


APPENDIX A

Drawings



NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

CLIENT: NEWFOUNDLAND AND LABRADOR DEPARTMENT OF ENVIRONMENT AND CONSERVATION	SCALE: 1:50,000 DATE: FEB. 20, 2012	 Stantec 12MAR12 9:15AM
PROJECT TITLE: IMPLEMENTATION OF REMEDIAL ACTION PLAN - YEAR 1, FORMER U.S. MILITARY SITE AND RESIDENTIAL SUBDIVISION, HOPEDALE, NL	DRAWN BY: R.L. CHECKED BY: A.R.	
DRAWING TITLE: SITE LOCATION PLAN	EDITED BY: - REV. No. 0 DRAWING No: 121411777-200-EE-01 CAD FILE: 121411777-200-EE-01.DWG	



LEGEND

- STREAM
- ▲ SURFACE WATER SAMPLE LOCATION (STANTEC, 2011)

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

CLIENT:
NEWFOUNDLAND AND LABRADOR DEPARTMENT OF ENVIRONMENT AND CONSERVATION

PROJECT TITLE:
IMPLEMENTATION OF REMEDIAL ACTION PLAN - YEAR 1, FORMER U.S. MILITARY SITE AND RESIDENTIAL SUBDIVISION, HOPEDALE, NL

DRAWING TITLE:
SITE PLAN

Stantec Consulting Ltd.

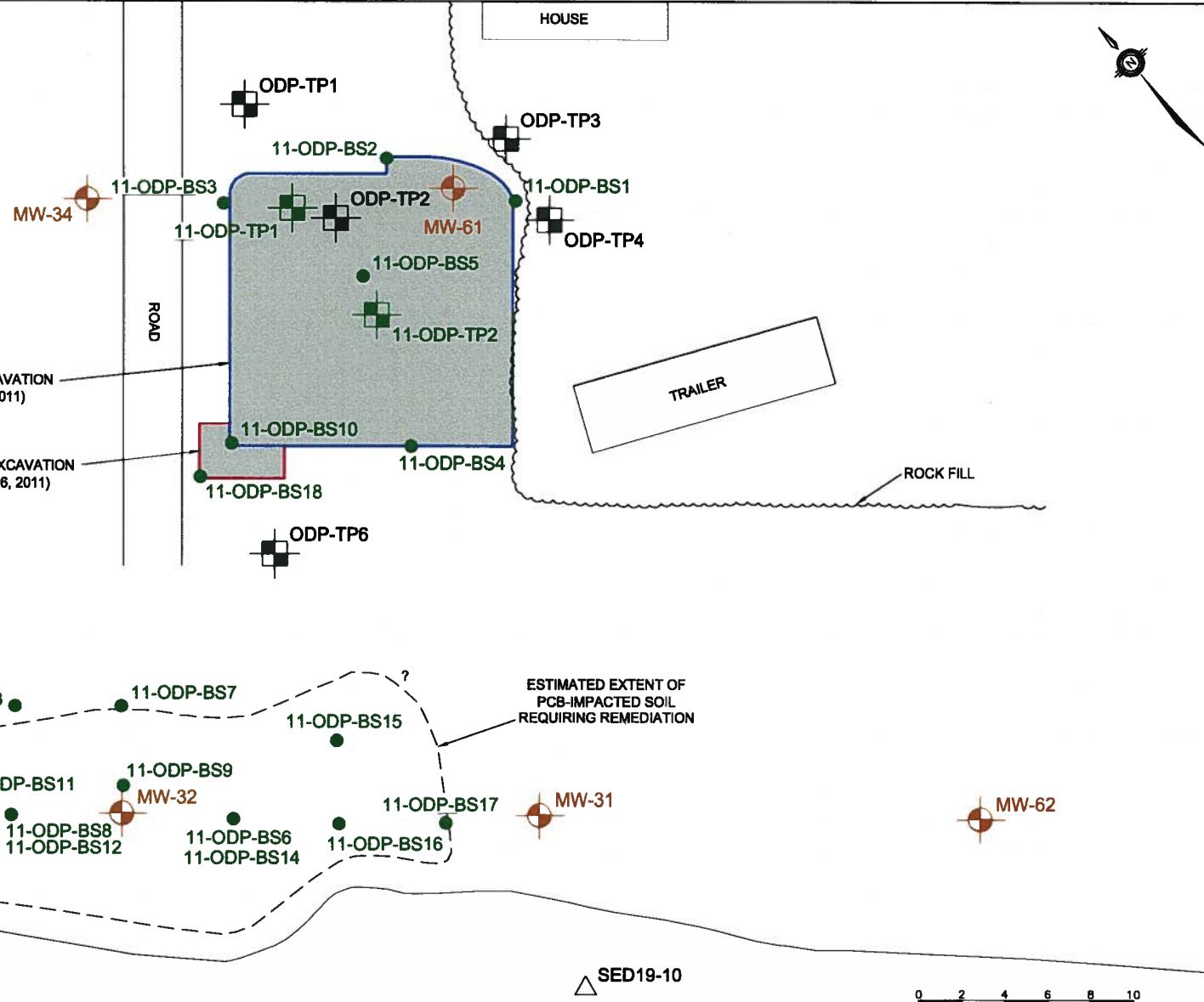
SCALE:	1:10,000	DATE:	FEB. 20, 2012
DRAWN BY:	R.L.	CHECKED BY:	A.R.
EDITED BY:	-	REV. No.	0
DRAWING No:	121411777-200-EE-02		
CAD FILE:	121411777-200-EE-02.DWG		




