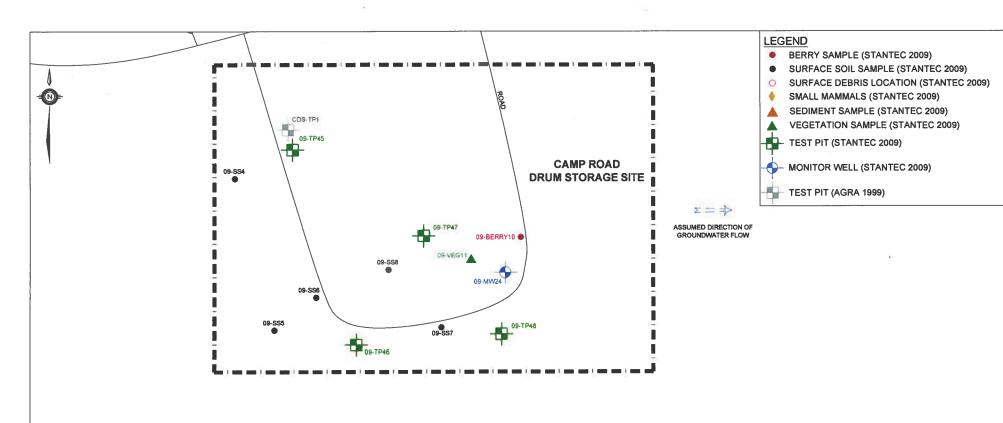
# Appendix 9a

Site Drawings



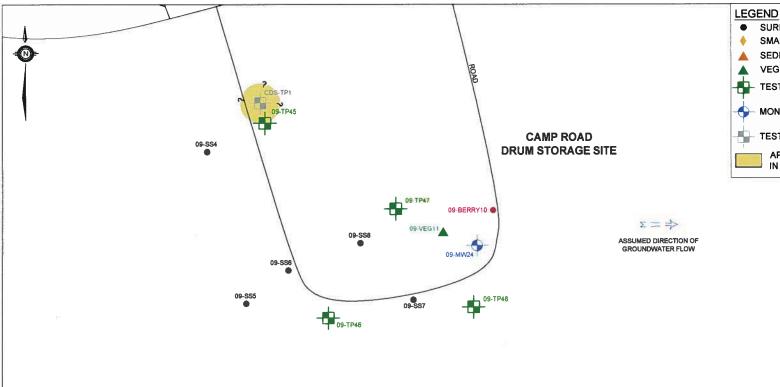
● 09 SM33

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

INO IE, TOIS DE	AVAILED STATES SUPPORTING INFORMATION SECURIO TO A STATE CONSISTENCE ETS. THE STATE WAS THE STATE OF THE STAT				_
CLIENT:	NEWFOUNDLAND AND LABRADOR DEPARTMENT OF ENVIRONMENT AND CONSERVATION	SCALE: 1:8		JUNE 17, 2010	
	NEW CONDENS AND BIBLOOK DELY WITHOUT CO. ELVINOVINEER CO.	DRAWN BY:	1,M,	A.R.	
PROJECT TITLE:	PHASE III ENVIRONMENTAL SITE ASSESSMENT, HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENTS, REMEDIAL ACTION PLAN FOR THE FORMER U.S. MILITARY FACILITY OF NORTHWEST POINT, NL	EDITED BY;	-	REV, No.	
DRAWING TITLE:		DRAWING No:	121410	)105-EE-09A	
	SITE PLAN - CAMP ROAD DRUM STORAGE SITE	CAD FILE:	1044857	-EE-07,DWG	

Stanted

O 09-SO17



SURFACE SOIL SAMPLE (STANTEC 2009)

SMALL MAMMALS (STANTEC 2009)

SEDIMENT SAMPLE (STANTEC 2009)

VEGETATION SAMPLE LOCATION (STANTEC 2009)

- TEST PIT (STANTEC 2009)

MONITOR WELL (STANTEC 2009)

TEST PIT (AGRA 1999)

APPROXIMATE EXTENT OF TPH IMPACTS IN SOIL EXCEEDING GENERIC GUIDELINES

O 09-SD17

INOTE: THIS DRAWING ILLUSTRATES SU	JPPORTING INFORMATION SPECIFIC	TO A STANTEC CONSULT	NG LID, REPORT AND MUST N	IOI BE USED FOR OTHER	TURFUSES.
		100.0		0.00	
CLIENT:					

