b) fluoranthene	< 0.010	0.010	mg/kg wet							
Benzo (g,h,i) perylene	< 0.010	0.010	mg/kg wet							
Benzo (k) fluoranthene	< 0.010	0.010	mg/kg wet							
Chrysene	< 0.010	0.010	mg/kg wet							
Dibenz (a,h) anthracene	< 0.005	0.005	mg/kg wet							
Fluoranthene	< 0.010	0.010	mg/kg wet							
Fluorene	< 0.010	0.010	mg/kg wet							
Indeno (1,2,3-cd) pyrene	< 0.010	0.010	mg/kg wet							
Naphthalene	< 0.015	0.015	mg/kg wet							
Phenanthrene	< 0.020	0.020	mg/kg wet							
Pyrene	< 0.020	0.020	mg/kg wet							
Surrogate: Naphthalene-d8	*2.24*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.16*		*mg/kg wet*	*2.00*		*108*	*50-130*			
Surrogate: Phenanthrene-d10	*1.89*		*mg/kg wet*	*2.00*		*94*	*60-130*			
Surrogate: Chrysene-d12	*1.77*		*mg/kg wet*	*2.00*		*89*	*60-130*			
Surrogate: Perylene-d12	*1.81*		*mg/kg wet*	*2.00*		*91*	*60-130*			
Blank (B1L0247-BLK2)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	< 0.010	0.010	mg/kg wet							
Acenaphthene	< 0.005	0.005	mg/kg wet							
Acenaphthylene	< 0.005	0.005	mg/kg wet							
Anthracene	< 0.010	0.010	mg/kg wet							

CARO ANALYTICAL SERVICES

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Polycyclic Aromatic Hydrocarbons, Batch B1L0247, Continued										
Blank (B1L0247-BLK2), Continued				Prepared: Dec-20-11, Analyzed: Dec-22-11						
Benzo (a) anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) pyrene	< 0.010	0.010	mg/kg wet							
Benzo (b) fluoranthene	< 0.010	0.010	mg/kg wet							
Benzo (g,h,i) perylene	< 0.010	0.010	mg/kg wet							
Benzo (k) fluoranthene	< 0.010	0.010	mg/kg wet							
Chrysene	< 0.010	0.010	mg/kg wet							
Dibenz (a,h) anthracene	< 0.005	0.005	mg/kg wet							
Fluoranthene	< 0.010	0.010	mg/kg wet							
Fluorene	< 0.010	0.010	mg/kg wet							
Indeno (1,2,3-cd) pyrene	< 0.010	0.010	mg/kg wet							
Naphthalene	< 0.015	0.015	mg/kg wet							
Phenanthrene	< 0.020	0.020	mg/kg wet							
Pyrene	< 0.020	0.020	mg/kg wet							
Surrogate: Naphthalene-d8	*2.24*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.25*		*mg/kg wet*	*2.00*		*113*	*50-130*			
Surrogate: Phenanthrene-d10	*1.80*		*mg/kg wet*	*2.00*		*90*	*60-130*			
Surrogate: Chrysene-d12	*1.68*		*mg/kg wet*	*2.00*		*84*	*60-130*			
Surrogate: Perylene-d12	*1.87*		*mg/kg wet*	*2.00*		*93*	*60-130*			
LCS (B1L0247-BS1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	2	0.010	mg/kg wet	2.00		83	50-130			
Acenaphthene	2	0.005	mg/kg wet	2.00		113	53-127			
Acenaphthylene	2	0.005	mg/kg wet	2.00		111	52-122			
Anthracene	2	0.010	mg/kg wet	2.00		101	60-122			
Benzo (a) anthracene	2	0.010	mg/kg wet	2.00		111	60-116			
Benzo (a) pyrene	2	0.010	mg/kg wet	2.00		104	60-124			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	2.00		108	60-123			
Benzo (g,h,i) perylene	2	0.010	mg/kg wet	2.00		105	60-125			
Benzo (k) fluoranthene	2	0.010	mg/kg wet	2.00		93	60-128			
Chrysene	2	0.010	mg/kg wet	2.00		105	60-130			
Dibenz (a,h) anthracene	2	0.005	mg/kg wet	2.00		107	60-130			
Fluoranthene	2	0.010	mg/kg wet	2.00		105	60-123			
Fluorene	2	0.010	mg/kg wet	2.00		99	51-124			
Indeno (1,2,3-cd) pyrene	2	0.010	mg/kg wet	2.00		90	60-124			
Naphthalene	2	0.015	mg/kg wet	2.00		109	51-130			
Phenanthrene	2	0.020	mg/kg wet	2.00		110	60-125			
Pyrene	2	0.020	mg/kg wet	2.00		103	60-124			
Surrogate: Naphthalene-d8	*2.25*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.20*		*mg/kg wet*	*2.00*		*110*	*50-130*			
Surrogate: Phenanthrene-d10	*1.87*		*mg/kg wet*	*2.00*		*94*	*60-130*			
Surrogate: Chrysene-d12	*1.84*		*mg/kg wet*	*2.00*		*92*	*60-130*			
Surrogate: Perylene-d12	*1.82*		*mg/kg wet*	*2.00*		*91*	*60-130*			
LCS (B1L0247-BS2)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	2	0.010	mg/kg wet	2.00		78	50-130			
Acenaphthene	2	0.005	mg/kg wet	2.00		113	53-127			
Acenaphthylene	2	0.005	mg/kg wet	2.00		105	52-122			
Anthracene	2	0.010	mg/kg wet	2.00		98	60-122			
Benzo (a) anthracene	2	0.010	mg/kg wet	2.00		88	60-116			
Benzo (a) pyrene	2	0.010	mg/kg wet	2.00		98	60-124			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	2.00		92	60-123			
Benzo (g,h,i) perylene	2	0.010	mg/kg wet	2.00		98	60-125			
Benzo (k) fluoranthene	2	0.010	mg/kg wet	2.00		92	60-128			
Chrysene	2	0.010	mg/kg wet	2.00		107	60-130			
Dibenz (a,h) anthracene	2	0.005	mg/kg wet	2.00		96	60-130			
Fluoranthene	2	0.010	mg/kg wet	2.00		100	60-123			
Fluorene	2	0.010	mg/kg wet	2.00		90	51-124			
Indeno (1,2,3-cd) pyrene	1	0.010	mg/kg wet	2.00		72	60-124			
Naphthalene	2	0.015	mg/kg wet	2.00		105	51-130			
Phenanthrene	2	0.020	mg/kg wet	2.00		102	60-125			
Pyrene	2	0.020	mg/kg wet	2.00		100	60-124			
Surrogate: Naphthalene-d8	*2.18*		*mg/kg wet*	*2.00*		*109*	*50-130*			
Surrogate: Acenaphthene-d10	*2.19*		*mg/kg wet*	*2.00*		*109*	*50-130*			
Surrogate: Phenanthrene-d10	*1.74*		*mg/kg wet*	*2.00*		*87*	*60-130*			

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CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Polycyclic Aromatic Hydrocarbons, Batch B1L0247, Continued										
LCS (B1L0247-BS2), Continued				Prepared: Dec-20-11, Analyzed: Dec-22-11						
Surrogate: Chrysene-d12	*1.70*		*mg/kg wet*	*2.00*		*85*	*60-130*			
Surrogate: Perylene-d12	*1.65*		*mg/kg wet*	*2.00*		*82*	*60-130*			
Reference (B1L0247-SRM1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	1	0.010	mg/kg wet	1.38		89	70-130			
Acenaphthene	0.2	0.005	mg/kg wet	0.130		129	60-140			
Anthracene	0.2	0.010	mg/kg wet	0.310		76	70-130			
Benzo (a) anthracene	4	0.010	mg/kg wet	3.51		109	70-130			
Benzo (a) pyrene	0.4	0.010	mg/kg wet	0.291		121	70-130			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	1.40		114	70-130			
Benzo (g,h,i) perylene	5	0.010	mg/kg wet	4.99		103	70-130			
Benzo (k) fluoranthene	4	0.010	mg/kg wet	3.68		98	70-130			
Chrysene	7	0.010	mg/kg wet	7.62		93	70-130			
Dibenz (a,h) anthracene	6	0.005	mg/kg wet	4.80		116	70-130			
Fluoranthene	4	0.010	mg/kg wet	3.87		100	70-130			
Fluorene	5	0.010	mg/kg wet	5.67		93	70-130			
Indeno (1,2,3-cd) pyrene	2	0.010	mg/kg wet	2.22		90	70-130			
Naphthalene	1	0.015	mg/kg wet	1.20		123	60-140			
Phenanthrene	2	0.020	mg/kg wet	1.90		112	70-130			
Pyrene	0.7	0.020	mg/kg wet	0.670		102	70-130			
Surrogate: Naphthalene-d8	*2.87*		*mg/kg wet*	*2.58*		*111*	*50-130*			
Surrogate: Acenaphthene-d10	*2.83*		*mg/kg wet*	*2.58*		*110*	*50-130*			
Surrogate: Phenanthrene-d10	*2.41*		*mg/kg wet*	*2.58*		*94*	*60-130*			
Surrogate: Chrysene-d12	*2.34*		*mg/kg wet*	*2.58*		*91*	*60-130*			
Surrogate: Perylene-d12	*2.24*		*mg/kg wet*	*2.58*		*87*	*60-130*			
Reference (B1L0247-SRM2)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	2	0.010	mg/kg wet	1.38		114	70-130			
Acenaphthene	0.2	0.005	mg/kg wet	0.130		131	60-140			
Anthracene	0.4	0.010	mg/kg wet	0.310		118	70-130			
Benzo (a) anthracene	4	0.010	mg/kg wet	3.51		115	70-130			
Benzo (a) pyrene	0.3	0.010	mg/kg wet	0.291		99	70-130			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	1.40		124	70-130			
Benzo (g,h,i) perylene	6	0.010	mg/kg wet	4.99		128	70-130			
Benzo (k) fluoranthene	4	0.010	mg/kg wet	3.68		116	70-130			
Chrysene	9	0.010	mg/kg wet	7.62		121	70-130			
Dibenz (a,h) anthracene	6	0.005	mg/kg wet	4.80		126	70-130			
Fluoranthene	5	0.010	mg/kg wet	3.87		119	70-130			
Fluorene	7	0.010	mg/kg wet	5.67		122	70-130			
Indeno (1,2,3-cd) pyrene	3	0.010	mg/kg wet	2.22		129	70-130			
Naphthalene	2	0.015	mg/kg wet	1.20		137	60-140			
Phenanthrene	2	0.020	mg/kg wet	1.90		128	70-130			
Pyrene	0.8	0.020	mg/kg wet	0.670		121	70-130			
Surrogate: Naphthalene-d8	*3.34*		*mg/kg wet*	*2.93*		*114*	*50-130*			
Surrogate: Acenaphthene-d10	*3.37*		*mg/kg wet*	*2.93*		*115*	*50-130*			
Surrogate: Phenanthrene-d10	*2.76*		*mg/kg wet*	*2.93*		*94*	*60-130*			
Surrogate: Chrysene-d12	*2.84*		*mg/kg wet*	*2.93*		*97*	*60-130*			
Surrogate: Perylene-d12	*2.95*		*mg/kg wet*	*2.93*		*101*	*60-130*			
Strong Acid Leachable Metals, Batch B1L0269										
Blank (B1L0269-BLK1)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	< 0.1	0.1	ug/g							
Arsenic	< 0.4	0.4	ug/g							
Barium	< 1.0	1.0	ug/g							
Beryllium	< 0.1	0.1	ug/g							
Boron	< 2.0	2.0	ug/g							
Cadmium	< 0.04	0.04	ug/g							
Chromium	< 1.0	1.0	ug/g							
Cobalt	< 0.1	0.1	ug/g							
Copper	< 0.2	0.2	ug/g							
Lead	< 0.2	0.2	ug/g							
Manganese	< 0.4	0.4	ug/g							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Strong Acid Leachable Metals, Batch B1L0269, Continued										
Blank (B1L0269-BLK1), Continued				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Mercury	< 0.05	0.05	ug/g							
Molybdenum	< 0.1	0.1	ug/g							
Nickel	< 0.4	0.4	ug/g							
Selenium	< 0.5	0.5	ug/g							
Silver	< 0.2	0.2	ug/g							
Thallium	< 0.1	0.1	ug/g							
Tin	< 0.2	0.2	ug/g							
Uranium	< 0.1	0.1	ug/g							
Vanadium	< 0.4	0.4	ug/g							
Zinc	< 2.0	2.0	ug/g							
Blank (B1L0269-BLK2)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	< 0.1	0.1	ug/g							
Arsenic	< 0.4	0.4	ug/g							
Barium	< 1.0	1.0	ug/g							
Beryllium	< 0.1	0.1	ug/g							
Boron	< 2.0	2.0	ug/g							
Cadmium	< 0.04	0.04	ug/g							
Chromium	< 1.0	1.0	ug/g							
Cobalt	< 0.1	0.1	ug/g							
Copper	< 0.2	0.2	ug/g							
Lead	< 0.2	0.2	ug/g							
Manganese	< 0.4	0.4	ug/g							
Mercury	< 0.05	0.05	ug/g							
Molybdenum	< 0.1	0.1	ug/g							
Nickel	< 0.4	0.4	ug/g							
Selenium	< 0.5	0.5	ug/g							
Silver	< 0.2	0.2	ug/g							
Thallium	< 0.1	0.1	ug/g							
Tin	< 0.2	0.2	ug/g							
Uranium	< 0.1	0.1	ug/g							
Vanadium	< 0.4	0.4	ug/g							
Zinc	< 2.0	2.0	ug/g							
Duplicate (B1L0269-DUP1)		**Source: CL10293-04**		Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	< 0.1	0.1	ug/g		0.1				40	
Arsenic	1.6	0.4	ug/g		1.9				30	
Barium	49.1	1.0	ug/g		51.4			5	30	
Beryllium	0.2	0.1	ug/g		< 0.1				40	
Boron	< 2.0	2.0	ug/g		< 2.0				30	
Cadmium	0.36	0.04	ug/g		0.55			42	30	RPD
Chromium	6.9	1.0	ug/g		6.5			6	30	
Cobalt	4.2	0.1	ug/g		4.0			5	30	
Copper	12.4	0.2	ug/g		26.0			71	30	RPD
Lead	2.2	0.2	ug/g		2.6			16	40	
Manganese	204	0.4	ug/g		193			6	30	
Mercury	< 0.05	0.05	ug/g		< 0.05				40	
Molybdenum	0.7	0.1	ug/g		0.9			23	40	
Nickel	4.4	0.4	ug/g		5.2			18	30	
Selenium	< 0.5	0.5	ug/g		< 0.5				30	
Silver	< 0.2	0.2	ug/g		< 0.2				40	
Thallium	< 0.1	0.1	ug/g		0.1				30	
Tin	0.2	0.2	ug/g		0.3				40	
Uranium	0.6	0.1	ug/g		0.6			13	30	
Vanadium	28.9	0.4	ug/g		29.0			< 1	30	
Zinc	22.4	2.0	ug/g		22.4			< 1	30	
Reference (B1L0269-SRM1)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	10.2	0.1	ug/g	7.30		139	62-158			
Arsenic	24.4	0.4	ug/g	23.2		105	83-112			
Barium	266	1.0	ug/g	294		90	61-128			
Beryllium	0.5	0.1	ug/g	0.410		125	57-141			
Boron	43.9	2.0	ug/g	38.0		116	57-139			
Cadmium	2.12	0.04	ug/g	1.98		107	76-128			
Chromium	50.6	1.0	ug/g	48.0		105	88-118			

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Strong Acid Leachable Metals, Batch B1L0269, Continued										
Reference (B1L0269-SRM1), Continued				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Cobalt	7.6	0.1	ug/g	8.75		87	87-113			
Copper	299	0.2	ug/g	296		101	89-115			
Lead	174	0.2	ug/g	166		105	85-115			
Manganese	254	0.4	ug/g	253		100	88-114			
Mercury	3.30	0.05	ug/g	2.88		115	65-144			
Molybdenum	5.1	0.1	ug/g	4.57		111	83-126			
Nickel	30.5	0.4	ug/g	31.6		96	90-112			
Selenium	1.5	0.5	ug/g	1.02		144	64-157			
Silver	1.24	0.2	ug/g	1.17		106	60-111			
Thallium	0.4	0.1	ug/g	0.450		90	79-102			
Tin	20.4	0.2	ug/g	19.1		107	74-123			
Uranium	1.5	0.1	ug/g	1.64		94	75-106			
Vanadium	77.4	0.4	ug/g	74.4		104	83-124			
Zinc	353	2.0	ug/g	337		105	86-118			
Reference (B1L0269-SRM2)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	10.6	0.1	ug/g	7.30		145	62-158			
Arsenic	25.3	0.4	ug/g	23.2		109	83-112			
Barium	274	1.0	ug/g	294		93	61-128			
Beryllium	0.4	0.1	ug/g	0.410		104	57-141			
Boron	44.3	2.0	ug/g	38.0		117	57-139			
Cadmium	2.27	0.04	ug/g	1.98		115	76-128			
Chromium	52.0	1.0	ug/g	48.0		108	88-118			
Cobalt	7.8	0.1	ug/g	8.75		90	87-113			
Copper	309	0.2	ug/g	296		104	89-115			
Lead	181	0.2	ug/g	166		109	85-115			
Manganese	263	0.4	ug/g	253		104	88-114			
Mercury	3.37	0.05	ug/g	2.88		117	65-144			
Molybdenum	5.4	0.1	ug/g	4.57		118	83-126			
Nickel	31.0	0.4	ug/g	31.6		98	90-112			
Selenium	1.5	0.5	ug/g	1.02		149	64-157			
Silver	1.07	0.2	ug/g	1.17		92	60-111			
Thallium	0.4	0.1	ug/g	0.450		94	79-102			
Tin	20.8	0.2	ug/g	19.1		109	74-123			
Uranium	1.6	0.1	ug/g	1.64		98	75-106			
Vanadium	79.7	0.4	ug/g	74.4		107	83-124			
Zinc	367	2.0	ug/g	337		109	86-118			
Volatile Organic Compounds, Batch B1L0217										
Blank (B1L0217-BLK1)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
Benzene	< 0.03	0.03	mg/kg wet							
Ethylbenzene	< 0.05	0.05	mg/kg wet							
Methyl tert-butyl ether	< 0.05	0.05	mg/kg wet							
Toluene	< 0.20	0.20	mg/kg wet							
Xylenes (total)	< 0.10	0.10	mg/kg wet							
Surrogate: Toluene-d8	*10.6*		*mg/kg wet*	*10.0*		*106*	*74-118*			
Surrogate: 4-Bromofluorobenzene	*11.0*		*mg/kg wet*	*10.0*		*110*	*84-115*			
Surrogate: 1,4-Dichlorobenzene-d4	*10.5*		*mg/kg wet*	*10.0*		*105*	*82-114*			
LCS (B1L0217-BS1)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
Benzene	1.90	0.03	mg/kg wet	2.00		95	92-123			
Ethylbenzene	1.74	0.05	mg/kg wet	2.00		87	87-119			
Methyl tert-butyl ether	< 0.05	0.05	mg/kg wet	2.00			93-130			
Toluene	1.96	0.20	mg/kg wet	2.00		98	82-124			
Xylenes (total)	5.24	0.10	mg/kg wet	6.00		87	87-121			
Surrogate: Toluene-d8	*10.7*		*mg/kg wet*	*10.0*		*107*	*74-118*			
Surrogate: 4-Bromofluorobenzene	*11.0*		*mg/kg wet*	*10.0*		*110*	*84-115*			
Surrogate: 1,4-Dichlorobenzene-d4	*10.8*		*mg/kg wet*	*10.0*		*108*	*82-114*			
Surrogate: Toluene-d8	*11.7*		*mg/kg wet*	*10.0*		*117*	*74-118*			
Surrogate: 4-Bromofluorobenzene	*10.4*		*mg/kg wet*	*10.0*		*104*	*84-115*			
Surrogate: 1,4-Dichlorobenzene-d4	*10.6*		*mg/kg wet*	*10.0*		*106*	*82-114*			

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Volatile Organic Compounds, Batch B1L0217, Continued										
Duplicate (B1L0217-DUP1)		**Source: CL10293-01**		Prepared: Dec-16-11, Analyzed: Dec-24-11						
Benzene	< 0.05	0.05	mg/kg dry		< 0.05				40	
Ethylbenzene	< 0.08	0.08	mg/kg dry		< 0.08				40	
Methyl tert-butyl ether	< 0.08	0.08	mg/kg dry		< 0.08				40	
Toluene	0.34	0.34	mg/kg dry		< 0.34				40	
Xylenes (total)	< 0.17	0.17	mg/kg dry		< 0.17				40	
Surrogate: Toluene-d8	*16.8*		*mg/kg dry*	*15.9*		*105*	*74-118*			
Surrogate: 4-Bromofluorobenzene	*16.6*		*mg/kg dry*	*15.9*		*104*	*84-115*			
Surrogate: 1,4-Dichlorobenzene-d4	*16.0*		*mg/kg dry*	*15.9*		*101*	*82-114*			

QC Qualifiers:

RPD Relative percent difference (RPD) of duplicate analysis are outside of control limits. Data accepted based on acceptable performance of other batch QC.