Stantec

LEGEND







- BULK SOIL SAMPLE (STANTEC, 2011)
- TEST PIT (STANTEC, 2011)
- TEST PIT (STANTEC, 2010)
- △ SEDIMENT SAMPLE (STANTEC, 2010)
- ⊙ MONITOR WELL (STANTEC, 2009)

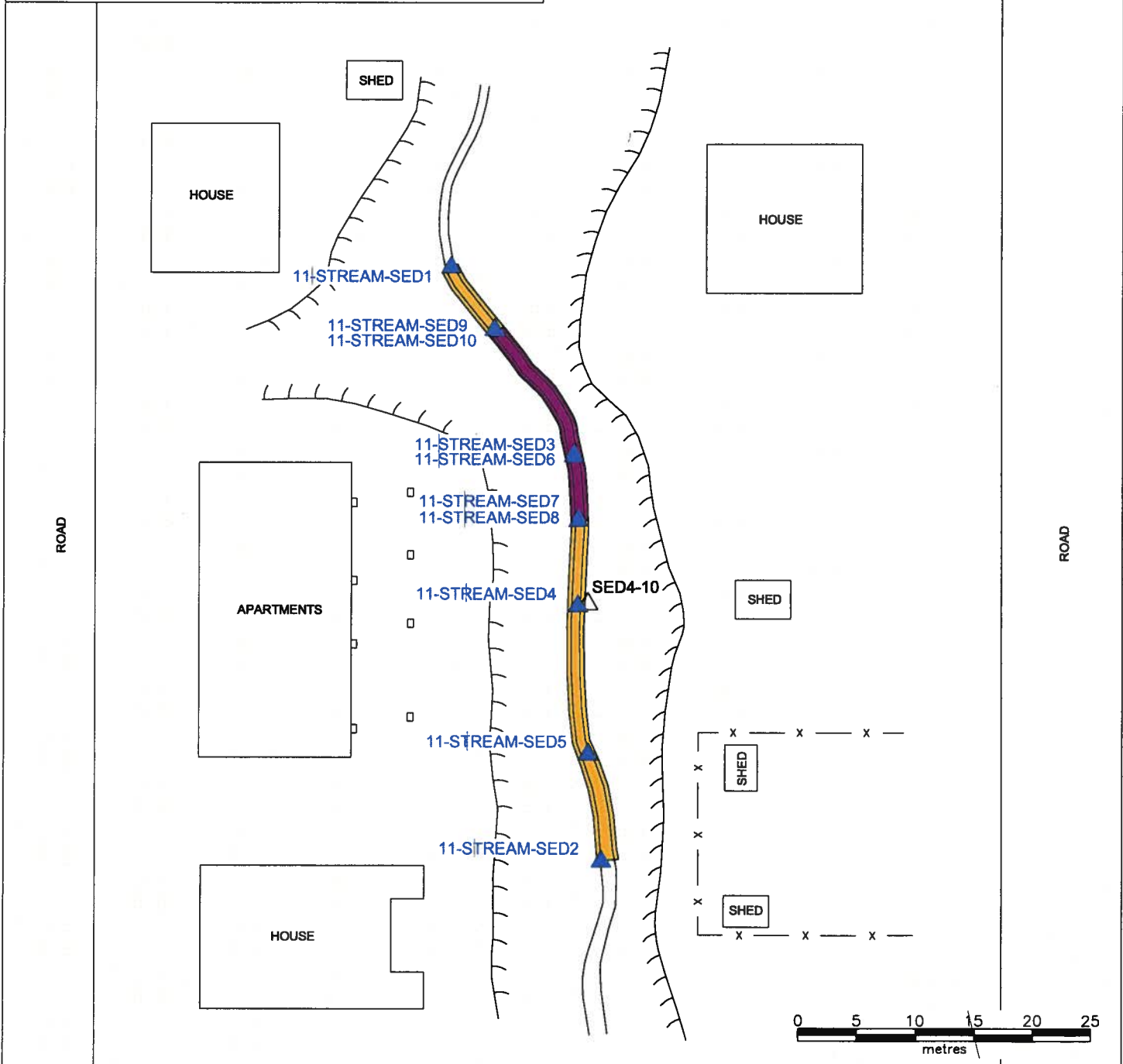


NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.



