

Certificate of Analysis

Nunatta Environmental Services Inc.

P.O. Box 267
Iqaluit, NU X0A0H0
Attn: Jim Wilson

Phone: (867) 979-1488
Fax: (867) 979-1478

Client PO:
Project: Landfarm Water
Custody: 81263

Report Date: 9-May-2012
Order Date: 8-May-2012

Order #: 1219111

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1219111-01	Black Tank
1219111-02	Green Tank
1219111-03	Cell #2

Approved By:



Mark Foto, M.Sc. For Dale Robertson, BSc
Laboratory Director

Certificate of AnalysisClient: **Nunatta Environmental Services Inc.**

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Client PO:

Project Description: Landfarm Water

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX	EPA 624 - P&T GC-MS	8-May-12	9-May-12
CCME PHC F1	CWS Tier 1 - P&T GC-FID	8-May-12	9-May-12
CCME PHC F2 - F4	CWS Tier 1 - GC-FID, extraction	9-May-12	9-May-12

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	Client ID:	Black Tank	Green Tank	Cell #2	-
	Sample Date:	08-May-12	08-May-12	08-May-12	-
	Sample ID:	1219111-01	1219111-02	1219111-03	-
	MDL/Units	Water	Water	Water	-

Volatiles

Benzene	0.5 ug/L	<0.5	<0.5	<0.5	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	-
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	-
Toluene-d8	Surrogate	111%	112%	112%	-

Hydrocarbons

F1 PHCs (C6-C10)	25 ug/L	<25	<25	<25	-
F2 PHCs (C10-C16)	100 ug/L	<100	<100	<100	-
F3 PHCs (C16-C34)	100 ug/L	195	341	504	-
F4 PHCs (C34-C50)	100 ug/L	180	280	220	-
F1 + F2 PHCs	125 ug/L	<125	<125	<125	-
F3 + F4 PHCs	200 ug/L	375	621	724	-

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Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L						
Volatiles									
Benzene	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: Toluene-d8	27.6		ug/L		86.2	50-140			

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Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L	ND				30	
Volatiles									
Benzene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: Toluene-d8	27.3		ug/L	ND	85.3	50-140			

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Client PO:

Project Description: Landfarm Water

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	1840	25	ug/L	ND	92.0	68-117			
Volatiles									
Benzene	39.3	0.5	ug/L	ND	98.3	50-140			
Ethylbenzene	36.1	0.5	ug/L	ND	90.4	50-140			
Toluene	42.6	0.5	ug/L	ND	106	50-140			
m,p-Xylenes	71.2	0.5	ug/L	ND	89.0	50-140			
o-Xylene	34.8	0.5	ug/L	ND	87.0	50-140			
Surrogate: Toluene-d8	27.0		ug/L		85.3	50-140			

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Sample and QC Qualifiers Notes

None

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

n/a: not applicable

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.

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NIAGARA FALLS
5415 Morning Glory Crt.
Niagara Falls, ON L2J 0A3

SARNIA
123 Christina St. N.
Sarnia, ON N7T 5T7

Client Name: Novetta Environmental	Project Ref: Landfarm water	Waterworks Name:	Page 1 of 1
Contact Name: Jim Wilson	Quote #	Waterworks Number:	Sample Taken by:
Address: 1575 Federal Rd. Igaluit Box 267 X0A-0H0	PO #	Address:	Print Name: Jim Wilson
Telephone: 867-979-1488	E-mail Address: novetta@northwestel	After hours Contact:	Signature: <i>[Signature]</i>
	Fax: 867-979-1478	Public Health Unit:	TAT: <input checked="" type="checkbox"/> 1-day [] 2-day [] Reg.

Matrix Types: S-Soil/Sed. GW-Ground Water SW-Surface Water SS-Storm/Sanitary Sewer DW-Drinking Water RDW-Regulated Drinking Water P- Paint A-Air O-Other

Samples submitted under: (Indicate ONLY one) <input type="checkbox"/> O. Reg 153 (511) Table <input type="checkbox"/> O. Reg 170/03 <input type="checkbox"/> O. Reg 318/08 <input type="checkbox"/> Private well <input type="checkbox"/> CCME <input type="checkbox"/> O. Reg 243/07 <input type="checkbox"/> O. Reg 319/08 <input type="checkbox"/> Other:				Type of DW Sample: R = Raw; T = Treated; D = Distribution Location Types: S = Surface Water; G = Ground Water		Required Analyses														
Parcel Order Number 1219111		Matrix	Air Volume	Type of Sample	# of Containers	Sample Taken Date Time		Free / Combined Chlorine Residual mg/L												
Sample ID / Location Name																				
1	Black Tank.	SW	0	W	3	MAY 8	9am		FI-Fy											
2				9																
3	Green Tank.	SW	0	+	3	MAY 8	9am													
4				e																
5	Cell #2	SW	0	✓	3	MAY 8	9am													
6																				
7																				
8																				
9																				
10																				

Comments:

Preservation Verification: pH **N/A** Temperature **7.8**
Verified by: *[Signature]*

Relinquished By (Print & Sign): Jim Wilson <i>[Signature]</i>	Lab Use Only:		
Received By: Driver/Depot: A. Drouse	Received at Lab: SUNEE PORN	Verified By: MIC	
Date/Time: 09/05/12 10:57am	Date/Time: MAY 09, 12 11:36	Date/Time: MAY 9/12 11:26	