QUALITY CONTROL DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-03-12

CERTIFICATE OF ANALYSIS

CLIENT	**Stantec Consulting Ltd. (Burnaby)**		
	500 - 4370 Dominion Street		
	Burnaby BC	TEL	778 32801041
	V5G 4L7	FAX	N/A
ATTENTION	**Tyler Joyce**		

RECEIVED / TEMP	Dec-14-11 16:00 / 4.0 °C	**WORK ORDER**	CL10293
REPORTED	Jan-04-12	**PROJECT**	Porpoise Bay
COC #(s)	40837.5581	**PROJECT INFO**	9506130-DFO, 123110279-Stantec

General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done 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 document. This analytical report must be reproduced in its entirity. 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.

- All solids results are reported on a dry weight basis unless otherwise noted

- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  mg/L = milligrams per litre, equivalent to parts per million (ppm)
  ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  ug/g = micrograms per gram, equivalent to parts per million (ppm)
  ug/m3 = micrograms per cubic meter of air

- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

CARO Analytical Services

Final Review Per: **Paul Thandi, B.Sc., PChem For Patrick Novak, B.Sc., PChem**
Business Manager, Richmond

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SAMPLE DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
General Parameters						
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**2.6**	0.05	%	Dec-19-11	Dec-21-11	
Moisture	**40.4**	0.1	%	Dec-16-11	Dec-19-11	
pH	**7.0**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-001-1112-SO 007 (CL10293-02) Matrix: Soil Sampled: Dec-12-11						
Carbon, Total Organic	**6.9**	0.05	%	Dec-19-11	Dec-21-11	
PS06130-001-1112-SO 008 (CL10293-03) Matrix: Soil Sampled: Dec-12-11						
pH	**7.3**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
Moisture	**7.1**	0.1	%	Dec-16-11	Dec-19-11	
pH	**6.8**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
Moisture	**20.2**	0.1	%	Dec-16-11	Dec-19-11	
pH	**7.3**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
Moisture	**13.4**	0.1	%	Dec-16-11	Dec-19-11	
pH	**5.8**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
Moisture	**10.5**	0.1	%	Dec-16-11	Dec-19-11	
pH	**6.9**	0.1	pH units	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11						
Moisture	**15.8**	0.1	%	Dec-16-11	Dec-19-11	
pH	**6.9**	0.1	pH units	Dec-20-11	Dec-21-11	
Strong Acid Leachable Metals						
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**2.6**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**15.6**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**34.2**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**0.45**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**6.5**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**2.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**12.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**12.5**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**105**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	**0.06**	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**5.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**3.5**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	< 0.5	0.5	ug/g	Dec-20-11	Dec-21-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11, Continued						
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**2.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**1.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**15.4**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**38.1**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-001-1112-SO 008 (CL10293-03) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**2.7**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**17.1**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	**0.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**6.0**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**0.42**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**6.8**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**2.3**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**9.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**4.6**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**103**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**1.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**3.6**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	**0.5**	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**0.3**	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**1.0**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**18.1**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**37.6**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**1.9**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**51.4**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	< 2.0	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**0.55**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**6.5**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**4.0**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**26.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**2.6**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**193**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**0.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**5.2**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	< 0.5	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11, Continued						
Thallium	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**0.3**	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**0.6**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**29.0**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**22.4**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**3.4**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**18.3**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**6.0**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**1.09**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**7.4**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**1.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**7.7**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**6.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**103**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**2.9**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**3.3**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	< 0.5	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**1.1**	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**1.7**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**14.7**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**25.4**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**2.3**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**13.3**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	< 2.0	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**0.11**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**3.8**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**1.4**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**4.7**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**1.6**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**81.7**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**1.6**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**2.3**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	< 0.5	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Strong Acid Leachable Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11, Continued						
Tin	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**1.6**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**11.0**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**11.6**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
Antimony	**0.1**	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**2.8**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**60.4**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	**0.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**11.9**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**1.12**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**7.6**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**3.2**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**16.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**2.0**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**174**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**0.8**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**4.8**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	**0.8**	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Uranium	**4.5**	0.1	ug/g	Dec-20-11	Dec-21-11	
Vanadium	**21.6**	0.4	ug/g	Dec-20-11	Dec-21-11	
Zinc	**96.4**	2.0	ug/g	Dec-20-11	Dec-21-11	
PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11						
Antimony	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Arsenic	**3.2**	0.4	ug/g	Dec-20-11	Dec-21-11	
Barium	**60.2**	1.0	ug/g	Dec-20-11	Dec-21-11	
Beryllium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Boron	**10.6**	2.0	ug/g	Dec-20-11	Dec-21-11	
Cadmium	**1.52**	0.04	ug/g	Dec-20-11	Dec-21-11	
Chromium	**8.9**	1.0	ug/g	Dec-20-11	Dec-21-11	
Cobalt	**2.7**	0.1	ug/g	Dec-20-11	Dec-21-11	
Copper	**17.6**	0.2	ug/g	Dec-20-11	Dec-21-11	
Lead	**2.1**	0.2	ug/g	Dec-20-11	Dec-21-11	
Manganese	**142**	0.4	ug/g	Dec-20-11	Dec-21-11	
Mercury	< 0.05	0.05	ug/g	Dec-20-11	Dec-21-11	
Molybdenum	**1.5**	0.1	ug/g	Dec-20-11	Dec-21-11	
Nickel	**4.6**	0.4	ug/g	Dec-20-11	Dec-21-11	
Selenium	**0.7**	0.5	ug/g	Dec-20-11	Dec-21-11	
Silver	< 0.2	0.2	ug/g	Dec-20-11	Dec-21-11	
Thallium	< 0.1	0.1	ug/g	Dec-20-11	Dec-21-11	
Tin	**0.2**	0.2	ug/g	Dec-20-11	Dec-21-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Strong Acid Leachable Metals, Continued

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11, Continued

Uranium	**1.2**	0.1	ug/g	Dec-20-11	Dec-21-11
Vanadium	**21.8**	0.4	ug/g	Dec-20-11	Dec-21-11
Zinc	**110**	2.0	ug/g	Dec-20-11	Dec-21-11

Aggregate Organic Parameters

PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	**43**	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	**42.3**	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	**250**	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	< 20.0	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	**25**	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	**24.6**	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	**33**	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	**32.6**	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	< 20.0	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11

VHs (6-10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11
VPHs	< 20.0	20.0	mg/kg dry	N/A	N/A
EPHs (10-19)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11
EPHs (19-32)	< 250	250	mg/kg dry	Dec-16-11	Dec-17-11

CCME CWS Petroleum Hydrocarbons

PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11

CCME PHC F1 (C6-C10)	**22**	20	mg/kg dry	Dec-16-11	Dec-24-11
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
CCME CWS Petroleum Hydrocarbons, Continued						
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11, Continued						
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry	Dec-16-11	Dec-24-11	
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry	Dec-21-11	Dec-23-11	
Polycyclic Aromatic Hydrocarbons						
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0343**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0556**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.255**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.266**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.299**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.152**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.164**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.282**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	**0.0725**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.782**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	**0.0413**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11, Continued						
Indeno (1,2,3-cd) pyrene	**0.138**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.154**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.581**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*102 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*105 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*88 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	**0.0161**	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0564**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0104**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0342**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0287**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0252**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0316**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0350**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0352**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	**0.0252**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0397**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*104 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*107 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	**0.0144**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	**0.0606**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	**0.0370**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	**0.0298**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	**0.0224**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	**0.0269**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0567**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11, Continued						
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	**0.0409**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	**0.0459**	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*102 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*103 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*83 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*80 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*86 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	**0.0332**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Fluoranthene	**0.0129**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11	
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Pyrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11	
Surrogate: Naphthalene-d8	*105 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Acenaphthene-d10	*107 %*	*50-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Phenanthrene-d10	*87 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Chrysene-d12	*84 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
Surrogate: Perylene-d12	*85 %*	*60-130*		*Dec-20-11*	*Dec-22-11*	
PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11						
2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (a) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Chrysene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11	
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Polycyclic Aromatic Hydrocarbons, Continued

PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11, Continued

Fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Pyrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Surrogate: Naphthalene-d8	*103 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Acenaphthene-d10	*108 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Phenanthrene-d10	*89 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Chrysene-d12	*78 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Perylene-d12	*81 %*	*60-130*		*Dec-20-11*	*Dec-22-11*

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11

2-Methylnaphthalene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Acenaphthylene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) anthracene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (a) pyrene	**0.0343**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (b) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (g,h,i) perylene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Benzo (k) fluoranthene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Chrysene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Dibenz (a,h) anthracene	< 0.00500	0.00500	mg/kg dry	Dec-20-11	Dec-22-11
Fluoranthene	**0.0126**	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Fluorene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Indeno (1,2,3-cd) pyrene	< 0.0100	0.0100	mg/kg dry	Dec-20-11	Dec-22-11
Naphthalene	< 0.0150	0.0150	mg/kg dry	Dec-20-11	Dec-22-11
Phenanthrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Pyrene	< 0.0200	0.0200	mg/kg dry	Dec-20-11	Dec-22-11
Surrogate: Naphthalene-d8	*99 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Acenaphthene-d10	*102 %*	*50-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Phenanthrene-d10	*81 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Chrysene-d12	*78 %*	*60-130*		*Dec-20-11*	*Dec-22-11*
Surrogate: Perylene-d12	*79 %*	*60-130*		*Dec-20-11*	*Dec-22-11*

Volatile Organic Compounds

PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11

Benzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11
Ethylbenzene	< 0.08	0.08	mg/kg dry	Dec-16-11	Dec-24-11
Methyl tert-butyl ether	< 0.08	0.08	mg/kg dry	Dec-16-11	Dec-24-11
Styrene	< 0.08	0.08	mg/kg dry	Dec-16-11	Dec-24-11
Toluene	< 0.34	0.34	mg/kg dry	Dec-16-11	Dec-24-11
Xylenes (total)	< 0.17	0.17	mg/kg dry	Dec-16-11	Dec-24-11
Surrogate: Toluene-d8	*99 %*	*74-118*		*Dec-16-11*	*Dec-24-11*
Surrogate: 4-Bromofluorobenzene	*104 %*	*84-115*		*Dec-16-11*	*Dec-24-11*

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
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Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Volatile Organic Compounds, Continued

PS06130-001-1112-SO 005 (CL10293-01) Matrix: Soil Sampled: Dec-12-11, Continued

Surrogate: 1,4-Dichlorobenzene-d4	*103 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	

PS06130-002-1112-SO 002 (CL10293-04) Matrix: Soil Sampled: Dec-12-11

Benzene	< 0.03	0.03	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Styrene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.20	0.20	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.10	0.10	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*97 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*96 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*92 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	

PS06130-002-1112-SO 004 (CL10293-05) Matrix: Soil Sampled: Dec-12-11

Benzene	< 0.04	0.04	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.06	0.06	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.06	0.06	mg/kg dry	Dec-16-11	Dec-24-11	
Styrene	< 0.06	0.06	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.25	0.25	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.13	0.13	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*101 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*97 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*93 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	

PS06130-003-1112-SO 002 (CL10293-06) Matrix: Soil Sampled: Dec-12-11

Benzene	< 0.03	0.03	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Styrene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.20	0.20	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.10	0.10	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*111 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*89 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*76 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	*S02*

PS06130-003-1112-SO 004 (CL10293-07) Matrix: Soil Sampled: Dec-12-11

Benzene	< 0.03	0.03	mg/kg dry	Dec-16-11	Dec-24-11	
Ethylbenzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Styrene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.20	0.20	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.10	0.10	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*97 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*93 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*87 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11

Benzene	< 0.03	0.03	mg/kg dry	Dec-16-11	Dec-24-11	

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Volatile Organic Compounds, Continued

PS06130-003-1112-SO 904 (CL10293-08) Matrix: Soil Sampled: Dec-12-11, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
Ethylbenzene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Methyl tert-butyl ether	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Styrene	< 0.05	0.05	mg/kg dry	Dec-16-11	Dec-24-11	
Toluene	< 0.20	0.20	mg/kg dry	Dec-16-11	Dec-24-11	
Xylenes (total)	< 0.10	0.10	mg/kg dry	Dec-16-11	Dec-24-11	
Surrogate: Toluene-d8	*101 %*	*74-118*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 4-Bromofluorobenzene	*99 %*	*84-115*		*Dec-16-11*	*Dec-24-11*	
Surrogate: 1,4-Dichlorobenzene-d4	*95 %*	*82-114*		*Dec-16-11*	*Dec-24-11*	

Sample Qualifiers:

S02 Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

ANALYSIS / REPORT INFORMATION

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Analysis Description	**Method Reference(s)** (* = modified from)		**LAB**
	Preparation	**Analysis**	
BTEX/VH/VPH in Soil	N/A	BCMOE	RMD
EPH in Soil	EPA 3570 *	BCMOE	RMD
VH in Soil	EPA 5035	BCMOE	RMD
CCME PHC F1 in Soil	EPA 5035	CCME CWS PHC	RMD
CCME PHC F2-F4 in Soil	EPA 3570 *	CCME CWS PHC	RMD
Total Organic Carbon - Soil	N/A	EPA 9060	KEL
Dry Weight (moisture)	N/A	ASTM D2216	RMD
pH in Soil (1:2 Soil/Water)	N/A	APHA 4500-H+	RMD
PAH in Soil (Low level)	EPA 5035	EPA 8270D	RMD
Strong Acid Leachable Metals	SALM V.2 (BCMOE)	EPA 6020A	RMD
BTEX in Soil	EPA 5035	EPA 8260B	RMD

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The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control 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 for.

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	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Aggregate Organic Parameters, Batch B1L0217										
Blank (B1L0217-BLK1)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
VHs (6-10)	< 20	20	mg/kg dry							
Duplicate (B1L0217-DUP1)		**Source: CL10293-01**		Prepared: Dec-16-11, Analyzed: Dec-24-11						
VHs (6-10)	44	20	mg/kg dry		43				30	
Aggregate Organic Parameters, Batch B1L0220										
Blank (B1L0220-BLK1)				Prepared: Dec-16-11, Analyzed: Dec-17-11						
EPHs (10-19)	< 250	250	mg/kg wet							
EPHs (19-32)	< 250	250	mg/kg wet							
Duplicate (B1L0220-DUP1)		**Source: CL10293-01**		Prepared: Dec-16-11, Analyzed: Dec-17-11						
EPHs (10-19)	< 250	250	mg/kg dry		< 250				40	
EPHs (19-32)	295	250	mg/kg dry		250				40	
Reference (B1L0220-SRM2)				Prepared: Dec-16-11, Analyzed: Dec-17-11						
EPHs (10-19)	3390	250	mg/kg wet	3020		112	62-132			
EPHs (19-32)	4670	250	mg/kg wet	4330		108	65-133			
CCME CWS Petroleum Hydrocarbons, Batch B1L0217										
Blank (B1L0217-BLK1)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
CCME PHC F1 (C6-C10)	< 20	20	mg/kg dry							
LCS (B1L0217-BS2)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
CCME PHC F1 (C6-C10)	302	20	mg/kg dry	311		97	70-115			
Duplicate (B1L0217-DUP1)		**Source: CL10293-01**		Prepared: Dec-16-11, Analyzed: Dec-24-11						
CCME PHC F1 (C6-C10)	23	20	mg/kg dry		22				30	
CCME CWS Petroleum Hydrocarbons, Batch B1L0283										
Blank (B1L0283-BLK1)				Prepared: Dec-21-11, Analyzed: Dec-23-11						
CCME PHC F2 (C10-C16)	< 100	100	mg/kg wet							
CCME PHC F3 (C16-C34)	< 200	200	mg/kg wet							
CCME PHC F4 (C34-C50)	< 200	200	mg/kg wet							
LCS (B1L0283-BS1)				Prepared: Dec-21-11, Analyzed: Dec-23-11						
CCME PHC F2 (C10-C16)	74	10	mg/kg wet	105		71	58-116			
CCME PHC F3 (C16-C34)	180	20	mg/kg wet	302		60	60-116			
CCME PHC F4 (C34-C50)	< 20	20	mg/kg wet	150			70-117			

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
CCME CWS Petroleum Hydrocarbons, Batch B1L0283, Continued										
Duplicate (B1L0283-DUP1)		**Source: CL10293-05**		Prepared: Dec-21-11, Analyzed: Dec-23-11						
CCME PHC F2 (C10-C16)	< 100	100	mg/kg dry		< 100				40	
CCME PHC F3 (C16-C34)	< 200	200	mg/kg dry		< 200				40	
CCME PHC F4 (C34-C50)	< 200	200	mg/kg dry		< 200				40	
Reference (B1L0283-SRM1)				Prepared: Dec-21-11, Analyzed: Dec-23-11						
CCME PHC F2 (C10-C16)	206	10	mg/kg wet	150		137	60-140			
CCME PHC F3 (C16-C34)	533	20	mg/kg wet	385		139	60-140			
CCME PHC F4 (C34-C50)	< 20	20	mg/kg wet	7.00			60-140			
General Parameters, Batch B1L0267										
Reference (B1L0267-SRM1)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.4	0.1	pH units	6.10		105	90-115			
Reference (B1L0267-SRM2)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.5	0.1	pH units	6.10		107	90-115			
Reference (B1L0267-SRM3)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.5	0.1	pH units	6.10		106	90-115			
Reference (B1L0267-SRM4)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
pH	6.3	0.1	pH units	6.10		104	90-115			
General Parameters, Batch K105574										
Blank (K105574-BLK1)				Prepared: Dec-19-11, Analyzed: Dec-21-11						
Carbon, Total Organic	< 0.05	0.05	%							
Reference (K105574-SRM1)				Prepared: Dec-19-11, Analyzed: Dec-21-11						
Carbon, Total Organic	1.81	0.05	%	1.33		136	70-140			
Polycyclic Aromatic Hydrocarbons, Batch B1L0247										
Blank (B1L0247-BLK1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	< 0.010	0.010	mg/kg wet							
Acenaphthene	< 0.005	0.005	mg/kg wet							
Acenaphthylene	< 0.005	0.005	mg/kg wet							
Anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) pyrene	< 0.010	0.010	mg/kg wet							
Benzo (b) fluoranthene	< 0.010	0.010	mg/kg wet							
Benzo (g,h,i) perylene	< 0.010	0.010	mg/kg wet							
Benzo (k) fluoranthene	< 0.010	0.010	mg/kg wet							
Chrysene	< 0.010	0.010	mg/kg wet							
Dibenz (a,h) anthracene	< 0.005	0.005	mg/kg wet							
Fluoranthene	< 0.010	0.010	mg/kg wet							
Fluorene	< 0.010	0.010	mg/kg wet							
Indeno (1,2,3-cd) pyrene	< 0.010	0.010	mg/kg wet							
Naphthalene	< 0.015	0.015	mg/kg wet							
Phenanthrene	< 0.020	0.020	mg/kg wet							
Pyrene	< 0.020	0.020	mg/kg wet							
Surrogate: Naphthalene-d8	*2.24*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.16*		*mg/kg wet*	*2.00*		*108*	*50-130*			
Surrogate: Phenanthrene-d10	*1.89*		*mg/kg wet*	*2.00*		*94*	*60-130*			
Surrogate: Chrysene-d12	*1.77*		*mg/kg wet*	*2.00*		*89*	*60-130*			
Surrogate: Perylene-d12	*1.81*		*mg/kg wet*	*2.00*		*91*	*60-130*			
Blank (B1L0247-BLK2)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	< 0.010	0.010	mg/kg wet							
Acenaphthene	< 0.005	0.005	mg/kg wet							
Acenaphthylene	< 0.005	0.005	mg/kg wet							
Anthracene	< 0.010	0.010	mg/kg wet							