CLIENT:	NEWFOUNDLAND AND LABRADOR DEPARTMENT OF ENVIRONMENTAL AND CONSERVATION		SCALE: 1:300	DATE: FEB. 20, 2012	
	PROJECT TITLE:	IMPLEMENTATION OF REMEDIAL ACTION PLAN - YEAR 1, FORMER U.S. MILITARY SITE AND RESIDENTIAL SUBDIVISION, HOPEDALE, NL			
DRAWING TITLE:		REMEDIATION AREA AND SAMPLE LOCATION PLAN - OLD DUMP POND		EDITED BY: -	REV. No. 0
			CAD FILE: 121411777-200-EE-03.DWG		

LEGEND

-  SEDIMENT SAMPLE (STANTEC 2011)
-  SEDIMENT SAMPLE (STANTEC 2010)
-  SLOPE
-  FENCE
-  APPROXIMATE EXTENT OF PCB-IMPACTED SEDIMENT REQUIRING REMEDIATION TO 0.5m DEPTH
-  APPROXIMATE EXTENT OF PCB-IMPACTED SEDIMENT REQUIRING REMEDIATION TO 1.0m DEPTH



NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

CLIENT: NEWFOUNDLAND AND LABRADOR DEPARTMENT OF ENVIRONMENTAL AND CONSERVATION	SCALE: 1:500	DATE: FEB. 21, 2012	
	DRAWN BY: R.L.	CHECKED BY: KJ	
PROJECT TITLE: IMPLEMENTATION OF REMEDIAL ACTION PLAN - YEAR 1, FORMER U.S. MILITARY SITE AND RESIDENTIAL SUBDIVISION, HOPEDALE, NL	EDITED BY: -	REV. No. 0	
	DRAWING No: 121411777-200-EE-04		
DRAWING TITLE: REMEDIATION AREA AND SAMPLE LOCATION PLAN - STREAM	CAD FILE: 121411777-200-EE-04.DWG		



APPENDIX B

Site Photographs



Old Dump Pond

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 1 View of access road to the Old Dump Pond Site, looking southwest.



Photo 2 View of area requiring remediation surrounding MW-61 following site clearing and grubbing, looking south.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 3 View of area requiring remediation surrounding MW-61 looking southwest towards Old Dump Pond.



Photo 4 Site grubbing.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 5 View of monitor wells MW-32 and MW-33 and survey stakes showing location of soil samples 11-ODP-BS7 and 11-ODP-BS8.



Photo 6 Removal of large rocks.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 7 View of start of remedial activities in the vicinity of former monitor well MW-61 on October 31, 2011.



Photo 8 View of soil being loaded into bag on November 1, 2011.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 9 View of buried debris encountered in the remedial excavation.



Photo 10 View of bedrock encountered at the base of the remedial excavation.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 11 View of scrap metal pile on November 3, 2011.



Photo 12 View of collection of swab sample 11-ODP-Swab1.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 13 View of remedial excavation on November 5, 2011.



Photo 14 View of site during backfilling on November 16, 2011.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 15 View of scrap metal and backfilled excavation at Old Dump Pond on November 16, 2011, looking north.



Photo 16 View of scrap metal at Old Dump Pond on November 16, 2011, looking southeast.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 17 View of scrap metal covered with excavator bucket at the Old Dump Pond site on December 15, 2011.



Stream

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 18 View of stream prior to site clearing and grubbing.



Photo 19 View of stream prior to site clearing and grubbing.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 20 View of grubbed stream on October 4, 2011.



Photo 21 View of grubbed stream on October 4, 2011.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 22 View of trenched stream on October 30, 2011.



Laydown Area

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 23 View of laydown area prior to installation of the liners.



Photo 24 View of liner installation at the laydown area on November 1, 2011.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 25 View of bag placement at the laydown area on November 2, 2011.



Photo 26 View of bags at laydown area at Pit No. 1 on November 16, 2011, looking east from the main access road.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 27 View of bags at laydown area on November 16, 2011, looking northeast.



Photo 28 View of bags at laydown area on November 16, 2011, looking east.

Site Photographs – Implementation of Remedial Action Plan – Year 1, Former U.S. Military Site and Residential Subdivision, Hopedale, NL



Photo 29 View of bags at laydown area on November 16, 2011, looking southeast.



Photo 30 View of excavator blocking access to the laydown area on December 15, 2011.

APPENDIX C

Laboratory Analytical Results Summary Tables

**Table C.1 Results of Laboratory Analysis of PCBs in Soil - Old Dump Pond
Implementation of Remedial Action Plan - Year 1
Former US Military Base and Residential Subdivision, Hopedale, NL
Stantec Project No. 121411777.200**