NEWFOUNDLAND AND LABRADOR DEPARTMENT OF ENVIRONMENT AND CONSERVATION PROJECT TITLE: PHASE III ENVIRONMENTAL SITE ASSESSMENT, HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENTS, REMEDIAL ACTION PLAN FOR THE FORMER U.S. MILITARY FACILITY OF NORTHWEST POINT, NL DRAWING TITLE: APPROXIMATE EXTENT OF TPH IMPACTS EXCEEDING GENERIC GUIDELINES -

CAMP ROAD DRUM STORAGE SITE

121410105-EE-09B CAD FILE:

1:800

N.M.

SCALE:

EDITED BY

1044857-EE-10.DWG

JUNE 18, 2010

CHECKED BY:



18JUN10 1:00PM

# **Appendix 9b**

Site Photos

## **Site Photographs – Camp Road Drum Storage Site**



Photo 1 View of 09-MW24



Photo 2 View of 09-TP46

# **Appendix 9c**

Sample Coordinates

Sample Coordinates - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP Former U.S Military Facility, Northwest Point, NL Stantec Consulting Ltd. Project No. 121410105

	Coordinate	es (NAD27)
Sample ID	Easting	Northing
	TEST PITS	
09-TP45	694484	5931062
09-TP46	694502	5931011
09-TP47	694519	5931040
09-TP48	694540	5931015
	MONITOR WELLS	
09-MW24	694541	5931031
	SURFACE SOIL	
09-SS4	694469	5931054
09-SS5	694473	5931036
09-SS6	Not re	corded
09-SS7	694534	5931023
09-SS8	694510	5931031
	RABBITS	
09-SM33	694652	5930946
	VEGETATION	
09-VEG11	694532	5931034
	BERRIES	
09-BERRY10	694545	5931040

## **Appendix 9d**

Test Pit Records and Monitor Well Records

	§ Sta	<b>ntec</b> test		RE	ECO	RD								
	LIENT ROJECT _	NL Department of Environment and Conserv Phase III ESA, HHRA & ERA, Former US M		₹aci	lity					- TES	T PIT No	o	09-TP	<b>'</b> 45
	OCATION	Northwest Point, NL	intury 1		1103					PRO	JECT N	lo	121410	105
			/ATER I	.EVI	EL _	2.2	m		3-7-09	_ DAT	TUM _			
	e e					SAMF			S		CHEMICA	L ANALY	'SIS (ppm)	)
DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	ТҮРЕ	NUMBER	HYDROCARBON ODOUR	OTHER TESTS	PID READINGS (ppm)	TPH	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
- 0 - - -		Loose to compact, brown, SAND (SP)			BS	1	1		0.5	-	-	-	-	-
- - -														
- - 1 - -														
- - 		Compact, grey, SILT with sand (ML)												
- - - 2 -														
					BS	2	0		1.3	nd	nd	nd	nd	nd
 - - 3 - -		End of Test Pit  Very slow groundwater seepage observed at 2.2 m depth.  Bedrock not encountered.	[411]											
- - -														
- 4 - - 2														
- - - 5 -														
٠														

	Sta	<b>ntec</b> TEST	ΓPIT	RE	CO	RD									
	LIENT	NL Department of Environment and Conservation		Fo of	1:4					- TES	T PIT N	0	09-TP	<b>246</b>	_
	ROJECT _ OCATION	Phase III ESA, HHRA & ERA, Former US N Northwest Point, NL	/шиагу	raci	шу					_	JECT N		121410	105	_
			WATER I	LEVI	EL _	0.6	m		3-7-09	_ DAT	ΓUM _				
	(c)					SAMF			Ø		CHEMICA	L ANALY	'SIS (ppm	)	
DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	TYPE	NUMBER	HYDROCARBON ODOUR	OTHER TESTS	PID READINGS (ppm)	ΗΔL	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	
- 0 -	-	Loose to compact, brown, SAND (SP)			BS	1	0		4.4	-	-	-	_	-	-
	-			⊽			-								
	- - -	Compact, grey, SAND with silt (SP-SM)			BS	2	0		3.6	nd	nd	nd	nd	nd	-
- 1 -	_	End of Test Pit	1450												Ŧ
	- - -	Slow groundwater seepage observed at 0.6 idepth.	m												-
	<b>-</b> -	Bedrock not encountered.													-
	-	bedrock not encountered.													-
- 2 -	-														
															_
	-														-
- 3 -															
	-														-
	-														-
- 4 -															
	- - -														-
	- - -														-
- 5 ·	_														L