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Polycyclic Aromatic Hydrocarbons, Batch B1L0247, Continued										
Blank (B1L0247-BLK2), Continued				Prepared: Dec-20-11, Analyzed: Dec-22-11						
Benzo (a) anthracene	< 0.010	0.010	mg/kg wet							
Benzo (a) pyrene	< 0.010	0.010	mg/kg wet							
Benzo (b) fluoranthene	< 0.010	0.010	mg/kg wet							
Benzo (g,h,i) perylene	< 0.010	0.010	mg/kg wet							
Benzo (k) fluoranthene	< 0.010	0.010	mg/kg wet							
Chrysene	< 0.010	0.010	mg/kg wet							
Dibenz (a,h) anthracene	< 0.005	0.005	mg/kg wet							
Fluoranthene	< 0.010	0.010	mg/kg wet							
Fluorene	< 0.010	0.010	mg/kg wet							
Indeno (1,2,3-cd) pyrene	< 0.010	0.010	mg/kg wet							
Naphthalene	< 0.015	0.015	mg/kg wet							
Phenanthrene	< 0.020	0.020	mg/kg wet							
Pyrene	< 0.020	0.020	mg/kg wet							
Surrogate: Naphthalene-d8	*2.24*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.25*		*mg/kg wet*	*2.00*		*113*	*50-130*			
Surrogate: Phenanthrene-d10	*1.80*		*mg/kg wet*	*2.00*		*90*	*60-130*			
Surrogate: Chrysene-d12	*1.68*		*mg/kg wet*	*2.00*		*84*	*60-130*			
Surrogate: Perylene-d12	*1.87*		*mg/kg wet*	*2.00*		*93*	*60-130*			
LCS (B1L0247-BS1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	2	0.010	mg/kg wet	2.00		83	50-130			
Acenaphthene	2	0.005	mg/kg wet	2.00		113	53-127			
Acenaphthylene	2	0.005	mg/kg wet	2.00		111	52-122			
Anthracene	2	0.010	mg/kg wet	2.00		101	60-122			
Benzo (a) anthracene	2	0.010	mg/kg wet	2.00		111	60-116			
Benzo (a) pyrene	2	0.010	mg/kg wet	2.00		104	60-124			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	2.00		108	60-123			
Benzo (g,h,i) perylene	2	0.010	mg/kg wet	2.00		105	60-125			
Benzo (k) fluoranthene	2	0.010	mg/kg wet	2.00		93	60-128			
Chrysene	2	0.010	mg/kg wet	2.00		105	60-130			
Dibenz (a,h) anthracene	2	0.005	mg/kg wet	2.00		107	60-130			
Fluoranthene	2	0.010	mg/kg wet	2.00		105	60-123			
Fluorene	2	0.010	mg/kg wet	2.00		99	51-124			
Indeno (1,2,3-cd) pyrene	2	0.010	mg/kg wet	2.00		90	60-124			
Naphthalene	2	0.015	mg/kg wet	2.00		109	51-130			
Phenanthrene	2	0.020	mg/kg wet	2.00		110	60-125			
Pyrene	2	0.020	mg/kg wet	2.00		103	60-124			
Surrogate: Naphthalene-d8	*2.25*		*mg/kg wet*	*2.00*		*112*	*50-130*			
Surrogate: Acenaphthene-d10	*2.20*		*mg/kg wet*	*2.00*		*110*	*50-130*			
Surrogate: Phenanthrene-d10	*1.87*		*mg/kg wet*	*2.00*		*94*	*60-130*			
Surrogate: Chrysene-d12	*1.84*		*mg/kg wet*	*2.00*		*92*	*60-130*			
Surrogate: Perylene-d12	*1.82*		*mg/kg wet*	*2.00*		*91*	*60-130*			
LCS (B1L0247-BS2)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	2	0.010	mg/kg wet	2.00		78	50-130			
Acenaphthene	2	0.005	mg/kg wet	2.00		113	53-127			
Acenaphthylene	2	0.005	mg/kg wet	2.00		105	52-122			
Anthracene	2	0.010	mg/kg wet	2.00		98	60-122			
Benzo (a) anthracene	2	0.010	mg/kg wet	2.00		88	60-116			
Benzo (a) pyrene	2	0.010	mg/kg wet	2.00		98	60-124			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	2.00		92	60-123			
Benzo (g,h,i) perylene	2	0.010	mg/kg wet	2.00		98	60-125			
Benzo (k) fluoranthene	2	0.010	mg/kg wet	2.00		92	60-128			
Chrysene	2	0.010	mg/kg wet	2.00		107	60-130			
Dibenz (a,h) anthracene	2	0.005	mg/kg wet	2.00		96	60-130			
Fluoranthene	2	0.010	mg/kg wet	2.00		100	60-123			
Fluorene	2	0.010	mg/kg wet	2.00		90	51-124			
Indeno (1,2,3-cd) pyrene	1	0.010	mg/kg wet	2.00		72	60-124			
Naphthalene	2	0.015	mg/kg wet	2.00		105	51-130			
Phenanthrene	2	0.020	mg/kg wet	2.00		102	60-125			
Pyrene	2	0.020	mg/kg wet	2.00		100	60-124			
Surrogate: Naphthalene-d8	*2.18*		*mg/kg wet*	*2.00*		*109*	*50-130*			
Surrogate: Acenaphthene-d10	*2.19*		*mg/kg wet*	*2.00*		*109*	*50-130*			
Surrogate: Phenanthrene-d10	*1.74*		*mg/kg wet*	*2.00*		*87*	*60-130*			

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Polycyclic Aromatic Hydrocarbons, Batch B1L0247, Continued										
LCS (B1L0247-BS2), Continued				Prepared: Dec-20-11, Analyzed: Dec-22-11						
Surrogate: Chrysene-d12	*1.70*		*mg/kg wet*	*2.00*		*85*	*60-130*			
Surrogate: Perylene-d12	*1.65*		*mg/kg wet*	*2.00*		*82*	*60-130*			
Reference (B1L0247-SRM1)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	1	0.010	mg/kg wet	1.38		89	70-130			
Acenaphthene	0.2	0.005	mg/kg wet	0.130		129	60-140			
Anthracene	0.2	0.010	mg/kg wet	0.310		76	70-130			
Benzo (a) anthracene	4	0.010	mg/kg wet	3.51		109	70-130			
Benzo (a) pyrene	0.4	0.010	mg/kg wet	0.291		121	70-130			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	1.40		114	70-130			
Benzo (g,h,i) perylene	5	0.010	mg/kg wet	4.99		103	70-130			
Benzo (k) fluoranthene	4	0.010	mg/kg wet	3.68		98	70-130			
Chrysene	7	0.010	mg/kg wet	7.62		93	70-130			
Dibenz (a,h) anthracene	6	0.005	mg/kg wet	4.80		116	70-130			
Fluoranthene	4	0.010	mg/kg wet	3.87		100	70-130			
Fluorene	5	0.010	mg/kg wet	5.67		93	70-130			
Indeno (1,2,3-cd) pyrene	2	0.010	mg/kg wet	2.22		90	70-130			
Naphthalene	1	0.015	mg/kg wet	1.20		123	60-140			
Phenanthrene	2	0.020	mg/kg wet	1.90		112	70-130			
Pyrene	0.7	0.020	mg/kg wet	0.670		102	70-130			
Surrogate: Naphthalene-d8	*2.87*		*mg/kg wet*	*2.58*		*111*	*50-130*			
Surrogate: Acenaphthene-d10	*2.83*		*mg/kg wet*	*2.58*		*110*	*50-130*			
Surrogate: Phenanthrene-d10	*2.41*		*mg/kg wet*	*2.58*		*94*	*60-130*			
Surrogate: Chrysene-d12	*2.34*		*mg/kg wet*	*2.58*		*91*	*60-130*			
Surrogate: Perylene-d12	*2.24*		*mg/kg wet*	*2.58*		*87*	*60-130*			
Reference (B1L0247-SRM2)				Prepared: Dec-20-11, Analyzed: Dec-22-11						
2-Methylnaphthalene	2	0.010	mg/kg wet	1.38		114	70-130			
Acenaphthene	0.2	0.005	mg/kg wet	0.130		131	60-140			
Anthracene	0.4	0.010	mg/kg wet	0.310		118	70-130			
Benzo (a) anthracene	4	0.010	mg/kg wet	3.51		115	70-130			
Benzo (a) pyrene	0.3	0.010	mg/kg wet	0.291		99	70-130			
Benzo (b) fluoranthene	2	0.010	mg/kg wet	1.40		124	70-130			
Benzo (g,h,i) perylene	6	0.010	mg/kg wet	4.99		128	70-130			
Benzo (k) fluoranthene	4	0.010	mg/kg wet	3.68		116	70-130			
Chrysene	9	0.010	mg/kg wet	7.62		121	70-130			
Dibenz (a,h) anthracene	6	0.005	mg/kg wet	4.80		126	70-130			
Fluoranthene	5	0.010	mg/kg wet	3.87		119	70-130			
Fluorene	7	0.010	mg/kg wet	5.67		122	70-130			
Indeno (1,2,3-cd) pyrene	3	0.010	mg/kg wet	2.22		129	70-130			
Naphthalene	2	0.015	mg/kg wet	1.20		137	60-140			
Phenanthrene	2	0.020	mg/kg wet	1.90		128	70-130			
Pyrene	0.8	0.020	mg/kg wet	0.670		121	70-130			
Surrogate: Naphthalene-d8	*3.34*		*mg/kg wet*	*2.93*		*114*	*50-130*			
Surrogate: Acenaphthene-d10	*3.37*		*mg/kg wet*	*2.93*		*115*	*50-130*			
Surrogate: Phenanthrene-d10	*2.76*		*mg/kg wet*	*2.93*		*94*	*60-130*			
Surrogate: Chrysene-d12	*2.84*		*mg/kg wet*	*2.93*		*97*	*60-130*			
Surrogate: Perylene-d12	*2.95*		*mg/kg wet*	*2.93*		*101*	*60-130*			
Strong Acid Leachable Metals, Batch B1L0269										
Blank (B1L0269-BLK1)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	< 0.1	0.1	ug/g							
Arsenic	< 0.4	0.4	ug/g							
Barium	< 1.0	1.0	ug/g							
Beryllium	< 0.1	0.1	ug/g							
Boron	< 2.0	2.0	ug/g							
Cadmium	< 0.04	0.04	ug/g							
Chromium	< 1.0	1.0	ug/g							
Cobalt	< 0.1	0.1	ug/g							
Copper	< 0.2	0.2	ug/g							
Lead	< 0.2	0.2	ug/g							
Manganese	< 0.4	0.4	ug/g							

CARO ANALYTICAL SERVICES

CLIENT Stantec Consulting Ltd. (Burnaby) **WORK ORDER #** CL10293
PROJECT Porpoise Bay **REPORTED** Jan-04-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Strong Acid Leachable Metals, Batch B1L0269, Continued										
Blank (B1L0269-BLK1), Continued				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Mercury	< 0.05	0.05	ug/g							
Molybdenum	< 0.1	0.1	ug/g							
Nickel	< 0.4	0.4	ug/g							
Selenium	< 0.5	0.5	ug/g							
Silver	< 0.2	0.2	ug/g							
Thallium	< 0.1	0.1	ug/g							
Tin	< 0.2	0.2	ug/g							
Uranium	< 0.1	0.1	ug/g							
Vanadium	< 0.4	0.4	ug/g							
Zinc	< 2.0	2.0	ug/g							
Blank (B1L0269-BLK2)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	< 0.1	0.1	ug/g							
Arsenic	< 0.4	0.4	ug/g							
Barium	< 1.0	1.0	ug/g							
Beryllium	< 0.1	0.1	ug/g							
Boron	< 2.0	2.0	ug/g							
Cadmium	< 0.04	0.04	ug/g							
Chromium	< 1.0	1.0	ug/g							
Cobalt	< 0.1	0.1	ug/g							
Copper	< 0.2	0.2	ug/g							
Lead	< 0.2	0.2	ug/g							
Manganese	< 0.4	0.4	ug/g							
Mercury	< 0.05	0.05	ug/g							
Molybdenum	< 0.1	0.1	ug/g							
Nickel	< 0.4	0.4	ug/g							
Selenium	< 0.5	0.5	ug/g							
Silver	< 0.2	0.2	ug/g							
Thallium	< 0.1	0.1	ug/g							
Tin	< 0.2	0.2	ug/g							
Uranium	< 0.1	0.1	ug/g							
Vanadium	< 0.4	0.4	ug/g							
Zinc	< 2.0	2.0	ug/g							
Duplicate (B1L0269-DUP1)				**Source: CL10293-04** Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	< 0.1	0.1	ug/g		0.1				40	
Arsenic	1.6	0.4	ug/g		1.9				30	
Barium	49.1	1.0	ug/g		51.4			5	30	
Beryllium	0.2	0.1	ug/g		< 0.1				40	
Boron	< 2.0	2.0	ug/g		< 2.0				30	
Cadmium	0.36	0.04	ug/g		0.55			42	30	RPD
Chromium	6.9	1.0	ug/g		6.5			6	30	
Cobalt	4.2	0.1	ug/g		4.0			5	30	
Copper	12.4	0.2	ug/g		26.0			71	30	RPD
Lead	2.2	0.2	ug/g		2.6			16	40	
Manganese	204	0.4	ug/g		193			6	30	
Mercury	< 0.05	0.05	ug/g		< 0.05				40	
Molybdenum	0.7	0.1	ug/g		0.9			23	40	
Nickel	4.4	0.4	ug/g		5.2			18	30	
Selenium	< 0.5	0.5	ug/g		< 0.5				30	
Silver	< 0.2	0.2	ug/g		< 0.2				40	
Thallium	< 0.1	0.1	ug/g		0.1				30	
Tin	0.2	0.2	ug/g		0.3				40	
Uranium	0.6	0.1	ug/g		0.6			13	30	
Vanadium	28.9	0.4	ug/g		29.0			< 1	30	
Zinc	22.4	2.0	ug/g		22.4			< 1	30	
Reference (B1L0269-SRM1)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	10.2	0.1	ug/g	7.30		139	62-158			
Arsenic	24.4	0.4	ug/g	23.2		105	83-112			
Barium	266	1.0	ug/g	294		90	61-128			
Beryllium	0.5	0.1	ug/g	0.410		125	57-141			
Boron	43.9	2.0	ug/g	38.0		116	57-139			
Cadmium	2.12	0.04	ug/g	1.98		107	76-128			
Chromium	50.6	1.0	ug/g	48.0		105	88-118			

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Strong Acid Leachable Metals, Batch B1L0269, Continued										
Reference (B1L0269-SRM1), Continued				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Cobalt	7.6	0.1	ug/g	8.75		87	87-113			
Copper	299	0.2	ug/g	296		101	89-115			
Lead	174	0.2	ug/g	166		105	85-115			
Manganese	254	0.4	ug/g	253		100	88-114			
Mercury	3.30	0.05	ug/g	2.88		115	65-144			
Molybdenum	5.1	0.1	ug/g	4.57		111	83-126			
Nickel	30.5	0.4	ug/g	31.6		96	90-112			
Selenium	1.5	0.5	ug/g	1.02		144	64-157			
Silver	1.24	0.2	ug/g	1.17		106	60-111			
Thallium	0.4	0.1	ug/g	0.450		90	79-102			
Tin	20.4	0.2	ug/g	19.1		107	74-123			
Uranium	1.5	0.1	ug/g	1.64		94	75-106			
Vanadium	77.4	0.4	ug/g	74.4		104	83-124			
Zinc	353	2.0	ug/g	337		105	86-118			
Reference (B1L0269-SRM2)				Prepared: Dec-20-11, Analyzed: Dec-21-11						
Antimony	10.6	0.1	ug/g	7.30		145	62-158			
Arsenic	25.3	0.4	ug/g	23.2		109	83-112			
Barium	274	1.0	ug/g	294		93	61-128			
Beryllium	0.4	0.1	ug/g	0.410		104	57-141			
Boron	44.3	2.0	ug/g	38.0		117	57-139			
Cadmium	2.27	0.04	ug/g	1.98		115	76-128			
Chromium	52.0	1.0	ug/g	48.0		108	88-118			
Cobalt	7.8	0.1	ug/g	8.75		90	87-113			
Copper	309	0.2	ug/g	296		104	89-115			
Lead	181	0.2	ug/g	166		109	85-115			
Manganese	263	0.4	ug/g	253		104	88-114			
Mercury	3.37	0.05	ug/g	2.88		117	65-144			
Molybdenum	5.4	0.1	ug/g	4.57		118	83-126			
Nickel	31.0	0.4	ug/g	31.6		98	90-112			
Selenium	1.5	0.5	ug/g	1.02		149	64-157			
Silver	1.07	0.2	ug/g	1.17		92	60-111			
Thallium	0.4	0.1	ug/g	0.450		94	79-102			
Tin	20.8	0.2	ug/g	19.1		109	74-123			
Uranium	1.6	0.1	ug/g	1.64		98	75-106			
Vanadium	79.7	0.4	ug/g	74.4		107	83-124			
Zinc	367	2.0	ug/g	337		109	86-118			
Volatile Organic Compounds, Batch B1L0217										
Blank (B1L0217-BLK1)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
Benzene	< 0.03	0.03	mg/kg wet							
Ethylbenzene	< 0.05	0.05	mg/kg wet							
Methyl tert-butyl ether	< 0.05	0.05	mg/kg wet							
Toluene	< 0.20	0.20	mg/kg wet							
Xylenes (total)	< 0.10	0.10	mg/kg wet							
Surrogate: Toluene-d8	*10.6*		*mg/kg wet*	*10.0*		*106*	*74-118*			
Surrogate: 4-Bromofluorobenzene	*11.0*		*mg/kg wet*	*10.0*		*110*	*84-115*			
Surrogate: 1,4-Dichlorobenzene-d4	*10.5*		*mg/kg wet*	*10.0*		*105*	*82-114*			
LCS (B1L0217-BS1)				Prepared: Dec-16-11, Analyzed: Dec-24-11						
Benzene	1.90	0.03	mg/kg wet	2.00		95	92-123			
Ethylbenzene	1.74	0.05	mg/kg wet	2.00		87	87-119			
Methyl tert-butyl ether	< 0.05	0.05	mg/kg wet	2.00			93-130			
Toluene	1.96	0.20	mg/kg wet	2.00		98	82-124			
Xylenes (total)	5.24	0.10	mg/kg wet	6.00		87	87-121			
Surrogate: Toluene-d8	*10.7*		*mg/kg wet*	*10.0*		*107*	*74-118*			
Surrogate: 4-Bromofluorobenzene	*11.0*		*mg/kg wet*	*10.0*		*110*	*84-115*			
Surrogate: 1,4-Dichlorobenzene-d4	*10.8*		*mg/kg wet*	*10.0*		*108*	*82-114*			
Surrogate: Toluene-d8	*11.7*		*mg/kg wet*	*10.0*		*117*	*74-118*			
Surrogate: 4-Bromofluorobenzene	*10.4*		*mg/kg wet*	*10.0*		*104*	*84-115*			
Surrogate: 1,4-Dichlorobenzene-d4	*10.6*		*mg/kg wet*	*10.0*		*106*	*82-114*			

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Volatile Organic Compounds, Batch B1L0217, Continued										
Duplicate (B1L0217-DUP1)		**Source: CL10293-01**		Prepared: Dec-16-11, Analyzed: Dec-24-11						
Benzene	< 0.05	0.05	mg/kg dry		< 0.05				40	
Ethylbenzene	< 0.08	0.08	mg/kg dry		< 0.08				40	
Methyl tert-butyl ether	< 0.08	0.08	mg/kg dry		< 0.08				40	
Toluene	0.34	0.34	mg/kg dry		< 0.34				40	
Xylenes (total)	< 0.17	0.17	mg/kg dry		< 0.17				40	
Surrogate: Toluene-d8	*16.8*		*mg/kg dry*	*15.9*		*105*	*74-118*			
Surrogate: 4-Bromofluorobenzene	*16.6*		*mg/kg dry*	*15.9*		*104*	*84-115*			
Surrogate: 1,4-Dichlorobenzene-d4	*16.0*		*mg/kg dry*	*15.9*		*101*	*82-114*			

QC Qualifiers:

RPD Relative percent difference (RPD) of duplicate analysis are outside of control limits. Data accepted based on acceptable performance of other batch QC.