Sample ID	Sample Depth (m)	Polychlorinated Biphenyls (PCBs)	Comments
	RDL	0.05	-
	Units	mg/kg	-
	SSTL'	9	-
2009 Sampling - Stantec			
MW31-SS2	1.5 - 2.1	<0.05	-
MW32-SS2	0.6 - 1.2	25	-
MW33-SS2	0.6 - 1.2	4	-
MW61-SS1	0.0 - 0.5	29	-
MW62-SS3	1.2 - 1.8	0.2	-
AG2-FS2	1.5	0.54	-
AG4-FS1	0.3	1.1	-
2010 Sampling - Stantec			
ODP-TP1 BS1	0 - 0.15	5.6	-
ODP-TP2 BS1	0 - 0.3	50	-
ODP-TP3 BS1	0 - 0.5	<0.05	-
ODP-TP4 BS1	0 - 0.1	0.23	-
ODP-TP6 BS1	0 - 0.5	8.9	-
2011 Sampling - Stantec			
11-ODP-TP1	0.0 - 1.0	11	-
11-ODP-TP2	0.0 - 1.0	14	-
11-ODP-BS1	0.0 - 0.1	2.5	Aroclor 1254, 1260.
11-ODP-BS2	0.0 - 0.5	0.8	Aroclor 1260.
11-ODP-BS3	0.0 - 0.5	0.59	Aroclor 1254, 1260.
11-ODP-BS4	0.0 - 0.5	4.1	Aroclor 1254, 1260.
11-ODP-BS5	1.0	34	Aroclor 1242, 1254, 1260.
11-ODP-BS10	0.0 - 0.7	18	Aroclor 1254, 1260.
11-ODP-BS18	0.3 - 0.5	0.41	Aroclor 1254, 1260.
11-ODP-BS6	0.0 - 0.5	64	Aroclor 1254, 1260.
11-ODP-BS7	0.0 - 0.5	8.9	Aroclor 1254, 1260.
11-ODP-BS8	0.0 - 0.5	67	Aroclor 1254, 1260.
11-ODP-BS9	0.7	39	Aroclor 1254, 1260.
11-ODP-BS11	0.0 - 0.5	12	Aroclor 1254, 1260.
11-ODP-BS12	1.3 - 1.4	1.1	Aroclor 1260.
11-ODP-BS13	0.0 - 0.5	4.1	Aroclor 1254, 1260.
11-ODP-BS14	1.4 - 1.5	0.94	Aroclor 1260.
11-ODP-BS15	0.0 - 0.5	39	Aroclor 1254, 1260.
11-ODP-BS16	0.0 - 0.5	28	Aroclor 1254, 1260.
11-ODP-BS17	0.0 - 0.5	8.3	Aroclor 1254, 1260.

Notes:

1 = Site Specific Target Level (SSTL) calculated for PCBs at the Residential Area of Hopedale (Stantec, 2010)

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

Bold/Shaded = Value exceeds SSTL calculated for PCBs at the Residential Area of Hopedale (Stantec, 2010)

**Table C.2 Results of Laboratory Analysis of PCBs on Metal - Old Dump Pond
 Implementation of Remedial Action Plan - Year 1
 Former US Military Base and Residential Subdivision, Hopedale, NL
 Stantec Project No. 121411777.200**

Sample ID	Sample Location	Polychlorinated Biphenyls (PCBs)	Comments
	RDL	5	-
	Units	µg	-
2011 Sampling - Stantec			
11-ODP-SWAB1	Rusted barrel (unwashed)	<5	-
11-ODP-SWAB2	Scrap metal (unwashed)	<5	-
11-ODP-SWAB3	Scrap metal (unwashed)	<5	-

Notes:

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

**Table C.3 Results of Laboratory Analysis of PCBs in Sediment - Stream
Implementation of Remedial Action Plan - Year 1
Former US Military Base and Residential Subdivision, Hopedale, NL
Stantec Project No. 121411777.200**

Sample ID	Sample Depth (m)	Total Organic Carbon (TOC)	Polychlorinated Biphenyls (PCBs)
	RDL	0.2	0.05
	Units	g/kg	mg/kg
	SSTL ¹	-	9
2009 Sampling - Stantec (Subdivision Stream)			
SED-65	0.0 - 0.3	-	<0.05
SED-66	0.0 - 0.3	-	<0.05
SED-67	0.0 - 0.3	-	0.48
SED-68	0.0 - 0.3	-	0.4
SED-73	0.0 - 0.3	-	0.14
SED-74	0.0 - 0.3	-	0.3
SED-75	0.0 - 0.3	-	0.38
SED-76	0.0 - 0.3	-	0.2
SED-77	0.0 - 0.3	-	0.46
2010 Sampling - Stantec (Subdivision Stream)			
SED1-10	0.0 - 0.3	9.1 (0.3)	0.16
SED2-10	0.0 - 0.3	10	0.92
SED3-10	0.0 - 0.3	5.3	0.31
SED4-10	0.0 - 0.3	94 (3)	17
SED5-10	0.0 - 0.3	11	3.5
SED6-10	0.0 - 0.3	23 (0.4)	0.53
SED7-10	0.0 - 0.3	6.6	0.33
SED8-10	0.0 - 0.3	7.5	0.43
SED9-10	0.0 - 0.3	7.7	0.36
2011 Sampling - Stantec (Subdivision Stream)			
11-Stream-SED1	0.0 - 0.15	-	0.09
11-Stream-SED2	0.0 - 0.15	-	4.6
11-Stream-SED3	0.5	-	22
11-Stream-SED4	0.5	-	1.6
11-Stream-SED5	0.5	-	0.02
11-Stream-SED5 Lab-Dup	0.5	-	0.03
11-Stream-SED6	1.0	-	<0.01
11-Stream-SED7	0.5	-	<0.01
11-Stream-SED8	1.0	-	<0.01
11-Stream-SED9	0.5	-	<0.01
11-Stream-SED10	1.0	-	<0.01
11-Stream-SED10 Lab-Dup	1.0	-	<0.01