Pl Le	LIENT ROJECT _ OCATION ATES (mm					2.2	m	8	B-7 <b>-0</b> 9	PRC	T PIT NO DJECT N TUM —		09-TP 121410	
	<u> </u>			Τ,		SAMF			(0	CHEMICAL ANALYSIS (ppm)				)
DEPTH (m)	ELEVATION (m)	DESCRIPTION	TO IG ATAGTS	WATER LEVEL	TYPE	NUMBER	HYDROCARBON ODOUR	OTHER TESTS	PID READINGS (ppm)	ТРН	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
0 -		Loose, brown, SAND with gravel (SP)	74.5 (A.5)											
- - - -		Loose, brown, SAND with graver (SP)			BS	1	0		2.7	-	-	-	-	-
1 -		Compact, grey, SAND with silt (SP-SM)					-							
2 -				₽	BS	2	0		2.3	-	-	-	-	-
3 -		End of Test Pit  Very slow groundwater seepage observed a 2.2 m depth.  Bedrock not encountered.	t											
4 - - - - -														
- - - 5 -														

LO	DJECT _ CATION					N/A	١			_	JECT N	o	121410	105
DA'	ΓES (mm	-dd-yy): DUG <b>8-7-09</b>	WATER	LEV	EL _						UM _		·010 /	
	Œ)			;   <sub>Ш</sub>		SAMF			GS		CHEMICA	L ANALY	′SIS (ppm	) 
	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	TYPE	NUMBER	HYDROCARBON ODOUR	OTHER TESTS	PID READINGS (ppm)	푠	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
_		I GAND (GD)	2.50											
-		Loose, brown, SAND (SP)			BS	1	0		3.5	-	-	-	-	-
-		Compact, grey, SILT with sand (ML)												
-														
-					BS	2	0		1.8	nd	nd	nd	nd	nd
-		End of Test Pit												
1		No groundwater seepage observed.												
-		Bedrock not encountered.												
-														
]														
+														

	CLIE	ENT	NL Department of Environment a	nd Con	ser	vation			ECOF	RD			BOREHOI PAGE PROJECT	1 of . No	121410105
	PRO. LOC	JECT _ ATION	Phase III ESA, HHRA & ERA, F Northwest Point, NL	ormer	US	Milita	ry Fa	acility					DRILLING	3 METH <b>00mm I</b>	OD Auger IS
			-dd-yy): BORING <b>8-8-09</b>				WA	TER LE	VEL <u>2.</u>	13m	8-8-	09	DATUM		
DEPTH (m)		ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	TYPE	NUMBER	RECOVERY STANKE	N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)		WELL INSTRUCTION DETAILS 91 m STICK UP
_								mm						<b>.</b>	CAST IRON WELL HEAD
- 0 -			Dark brown, SAND with grave (SP); some cobbles	el		SS	1	305	7	0		7.7	-		BENTONITE
- 1			Grey, silty SAND (SM); some cobbles			SS	2	305	10	0		3.5	-		
_			Dark brown, SAND (SP)			SS	3	255	21	0		7.1	-		50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2
- 2	1		Dark grey, SILT (ML)		Ţ	SS	4	510	22	0		1.7	nd		SILICA SAND
_	1		Grey, CLAY (CL) Grey, SILT (ML)												PACK
- 3	1		Grey, CLAY (CL)			SS	5	405	26	0		10.3	-		
_	1														- - - -
			End of Borehole												END CAP
- 4	-														-
-	-														<u> </u>
- 5	1														<u>-</u> -
_	1														<u>-</u>
- 6	1														<u> </u>
_	1														<u>-</u>
- 7	1														
_															<u>-</u>
- 8	1 1														  -  -
_	1														[ 
- 9	1														<u> </u>
_	1														<u> </u>
	1														[
-1(	)			I		·	1	1	1	1			1	1	