QUALITY CONTROL DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10293
PROJECT	Porpoise Bay	**REPORTED**	Jan-04-12

CERTIFICATE OF ANALYSIS

CLIENT **Stantec Consulting Ltd. (Burnaby)**
500 - 4370 Dominion Street
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V5G 4L7 FAX N/A

ATTENTION **Tyler Joyce**

RECEIVED / TEMP	Dec-22-11 08:34 / 20.0 °C	**WORK ORDER**	CL10394
REPORTED	Jan-06-12	**PROJECT**	Porpoise Bay
		PROJECT INFO	9506130-DFO, 123110279-Stantec

General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done 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 document. This analytical report must be reproduced in its entirity. 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.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  mg/L = milligrams per litre, equivalent to parts per million (ppm)
  ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  ug/g = micrograms per gram, equivalent to parts per million (ppm)
  ug/m3 = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

CARO Analytical Services

Final Review Per: **Paul Thandi, B.Sc., PChem For Patrick Novak, B.Sc., PChem**
Business Manager, Richmond

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SAMPLE DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Aggregate Organic Parameters

PS06130-002-1112-SV001 (CL10394-01) Matrix: Air Sampled: Dec-21-11 11:52 To Dec-21-11 13:32

Sampling Flow (mL/min): 100 Sampling Time (min): 100

VHv (6-13)	**540**	200	ug/m3 Air	Dec-23-11	Dec-23-11	
VPHv	**530**	200	ug/m3 Air	N/A	N/A	

PS06130-003-1112-SV002 (CL10394-02) Matrix: Air Sampled: Dec-21-11 14:00 To Dec-21-11 15:40

Sampling Flow (mL/min): 100 Sampling Time (min): 100

VHv (6-13)	< 200	200	ug/m3 Air	Dec-23-11	Dec-23-11	
VPHv	< 200	200	ug/m3 Air	N/A	N/A	

Volatile Organic Compounds

PS06130-002-1112-SV001 (CL10394-01) Matrix: Air Sampled: Dec-21-11 11:52 To Dec-21-11 13:32

Sampling Flow (mL/min): 100 Sampling Time (min): 100

1,2,4-Trimethylbenzene	**0.97**	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dibromoethane	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dichloroethane	< 0.030	0.030	ug/m3 Air	Dec-23-11	Dec-23-11	
1,3,5-Trimethylbenzene	**0.32**	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Benzene	**1.2**	0.050	ug/m3 Air	Dec-23-11	Dec-23-11	
Isopropylbenzene (Cumene)	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Ethylbenzene	**0.42**	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Methyl cyclohexane	**0.23**	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Methyl tert-butyl ether	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Naphthalene	**0.23**	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
n-Decane	**0.34**	0.30	ug/m3 Air	Dec-23-11	Dec-23-11	
n-Hexane	< 1.0	1.0	ug/m3 Air	Dec-23-11	Dec-23-11	
Toluene	**1.7**	1.0	ug/m3 Air	Dec-23-11	Dec-23-11	
Xylenes (total)	**2.9**	0.50	ug/m3 Air	Dec-23-11	Dec-23-11	
Surrogate: Toluene-d8	*88 %*	*66-122*		*Dec-23-11*	*Dec-23-11*	

PS06130-003-1112-SV002 (CL10394-02) Matrix: Air Sampled: Dec-21-11 14:00 To Dec-21-11 15:40

Sampling Flow (mL/min): 100 Sampling Time (min): 100

1,2,4-Trimethylbenzene	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dibromo-3-chloropropane	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dibromoethane	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dichloroethane	< 0.030	0.030	ug/m3 Air	Dec-23-11	Dec-23-11	
1,3,5-Trimethylbenzene	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Benzene	**0.050**	0.050	ug/m3 Air	Dec-23-11	Dec-23-11	
Isopropylbenzene (Cumene)	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Ethylbenzene	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Methyl cyclohexane	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Methyl tert-butyl ether	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Naphthalene	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
n-Decane	< 0.30	0.30	ug/m3 Air	Dec-23-11	Dec-23-11	
n-Hexane	< 1.0	1.0	ug/m3 Air	Dec-23-11	Dec-23-11	
Toluene	< 1.0	1.0	ug/m3 Air	Dec-23-11	Dec-23-11	
Xylenes (total)	< 0.50	0.50	ug/m3 Air	Dec-23-11	Dec-23-11	
Surrogate: Toluene-d8	*%*	*66-122*		*Dec-23-11*	*Dec-23-11*	*S02*

SAMPLE DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Sample Qualifiers:

S02	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

ANALYSIS / REPORT INFORMATION

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analysis Description	**Method Reference(s)** (* = modified from)		**LAB**
	Preparation	**Analysis**	
Soil Vapour Analysis (VOC + VH/VPH)	N/A	[CALC]	RMD
Vapour Analysis (VHv)	N/A	BCMOE	RMD
Vapour Analysis (VOC)	N/A	EPA TO-17/BCMOE	RMD

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The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control 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 for.

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	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Aggregate Organic Parameters, Batch B1L0310										
Blank (B1L0310-BLK1)				Prepared: Dec-23-11, Analyzed: Dec-23-11						
VHv (6-13)	< 2.0	2.0	ug							
LCS (B1L0310-BS2)				Prepared: Dec-23-11, Analyzed: Dec-24-11						
VHv (6-13)	10.1	2.0	ug	10.0		101	86-122			
Volatile Organic Compounds, Batch B1L0310										
Blank (B1L0310-BLK1)				Prepared: Dec-23-11, Analyzed: Dec-23-11						
1,1,1,2-Tetrachloroethane	< 0.0005	0.0005	ug							
1,1,1-Trichloroethane	< 0.0010	0.0010	ug							
1,1,2,2-Tetrachloroethane	< 0.0005	0.0005	ug							
1,1,2-Trichloroethane	< 0.0005	0.0005	ug							
1,1-Dichloroethane	< 0.0010	0.0010	ug							
1,1-Dichloroethene	< 0.0003	0.0003	ug							
1,2,3-Trichloropropane	< 0.0010	0.0010	ug							
1,2,4-Trichlorobenzene	< 0.0010	0.0010	ug							
1,2,4-Trimethylbenzene	< 0.0020	0.0020	ug							
1,2-Dibromo-3-chloropropane	< 0.0010	0.0010	ug							
1,2-Dibromoethane	< 0.0010	0.0010	ug							
1,2-Dichlorobenzene	< 0.0010	0.0010	ug							
1,2-Dichloroethane	< 0.0003	0.0003	ug							
1,2-Dichloropropane	< 0.0005	0.0005	ug							
1,3,5-Trimethylbenzene	< 0.0020	0.0020	ug							
1,3-Dichlorobenzene	< 0.0010	0.0010	ug							
1,3-Dichloropropane	< 0.0010	0.0010	ug							
trans-1,4-Dichloro-2-butene	< 0.0010	0.0010	ug							
Hexachlorobutadiene	< 0.0005	0.0005	ug							
1,4-Dichlorobenzene	< 0.0010	0.0010	ug							
2-Chlorotoluene	< 0.0020	0.0020	ug							
Acetone	< 0.010	0.010	ug							
Acrylonitrile	< 0.0010	0.0010	ug							
Allyl chloride	< 0.0005	0.0005	ug							
Benzene	< 0.0005	0.0005	ug							
Bromobenzene	< 0.0010	0.0010	ug							
Bromodichloromethane	< 0.0005	0.0005	ug							
Bromoform	< 0.0010	0.0010	ug							
Carbon disulfide	< 0.0020	0.0020	ug							
Carbon tetrachloride	< 0.0003	0.0003	ug							
Chlorobenzene	< 0.0010	0.0010	ug							
Chloroethane	< 0.0050	0.0050	ug							
Chloroform	< 0.0005	0.0005	ug							
cis-1,2-Dichloroethene	< 0.0010	0.0010	ug							
Isopropylbenzene (Cumene)	< 0.0010	0.0010	ug							

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes

Volatile Organic Compounds, Batch B1L0310, Continued

Blank (B1L0310-BLK1), Continued — Prepared: Dec-23-11, Analyzed: Dec-23-11

Dibromochloromethane	< 0.0010	0.0010	ug							
Dibromomethane	< 0.0010	0.0010	ug							
Dichlorodifluoromethane	< 0.0020	0.0020	ug							
Ethyl acetate	< 0.0050	0.0050	ug							
Ethyl ether	< 0.0020	0.0020	ug							
Ethyl methacrylate	< 0.0010	0.0010	ug							
Ethylbenzene	< 0.0010	0.0010	ug							
Hexachloroethane	< 0.0010	0.0010	ug							
Methacrylonitrile	< 0.0010	0.0010	ug							
Methyl acrylate	< 0.0050	0.0050	ug							
Methyl cyclohexane	< 0.0020	0.0020	ug							
2-Butanone (MEK)	< 0.0020	0.0020	ug							
4-Methyl-2-Pentanone (MIBK)	< 0.0020	0.0020	ug							
Methyl methacrylate	< 0.0020	0.0020	ug							
Methyl tert-butyl ether	< 0.0020	0.0020	ug							
Methylene chloride	< 0.010	0.010	ug							
Naphthalene	< 0.0010	0.0010	ug							
n-Decane	< 0.0030	0.0030	ug							
n-Hexane	< 0.010	0.010	ug							
Nitrobenzene	< 0.0010	0.0010	ug							
Styrene	< 0.0010	0.0010	ug							
Tetrachloroethene	< 0.0050	0.0050	ug							
Tetrahydrofuran	< 0.0010	0.0010	ug							
Toluene	< 0.010	0.010	ug							
trans-1,2-Dichloroethene	< 0.0010	0.0010	ug							
Trichloroethene	< 0.0003	0.0003	ug							
Trichlorofluoromethane	< 0.0010	0.0010	ug							
Vinyl chloride	< 0.0020	0.0020	ug							
Xylenes (total)	< 0.0050	0.0050	ug							

LCS (B1L0310-BS1) — Prepared: Dec-23-11, Analyzed: Dec-23-11

1,1,1,2-Tetrachloroethane	0.0406	0.0005	ug	0.0500		81	70-130			
1,1,1-Trichloroethane	0.0427	0.0010	ug	0.0500		85	70-130			
1,1,2,2-Tetrachloroethane	0.0405	0.0005	ug	0.0500		81	70-130			
1,1,2-Trichloroethane	0.0446	0.0005	ug	0.0500		89	70-130			
1,1-Dichloroethane	0.0446	0.0010	ug	0.0500		89	70-130			
1,1-Dichloroethene	0.0527	0.0003	ug	0.0500		105	70-130			
1,2,3-Trichloropropane	0.0434	0.0010	ug	0.0500		87	70-130			
1,2,4-Trichlorobenzene	0.0434	0.0010	ug	0.0500		87	70-130			
1,2,4-Trimethylbenzene	0.0444	0.0020	ug	0.0500		89	70-130			
1,2-Dibromo-3-chloropropane	0.0469	0.0010	ug	0.0500		94	70-130			
1,2-Dibromoethane	0.0469	0.0010	ug	0.0500		94	70-130			
1,2-Dichlorobenzene	0.0440	0.0010	ug	0.0500		88	70-130			
1,2-Dichloroethane	0.0429	0.0003	ug	0.0500		86	70-130			
1,2-Dichloropropane	0.0424	0.0005	ug	0.0500		85	70-130			
1,3,5-Trimethylbenzene	0.0445	0.0020	ug	0.0500		89	70-130			
1,3-Dichlorobenzene	0.0442	0.0010	ug	0.0500		88	70-130			
1,3-Dichloropropane	0.0432	0.0010	ug	0.0500		86	70-130			
trans-1,4-Dichloro-2-butene	0.0500	0.0010	ug	0.0500		100	70-130			
Hexachlorobutadiene	0.0422	0.0005	ug	0.0500		84	70-130			
1,4-Dichlorobenzene	0.0437	0.0010	ug	0.0500		87	70-130			
2-Chlorotoluene	0.0451	0.0020	ug	0.0500		90	70-130			
Acetone	0.0395	0.010	ug	0.0500		79	70-130			
Acrylonitrile	0.0415	0.0010	ug	0.0500		83	70-130			
Allyl chloride	0.0474	0.0005	ug	0.0500		95	70-130			
Benzene	0.0410	0.0005	ug	0.0500		82	70-130			
Bromobenzene	0.0446	0.0010	ug	0.0500		89	70-130			
Bromodichloromethane	0.0442	0.0005	ug	0.0500		88	70-130			
Bromoform	0.0499	0.0010	ug	0.0500		100	70-130			
Carbon disulfide	0.0426	0.0020	ug	0.0500		85	70-130			
Carbon tetrachloride	0.0407	0.0003	ug	0.0500		81	70-130			
Chlorobenzene	0.0455	0.0010	ug	0.0500		91	70-130			
Chloroethane	0.0424	0.0050	ug	0.0500		85	70-130			
Chloroform	0.0449	0.0005	ug	0.0500		90	70-130			
cis-1,2-Dichloroethene	0.0419	0.0010	ug	0.0500		84	70-130			

CARO ANALYTICAL SERVICES

CLIENT Stantec Consulting Ltd. (Burnaby) **WORK ORDER #** CL10394
PROJECT Porpoise Bay **REPORTED** Jan-06-12

Volatile Organic Compounds, Batch B1L0310, Continued

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
LCS (B1L0310-BS1), Continued				Prepared: Dec-23-11, Analyzed: Dec-23-11						
Isopropylbenzene (Cumene)	0.0443	0.0010	ug	0.0500		89	70-130			
Dibromochloromethane	0.0485	0.0010	ug	0.0500		97	70-130			
Dibromomethane	0.0488	0.0010	ug	0.0500		98	70-130			
Dichlorodifluoromethane	0.0368	0.0020	ug	0.0500		74	70-130			
Ethyl acetate	0.0444	0.0050	ug	0.0500		89	70-130			
Ethyl ether	0.0434	0.0020	ug	0.0500		87	70-130			
Ethyl methacrylate	0.0586	0.0010	ug	0.0500		117	70-130			
Ethylbenzene	0.0418	0.0010	ug	0.0500		84	70-130			
Methacrylonitrile	0.0426	0.0010	ug	0.0500		85	70-130			
Methyl acrylate	0.0459	0.0050	ug	0.0500		92	70-130			
Methyl cyclohexane	0.0436	0.0020	ug	0.0500		87	70-130			
2-Butanone (MEK)	0.0369	0.0020	ug	0.0500		74	70-130			
4-Methyl-2-Pentanone (MIBK)	0.0412	0.0020	ug	0.0500		82	70-130			
Methyl methacrylate	0.0421	0.0020	ug	0.0500		84	70-130			
Methyl tert-butyl ether	0.0468	0.0020	ug	0.0500		94	70-130			
Methylene chloride	0.0447	0.010	ug	0.0500		89	70-130			
Naphthalene	0.0483	0.0010	ug	0.0500		97	70-130			
n-Decane	0.0416	0.0030	ug	0.0500		83	70-130			
n-Hexane	0.0468	0.010	ug	0.0500		94	70-130			
Nitrobenzene	0.0449	0.0010	ug	0.0500		90	70-130			
Styrene	0.0462	0.0010	ug	0.0500		92	70-130			
Tetrachloroethene	0.0379	0.0050	ug	0.0500		76	70-130			
Tetrahydrofuran	0.0436	0.0010	ug	0.0500		87	70-130			
Toluene	0.0445	0.010	ug	0.0500		89	70-130			
trans-1,2-Dichloroethene	0.0403	0.0010	ug	0.0500		81	70-130			
Trichloroethene	0.0409	0.0003	ug	0.0500		82	70-130			
Trichlorofluoromethane	0.0450	0.0010	ug	0.0500		90	70-130			
Vinyl chloride	0.0380	0.0020	ug	0.0500		76	70-130			
Xylenes (total)	0.132	0.0050	ug	0.150		88	70-130			
LCS Dup (B1L0310-BSD1)				Prepared: Dec-23-11, Analyzed: Dec-23-11						
1,1,1,2-Tetrachloroethane	0.0381	0.0005	ug	0.0500		76	70-130	7	12	
1,1,1-Trichloroethane	0.0449	0.0010	ug	0.0500		90	70-130	5	17	
1,1,2,2-Tetrachloroethane	0.0391	0.0005	ug	0.0500		78	70-130	3	15	
1,1,2-Trichloroethane	0.0474	0.0005	ug	0.0500		95	70-130	6	12	
1,1-Dichloroethane	0.0484	0.0010	ug	0.0500		97	70-130	8	26	
1,1-Dichloroethene	0.0612	0.0003	ug	0.0500		122	70-130	15	29	
1,2,3-Trichloropropane	0.0430	0.0010	ug	0.0500		86	70-130	< 1	13	
1,2,4-Trichlorobenzene	0.0479	0.0010	ug	0.0500		96	70-130	10	16	
1,2,4-Trimethylbenzene	0.0476	0.0020	ug	0.0500		95	70-130	7	15	
1,2-Dibromo-3-chloropropane	0.0460	0.0010	ug	0.0500		92	70-130	2	26	
1,2-Dibromoethane	0.0485	0.0010	ug	0.0500		97	70-130	3	17	
1,2-Dichlorobenzene	0.0444	0.0010	ug	0.0500		89	70-130	< 1	16	
1,2-Dichloroethane	0.0437	0.0003	ug	0.0500		87	70-130	2	17	
1,2-Dichloropropane	0.0455	0.0005	ug	0.0500		91	70-130	7	13	
1,3,5-Trimethylbenzene	0.0467	0.0020	ug	0.0500		93	70-130	5	13	
1,3-Dichlorobenzene	0.0446	0.0010	ug	0.0500		89	70-130	< 1	14	
1,3-Dichloropropane	0.0465	0.0010	ug	0.0500		93	70-130	7	9	
trans-1,4-Dichloro-2-butene	0.0429	0.0010	ug	0.0500		86	70-130	15	25	
Hexachlorobutadiene	0.0422	0.0005	ug	0.0500		84	70-130	< 1	20	
1,4-Dichlorobenzene	0.0442	0.0010	ug	0.0500		88	70-130	1	16	
2-Chlorotoluene	0.0458	0.0020	ug	0.0500		92	70-130	1	22	
Acetone	0.0362	0.010	ug	0.0500		72	70-130	9	27	
Acrylonitrile	0.0412	0.0010	ug	0.0500		82	70-130	< 1	25	
Allyl chloride	0.0538	0.0005	ug	0.0500		108	70-130	13	25	
Benzene	0.0468	0.0005	ug	0.0500		94	70-130	13	14	
Bromobenzene	0.0449	0.0010	ug	0.0500		90	70-130	< 1	17	
Bromodichloromethane	0.0460	0.0005	ug	0.0500		92	70-130	4	22	
Bromoform	0.0454	0.0010	ug	0.0500		91	70-130	9	16	
Carbon disulfide	0.0475	0.0020	ug	0.0500		95	70-130	11	27	
Carbon tetrachloride	0.0408	0.0003	ug	0.0500		82	70-130	< 1	29	
Chlorobenzene	0.0458	0.0010	ug	0.0500		92	70-130	< 1	14	
Chloroethane	0.0515	0.0050	ug	0.0500		103	70-130	19	29	
Chloroform	0.0459	0.0005	ug	0.0500		92	70-130	2	21	
cis-1,2-Dichloroethene	0.0425	0.0010	ug	0.0500		85	70-130	1	16	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Volatile Organic Compounds, Batch B1L0310, Continued