Notes:

1 = Site Specific Target Level (SSTL) calculated for PCBs in soil at the Residential Area of Hopedale (Stantec, 2010)

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

Lab-dup = laboratory duplicate sample

(#) = Elevated RDLs shown in brackets. Elevated RDLs used due to reduced sample weight

Bold/Shaded = Value exceeds SSTL for soil

**Table C.4 Results of Laboratory Analysis of PCBs in Water - Stream
 Implementation of Remedial Action Plan - Year 1
 Former US Military Base and Residential Subdivision, Hopedale, NL
 Stantec Project No. 121411777.200**

Sampling Date	Sample ID	Total Suspended Solids	Polychlorinated Biphenyls (PCBs)	Comments
	RDL	1	0.05	-
	Units	mg/L	µg/L	-
30-Oct-11	11-SUBDIV-OCT30	2	<0.05	-

Notes:

RDL = Reportable Detection Limit

< # = Not detected above RDL noted

APPENDIX D

Laboratory Analytical Reports

Your P.O. #: 16400NR
Your Project #: 121411777.200
Site Location: HOPEDALE REMEDIATION
Your C.O.C. #: ES334211

Attention: Anna Roy
Stantec Consulting Ltd
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2011/10/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B1F6102
Received: 2011/10/06, 9:16

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Moisture	4	N/A	2011/10/07	ATL SOP 00001 R3	MOE Handbook 1983
PCB/DDT in Soil by GC-ECD	4	2011/10/11	2011/10/13	ATL SOP 00106 R4	Based EPA8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: MHill@maxxam.ca
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Page 1 of 5

Maxxam Job #: B1F6102
 Report Date: 2011/10/14

Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: HOPEDALE REMEDIATION
 Your P.O. #: 16400NR
 Sampler Initials: AR

RESULTS OF ANALYSES OF SOIL

Maxxam ID		LE3198	LE3204	LE3206	LE3207		
Sampling Date		2011/10/04	2011/10/04	2011/10/04	2011/10/04		
	Units	11-ODP-TP1	11-ODP-TP2	11-STREAM-SED1	11-STREAM-SED2	RDL	QC Batch
Inorganics							
Moisture	%	18	36	23	28	1	2640478

PCB'S AND DDT BY GC-ECD (SOIL)

Maxxam ID		LE3198	LE3204	LE3206	LE3207		
Sampling Date		2011/10/04	2011/10/04	2011/10/04	2011/10/04		
	Units	11-ODP-TP1	11-ODP-TP2	11-STREAM-SED1	11-STREAM-SED2	RDL	QC Batch
PCBs							
Total PCB	mg/kg	11	14	0.09	4.6	0.01	2642776
Surrogate Recovery (%)							
Decachlorobiphenyl	%	75 ⁽¹⁾	77 ⁽¹⁾	71 ⁽²⁾	75 ⁽²⁾		2642776

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch
 (1) - Aroclor 1254, 1260.
 (2) - Aroclor 1260.

Maxxam Job #: B1F6102
Report Date: 2011/10/14

Stantec Consulting Ltd
Client Project #: 121411777.200
Site Location: HOPEDALE REMEDIATION
Your P.O. #: 16400NR
Sampler Initials: AR

Package 1	7.7°C
-----------	-------

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Maxxam Job #: B1F6102
 Report Date: 2011/10/14

Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: HOPEDALE REMEDIATION
 Your P.O. #: 16400NR
 Sampler Initials: AR

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
2642776	Decachlorobiphenyl	2011/10/13	94	70 - 130	92	70 - 130	82	%		
2642776	Total PCB	2011/10/13	100	70 - 130	88	70 - 130	<0.01	mg/kg	NC	50

N/A = Not Applicable

RPD = Relative Percent Difference

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

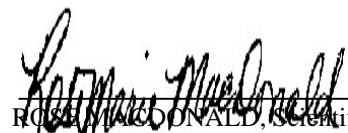
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B1F6102

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

A handwritten signature in black ink, appearing to read "Rosalyn McDonald".