STANTEC MONITOR WELL 8/5/11 11:02:02 AM

## **Appendix 9e**

Laboratory Analytical Results Summary Tables

Table 9.1 Results of Laboratory Analysis of TPH/BTEX in Soil - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP Former U.S Military Facility, Northwest Point, NL Stantec Consulting Ltd. Project No. 121410105

Sample Location	Sample Depth (m)	Benzene	Toluene	Ethyl- benzene	Xylenes	TPH Purgeable ( <c<sub>10)</c<sub>	TPH Extractable (C <sub>10</sub> -C <sub>32</sub> )	C <sub>6</sub> -C <sub>10</sub> (Gas Range)	C <sub>10</sub> -C <sub>21</sub> (Fuel Range)	C <sub>21</sub> -C <sub>32</sub> (Lube Range)	Modified TPH - Tier I <sup>2</sup>	Resemblance
	Units	mg/kg	mg/kg	mg/kg	mg/kg	-	-	mg/kg	mg/kg	mg/kg	mg/kg	-
	Tier I RBSLs <sup>1</sup>	0.16	14	58	17	-	-	-	-	-	140	-
					1999 S	ampling (AGF	RA)					
CDS-TP1	0.5	<0.002	0.004	0.004	0.015	1.53	21,900	-	-	-	21,902	HOD
MDL	-	0.002	0.002	0.002	0.002	0.02	0.2	-	-	-	0.2	-
					2009 Sa	ımpling (Stan	tec)					
09-MW24-SS4	1.8 - 2.4	<0.03	< 0.03	<0.03	<0.05	-	-	<3	<15	<15	<20	-
09-TP45-BS2	2.0 - 2.4	<0.03	< 0.03	< 0.03	<0.05	-	-	<3	<15	<15	<20	-
09-TP46-BS2	0.5 - 1.0	<0.03	<0.03	< 0.03	<0.05	-	-	<3	<15	<15	<20	-
09-TP48-BS2	2.0 - 2.5	<0.03	<0.03	<0.03	<0.05	-	-	<3	<15	<15	<20	-
RDL	-	0.03	0.03	0.03	0.05	-	-	3	15	15	20	-

2 = Modified TPH - Tier I does not include BTEX

MDL = Method Detection Limit; RDL = Reportable Detection Limit for routine analysis

Lab-dup = laboratory duplicate sample

<# = Not detected above MDL/RDL noted</pre>

"-" = Indicates value is not available or does not apply

HOD = Heavy oil and diesel

<sup>1 =</sup> Partnership in RBCA (Risk-Based Corrective Action) Implementation (PIRI) Tier I Risk Based Screening Levels (RBSLs) for a residential site with non-potable groundwater and coarse grained soil, fuel oil impacts (September, 2003)

Table 9.2 Results of Laboratory Analysis of Metals in Soil - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP Former U.S Military Facility, Northwest Point, NL Stantec Consulting Ltd. Project No. 121410105

					2009 5	Sampling (St	antec)	
Parameters	RDL	Units	Criteria <sup>1</sup>	09-SS4	09-SS5	09-SS6	09-SS7	09-SS8
		Samp	le Depth (m)	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15
Aluminum	10	mg/kg	-	1,700	3,800	3,100	2,600	2,700
Antimony	2	mg/kg	20	<2	<2	<2	<2	<2
Arsenic	2	mg/kg	12	<2	<2	<2	<2	<2
Barium	5	mg/kg	500	5	12	9	17	9
Beryllium	2	mg/kg	4	<2	<2	<2	<2	<2
Bismuth	2	mg/kg	-	<2	<2	<2	<2	<2
Boron	5	mg/kg	-	<5	<5	<5	<5	<5
Cadmium	0.3	mg/kg	10	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	2	mg/kg	64	5	5	6	6	6
Cobalt	1	mg/kg	50	<1	2	1	3	1
Copper	2	mg/kg	63	<2	<2	<2	<2	<2
Iron	50	mg/kg	-	3,900	2,700	4,000	3,800	4,400
Lead	0.5	mg/kg	140	1.2	1.1	1.7	1.1	2.6
Lithium	2	mg/kg	-	<2	<2	<2	2	<2
Manganese	2	mg/kg	-	22	79	60	95	46
Mercury	0.1	mg/kg	6.6	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	2	mg/kg	10	<2	<2	<2	<2	<2
Nickel	2	mg/kg	50	<2	2	2	3	2
Rubidium	2	mg/kg	-	<2	3	<2	2	<2
Selenium	1	mg/kg	1	<1	<1	<1	<1	<1
Silver	0.5	mg/kg	20	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	-	<5	<5	<5	<5	<5
Thallium	0.1	mg/kg	1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	2	mg/kg	-	<2	<2	<2	<2	<2
Uranium	0.1	mg/kg	23	0.1	0.2	0.1	0.2	0.1
Vanadium	2	mg/kg	130	9	7	10	9	11
Zinc	5	mg/kg	200	<5	8	7	8	10