LCS Dup (B1L0310-BSD1), Continued — Prepared: Dec-23-11, Analyzed: Dec-23-11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Isopropylbenzene (Cumene)	0.0451	0.0010	ug	0.0500		90	70-130	2	16	
Dibromochloromethane	0.0507	0.0010	ug	0.0500		101	70-130	4	23	
Dibromomethane	0.0490	0.0010	ug	0.0500		98	70-130	< 1	16	
Dichlorodifluoromethane	0.0493	0.0020	ug	0.0500		99	70-130	29	30	
Ethyl acetate	0.0461	0.0050	ug	0.0500		92	70-130	4	24	
Ethyl ether	0.0440	0.0020	ug	0.0500		88	70-130	1	17	
Ethyl methacrylate	0.0585	0.0010	ug	0.0500		117	70-130	< 1	24	
Ethylbenzene	0.0440	0.0010	ug	0.0500		88	70-130	5	19	
Methacrylonitrile	0.0398	0.0010	ug	0.0500		80	70-130	7	23	
Methyl acrylate	0.0476	0.0050	ug	0.0500		95	70-130	4	21	
Methyl cyclohexane	0.0480	0.0020	ug	0.0500		96	70-130	9	15	
2-Butanone (MEK)	0.0375	0.0020	ug	0.0500		75	70-130	2	27	
4-Methyl-2-Pentanone (MIBK)	0.0404	0.0020	ug	0.0500		81	70-130	2	11	
Methyl methacrylate	0.0433	0.0020	ug	0.0500		87	70-130	3	12	
Methyl tert-butyl ether	0.0488	0.0020	ug	0.0500		98	70-130	4	28	
Methylene chloride	0.0512	0.010	ug	0.0500		102	70-130	14	27	
Naphthalene	0.0557	0.0010	ug	0.0500		111	70-130	14	22	
n-Decane	0.0467	0.0030	ug	0.0500		93	70-130	12	15	
n-Hexane	0.0546	0.010	ug	0.0500		109	70-130	15	21	
Nitrobenzene	0.0446	0.0010	ug	0.0500		89	70-130	< 1	22	
Styrene	0.0469	0.0010	ug	0.0500		94	70-130	1	16	
Tetrachloroethene	0.0394	0.0050	ug	0.0500		79	70-130	4	22	
Tetrahydrofuran	0.0436	0.0010	ug	0.0500		87	70-130	< 1	19	
Toluene	0.0509	0.010	ug	0.0500		102	70-130	13	15	
trans-1,2-Dichloroethene	0.0409	0.0010	ug	0.0500		82	70-130	2	16	
Trichloroethene	0.0444	0.0003	ug	0.0500		89	70-130	8	16	
Trichlorofluoromethane	0.0546	0.0010	ug	0.0500		109	70-130	19	49	
Vinyl chloride	0.0478	0.0020	ug	0.0500		96	70-130	23	31	
Xylenes (total)	0.143	0.0050	ug	0.150		96	70-130	8	16	

QUALITY CONTROL DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

CERTIFICATE OF ANALYSIS

CLIENT **Stantec Consulting Ltd. (Burnaby)**
500 - 4370 Dominion Street
Burnaby BC
V5G 4L7
TEL 778 32801041
FAX N/A

ATTENTION **Tyler Joyce**

RECEIVED / TEMP	Dec-22-11 08:34 / 20.0 °C	**WORK ORDER**	CL10394
REPORTED	Jan-11-12	**PROJECT**	Porpoise Bay
		PROJECT INFO	9506130-DFO, 123110279-Stantec

General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done 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 document. This analytical report must be reproduced in its entirity. 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.

- All solids results are reported on a dry weight basis unless otherwise noted

- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  mg/L = milligrams per litre, equivalent to parts per million (ppm)
  ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  ug/g = micrograms per gram, equivalent to parts per million (ppm)
  ug/m3 = micrograms per cubic meter of air

- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

CARO Analytical Services

Final Review Per: **Paul Thandi, B.Sc., PChem For Patrick Novak, B.Sc., PChem**
Business Manager, Richmond

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SAMPLE DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-11-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Aggregate Organic Parameters

PS06130-002-1112-SV001 (CL10394-01) Matrix: Air Sampled: Dec-21-11 11:52 To Dec-21-11 13:32

Sampling Flow (mL/min): 100 Sampling Time (min): 100

VHv (6-13)	**540**	200	ug/m3 Air	Dec-23-11	Dec-23-11	
VPHv	**530**	200	ug/m3 Air	N/A	N/A	

PS06130-003-1112-SV002 (CL10394-02) Matrix: Air Sampled: Dec-21-11 14:00 To Dec-21-11 15:40

Sampling Flow (mL/min): 100 Sampling Time (min): 100

VHv (6-13)	< 200	200	ug/m3 Air	Dec-23-11	Dec-23-11	
VPHv	< 200	200	ug/m3 Air	N/A	N/A	

Volatile Organic Compounds

PS06130-002-1112-SV001 (CL10394-01) Matrix: Air Sampled: Dec-21-11 11:52 To Dec-21-11 13:32

Sampling Flow (mL/min): 100 Sampling Time (min): 100

1,2,4-Trimethylbenzene	**0.97**	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dibromoethane	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dichloroethane	< 0.030	0.030	ug/m3 Air	Dec-23-11	Dec-23-11	
1,3,5-Trimethylbenzene	**0.32**	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
1,3-Butadiene	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Benzene	**1.2**	0.050	ug/m3 Air	Dec-23-11	Dec-23-11	
Isopropylbenzene (Cumene)	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Ethylbenzene	**0.42**	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Methyl cyclohexane	**0.23**	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Methyl tert-butyl ether	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Naphthalene	**0.23**	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
n-Decane	**0.34**	0.30	ug/m3 Air	Dec-23-11	Dec-23-11	
n-Hexane	< 1.0	1.0	ug/m3 Air	Dec-23-11	Dec-23-11	
Styrene	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Toluene	**1.7**	1.0	ug/m3 Air	Dec-23-11	Dec-23-11	
Xylenes (total)	**2.9**	0.50	ug/m3 Air	Dec-23-11	Dec-23-11	
Surrogate: Toluene-d8	*88 %*	*66-122*		*Dec-23-11*	*Dec-23-11*	

PS06130-003-1112-SV002 (CL10394-02) Matrix: Air Sampled: Dec-21-11 14:00 To Dec-21-11 15:40

Sampling Flow (mL/min): 100 Sampling Time (min): 100

1,2,4-Trimethylbenzene	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dibromo-3-chloropropane	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dibromoethane	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
1,2-Dichloroethane	< 0.030	0.030	ug/m3 Air	Dec-23-11	Dec-23-11	
1,3,5-Trimethylbenzene	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
1,3-Butadiene	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Benzene	**0.050**	0.050	ug/m3 Air	Dec-23-11	Dec-23-11	
Isopropylbenzene (Cumene)	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Ethylbenzene	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Methyl cyclohexane	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Methyl tert-butyl ether	< 0.20	0.20	ug/m3 Air	Dec-23-11	Dec-23-11	
Naphthalene	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
n-Decane	< 0.30	0.30	ug/m3 Air	Dec-23-11	Dec-23-11	

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-11-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Volatile Organic Compounds, Continued

PS06130-003-1112-SV002 (CL10394-02) Matrix: Air Sampled: Dec-21-11 14:00 To Dec-21-11 15:40, Continued

Sampling Flow (mL/min): 100 Sampling Time (min): 100

n-Hexane	< 1.0	1.0	ug/m3 Air	Dec-23-11	Dec-23-11	
Styrene	< 0.10	0.10	ug/m3 Air	Dec-23-11	Dec-23-11	
Toluene	< 1.0	1.0	ug/m3 Air	Dec-23-11	Dec-23-11	
Xylenes (total)	< 0.50	0.50	ug/m3 Air	Dec-23-11	Dec-23-11	
Surrogate: Toluene-d8	*%*	*66-122*		*Dec-23-11*	*Dec-23-11*	*S02*

Sample Qualifiers:

S02 Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

ANALYSIS / REPORT INFORMATION

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-11-12

Analysis Description	**Method Reference(s)** (* = modified from) **Preparation**	**Analysis**	**LAB**
Soil Vapour Analysis (VOC + VH/VPH)	N/A	[CALC]	RMD
Vapour Analysis (VHv)	N/A	BCMOE	RMD
Vapour Analysis (VOC)	N/A	EPA TO-17/BCMOE	RMD

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-11-12

The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control 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 for.

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	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Aggregate Organic Parameters, Batch B1L0310										
Blank (B1L0310-BLK1)				Prepared: Dec-23-11, Analyzed: Dec-23-11						
VHv (6-13)	< 2.0	2.0	ug							
LCS (B1L0310-BS2)				Prepared: Dec-23-11, Analyzed: Dec-24-11						
VHv (6-13)	10.1	2.0	ug	10.0		101	86-122			
Volatile Organic Compounds, Batch B1L0310										
Blank (B1L0310-BLK1)				Prepared: Dec-23-11, Analyzed: Dec-23-11						
1,1,1,2-Tetrachloroethane	< 0.0005	0.0005	ug							
1,1,1-Trichloroethane	< 0.0010	0.0010	ug							
1,1,2,2-Tetrachloroethane	< 0.0005	0.0005	ug							
1,1,2-Trichloroethane	< 0.0005	0.0005	ug							
1,1-Dichloroethane	< 0.0010	0.0010	ug							
1,1-Dichloroethene	< 0.0003	0.0003	ug							
1,2,3-Trichloropropane	< 0.0010	0.0010	ug							
1,2,4-Trichlorobenzene	< 0.0010	0.0010	ug							
1,2,4-Trimethylbenzene	< 0.0020	0.0020	ug							
1,2-Dibromo-3-chloropropane	< 0.0010	0.0010	ug							
1,2-Dibromoethane	< 0.0010	0.0010	ug							
1,2-Dichlorobenzene	< 0.0010	0.0010	ug							
1,2-Dichloroethane	< 0.0003	0.0003	ug							
1,2-Dichloropropane	< 0.0005	0.0005	ug							
1,3,5-Trimethylbenzene	< 0.0020	0.0020	ug							
1,3-Dichlorobenzene	< 0.0010	0.0010	ug							
1,3-Dichloropropane	< 0.0010	0.0010	ug							
trans-1,4-Dichloro-2-butene	< 0.0010	0.0010	ug							
Hexachlorobutadiene	< 0.0005	0.0005	ug							
1,4-Dichlorobenzene	< 0.0010	0.0010	ug							
2-Chlorotoluene	< 0.0020	0.0020	ug							
Acetone	< 0.010	0.010	ug							
Acrylonitrile	< 0.0010	0.0010	ug							
Allyl chloride	< 0.0005	0.0005	ug							
Benzene	< 0.0005	0.0005	ug							
Bromobenzene	< 0.0010	0.0010	ug							
Bromodichloromethane	< 0.0005	0.0005	ug							
Bromoform	< 0.0010	0.0010	ug							
Carbon disulfide	< 0.0020	0.0020	ug							
Carbon tetrachloride	< 0.0003	0.0003	ug							
Chlorobenzene	< 0.0010	0.0010	ug							
Chloroethane	< 0.0050	0.0050	ug							
Chloroform	< 0.0005	0.0005	ug							
cis-1,2-Dichloroethene	< 0.0010	0.0010	ug							
Isopropylbenzene (Cumene)	< 0.0010	0.0010	ug							

CARO ANALYTICAL SERVICES

CLIENT Stantec Consulting Ltd. (Burnaby) **WORK ORDER #** CL10394
PROJECT Porpoise Bay **REPORTED** Jan-11-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes

Volatile Organic Compounds, Batch B1L0310, Continued

Blank (B1L0310-BLK1), Continued				Prepared: Dec-23-11, Analyzed: Dec-23-11						
Dibromochloromethane	< 0.0010	0.0010	ug							
Dibromomethane	< 0.0010	0.0010	ug							
Dichlorodifluoromethane	< 0.0020	0.0020	ug							
Ethyl acetate	< 0.0050	0.0050	ug							
Ethyl ether	< 0.0020	0.0020	ug							
Ethyl methacrylate	< 0.0010	0.0010	ug							
Ethylbenzene	< 0.0010	0.0010	ug							
Hexachloroethane	< 0.0010	0.0010	ug							
Methacrylonitrile	< 0.0010	0.0010	ug							
Methyl acrylate	< 0.0050	0.0050	ug							
Methyl cyclohexane	< 0.0020	0.0020	ug							
2-Butanone (MEK)	< 0.0020	0.0020	ug							
4-Methyl-2-Pentanone (MIBK)	< 0.0020	0.0020	ug							
Methyl methacrylate	< 0.0020	0.0020	ug							
Methyl tert-butyl ether	< 0.0020	0.0020	ug							
Methylene chloride	< 0.010	0.010	ug							
Naphthalene	< 0.0010	0.0010	ug							
n-Decane	< 0.0030	0.0030	ug							
n-Hexane	< 0.010	0.010	ug							
Nitrobenzene	< 0.0010	0.0010	ug							
Styrene	< 0.0010	0.0010	ug							
Tetrachloroethene	< 0.0050	0.0050	ug							
Tetrahydrofuran	< 0.0010	0.0010	ug							
Toluene	< 0.010	0.010	ug							
trans-1,2-Dichloroethene	< 0.0010	0.0010	ug							
Trichloroethene	< 0.0003	0.0003	ug							
Trichlorofluoromethane	< 0.0010	0.0010	ug							
Vinyl chloride	< 0.0020	0.0020	ug							
Xylenes (total)	< 0.0050	0.0050	ug							
LCS (B1L0310-BS1)				Prepared: Dec-23-11, Analyzed: Dec-23-11						
1,1,1,2-Tetrachloroethane	0.0406	0.0005	ug	0.0500		81	70-130			
1,1,1-Trichloroethane	0.0427	0.0010	ug	0.0500		85	70-130			
1,1,2,2-Tetrachloroethane	0.0405	0.0005	ug	0.0500		81	70-130			
1,1,2-Trichloroethane	0.0446	0.0005	ug	0.0500		89	70-130			
1,1-Dichloroethane	0.0446	0.0010	ug	0.0500		89	70-130			
1,1-Dichloroethene	0.0527	0.0003	ug	0.0500		105	70-130			
1,2,3-Trichloropropane	0.0434	0.0010	ug	0.0500		87	70-130			
1,2,4-Trichlorobenzene	0.0434	0.0010	ug	0.0500		87	70-130			
1,2,4-Trimethylbenzene	0.0444	0.0020	ug	0.0500		89	70-130			
1,2-Dibromo-3-chloropropane	0.0469	0.0010	ug	0.0500		94	70-130			
1,2-Dibromoethane	0.0469	0.0010	ug	0.0500		94	70-130			
1,2-Dichlorobenzene	0.0440	0.0010	ug	0.0500		88	70-130			
1,2-Dichloroethane	0.0429	0.0003	ug	0.0500		86	70-130			
1,2-Dichloropropane	0.0424	0.0005	ug	0.0500		85	70-130			
1,3,5-Trimethylbenzene	0.0445	0.0020	ug	0.0500		89	70-130			
1,3-Dichlorobenzene	0.0442	0.0010	ug	0.0500		88	70-130			
1,3-Dichloropropane	0.0432	0.0010	ug	0.0500		86	70-130			
trans-1,4-Dichloro-2-butene	0.0500	0.0010	ug	0.0500		100	70-130			
Hexachlorobutadiene	0.0422	0.0005	ug	0.0500		84	70-130			
1,4-Dichlorobenzene	0.0437	0.0010	ug	0.0500		87	70-130			
2-Chlorotoluene	0.0451	0.0020	ug	0.0500		90	70-130			
Acetone	0.0395	0.010	ug	0.0500		79	70-130			
Acrylonitrile	0.0415	0.0010	ug	0.0500		83	70-130			
Allyl chloride	0.0474	0.0005	ug	0.0500		95	70-130			
Benzene	0.0410	0.0005	ug	0.0500		82	70-130			
Bromobenzene	0.0446	0.0010	ug	0.0500		89	70-130			
Bromodichloromethane	0.0442	0.0005	ug	0.0500		88	70-130			
Bromoform	0.0499	0.0010	ug	0.0500		100	70-130			
Carbon disulfide	0.0426	0.0020	ug	0.0500		85	70-130			
Carbon tetrachloride	0.0407	0.0003	ug	0.0500		81	70-130			
Chlorobenzene	0.0455	0.0010	ug	0.0500		91	70-130			
Chloroethane	0.0424	0.0050	ug	0.0500		85	70-130			
Chloroform	0.0449	0.0005	ug	0.0500		90	70-130			
cis-1,2-Dichloroethene	0.0419	0.0010	ug	0.0500		84	70-130			

CARO ANALYTICAL SERVICES

CLIENT Stantec Consulting Ltd. (Burnaby) **WORK ORDER #** CL10394
PROJECT Porpoise Bay **REPORTED** Jan-11-12