ROSALYN McDONALD, Scientific Specialist (Organics)

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 16400NR
Your Project #: 121411777.200
Site Location: OLD SCHOOL SITE HOPEDALE REMEDIATION
Your C.O.C. #: FT518122

Attention: Jim Slade
Stantec Consulting Ltd
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2011/11/04

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B1H1505
Received: 2011/11/02, 9:39

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Moisture	12	N/A	2011/11/02	ATL SOP 00001	MOE Handbook 1983
PCB/DDT in Soil by GC-ECD	12	2011/11/02	2011/11/04	ATL SOP 00106	Based EPA8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: MHill@maxxam.ca
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Page 1 of 5

Maxxam Job #: B1H1505
 Report Date: 2011/11/04

 Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: OLD SCHOOL SITE HOPEDALE REMEDIATION
 Your P.O. #: 16400NR
 Sampler Initials: AR

RESULTS OF ANALYSES OF SOIL

Maxxam ID		LL9351	LL9352	LL9353	LL9354	LL9355	LL9356	LL9357		
Sampling Date		2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31		
	Units	11-ODP-BS1	11-ODP-BS2	11-ODP-BS3	11-ODP-BS4	11-ODP-BS5	11-ODP-BS6	11-ODP-BS7	RDL	QC Batch
Inorganics										
Moisture	%	21	12	20	33	44	42	15	1	2667948

Maxxam ID		LL9358	LL9359	LL9360	LL9361	LL9362		
Sampling Date		2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31		
	Units	11-ODP-BS8	11-ODP-BS9	11-STREAM-SED3	11-STREAM-SED4	11-STREAM-SED5	RDL	QC Batch
Inorganics								
Moisture	%	38	22	54	33	18	1	2667948

PCB'S AND DDT BY GC-ECD (SOIL)

Maxxam ID		LL9351	LL9352	LL9353	LL9354	LL9355	LL9356	LL9357	LL9358		
Sampling Date		2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31		
	Units	11-ODP-BS1	11-ODP-BS2	11-ODP-BS3	11-ODP-BS4	11-ODP-BS5	11-ODP-BS6	11-ODP-BS7	11-ODP-BS8	RDL	QC Batch
PCBs											
Total PCB	mg/kg	2.5	0.80	0.59	4.1	34	64	8.9	67	0.01	2668387
Surrogate Recovery (%)											
Decachlorobiphenyl	%	87 ⁽¹⁾	81 ⁽²⁾	87 ⁽¹⁾	83 ⁽¹⁾	85 ⁽³⁾	109 ⁽¹⁾	77 ⁽¹⁾	81 ⁽¹⁾		2668387

Maxxam ID		LL9359	LL9360	LL9361	LL9362	LL9362		
Sampling Date		2011/10/31	2011/10/31	2011/10/31	2011/10/31	2011/10/31		
	Units	11-ODP-BS9	11-STREAM-SED3	11-STREAM-SED4	11-STREAM-SED5	11-STREAM-SED5 Lab-Dup	RDL	QC Batch
PCBs								
Total PCB	mg/kg	39	22	1.6	0.02	0.03	0.01	2668387
Surrogate Recovery (%)								
Decachlorobiphenyl	%	100 ⁽¹⁾	72 ⁽²⁾	94 ⁽²⁾	108 ⁽²⁾	95		2668387

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) - Aroclor 1254, 1260.

(2) - Aroclor 1260.

(3) - Aroclor 1242, 1254, 1260.

Maxxam Job #: B1H1505
Report Date: 2011/11/04

Stantec Consulting Ltd
Client Project #: 121411777.200
Site Location: OLD SCHOOL SITE HOPEDALE REMEDIATION
Your P.O. #: 16400NR
Sampler Initials: AR

Package 1	3.3°C
-----------	-------

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Maxxam Job #: B1H1505
 Report Date: 2011/11/04

Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: OLD SCHOOL SITE HOPEDALE REMEDIATION
 Your P.O. #: 16400NR
 Sampler Initials: AR

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
2668387	Decachlorobiphenyl	2011/11/04	112	70 - 130	94	70 - 130	100	%		
2668387	Total PCB	2011/11/04	124	70 - 130	108	70 - 130	<0.01	mg/kg	NC	50

N/A = Not Applicable

RPD = Relative Percent Difference

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B1H1505

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



ROSALYN McDONALD, Scientific Specialist (Organics)

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 16400NR
Your Project #: 121411777.200
Site Location: OLD SCHOOL SITE
Your C.O.C. #: ES406611

Attention: Jim Slade
Stantec Consulting Ltd
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2012/03/08

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B1H2424
Received: 2011/11/03, 9:42

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PCBs in water by GC/ECD	1	2011/11/03	2011/11/04	ATL SOP 00107	Based on EPA8082
Total Suspended Solids	1	N/A	2011/11/04	ATL SOP 00007	based on EPA 160.2

Remarks:

Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

- * RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- * Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: MHill@maxxam.ca
Phone# (902) 420-0203

=====
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Total cover pages: 1

Maxxam Job #: B1H2424
 Report Date: 2012/03/08

Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: OLD SCHOOL SITE
 Your P.O. #: 16400NR
 Sampler Initials: RMP