1 = CCME Canadian Soil Quality Guidelines for Protection of Environmental and Human Health at a Residential/Parkland site (2007) RDL = Reportable Detection Limit for routine analysis

<sup>&</sup>lt; # = Not detected above RDL noted

<sup>&</sup>quot;-" = No applicable guideline

Table 9.3 Results of Laboratory Analysis of PAHs in Soil - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP Former U.S Military Facility, Northwest Point, NL Stantec Consulting Ltd. Project No. 121410105

				1999 Sampl	ing (AGRA)	2009 S	ampling (Star	itec)
Parameters	Units	Criteria <sup>1,3</sup>	Criteria <sup>2,3</sup>	CDS-TP1	MDL	09-SS4	09-SS6	RDL
		Sample	Depth (m)	0.5	-	0.0 - 0.15	0.0 - 0.15	-
Non-carcinogenic PAHs								
1-Methylnaphthalene	mg/kg	-	-	-	-	<0.005	<0.005	0.005
2-Methylnaphthalene	mg/kg	-	-	-	-	<0.005	<0.005	0.005
Acenaphthene	mg/kg	-	-	<0.01	0.002	<0.005	<0.005	0.005
Acenaphthylene	mg/kg	-	-	<0.005	0.001	<0.005	<0.005	0.005
Anthracene	mg/kg	2.5	-	<0.005	0.001	<0.005	<0.005	0.005
Fluoranthene	mg/kg	50	-	2	0.001	0.009	<0.005	0.005
Fluorene	mg/kg	-	-	<0.005	0.001	<0.005	<0.005	0.005
Naphthalene	mg/kg	-	-	<0.01	0.002	<0.005	<0.005	0.005
Perylene	mg/kg	-	-	<0.025	0.005	<0.005	<0.005	0.005
Phenanthrene	mg/kg	-	-	<0.005	0.001	0.006	<0.005	0.005
Pyrene	mg/kg	-	-	3.4	0.003	0.008	<0.005	0.005
Carcinogenic PAHs								
Benzo(a)anthracene	mg/kg	-	-	8.0	0.001	<0.005	<0.005	0.005
Benzo(a)pyrene	mg/kg	20	-	<0.015	0.003	<0.005	<0.005	0.005
Benzo(b)fluoranthene	mg/kg	-	-	0.5	0.004	<0.005	<0.005	0.005
Benzo(g,h,i)perylene	mg/kg	-	-	8.0	0.002	< 0.005	<0.005	0.005
Benzo(k)fluoranthene	mg/kg	-	-	0.3	0.004	<0.005	<0.005	0.005
Chrysene	mg/kg	-	-	1.3	0.001	<0.005	<0.005	0.005
Indeno(1,2,3-c,d) pyrene	mg/kg	-	-	0.3	0.003	<0.005	<0.005	0.005
Dibenz(a,h,)anthracene	mg/kg	-	-	<0.02	0.004	<0.005	<0.005	0.005
Benzo(a)pyrene TPE⁴		-	5.3	0.229	-	0.006	0.006	-

- 1 = CCME Canadian Soil Quality Guidelines for the Protection of Environmental Health at a Residential/Parkland Site (2008)
- 2 = CCME Canadian Soil Quality Guidelines for Protection of Human Health for a Residential Site (Direct Soil Contact) (2008)
- 3 = As per CCME recommendations, soil samples are compared against the SQG for the protection of human health and environmental health separately
- 4 = Carcinogenic PAHs Assessed as Benzo(a)pyrene Total Potency Equivalent (TPE)
- MDL = Method Detection Limit; RDL = Reportable Detection Limit for routine analysis
- < # = Not detected above MDL/RDL noted
- "-" = No applicable guideline or does not apply