Volatile Organic Compounds, Batch B1L0310, Continued

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
LCS (B1L0310-BS1), Continued				Prepared: Dec-23-11, Analyzed: Dec-23-11						
Isopropylbenzene (Cumene)	0.0443	0.0010	ug	0.0500		89	70-130			
Dibromochloromethane	0.0485	0.0010	ug	0.0500		97	70-130			
Dibromomethane	0.0488	0.0010	ug	0.0500		98	70-130			
Dichlorodifluoromethane	0.0368	0.0020	ug	0.0500		74	70-130			
Ethyl acetate	0.0444	0.0050	ug	0.0500		89	70-130			
Ethyl ether	0.0434	0.0020	ug	0.0500		87	70-130			
Ethyl methacrylate	0.0586	0.0010	ug	0.0500		117	70-130			
Ethylbenzene	0.0418	0.0010	ug	0.0500		84	70-130			
Methacrylonitrile	0.0426	0.0010	ug	0.0500		85	70-130			
Methyl acrylate	0.0459	0.0050	ug	0.0500		92	70-130			
Methyl cyclohexane	0.0436	0.0020	ug	0.0500		87	70-130			
2-Butanone (MEK)	0.0369	0.0020	ug	0.0500		74	70-130			
4-Methyl-2-Pentanone (MIBK)	0.0412	0.0020	ug	0.0500		82	70-130			
Methyl methacrylate	0.0421	0.0020	ug	0.0500		84	70-130			
Methyl tert-butyl ether	0.0468	0.0020	ug	0.0500		94	70-130			
Methylene chloride	0.0447	0.010	ug	0.0500		89	70-130			
Naphthalene	0.0483	0.0010	ug	0.0500		97	70-130			
n-Decane	0.0416	0.0030	ug	0.0500		83	70-130			
n-Hexane	0.0468	0.010	ug	0.0500		94	70-130			
Nitrobenzene	0.0449	0.0010	ug	0.0500		90	70-130			
Styrene	0.0462	0.0010	ug	0.0500		92	70-130			
Tetrachloroethene	0.0379	0.0050	ug	0.0500		76	70-130			
Tetrahydrofuran	0.0436	0.0010	ug	0.0500		87	70-130			
Toluene	0.0445	0.010	ug	0.0500		89	70-130			
trans-1,2-Dichloroethene	0.0403	0.0010	ug	0.0500		81	70-130			
Trichloroethene	0.0409	0.0003	ug	0.0500		82	70-130			
Trichlorofluoromethane	0.0450	0.0010	ug	0.0500		90	70-130			
Vinyl chloride	0.0380	0.0020	ug	0.0500		76	70-130			
Xylenes (total)	0.132	0.0050	ug	0.150		88	70-130			
LCS Dup (B1L0310-BSD1)				Prepared: Dec-23-11, Analyzed: Dec-23-11						
1,1,1,2-Tetrachloroethane	0.0381	0.0005	ug	0.0500		76	70-130	7	12	
1,1,1-Trichloroethane	0.0449	0.0010	ug	0.0500		90	70-130	5	17	
1,1,2,2-Tetrachloroethane	0.0391	0.0005	ug	0.0500		78	70-130	3	15	
1,1,2-Trichloroethane	0.0474	0.0005	ug	0.0500		95	70-130	6	12	
1,1-Dichloroethane	0.0484	0.0010	ug	0.0500		97	70-130	8	26	
1,1-Dichloroethene	0.0612	0.0003	ug	0.0500		122	70-130	15	29	
1,2,3-Trichloropropane	0.0430	0.0010	ug	0.0500		86	70-130	< 1	13	
1,2,4-Trichlorobenzene	0.0479	0.0010	ug	0.0500		96	70-130	10	16	
1,2,4-Trimethylbenzene	0.0476	0.0020	ug	0.0500		95	70-130	7	15	
1,2-Dibromo-3-chloropropane	0.0460	0.0010	ug	0.0500		92	70-130	2	26	
1,2-Dibromoethane	0.0485	0.0010	ug	0.0500		97	70-130	3	17	
1,2-Dichlorobenzene	0.0444	0.0010	ug	0.0500		89	70-130	< 1	16	
1,2-Dichloroethane	0.0437	0.0003	ug	0.0500		87	70-130	2	17	
1,2-Dichloropropane	0.0455	0.0005	ug	0.0500		91	70-130	7	13	
1,3,5-Trimethylbenzene	0.0467	0.0020	ug	0.0500		93	70-130	5	13	
1,3-Dichlorobenzene	0.0446	0.0010	ug	0.0500		89	70-130	< 1	14	
1,3-Dichloropropane	0.0465	0.0010	ug	0.0500		93	70-130	7	9	
trans-1,4-Dichloro-2-butene	0.0429	0.0010	ug	0.0500		86	70-130	15	25	
Hexachlorobutadiene	0.0422	0.0005	ug	0.0500		84	70-130	< 1	20	
1,4-Dichlorobenzene	0.0442	0.0010	ug	0.0500		88	70-130	1	16	
2-Chlorotoluene	0.0458	0.0020	ug	0.0500		92	70-130	1	22	
Acetone	0.0362	0.010	ug	0.0500		72	70-130	9	27	
Acrylonitrile	0.0412	0.0010	ug	0.0500		82	70-130	< 1	25	
Allyl chloride	0.0538	0.0005	ug	0.0500		108	70-130	13	25	
Benzene	0.0468	0.0005	ug	0.0500		94	70-130	13	14	
Bromobenzene	0.0449	0.0010	ug	0.0500		90	70-130	< 1	17	
Bromodichloromethane	0.0460	0.0005	ug	0.0500		92	70-130	4	22	
Bromoform	0.0454	0.0010	ug	0.0500		91	70-130	9	16	
Carbon disulfide	0.0475	0.0020	ug	0.0500		95	70-130	11	27	
Carbon tetrachloride	0.0408	0.0003	ug	0.0500		82	70-130	< 1	29	
Chlorobenzene	0.0458	0.0010	ug	0.0500		92	70-130	< 1	14	
Chloroethane	0.0515	0.0050	ug	0.0500		103	70-130	19	29	
Chloroform	0.0459	0.0005	ug	0.0500		92	70-130	2	21	
cis-1,2-Dichloroethene	0.0425	0.0010	ug	0.0500		85	70-130	1	16	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10394
PROJECT	Porpoise Bay	**REPORTED**	Jan-11-12

Volatile Organic Compounds, Batch B1L0310, Continued

LCS Dup (B1L0310-BSD1), Continued — Prepared: Dec-23-11, Analyzed: Dec-23-11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Isopropylbenzene (Cumene)	0.0451	0.0010	ug	0.0500		90	70-130	2	16	
Dibromochloromethane	0.0507	0.0010	ug	0.0500		101	70-130	4	23	
Dibromomethane	0.0490	0.0010	ug	0.0500		98	70-130	< 1	16	
Dichlorodifluoromethane	0.0493	0.0020	ug	0.0500		99	70-130	29	30	
Ethyl acetate	0.0461	0.0050	ug	0.0500		92	70-130	4	24	
Ethyl ether	0.0440	0.0020	ug	0.0500		88	70-130	1	17	
Ethyl methacrylate	0.0585	0.0010	ug	0.0500		117	70-130	< 1	24	
Ethylbenzene	0.0440	0.0010	ug	0.0500		88	70-130	5	19	
Methacrylonitrile	0.0398	0.0010	ug	0.0500		80	70-130	7	23	
Methyl acrylate	0.0476	0.0050	ug	0.0500		95	70-130	4	21	
Methyl cyclohexane	0.0480	0.0020	ug	0.0500		96	70-130	9	15	
2-Butanone (MEK)	0.0375	0.0020	ug	0.0500		75	70-130	2	27	
4-Methyl-2-Pentanone (MIBK)	0.0404	0.0020	ug	0.0500		81	70-130	2	11	
Methyl methacrylate	0.0433	0.0020	ug	0.0500		87	70-130	3	12	
Methyl tert-butyl ether	0.0488	0.0020	ug	0.0500		98	70-130	4	28	
Methylene chloride	0.0512	0.010	ug	0.0500		102	70-130	14	27	
Naphthalene	0.0557	0.0010	ug	0.0500		111	70-130	14	22	
n-Decane	0.0467	0.0030	ug	0.0500		93	70-130	12	15	
n-Hexane	0.0546	0.010	ug	0.0500		109	70-130	15	21	
Nitrobenzene	0.0446	0.0010	ug	0.0500		89	70-130	< 1	22	
Styrene	0.0469	0.0010	ug	0.0500		94	70-130	1	16	
Tetrachloroethene	0.0394	0.0050	ug	0.0500		79	70-130	4	22	
Tetrahydrofuran	0.0436	0.0010	ug	0.0500		87	70-130	< 1	19	
Toluene	0.0509	0.010	ug	0.0500		102	70-130	13	15	
trans-1,2-Dichloroethene	0.0409	0.0010	ug	0.0500		82	70-130	2	16	
Trichloroethene	0.0444	0.0003	ug	0.0500		89	70-130	8	16	
Trichlorofluoromethane	0.0546	0.0010	ug	0.0500		109	70-130	19	49	
Vinyl chloride	0.0478	0.0020	ug	0.0500		96	70-130	23	31	
Xylenes (total)	0.143	0.0050	ug	0.150		96	70-130	8	16	

CERTIFICATE OF ANALYSIS

CLIENT	**Stantec Consulting Ltd. (Burnaby)**		
	500 - 4370 Dominion Street		
	Burnaby BC	TEL	778 32801041
	V5G 4L7	FAX	N/A
ATTENTION	**Tyler Joyce**		

RECEIVED / TEMP	Dec-22-11 10:30 / 6.0 °C	**WORK ORDER**	CL10395
REPORTED	Jan-06-12	**PROJECT**	Porpoise Bay
COC #(s)	40837.5581	**PROJECT INFO**	9506130-DFO, 123110279-Stantec

General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done 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 document. This analytical report must be reproduced in its entirity. 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.

- All solids results are reported on a dry weight basis unless otherwise noted

- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)
  mg/L = milligrams per litre, equivalent to parts per million (ppm)
  ug/L = micrograms per litre, equivalent to parts per billion (ppb)
  ug/g = micrograms per gram, equivalent to parts per million (ppm)
  ug/m3 = micrograms per cubic meter of air

- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

CARO Analytical Services

Final Review Per: **Paul Thandi, B.Sc., PChem For Patrick Novak, B.Sc., PChem**
Business Manager, Richmond

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www.caro.ca

SAMPLE DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
General Parameters						
PS06130-001-112-GW001 (CL10395-01) Matrix: Water Sampled: Dec-21-11 12:00						
Hardness, Total (Diss. as CaCO3)	**262**	4.99	mg/L	N/A	N/A	
pH	**7.26**	0.01	pH units	Dec-28-11	Dec-28-11	HT
PS06130-002-112-GW001 (CL10395-02) Matrix: Water Sampled: Dec-21-11 12:00						
Hardness, Total (Diss. as CaCO3)	**276**	4.99	mg/L	N/A	N/A	
pH	**6.81**	0.01	pH units	Dec-28-11	Dec-28-11	HT
PS06130-003-112-GW001 (CL10395-03) Matrix: Water Sampled: Dec-21-11 12:00						
Hardness, Total (Diss. as CaCO3)	**102**	4.99	mg/L	N/A	N/A	
pH	**6.75**	0.01	pH units	Dec-28-11	Dec-28-11	HT
PS06130-003-112-GW901 (CL10395-04) Matrix: Water Sampled: Dec-21-11 12:00						
Hardness, Total (Diss. as CaCO3)	**105**	4.99	mg/L	N/A	N/A	
pH	**6.74**	0.01	pH units	Dec-28-11	Dec-28-11	HT
PS06130-017-112-IW001 (CL10395-05) Matrix: Water Sampled: Dec-21-11 12:00						
Conductivity (EC)	**30500**	2	uS/cm	Dec-28-11	Dec-28-11	
Hardness, Total (Diss. as CaCO3)	**3440**	4.99	mg/L	N/A	N/A	
pH	**7.20**	0.01	pH units	Dec-28-11	Dec-28-11	HT
Salinity	**20.5**	1.0	PSU	Dec-30-11	Jan-03-12	
PS06130-018-112-IW001 (CL10395-06) Matrix: Water Sampled: Dec-21-11 12:00						
Conductivity (EC)	**28300**	2	uS/cm	Dec-28-11	Dec-28-11	
Hardness, Total (Diss. as CaCO3)	**3400**	4.99	mg/L	N/A	N/A	
pH	**7.02**	0.01	pH units	Dec-28-11	Dec-28-11	HT
Salinity	**18.9**	1.0	PSU	Dec-30-11	Jan-03-12	
Dissolved Metals						
PS06130-001-112-GW001 (CL10395-01) Matrix: Water Sampled: Dec-21-11 12:00						
Aluminum, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11	
Antimony, dissolved	< 0.0200	0.0200	mg/L	Dec-28-11	Dec-28-11	
Arsenic, dissolved	**0.0160**	0.0050	mg/L	Dec-28-11	Dec-28-11	
Barium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11	
Beryllium, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11	
Boron, dissolved	**0.699**	0.040	mg/L	Dec-28-11	Dec-28-11	
Cadmium, dissolved	< 0.00010	0.00010	mg/L	Dec-28-11	Dec-28-11	
Calcium, dissolved	**33.9**	2.0	mg/L	Dec-28-11	Dec-28-11	
Chromium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Cobalt, dissolved	**0.00264**	0.00050	mg/L	Dec-28-11	Dec-28-11	
Copper, dissolved	< 0.0020	0.0020	mg/L	Dec-28-11	Dec-28-11	
Iron, dissolved	**3.35**	0.10	mg/L	Dec-28-11	Dec-28-11	
Lead, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11	
Lithium, dissolved	**0.0293**	0.0010	mg/L	Dec-28-11	Dec-28-11	
Magnesium, dissolved	**43.0**	0.10	mg/L	Dec-28-11	Dec-28-11	
Manganese, dissolved	**0.505**	0.0020	mg/L	Dec-28-11	Dec-28-11	
Mercury, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11	
Molybdenum, dissolved	**0.0049**	0.0010	mg/L	Dec-28-11	Dec-28-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Dissolved Metals, Continued

PS06130-001-112-GW001 (CL10395-01) Matrix: Water Sampled: Dec-21-11 12:00, Continued

Nickel, dissolved	< 0.0020	0.0020	mg/L	Dec-28-11	Dec-28-11
Selenium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11
Silver, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11
Sodium, dissolved	**118**	0.20	mg/L	Dec-28-11	Dec-28-11
Strontium, dissolved	**0.334**	0.010	mg/L	Dec-28-11	Dec-28-11
Thallium, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11
Titanium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11
Uranium, dissolved	**0.00308**	0.00020	mg/L	Dec-28-11	Dec-28-11
Vanadium, dissolved	< 0.010	0.010	mg/L	Dec-28-11	Dec-28-11
Zinc, dissolved	< 0.040	0.040	mg/L	Dec-28-11	Dec-28-11

PS06130-002-112-GW001 (CL10395-02) Matrix: Water Sampled: Dec-21-11 12:00

Aluminum, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11
Antimony, dissolved	< 0.0200	0.0200	mg/L	Dec-28-11	Dec-28-11
Arsenic, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11
Barium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11
Beryllium, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11
Boron, dissolved	**0.282**	0.040	mg/L	Dec-28-11	Dec-28-11
Cadmium, dissolved	< 0.00010	0.00010	mg/L	Dec-28-11	Dec-28-11
Calcium, dissolved	**62.1**	2.0	mg/L	Dec-28-11	Dec-28-11
Chromium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11
Cobalt, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11
Copper, dissolved	**0.0026**	0.0020	mg/L	Dec-28-11	Dec-28-11
Iron, dissolved	**1.48**	0.10	mg/L	Dec-28-11	Dec-28-11
Lead, dissolved	**0.0012**	0.0010	mg/L	Dec-28-11	Dec-28-11
Lithium, dissolved	**0.0165**	0.0010	mg/L	Dec-28-11	Dec-28-11
Magnesium, dissolved	**29.4**	0.10	mg/L	Dec-28-11	Dec-28-11
Manganese, dissolved	**0.200**	0.0020	mg/L	Dec-28-11	Dec-28-11
Mercury, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11
Molybdenum, dissolved	**0.0032**	0.0010	mg/L	Dec-28-11	Dec-28-11
Nickel, dissolved	< 0.0020	0.0020	mg/L	Dec-28-11	Dec-28-11
Selenium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11
Silver, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11
Sodium, dissolved	**155**	0.20	mg/L	Dec-28-11	Dec-28-11
Strontium, dissolved	**0.459**	0.010	mg/L	Dec-28-11	Dec-28-11
Thallium, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11
Titanium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11
Uranium, dissolved	**0.00169**	0.00020	mg/L	Dec-28-11	Dec-28-11
Vanadium, dissolved	< 0.010	0.010	mg/L	Dec-28-11	Dec-28-11
Zinc, dissolved	< 0.040	0.040	mg/L	Dec-28-11	Dec-28-11

PS06130-003-112-GW001 (CL10395-03) Matrix: Water Sampled: Dec-21-11 12:00

Aluminum, dissolved	**0.061**	0.050	mg/L	Dec-28-11	Dec-28-11
Antimony, dissolved	< 0.0200	0.0200	mg/L	Dec-28-11	Dec-28-11
Arsenic, dissolved	**0.0094**	0.0050	mg/L	Dec-28-11	Dec-28-11
Barium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11
Beryllium, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Dissolved Metals, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-003-112-GW001 (CL10395-03) Matrix: Water Sampled: Dec-21-11 12:00, Continued						
Boron, dissolved	**0.136**	0.040	mg/L	Dec-28-11	Dec-28-11	
Cadmium, dissolved	< 0.00010	0.00010	mg/L	Dec-28-11	Dec-28-11	
Calcium, dissolved	**16.1**	2.0	mg/L	Dec-28-11	Dec-28-11	
Chromium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Cobalt, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11	
Copper, dissolved	< 0.0020	0.0020	mg/L	Dec-28-11	Dec-28-11	
Iron, dissolved	**36.6**	0.10	mg/L	Dec-28-11	Dec-28-11	
Lead, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11	
Lithium, dissolved	**0.0150**	0.0010	mg/L	Dec-28-11	Dec-28-11	
Magnesium, dissolved	**15.0**	0.10	mg/L	Dec-28-11	Dec-28-11	
Manganese, dissolved	**0.0737**	0.0020	mg/L	Dec-28-11	Dec-28-11	
Mercury, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11	
Molybdenum, dissolved	**0.0038**	0.0010	mg/L	Dec-28-11	Dec-28-11	
Nickel, dissolved	< 0.0020	0.0020	mg/L	Dec-28-11	Dec-28-11	
Selenium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Silver, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11	
Sodium, dissolved	**24.9**	0.20	mg/L	Dec-28-11	Dec-28-11	
Strontium, dissolved	**0.149**	0.010	mg/L	Dec-28-11	Dec-28-11	
Thallium, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11	
Titanium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11	
Uranium, dissolved	**0.00071**	0.00020	mg/L	Dec-28-11	Dec-28-11	
Vanadium, dissolved	**0.033**	0.010	mg/L	Dec-28-11	Dec-28-11	
Zinc, dissolved	< 0.040	0.040	mg/L	Dec-28-11	Dec-28-11	
PS06130-003-112-GW901 (CL10395-04) Matrix: Water Sampled: Dec-21-11 12:00						
Aluminum, dissolved	**0.089**	0.050	mg/L	Dec-28-11	Dec-28-11	
Antimony, dissolved	< 0.0200	0.0200	mg/L	Dec-28-11	Dec-28-11	
Arsenic, dissolved	**0.0095**	0.0050	mg/L	Dec-28-11	Dec-28-11	
Barium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11	
Beryllium, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11	
Boron, dissolved	**0.139**	0.040	mg/L	Dec-28-11	Dec-28-11	
Cadmium, dissolved	< 0.00010	0.00010	mg/L	Dec-28-11	Dec-28-11	
Calcium, dissolved	**16.7**	2.0	mg/L	Dec-28-11	Dec-28-11	
Chromium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Cobalt, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11	
Copper, dissolved	< 0.0020	0.0020	mg/L	Dec-28-11	Dec-28-11	
Iron, dissolved	**37.7**	0.10	mg/L	Dec-28-11	Dec-28-11	
Lead, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11	
Lithium, dissolved	**0.0154**	0.0010	mg/L	Dec-28-11	Dec-28-11	
Magnesium, dissolved	**15.4**	0.10	mg/L	Dec-28-11	Dec-28-11	
Manganese, dissolved	**0.0779**	0.0020	mg/L	Dec-28-11	Dec-28-11	
Mercury, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11	
Molybdenum, dissolved	**0.0039**	0.0010	mg/L	Dec-28-11	Dec-28-11	
Nickel, dissolved	< 0.0020	0.0020	mg/L	Dec-28-11	Dec-28-11	
Selenium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Silver, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11	
Sodium, dissolved	**25.4**	0.20	mg/L	Dec-28-11	Dec-28-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
Dissolved Metals, Continued						
PS06130-003-112-GW901 (CL10395-04) Matrix: Water Sampled: Dec-21-11 12:00, Continued						
Strontium, dissolved	**0.155**	0.010	mg/L	Dec-28-11	Dec-28-11	
Thallium, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11	
Titanium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11	
Uranium, dissolved	**0.00073**	0.00020	mg/L	Dec-28-11	Dec-28-11	
Vanadium, dissolved	**0.034**	0.010	mg/L	Dec-28-11	Dec-28-11	
Zinc, dissolved	< 0.040	0.040	mg/L	Dec-28-11	Dec-28-11	
PS06130-017-112-IW001 (CL10395-05) Matrix: Water Sampled: Dec-21-11 12:00						
Aluminum, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11	
Antimony, dissolved	< 0.0200	0.0200	mg/L	Dec-28-11	Dec-28-11	
Arsenic, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Barium, dissolved	**0.159**	0.050	mg/L	Dec-28-11	Dec-28-11	
Beryllium, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11	
Boron, dissolved	**2.77**	0.040	mg/L	Dec-28-11	Dec-28-11	
Cadmium, dissolved	**0.00052**	0.00010	mg/L	Dec-28-11	Dec-28-11	
Calcium, dissolved	**241**	2.0	mg/L	Dec-28-11	Dec-28-11	
Chromium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Cobalt, dissolved	**0.00128**	0.00050	mg/L	Dec-28-11	Dec-28-11	
Copper, dissolved	**0.0031**	0.0020	mg/L	Dec-28-11	Dec-28-11	
Iron, dissolved	< 0.10	0.10	mg/L	Dec-28-11	Dec-28-11	
Lead, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11	
Lithium, dissolved	**0.0995**	0.0010	mg/L	Dec-28-11	Dec-28-11	
Magnesium, dissolved	**689**	0.10	mg/L	Dec-28-11	Dec-28-11	
Manganese, dissolved	**0.0745**	0.0020	mg/L	Dec-28-11	Dec-28-11	
Mercury, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11	
Molybdenum, dissolved	**0.0075**	0.0010	mg/L	Dec-28-11	Dec-28-11	
Nickel, dissolved	**0.0067**	0.0020	mg/L	Dec-28-11	Dec-28-11	
Selenium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Silver, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11	
Sodium, dissolved	**5850**	0.20	mg/L	Dec-28-11	Dec-28-11	
Strontium, dissolved	**4.21**	0.010	mg/L	Dec-28-11	Dec-28-11	
Thallium, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11	
Titanium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11	
Uranium, dissolved	**0.00203**	0.00020	mg/L	Dec-28-11	Dec-28-11	
Vanadium, dissolved	< 0.010	0.010	mg/L	Dec-28-11	Dec-28-11	
Zinc, dissolved	< 0.040	0.040	mg/L	Dec-28-11	Dec-28-11	
PS06130-018-112-IW001 (CL10395-06) Matrix: Water Sampled: Dec-21-11 12:00						
Aluminum, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11	
Antimony, dissolved	< 0.0200	0.0200	mg/L	Dec-28-11	Dec-28-11	
Arsenic, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	
Barium, dissolved	**0.175**	0.050	mg/L	Dec-28-11	Dec-28-11	
Beryllium, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11	
Boron, dissolved	**2.85**	0.040	mg/L	Dec-28-11	Dec-28-11	
Cadmium, dissolved	**0.00079**	0.00010	mg/L	Dec-28-11	Dec-28-11	
Calcium, dissolved	**252**	2.0	mg/L	Dec-28-11	Dec-28-11	
Chromium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Dissolved Metals, Continued