RESULTS OF ANALYSES OF WATER

Maxxam ID		LM3813		
Sampling Date		2011/10/30		
	Units	11-SUBDIV-OCT30	RDL	QC Batch
Inorganics				
Total Suspended Solids	mg/L	2.0	1.0	2670907

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		LM3813		
Sampling Date		2011/10/30		
	Units	11-SUBDIV-OCT30	RDL	QC Batch
PCBs				
Total PCB	ug/L	<0.050	0.050	2669380
Surrogate Recovery (%)				
Decachlorobiphenyl	%	65		2669380

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B1H2424
Report Date: 2012/03/08

Stantec Consulting Ltd
Client Project #: 121411777.200
Site Location: OLD SCHOOL SITE
Your P.O. #: 16400NR
Sampler Initials: RMP

Package 1	4.0°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Revised report: Corrected sample ID from 11-SUDV-OCT30 to 11-SUBDIV-OCT30. March 8, 2012 MHL

Maxxam Job #: B1H2424
 Report Date: 2012/03/08

Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: OLD SCHOOL SITE
 Your P.O. #: 16400NR
 Sampler Initials: RMP

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2669380	Decachlorobiphenyl	2011/11/04	69	30 - 130	92	30 - 130	88	%				
2669380	Total PCB	2011/11/04	74	70 - 130	103	70 - 130	<0.050	ug/L	NC	40		
2670907	Total Suspended Solids	2011/11/04					<1.0	mg/L	2.4	25	98	80 - 120

N/A = Not Applicable

RPD = Relative Percent Difference

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B1H2424

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



COLLEEN ACKER



ROSALYN MACDONALD, Scientific Specialist (Organics)

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 16400NR
 Your Project #: 121411777.200
 Site Location: ODP/STREAM
 Your C.O.C. #: ES420111

Attention: Jim Slade
 Stantec Consulting Ltd
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2011/11/16

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B1H7085
Received: 2011/11/10, 11:10

Sample Matrix: Soil
 # Samples Received: 13

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Moisture	13	N/A	2011/11/12	ATL SOP 00001	MOE Handbook 1983
PCB/DDT in Soil by GC-ECD	13	2011/11/14	2011/11/15	ATL SOP 00106	Based EPA8082

Sample Matrix: Swab
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PCBs on swabs by GC/ECD	1	2011/11/14	2011/11/15	ATL SOP 00109	Based on EPA8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
 * Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: MHill@maxxam.ca
 Phone# (902) 420-0203

=====
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Total cover pages: 1

Maxxam Job #: B1H7085
 Report Date: 2011/11/16

 Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: ODP/STREAM
 Your P.O. #: 16400NR
 Sampler Initials: AR

RESULTS OF ANALYSES OF SOIL

Maxxam ID		LO6715	LO6717	LO6718	LO6719	LO6720	LO6721		
Sampling Date		2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05		
	Units	11-STREAM-SED6	11-STREAM-SED7	11-STREAM-SED8	11-STREAM-SED9	11-STREAM-SED10	11-ODP-BS10	RDL	QC Batch
Inorganics									
Moisture	%	20	75	11	78	56	19	1	2680243

Maxxam ID		LO6722	LO6723	LO6724	LO6725	LO6726	LO6727	LO6728		
Sampling Date		2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05		
	Units	11-ODP-BS11	11-ODP-BS12	11-ODP-BS13	11-ODP-BS14	11-ODP-BS15	11-ODP-BS16	11-ODP-BS17	RDL	QC Batch
Inorganics										
Moisture	%	35	15	14	17	37	32	39	1	2680243

PCB'S AND DDT BY GC-ECD (SOIL)

Maxxam ID		LO6715	LO6717	LO6718	LO6719	LO6720	LO6720		
Sampling Date		2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05		
	Units	11-STREAM-SED6	11-STREAM-SED7	11-STREAM-SED8	11-STREAM-SED9	11-STREAM-SED10	11-STREAM-SED10 Lab-Dup	RDL	QC Batch
PCBs									
Total PCB	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	2680528
Surrogate Recovery (%)									
Decachlorobiphenyl	%	104	78	86	86	89	72		2680528

Maxxam ID		LO6721	LO6722	LO6723	LO6724	LO6725	LO6726	LO6727	LO6728		
Sampling Date		2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05	2011/11/05		
	Units	11-ODP-BS10	11-ODP-BS11	11-ODP-BS12	11-ODP-BS13	11-ODP-BS14	11-ODP-BS15	11-ODP-BS16	11-ODP-BS17	RDL	QC Batch
PCBs											
Total PCB	mg/kg	18	12	1.1	4.1	0.94	39	28	8.3	0.01	2680528
Surrogate Recovery (%)											
Decachlorobiphenyl	%	76 ⁽¹⁾	99 ⁽¹⁾	71 ⁽²⁾	77 ⁽¹⁾	80 ⁽²⁾	70 ⁽¹⁾	73 ⁽¹⁾	79 ⁽¹⁾		2680528

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) - Aroclor 1254, 1260.

(2) - Aroclor 1260.