Table 9.4 Results of Laboratory Analysis of PCBs in Soil - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP Former U.S Military Facility, Northwest Point, NL Stantec Consulting Ltd. Project No. 121410105

Sample Location	Sample Depth (m)	Polychlorinated Biphenyls (PCBs)
	Units	ug/g
	Criteria <sup>1</sup>	1.3
	1999 Sampling (AGRA)	
CDS-TP1	0.5	<0.005
MDL	-	0.005
	2009 Sampling (Stantec)	
09-SS6	0.0 - 0.15	<0.05
09-SS8	0.0 - 0.15	<0.05
09-SS8 Lab-Dup	0.0 - 0.15	<0.05
RDL	-	0.05

1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland site (2007)

MDL = Method Detection Limit; RDL = Reportable Detection Limit for routine analysis

Lab-Dup = Laboratory duplicate sample

<# = Not detected above MDL/RDL noted</pre>

Table 9.5 Results of Laboratory Analysis of PCBs in Vegetation - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP

Sample Location	Polychlorinated Biphenyls (PCBs)			
RDL	0.05			
Units	ug/L			
Criteria	na			
2009 Sampling (Stantec)				
09-VEG-11	<0.3			

## Notes:

RDL = Reportable Detection Limit

na = No applicable guideline

< # = Not detected above RDL noted

Table 9.6 Results of Laboratory Analysis of PCBs in Berries - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP

Sample Location	Polychlorinated Biphenyls (PCBs)				
RDL	0.05				
Units	ug/g				
Criteria	na				
2009 Sampling (Stantec)					
09-BERRY 10	<0.05				

## Notes:

RDL = Reportable Detection Limit

na = No applicable guideline

< # = Not detected above RDL noted

Table 9.7 Results of Laboratory Analysis of PCBs/Crude Fat in Rabbit Tissue Samples - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP

Location	Polychlorinated Biphenyls (PCBs)	Crude Fat			
RDL	0.05 / 0.07	0.5			
Units	ug/g	%			
Criteria	na	na			
2009 Sampling (Stantec) - Rabbits					
09-SM33	<0.05	2.0			
09-SM33 Lab-Dup	09-SM33 Lab-Dup -				

#### Notes:

RDL = Reportable Detection Limit

na = No applicable guideline

Lab-Dup = Laboratory duplicate sample

< # = Not detected above RDL noted

<sup>&</sup>quot;-" = Not analyzed

Table 9.8 Results of Laboratory Analysis of Metals in Rabbits - Camp Road Drum Storage Site Phase III ESA, HHERA and RAP

Parameters	RDL	Units	Criteria	2009 Sampling (Stantec) - Rabbits	
				09-SM33	
Aluminum	2.5	mg/kg	na	-	
Antimony	0.50	mg/kg	na	-	
Arsenic	0.50	mg/kg	na	-	
Barium	1.5	mg/kg	na	-	
Beryllium	0.50	mg/kg	na	-	
Boron	1.5	mg/kg	na	-	
Cadmium	0.050	mg/kg	na	-	
Chromium	0.50	mg/kg	na	-	
Cobalt	0.20	mg/kg	na	-	
Copper	0.50	mg/kg	na	-	
Iron	15	mg/kg	na	-	
Lead	0.18	mg/kg	na	-	
Lithium	0.50	mg/kg	na	-	
Manganese	0.50	mg/kg	na	-	
Mercury	0.10	mg/kg	na	<0.1	
Molybdenum	0.50	mg/kg	na	-	
Nickel	0.50	mg/kg	na	-	
Selenium	0.50	mg/kg	na	-	
Silver	0.12	mg/kg	na	-	
Strontium	1.5	mg/kg	na	-	
Thallium	0.020	mg/kg	na	-	
Tin	0.50	mg/kg	na	-	
Uranium	0.020	mg/kg	na	-	
Vanadium	0.50	mg/kg	na	-	
Zinc	1.5	mg/kg	na	-	