PS06130-018-112-IW001 (CL10395-06) Matrix: Water Sampled: Dec-21-11 12:00, Continued

Cobalt, dissolved	**0.00143**	0.00050	mg/L	Dec-28-11	Dec-28-11
Copper, dissolved	**0.0030**	0.0020	mg/L	Dec-28-11	Dec-28-11
Iron, dissolved	< 0.10	0.10	mg/L	Dec-28-11	Dec-28-11
Lead, dissolved	< 0.0010	0.0010	mg/L	Dec-28-11	Dec-28-11
Lithium, dissolved	**0.0956**	0.0010	mg/L	Dec-28-11	Dec-28-11
Magnesium, dissolved	**673**	0.10	mg/L	Dec-28-11	Dec-28-11
Manganese, dissolved	**0.126**	0.0020	mg/L	Dec-28-11	Dec-28-11
Mercury, dissolved	< 0.00020	0.00020	mg/L	Dec-28-11	Dec-28-11
Molybdenum, dissolved	**0.0076**	0.0010	mg/L	Dec-28-11	Dec-28-11
Nickel, dissolved	**0.0094**	0.0020	mg/L	Dec-28-11	Dec-28-11
Selenium, dissolved	< 0.0050	0.0050	mg/L	Dec-28-11	Dec-28-11
Silver, dissolved	< 0.00050	0.00050	mg/L	Dec-28-11	Dec-28-11
Sodium, dissolved	**807**	0.20	mg/L	Dec-28-11	Dec-28-11
Strontium, dissolved	**4.10**	0.010	mg/L	Dec-28-11	Dec-28-11
Thallium, dissolved	**0.00022**	0.00020	mg/L	Dec-28-11	Dec-28-11
Titanium, dissolved	< 0.050	0.050	mg/L	Dec-28-11	Dec-28-11
Uranium, dissolved	**0.00236**	0.00020	mg/L	Dec-28-11	Dec-28-11
Vanadium, dissolved	< 0.010	0.010	mg/L	Dec-28-11	Dec-28-11
Zinc, dissolved	< 0.040	0.040	mg/L	Dec-28-11	Dec-28-11

Aggregate Organic Parameters

PS06130-001-112-GW001 (CL10395-01) Matrix: Water Sampled: Dec-21-11 12:00

VHw (6-10)	< 100	100	ug/L	Dec-28-11	Jan-03-12
VPHw	< 100	100	ug/L	N/A	N/A
EPHw (10-19)	< 100	100	ug/L	Dec-28-11	Jan-03-12
EPHw (19-32)	< 100	100	ug/L	Dec-28-11	Jan-03-12

PS06130-002-112-GW001 (CL10395-02) Matrix: Water Sampled: Dec-21-11 12:00

VHw (6-10)	< 100	100	ug/L	Dec-28-11	Jan-03-12
VPHw	< 100	100	ug/L	N/A	N/A
EPHw (10-19)	< 100	100	ug/L	Dec-28-11	Jan-03-12
EPHw (19-32)	< 100	100	ug/L	Dec-28-11	Jan-03-12

PS06130-003-112-GW001 (CL10395-03) Matrix: Water Sampled: Dec-21-11 12:00

VHw (6-10)	< 100	100	ug/L	Dec-28-11	Jan-03-12
VPHw	< 100	100	ug/L	N/A	N/A
EPHw (10-19)	< 100	100	ug/L	Dec-28-11	Jan-03-12
EPHw (19-32)	< 100	100	ug/L	Dec-28-11	Jan-03-12

PS06130-003-112-GW901 (CL10395-04) Matrix: Water Sampled: Dec-21-11 12:00

VHw (6-10)	< 100	100	ug/L	Dec-28-11	Jan-03-12
VPHw	< 100	100	ug/L	N/A	N/A
EPHw (10-19)	< 100	100	ug/L	Dec-28-11	Jan-03-12
EPHw (19-32)	< 100	100	ug/L	Dec-28-11	Jan-03-12

PS06130-017-112-IW001 (CL10395-05) Matrix: Water Sampled: Dec-21-11 12:00

EPHw (10-19)	< 100	100	ug/L	Dec-28-11	Jan-03-12

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Aggregate Organic Parameters, Continued

PS06130-017-112-IW001 (CL10395-05) Matrix: Water Sampled: Dec-21-11 12:00, Continued

LEPHw	< 100	100	ug/L	N/A	N/A	
EPHw (19-32)	**143**	100	ug/L	Dec-28-11	Jan-03-12	
HEPHw	**143**	100	ug/L	N/A	N/A	
Total PAH	**0.35**	0.30	ug/L	N/A	N/A	

PS06130-018-112-IW001 (CL10395-06) Matrix: Water Sampled: Dec-21-11 12:00

EPHw (10-19)	< 100	100	ug/L	Dec-28-11	Jan-03-12	
LEPHw	< 100	100	ug/L	N/A	N/A	
EPHw (19-32)	< 100	100	ug/L	Dec-28-11	Jan-03-12	
HEPHw	< 100	100	ug/L	N/A	N/A	
Total PAH	< 0.30	0.30	ug/L	N/A	N/A	

CCME CWS Petroleum Hydrocarbons

PS06130-001-112-GW001 (CL10395-01) Matrix: Water Sampled: Dec-21-11 12:00

CCME PHC F1 (C6-C10)	< 100	100	ug/L	Dec-28-11	Jan-03-12	
CCME PHC F2 (C10-C16)	< 100	100	ug/L	Dec-28-11	Jan-04-12	
CCME PHC F3 (C16-C34)	< 100	100	ug/L	Dec-28-11	Jan-04-12	

PS06130-002-112-GW001 (CL10395-02) Matrix: Water Sampled: Dec-21-11 12:00

CCME PHC F1 (C6-C10)	< 100	100	ug/L	Dec-28-11	Jan-03-12	
CCME PHC F2 (C10-C16)	< 100	100	ug/L	Dec-28-11	Jan-04-12	
CCME PHC F3 (C16-C34)	< 100	100	ug/L	Dec-28-11	Jan-04-12	

PS06130-003-112-GW001 (CL10395-03) Matrix: Water Sampled: Dec-21-11 12:00

CCME PHC F1 (C6-C10)	< 100	100	ug/L	Dec-28-11	Jan-03-12	
CCME PHC F2 (C10-C16)	< 100	100	ug/L	Dec-28-11	Jan-04-12	
CCME PHC F3 (C16-C34)	< 100	100	ug/L	Dec-28-11	Jan-04-12	

PS06130-003-112-GW901 (CL10395-04) Matrix: Water Sampled: Dec-21-11 12:00

CCME PHC F1 (C6-C10)	< 100	100	ug/L	Dec-28-11	Jan-03-12	
CCME PHC F2 (C10-C16)	< 100	100	ug/L	Dec-28-11	Jan-04-12	
CCME PHC F3 (C16-C34)	< 100	100	ug/L	Dec-28-11	Jan-04-12	

Polycyclic Aromatic Hydrocarbons

PS06130-001-112-GW001 (CL10395-01) Matrix: Water Sampled: Dec-21-11 12:00

Acenaphthene	**0.26**	0.05	ug/L	Dec-28-11	Jan-03-12	
Acenaphthylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Acridine	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12	
Anthracene	**0.01**	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (a) anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (a) pyrene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (b) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Benzo (g,h,i) perylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Benzo (k) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Chrysene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Dibenz (a,h) anthracene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Polycyclic Aromatic Hydrocarbons, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-001-112-GW001 (CL10395-01) Matrix: Water Sampled: Dec-21-11 12:00, Continued						
Fluoranthene	< 0.04	0.04	ug/L	Dec-28-11	Jan-03-12	
Fluorene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Naphthalene	< 0.30	0.30	ug/L	Dec-28-11	Jan-03-12	
Phenanthrene	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12	
Pyrene	< 0.02	0.02	ug/L	Dec-28-11	Jan-03-12	
Quinoline	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12	
Surrogate: Naphthalene-d8	*76 %*	*50-100*		*Dec-28-11*	*Jan-03-12*	
Surrogate: Acenaphthene-d10	*81 %*	*50-104*		*Dec-28-11*	*Jan-03-12*	
Surrogate: Phenanthrene-d10	*90 %*	*60-104*		*Dec-28-11*	*Jan-03-12*	
Surrogate: Chrysene-d12	*67 %*	*60-108*		*Dec-28-11*	*Jan-03-12*	
Surrogate: Perylene-d12	*73 %*	*60-109*		*Dec-28-11*	*Jan-03-12*	
PS06130-002-112-GW001 (CL10395-02) Matrix: Water Sampled: Dec-21-11 12:00						
Acenaphthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Acenaphthylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Acridine	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12	
Anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (a) anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (a) pyrene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (b) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Benzo (g,h,i) perylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Benzo (k) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Chrysene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Dibenz (a,h) anthracene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Fluoranthene	< 0.04	0.04	ug/L	Dec-28-11	Jan-03-12	
Fluorene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Naphthalene	< 0.30	0.30	ug/L	Dec-28-11	Jan-03-12	
Phenanthrene	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12	
Pyrene	< 0.02	0.02	ug/L	Dec-28-11	Jan-03-12	
Quinoline	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12	
Surrogate: Naphthalene-d8	*87 %*	*50-100*		*Dec-28-11*	*Jan-03-12*	
Surrogate: Acenaphthene-d10	*83 %*	*50-104*		*Dec-28-11*	*Jan-03-12*	
Surrogate: Phenanthrene-d10	*100 %*	*60-104*		*Dec-28-11*	*Jan-03-12*	
Surrogate: Chrysene-d12	*98 %*	*60-108*		*Dec-28-11*	*Jan-03-12*	
Surrogate: Perylene-d12	*94 %*	*60-109*		*Dec-28-11*	*Jan-03-12*	
PS06130-003-112-GW001 (CL10395-03) Matrix: Water Sampled: Dec-21-11 12:00						
Acenaphthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Acenaphthylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Acridine	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12	
Anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (a) anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (a) pyrene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12	
Benzo (b) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	
Benzo (g,h,i) perylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12	

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Polycyclic Aromatic Hydrocarbons, Continued

PS06130-003-112-GW001 (CL10395-03) Matrix: Water Sampled: Dec-21-11 12:00, Continued

Benzo (k) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Chrysene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Dibenz (a,h) anthracene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Fluoranthene	< 0.04	0.04	ug/L	Dec-28-11	Jan-03-12
Fluorene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Naphthalene	< 0.30	0.30	ug/L	Dec-28-11	Jan-03-12
Phenanthrene	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Pyrene	< 0.02	0.02	ug/L	Dec-28-11	Jan-03-12
Quinoline	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Surrogate: Naphthalene-d8	*85 %*	*50-100*		*Dec-28-11*	*Jan-03-12*
Surrogate: Acenaphthene-d10	*88 %*	*50-104*		*Dec-28-11*	*Jan-03-12*
Surrogate: Phenanthrene-d10	*95 %*	*60-104*		*Dec-28-11*	*Jan-03-12*
Surrogate: Chrysene-d12	*77 %*	*60-108*		*Dec-28-11*	*Jan-03-12*
Surrogate: Perylene-d12	*76 %*	*60-109*		*Dec-28-11*	*Jan-03-12*

PS06130-003-112-GW901 (CL10395-04) Matrix: Water Sampled: Dec-21-11 12:00

Acenaphthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Acenaphthylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Acridine	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12
Benzo (a) anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12
Benzo (a) pyrene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12
Benzo (b) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Benzo (g,h,i) perylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Benzo (k) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Chrysene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Dibenz (a,h) anthracene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Fluoranthene	< 0.04	0.04	ug/L	Dec-28-11	Jan-03-12
Fluorene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Naphthalene	< 0.30	0.30	ug/L	Dec-28-11	Jan-03-12
Phenanthrene	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Pyrene	< 0.02	0.02	ug/L	Dec-28-11	Jan-03-12
Quinoline	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Surrogate: Naphthalene-d8	*78 %*	*50-100*		*Dec-28-11*	*Jan-03-12*
Surrogate: Acenaphthene-d10	*78 %*	*50-104*		*Dec-28-11*	*Jan-03-12*
Surrogate: Phenanthrene-d10	*84 %*	*60-104*		*Dec-28-11*	*Jan-03-12*
Surrogate: Chrysene-d12	*69 %*	*60-108*		*Dec-28-11*	*Jan-03-12*
Surrogate: Perylene-d12	*73 %*	*60-109*		*Dec-28-11*	*Jan-03-12*

PS06130-017-112-IW001 (CL10395-05) Matrix: Water Sampled: Dec-21-11 12:00

Acenaphthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Acenaphthylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Acridine	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Anthracene	**0.01**	0.01	ug/L	Dec-28-11	Jan-03-12
Benzo (a) anthracene	**0.02**	0.01	ug/L	Dec-28-11	Jan-03-12

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
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Analyte	Result	RDL	Units	Prepared	Analyzed	Notes

Polycyclic Aromatic Hydrocarbons, Continued

PS06130-017-112-IW001 (CL10395-05) Matrix: Water Sampled: Dec-21-11 12:00, Continued

Benzo (a) pyrene	**0.02**	0.01	ug/L	Dec-28-11	Jan-03-12
Benzo (b) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Benzo (g,h,i) perylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Benzo (k) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Chrysene	**0.06**	0.05	ug/L	Dec-28-11	Jan-03-12
Dibenz (a,h) anthracene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Fluoranthene	**0.07**	0.04	ug/L	Dec-28-11	Jan-03-12
Fluorene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Naphthalene	< 0.30	0.30	ug/L	Dec-28-11	Jan-03-12
Phenanthrene	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Pyrene	**0.17**	0.02	ug/L	Dec-28-11	Jan-03-12
Quinoline	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Surrogate: Naphthalene-d8	*80 %*	*50-100*		*Dec-28-11*	*Jan-03-12*
Surrogate: Acenaphthene-d10	*85 %*	*50-104*		*Dec-28-11*	*Jan-03-12*
Surrogate: Phenanthrene-d10	*93 %*	*60-104*		*Dec-28-11*	*Jan-03-12*
Surrogate: Chrysene-d12	*79 %*	*60-108*		*Dec-28-11*	*Jan-03-12*
Surrogate: Perylene-d12	*77 %*	*60-109*		*Dec-28-11*	*Jan-03-12*

PS06130-018-112-IW001 (CL10395-06) Matrix: Water Sampled: Dec-21-11 12:00

Acenaphthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Acenaphthylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Acridine	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12
Benzo (a) anthracene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12
Benzo (a) pyrene	< 0.01	0.01	ug/L	Dec-28-11	Jan-03-12
Benzo (b) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Benzo (g,h,i) perylene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Benzo (k) fluoranthene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Chrysene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Dibenz (a,h) anthracene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Fluoranthene	< 0.04	0.04	ug/L	Dec-28-11	Jan-03-12
Fluorene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	ug/L	Dec-28-11	Jan-03-12
Naphthalene	< 0.30	0.30	ug/L	Dec-28-11	Jan-03-12
Phenanthrene	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Pyrene	< 0.02	0.02	ug/L	Dec-28-11	Jan-03-12
Quinoline	< 0.10	0.10	ug/L	Dec-28-11	Jan-03-12
Surrogate: Naphthalene-d8	*74 %*	*50-100*		*Dec-28-11*	*Jan-03-12*
Surrogate: Acenaphthene-d10	*79 %*	*50-104*		*Dec-28-11*	*Jan-03-12*
Surrogate: Phenanthrene-d10	*92 %*	*60-104*		*Dec-28-11*	*Jan-03-12*
Surrogate: Chrysene-d12	*80 %*	*60-108*		*Dec-28-11*	*Jan-03-12*
Surrogate: Perylene-d12	*84 %*	*60-109*		*Dec-28-11*	*Jan-03-12*

Volatile Organic Compounds

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Volatile Organic Compounds, Continued

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
PS06130-001-112-GW001 (CL10395-01) Matrix: Water Sampled: Dec-21-11 12:00						
Benzene	< 0.5	0.5	ug/L	Dec-28-11	Jan-03-12	
Ethylbenzene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Methyl tert-butyl ether	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Styrene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Toluene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Xylenes (total)	< 2.0	2.0	ug/L	Dec-28-11	Jan-03-12	
Surrogate: 4-Bromofluorobenzene	*90 %*	*80-120*		*Dec-28-11*	*Jan-03-12*	
PS06130-002-112-GW001 (CL10395-02) Matrix: Water Sampled: Dec-21-11 12:00						
Benzene	< 0.5	0.5	ug/L	Dec-28-11	Jan-03-12	
Ethylbenzene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Methyl tert-butyl ether	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Styrene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Toluene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Xylenes (total)	< 2.0	2.0	ug/L	Dec-28-11	Jan-03-12	
Surrogate: 4-Bromofluorobenzene	*83 %*	*80-120*		*Dec-28-11*	*Jan-03-12*	
PS06130-003-112-GW001 (CL10395-03) Matrix: Water Sampled: Dec-21-11 12:00						
Benzene	< 0.5	0.5	ug/L	Dec-28-11	Jan-03-12	
Ethylbenzene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Methyl tert-butyl ether	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Styrene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Toluene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Xylenes (total)	< 2.0	2.0	ug/L	Dec-28-11	Jan-03-12	
Surrogate: 4-Bromofluorobenzene	*88 %*	*80-120*		*Dec-28-11*	*Jan-03-12*	
PS06130-003-112-GW901 (CL10395-04) Matrix: Water Sampled: Dec-21-11 12:00						
Benzene	< 0.5	0.5	ug/L	Dec-28-11	Jan-03-12	
Ethylbenzene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Methyl tert-butyl ether	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Styrene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Toluene	< 1.0	1.0	ug/L	Dec-28-11	Jan-03-12	
Xylenes (total)	< 2.0	2.0	ug/L	Dec-28-11	Jan-03-12	
Surrogate: 4-Bromofluorobenzene	*85 %*	*80-120*		*Dec-28-11*	*Jan-03-12*	

Sample Qualifiers:

HT Parameter(s) analyzed outside of the recommended holding time.