Maxxam Job #: B1H7085
 Report Date: 2011/11/16

Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: ODP/STREAM
 Your P.O. #: 16400NR
 Sampler Initials: AR

POLYCHLORINATED BIPHENYLS BY GC-ECD (SWAB)

Maxxam ID		LO6713		
Sampling Date		2011/11/03		
	Units	11-ODP-SWAB 1	RDL	QC Batch
PCBs				
Total PCB	ug	<5	5	2680568
Surrogate Recovery (%)				
Decachlorobiphenyl	%	89		2680568

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B1H7085
Report Date: 2011/11/16

Stantec Consulting Ltd
Client Project #: 121411777.200
Site Location: ODP/STREAM
Your P.O. #: 16400NR
Sampler Initials: AR

Package 1	5.7°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Maxxam Job #: B1H7085
 Report Date: 2011/11/16

Stantec Consulting Ltd
 Client Project #: 121411777.200
 Site Location: ODP/STREAM
 Your P.O. #: 16400NR
 Sampler Initials: AR

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
2680528	Decachlorobiphenyl	2011/11/15	83	70 - 130	74	70 - 130	90	%		
2680528	Total PCB	2011/11/15	112	70 - 130	96	70 - 130	<0.01	mg/kg	NC	50
2680568	Decachlorobiphenyl	2011/11/15			91	30 - 130	93	%		
2680568	Total PCB	2011/11/15			124	30 - 130	<5	ug		

N/A = Not Applicable

RPD = Relative Percent Difference

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B1H7085

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



ROSALYN McDONALD, Scientific Specialist (Organics)

=====
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Your P.O. #: 16400NR
 Your Project #: 121411777.210
 Site Location: ODP,HOPEDALE
 Your C.O.C. #: ES428811

Attention: Jonathan Murphy
 Stantec Consulting Ltd
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2012/04/27

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B1I2724
Received: 2011/11/19, 11:15

Sample Matrix: Soil
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Moisture	1	N/A	2011/11/21	ATL SOP 00001	MOE Handbook 1983
PCB/DDT in Soil by GC-ECD	1	2011/11/22	2011/11/24	ATL SOP 00106	Based EPA8082

Sample Matrix: Swab
 # Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PCBs on swabs by GC/ECD	2	2011/11/23	2011/11/29	ATL SOP 00109	Based on EPA8082

Remarks:

Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

- * RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- * Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: MHill@maxxam.ca
 Phone# (902) 420-0203

=====
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Total cover pages: 1

Maxxam Job #: B112724
 Report Date: 2012/04/27

Stantec Consulting Ltd
 Client Project #: 121411777.210
 Site Location: ODP, HOPEDALE
 Your P.O. #: 16400NR
 Sampler Initials: JM

RESULTS OF ANALYSES OF SOIL

Maxxam ID		LR7017		
Sampling Date		2011/11/16		
	Units	11-ODP-BS18	RDL	QC Batch
Inorganics				
Moisture	%	9	1	2688082

PCB'S AND DDT BY GC-ECD (SOIL)

Maxxam ID		LR7017		
Sampling Date		2011/11/16		
	Units	11-ODP-BS18	RDL	QC Batch
PCBs				
Total PCB	mg/kg	0.41	0.010	2689801
Surrogate Recovery (%)				
Decachlorobiphenyl	%	93 ⁽¹⁾		2689801

POLYCHLORINATED BIPHENYLS BY GC-ECD (SWAB)

Maxxam ID		LR7021	LR7024		
Sampling Date		2011/11/16	2011/11/16		
	Units	11-ODP-SWAB2	11-ODP-SWAB3	RDL	QC Batch
PCBs					
Total PCB	ug	<5.0	<5.0	5.0	2690835
Surrogate Recovery (%)					
Decachlorobiphenyl	%	89	89		2690835

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch
 (1) - Aroclor 1254, 1260.

Maxxam Job #: B112724
Report Date: 2012/04/27

Stantec Consulting Ltd
Client Project #: 121411777.210
Site Location: ODP,HOPEDALE
Your P.O. #: 16400NR
Sampler Initials: JM

Package 1	6.3°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Report re-issued with revised PCB comments - 2012/04/27

Maxxam Job #: B112724
 Report Date: 2012/04/27

Stantec Consulting Ltd
 Client Project #: 121411777.210
 Site Location: ODP,HOPEDALE
 Your P.O. #: 16400NR
 Sampler Initials: JM

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
2689801	Decachlorobiphenyl	2011/11/24	85	70 - 130	102	70 - 130	106	%		
2689801	Total PCB	2011/11/24	NC	70 - 130	108	70 - 130	<0.010	mg/kg	45.9	50
2690835	Decachlorobiphenyl	2011/11/29			90	30 - 130	93	%		
2690835	Total PCB	2011/11/29			112	30 - 130	<5.0	ug		

N/A = Not Applicable

RPD = Relative Percent Difference

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

Validation Signature Page

Maxxam Job #: B1I2724

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



ROSALYN McDONALD, Scientific Specialist (Organics)

=====
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