#### Notes:

RDL = Reportable Detection Limit

na = No applicable guideline

< # = Not detected above RDL noted

"-" = Not analyzed

## **Appendix 9f**

Results of Hydraulic Response (Bail-Down) Test

## Stantec Consulting Ltd.

607 Torbay Road

St. John's, NL, A1A 4Y6

Tel: (709) 576-1458

Slug Test Data Report

Project: Northwest Point

Number: 121410105

Client: NLDEC

Page 1

Test Well:	09-MW24		Slug Test:	09-MW24	
			Test Well:	09-MW24	
Depth to Static WL:	3.78 [m]		Casing radius:	0.025 [m]	
Location:			Boring radius:	0.05 [m]	
Recorded by:	Stantec		Screen length:	3.05 [m]	
Date:	8/27/2009		Aquifer Thickness:	0.46 [m]	
	Time [s]	Depti	n to WL [m]	Dra	wdown [m]
1	10		4.21		0.43
2	20		4.16		0.38
3	30		4.09		0.31
. 4	40		4.00		0.22
5	50		3.99		0.21
6	60		3.98		0.20
7	120		3.91		0.13 -
8	180		3.87		0.09
9	240		3.83		0.05
10	300		3.81		0.03
11	330		3.79		0.01
12	360		3.79		0.01
13	420		3.78		0.00

### Stantec Consulting Ltd.

607 Torbay Road St. John's, NL, A1A 4Y6

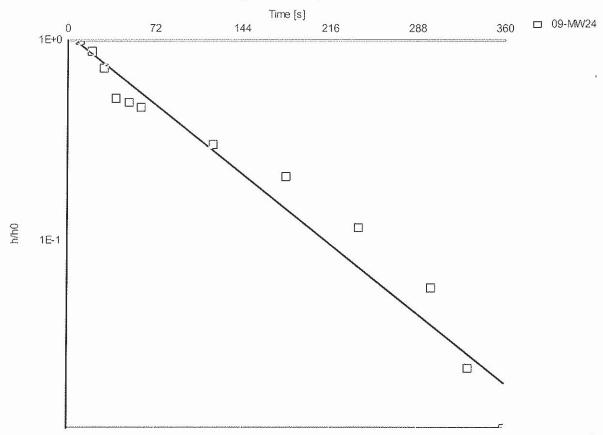
Tel: (709) 576-1458

### Slug Test Analysis Report

Project: Northwest Point Number: 121410105

Client: NLDEC





Slug Test:

09-MW24

Analysis Method:

Bouwer & Rice

Analysis Results:

Conductivity:

2.10E-6 [m/s]

Test parameters:

Test Well:

09-MW24

Aquifer Thickness:

0.46 [m]

Casing radius:

0.025 [m]

Gravel Pack Porosity (%)

25

Screen length:

3.05 [m]

Boring radius:

0.05 [m]

r(eff):

0.033 [m]

Comments:

Evaluated by:

AR

Evaluation Date:

6/9/2010

### Stantec Consulting Ltd.

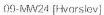
607 Torbay Road St. John's, NL, A1A 4Y6

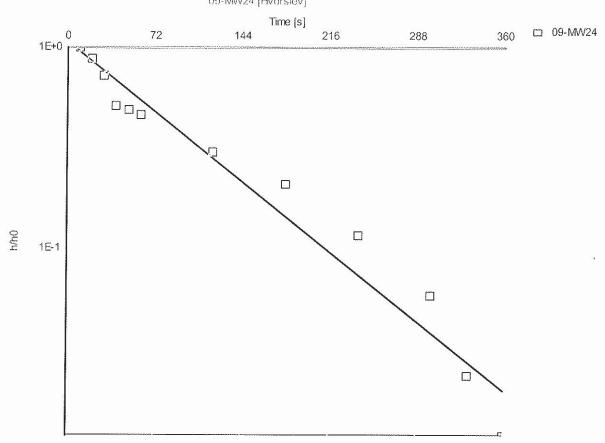
Stanton

Tel: (709) 576-1458

### Slug Test Analysis Report

Project: Northwest Point
Number: 121410105
Client: NLDEC





Slug Test:

09-MW24

Analysis Method:

Hvorslev

Analysis Results:

Conductivity:

4.72E-6 [m/s]

Test parameters:

Test Well:

09-MW24

Aquifer Thickness:

0.46 [m]

Casing radius:

0.025 [m]

Screen length:

3.05 [m]

Boring radius:

0.05 [m]

Comments:

Evaluated by:

AR

Evaluation Date:

6/9/2010