ANALYSIS / REPORT INFORMATION

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analysis Description	**Method Reference(s)** (* = modified from)		**LAB**
	Preparation	**Analysis**	
BTEX/VH/VPH in Water	N/A	BCMOE	RMD
EPH in Water	EPA 3510C	BCMOE	RMD
L/HEPH in Water	N/A	BCMOE	RMD
VH in Water	EPA 5030B	BCMOE	RMD
CCME PHC F1 in Water	EPA 5030B	CCME CWS PHC *	RMD
CCME PHC F2+ in Water	EPA 3510C	CCME CWS PHC *	RMD
Dissolved Metals	N/A	EPA 6020A	RMD
Conductivity in Water	N/A	APHA 2510B	RMD
pH in Water	N/A	APHA 4500 H+	RMD
Salinity (calc.)	N/A	APHA 2520B	KEL
PAH in Water	EPA 3510C	EPA 8270B	RMD
BTEX in Water	EPA 5030B	EPA 8260B	RMD

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
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The following section reports quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with quality control 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 for.

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	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Aggregate Organic Parameters, Batch B1L0339										
Blank (B1L0339-BLK1)				Prepared: Dec-28-11, Analyzed: Jan-04-12						
VHw (6-10)	< 100	100	ug/L							
LCS (B1L0339-BS2)				Prepared: Dec-28-11, Analyzed: Jan-03-12						
VHw (6-10)	1970	100	ug/L	2520		78	72-109			
Aggregate Organic Parameters, Batch B2A0006										
Blank (B2A0006-BLK1)				Prepared: Dec-28-11, Analyzed: Jan-03-12						
EPHw (10-19)	< 100	100	ug/L							
EPHw (19-32)	< 100	100	ug/L							
LCS (B2A0006-BS2)				Prepared: Dec-28-11, Analyzed: Jan-03-12						
EPHw (10-19)	2540	100	ug/L	3480		73	61-103			
EPHw (19-32)	3140	100	ug/L	5050		62	57-101			
CCME CWS Petroleum Hydrocarbons, Batch B1L0339										
Blank (B1L0339-BLK1)				Prepared: Dec-28-11, Analyzed: Jan-03-12						
CCME PHC F1 (C6-C10)	< 100	100	ug/L							
LCS (B1L0339-BS3)				Prepared: Dec-28-11, Analyzed: Jan-04-12						
CCME PHC F1 (C6-C10)	2590	100	ug/L	2490		104	69-113			
CCME CWS Petroleum Hydrocarbons, Batch B2A0024										
Blank (B2A0024-BLK1)				Prepared: Dec-28-11, Analyzed: Jan-04-12						
CCME PHC F2 (C10-C16)	< 100	100	ug/L							
CCME PHC F3 (C16-C34)	< 100	100	ug/L							
LCS (B2A0024-BS1)				Prepared: Dec-28-11, Analyzed: Jan-04-12						
CCME PHC F2 (C10-C16)	1410	100	ug/L	2060		68	65-130			
CCME PHC F3 (C16-C34)	5070	100	ug/L	7550		67	64-112			
Dissolved Metals, Batch B1L0319										
Blank (B1L0319-BLK1)				Prepared: Dec-28-11, Analyzed: Dec-28-11						
Aluminum, dissolved	< 0.050	0.050	mg/L							
Antimony, dissolved	< 0.0200	0.0200	mg/L							
Arsenic, dissolved	< 0.0050	0.0050	mg/L							
Barium, dissolved	< 0.050	0.050	mg/L							
Beryllium, dissolved	< 0.0010	0.0010	mg/L							

CARO ANALYTICAL SERVICES

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Dissolved Metals, Batch B1L0319, Continued

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Blank (B1L0319-BLK1), Continued				Prepared: Dec-28-11, Analyzed: Dec-28-11						
Boron, dissolved	< 0.040	0.040	mg/L							
Cadmium, dissolved	< 0.00010	0.00010	mg/L							
Calcium, dissolved	< 2.0	2.0	mg/L							
Chromium, dissolved	< 0.0050	0.0050	mg/L							
Cobalt, dissolved	< 0.00050	0.00050	mg/L							
Copper, dissolved	< 0.0020	0.0020	mg/L							
Iron, dissolved	< 0.10	0.10	mg/L							
Lead, dissolved	< 0.0010	0.0010	mg/L							
Lithium, dissolved	< 0.0010	0.0010	mg/L							
Magnesium, dissolved	< 0.10	0.10	mg/L							
Manganese, dissolved	< 0.0020	0.0020	mg/L							
Mercury, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.0010	0.0010	mg/L							
Nickel, dissolved	< 0.0020	0.0020	mg/L							
Selenium, dissolved	< 0.0050	0.0050	mg/L							
Silver, dissolved	< 0.00050	0.00050	mg/L							
Sodium, dissolved	< 0.20	0.20	mg/L							
Strontium, dissolved	< 0.010	0.010	mg/L							
Thallium, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.050	0.050	mg/L							
Uranium, dissolved	< 0.00020	0.00020	mg/L							
Vanadium, dissolved	< 0.010	0.010	mg/L							
Zinc, dissolved	< 0.040	0.040	mg/L							
Duplicate (B1L0319-DUP1)				**Source: CL10395-03** Prepared: Dec-28-11, Analyzed: Dec-28-11						
Aluminum, dissolved	0.064	0.050	mg/L		0.061				20	
Antimony, dissolved	< 0.0200	0.0200	mg/L		< 0.0200				20	
Arsenic, dissolved	0.0097	0.0050	mg/L		0.0094				20	
Barium, dissolved	< 0.050	0.050	mg/L		< 0.050				20	
Beryllium, dissolved	< 0.0010	0.0010	mg/L		< 0.0010				20	
Boron, dissolved	0.137	0.040	mg/L		0.136				20	
Cadmium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Calcium, dissolved	16.3	2.0	mg/L		16.1			1	20	
Chromium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Cobalt, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Copper, dissolved	< 0.0020	0.0020	mg/L		< 0.0020				20	
Iron, dissolved	37.4	0.10	mg/L		36.6			2	20	
Lead, dissolved	< 0.0010	0.0010	mg/L		< 0.0010				20	
Lithium, dissolved	0.0149	0.0010	mg/L		0.0150			< 1	20	
Magnesium, dissolved	15.5	0.10	mg/L		15.0			3	20	
Manganese, dissolved	0.0782	0.0020	mg/L		0.0737			6	20	
Mercury, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Molybdenum, dissolved	0.0038	0.0010	mg/L		0.0038				20	
Nickel, dissolved	< 0.0020	0.0020	mg/L		< 0.0020				20	
Selenium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Silver, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Sodium, dissolved	25.5	0.20	mg/L		24.9			2	20	
Strontium, dissolved	0.150	0.010	mg/L		0.149			< 1	20	
Thallium, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Titanium, dissolved	< 0.050	0.050	mg/L		< 0.050				20	
Uranium, dissolved	0.00070	0.00020	mg/L		0.00071				20	
Vanadium, dissolved	0.034	0.010	mg/L		0.033				20	
Zinc, dissolved	< 0.040	0.040	mg/L		< 0.040				20	
Matrix Spike (B1L0319-MS1)				**Source: CL10395-04** Prepared: Dec-28-11, Analyzed: Dec-28-11						
Antimony, dissolved	0.367	0.0200	mg/L	0.400	< 0.0200	92	87-117			
Arsenic, dissolved	0.213	0.0050	mg/L	0.200	0.0095	102	86-117			
Barium, dissolved	0.958	0.050	mg/L	1.00	< 0.050	96	83-114			
Beryllium, dissolved	0.0915	0.0010	mg/L	0.100	< 0.0010	92	76-126			
Cadmium, dissolved	0.0960	0.00010	mg/L	0.100	< 0.00010	96	87-113			
Chromium, dissolved	0.409	0.0050	mg/L	0.400	< 0.0050	101	83-114			
Cobalt, dissolved	0.412	0.00050	mg/L	0.400	< 0.00050	103	86-110			
Copper, dissolved	0.386	0.0020	mg/L	0.400	< 0.0020	96	86-117			
Iron, dissolved	38.5	0.10	mg/L	2.00	37.7	41	63-130			MS1
Lead, dissolved	0.193	0.0010	mg/L	0.200	< 0.0010	97	87-113			

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Dissolved Metals, Batch B1L0319, Continued										
Matrix Spike (B1L0319-MS1), Continued		**Source: CL10395-04**		Prepared: Dec-28-11, Analyzed: Dec-28-11						
Manganese, dissolved	0.479	0.0020	mg/L	0.400	0.0779	100	61-136			
Nickel, dissolved	0.417	0.0020	mg/L	0.400	< 0.0020	104	82-114			
Selenium, dissolved	0.0954	0.0050	mg/L	0.100	< 0.0050	95	85-121			
Silver, dissolved	0.0992	0.00050	mg/L	0.100	< 0.00050	99	63-120			
Thallium, dissolved	0.0968	0.00020	mg/L	0.100	< 0.00020	97	83-112			
Vanadium, dissolved	0.420	0.010	mg/L	0.400	0.034	96	79-110			
Zinc, dissolved	1.00	0.040	mg/L	1.00	< 0.040	100	82-120			
Reference (B1L0319-SRM1)				Prepared: Dec-28-11, Analyzed: Dec-28-11						
Aluminum, dissolved	0.215	0.050	mg/L	0.209		103	74-127			
Antimony, dissolved	0.0435	0.0200	mg/L	0.0400		109	86-116			
Arsenic, dissolved	0.403	0.0050	mg/L	0.404		100	84-111			
Barium, dissolved	3.18	0.050	mg/L	3.12		102	87-114			
Beryllium, dissolved	0.199	0.0010	mg/L	0.197		101	78-127			
Boron, dissolved	1.62	0.040	mg/L	1.61		101	74-117			
Cadmium, dissolved	0.196	0.00010	mg/L	0.200		98	89-110			
Calcium, dissolved	6.9	2.0	mg/L	6.50		107	83-128			
Chromium, dissolved	0.433	0.0050	mg/L	0.401		108	87-112			
Cobalt, dissolved	0.134	0.00050	mg/L	0.119		112	88-113			
Copper, dissolved	0.819	0.0020	mg/L	0.781		105	91-115			
Iron, dissolved	1.31	0.10	mg/L	1.17		112	81-117			
Lead, dissolved	0.105	0.0010	mg/L	0.102		102	90-114			
Lithium, dissolved	0.107	0.0010	mg/L	0.0960		111	77-134			
Magnesium, dissolved	6.56	0.10	mg/L	6.11		107	79-122			
Manganese, dissolved	0.347	0.0020	mg/L	0.318		109	86-114			
Molybdenum, dissolved	0.412	0.0010	mg/L	0.387		107	92-113			
Nickel, dissolved	0.880	0.0020	mg/L	0.789		112	89-114			
Selenium, dissolved	0.0292	0.0050	mg/L	0.0300		97	84-120			
Sodium, dissolved	18.3	0.20	mg/L	17.4		105	78-118			
Strontium, dissolved	0.998	0.010	mg/L	0.979		102	88-113			
Thallium, dissolved	0.0400	0.00020	mg/L	0.0350		114	96-129			
Uranium, dissolved	0.195	0.00020	mg/L	0.244		80	68-95			
Vanadium, dissolved	0.823	0.010	mg/L	0.798		103	83-110			
Zinc, dissolved	0.839	0.040	mg/L	0.800		105	90-115			
General Parameters, Batch B1L0324										
Blank (B1L0324-BLK1)				Prepared: Dec-28-11, Analyzed: Dec-28-11						
Conductivity (EC)	< 2	2	uS/cm							
LCS (B1L0324-BS1)				Prepared: Dec-28-11, Analyzed: Dec-28-11						
Conductivity (EC)	152	2	uS/cm	147		103	85-115			
Reference (B1L0324-SRM1)				Prepared: Dec-28-11, Analyzed: Dec-28-11						
Conductivity (EC)	1430	2	uS/cm	1410		101	90-110			
General Parameters, Batch B1L0325										
Duplicate (B1L0325-DUP1)		**Source: CL10395-05**		Prepared: Dec-28-11, Analyzed: Dec-28-11						
pH	7.21	0.01	pH units		7.20			< 1	10	
Reference (B1L0325-SRM1)				Prepared: Dec-28-11, Analyzed: Dec-28-11						
pH	7.01	0.01	pH units	7.00		100	98-102			
General Parameters, Batch K105704										
Blank (K105704-BLK1)				Prepared: Dec-30-11, Analyzed: Jan-03-12						
Salinity	< 1.0	1.0	PSU							
Duplicate (K105704-DUP1)		**Source: CL10395-05**		Prepared: Dec-30-11, Analyzed: Jan-03-12						
Salinity	20.6	1.0	PSU		20.5			< 1	20	
Polycyclic Aromatic Hydrocarbons, Batch B2A0006										

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PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Polycyclic Aromatic Hydrocarbons, Batch B2A0006, Continued										
Blank (B2A0006-BLK1)				Prepared: Dec-28-11, Analyzed: Jan-03-12						
Acenaphthene	< 0.05	0.05	ug/L							
Acenaphthylene	< 0.05	0.05	ug/L							
Acridine	< 0.10	0.10	ug/L							
Anthracene	< 0.01	0.01	ug/L							
Benzo (a) anthracene	< 0.01	0.01	ug/L							
Benzo (a) pyrene	< 0.01	0.01	ug/L							
Benzo (b) fluoranthene	< 0.05	0.05	ug/L							
Benzo (g,h,i) perylene	< 0.05	0.05	ug/L							
Benzo (k) fluoranthene	< 0.05	0.05	ug/L							
Chrysene	< 0.05	0.05	ug/L							
Dibenz (a,h) anthracene	< 0.05	0.05	ug/L							
Fluoranthene	< 0.04	0.04	ug/L							
Fluorene	< 0.05	0.05	ug/L							
Indeno (1,2,3-cd) pyrene	< 0.05	0.05	ug/L							
Naphthalene	< 0.30	0.30	ug/L							
Phenanthrene	< 0.10	0.10	ug/L							
Pyrene	0.03	0.02	ug/L							
Quinoline	< 0.10	0.10	ug/L							
Surrogate: Naphthalene-d8	*0.909*		*ug/L*	*1.00*		*91*	*50-100*			
Surrogate: Acenaphthene-d10	*0.967*		*ug/L*	*1.00*		*97*	*50-104*			
Surrogate: Phenanthrene-d10	*0.989*		*ug/L*	*1.00*		*99*	*60-104*			
Surrogate: Chrysene-d12	*0.917*		*ug/L*	*1.00*		*92*	*60-108*			
Surrogate: Perylene-d12	*0.927*		*ug/L*	*1.00*		*93*	*60-109*			
LCS (B2A0006-BS1)				Prepared: Dec-28-11, Analyzed: Jan-03-12						
Acenaphthene	0.84	0.05	ug/L	1.00		84	57-103			
Acenaphthylene	0.86	0.05	ug/L	1.00		86	56-100			
Acridine	1.08	0.10	ug/L	0.965		112	54-115			
Anthracene	0.95	0.01	ug/L	1.00		95	52-93			
Benzo (a) anthracene	0.96	0.01	ug/L	1.00		96	64-111			
Benzo (a) pyrene	0.97	0.01	ug/L	1.00		97	61-106			
Benzo (b) fluoranthene	0.96	0.05	ug/L	1.00		96	62-109			
Benzo (g,h,i) perylene	0.91	0.05	ug/L	1.00		91	62-108			
Benzo (k) fluoranthene	0.87	0.05	ug/L	1.00		87	66-113			
Chrysene	0.96	0.05	ug/L	1.00		96	62-117			
Dibenz (a,h) anthracene	0.91	0.05	ug/L	1.00		91	60-113			
Fluoranthene	1.00	0.04	ug/L	1.00		100	69-110			
Fluorene	0.89	0.05	ug/L	1.00		89	60-106			
Indeno (1,2,3-cd) pyrene	0.90	0.05	ug/L	1.00		90	60-108			
Naphthalene	0.81	0.30	ug/L	1.00		81	57-108			
Phenanthrene	0.98	0.10	ug/L	1.00		98	63-110			
Pyrene	0.98	0.02	ug/L	1.00		98	67-118			
Quinoline	0.91	0.10	ug/L	1.00		90	57-101			
Surrogate: Naphthalene-d8	*0.841*		*ug/L*	*1.00*		*84*	*50-100*			
Surrogate: Acenaphthene-d10	*0.840*		*ug/L*	*1.00*		*84*	*50-104*			
Surrogate: Phenanthrene-d10	*1.01*		*ug/L*	*1.00*		*101*	*60-104*			
Surrogate: Chrysene-d12	*0.877*		*ug/L*	*1.00*		*88*	*60-108*			
Surrogate: Perylene-d12	*0.891*		*ug/L*	*1.00*		*89*	*60-109*			
Volatile Organic Compounds, Batch B1L0339										
Blank (B1L0339-BLK1)				Prepared: Dec-28-11, Analyzed: Jan-03-12						
Benzene	< 0.5	0.5	ug/L							
Ethylbenzene	< 1.0	1.0	ug/L							
Methyl tert-butyl ether	< 1.0	1.0	ug/L							
Toluene	< 1.0	1.0	ug/L							
Xylenes (total)	< 2.0	2.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*20.4*		*ug/L*	*25.0*		*82*	*80-120*			
LCS (B1L0339-BS1)				Prepared: Dec-28-11, Analyzed: Dec-28-11						
Benzene	17.1	0.5	ug/L	20.0		85	80-120			
Ethylbenzene	18.1	1.0	ug/L	20.0		91	80-120			
Methyl tert-butyl ether	< 1.0	1.0	ug/L	20.0			80-120			
Toluene	18.8	1.0	ug/L	20.0		94	80-120			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	% REC	% REC Limits	% RPD	% RPD Limit	Notes
Volatile Organic Compounds, Batch B1L0339, Continued										
LCS (B1L0339-BS1), Continued				Prepared: Dec-28-11, Analyzed: Dec-28-11						
Xylenes (total)	55.0	2.0	ug/L	60.0		92	80-120			
Surrogate: 4-Bromofluorobenzene	*24.2*		*ug/L*	*25.0*		*97*	*80-120*			

QC Qualifiers:

MS1 The recovery was outside of QC acceptance limits for the Matrix Spike. Data accepted based on acceptable performance of other batch QC.

QUALITY CONTROL DATA

CLIENT	Stantec Consulting Ltd. (Burnaby)	**WORK ORDER #**	CL10395
PROJECT	Porpoise Bay	**REPORTED**	Jan-06-12