

## NWB Annual Report

Year being reported: 2009 ▼

License No: NWB4NUN0511 - Type "B" Issued Date: September 13, 2005  
 Expiry Date: December 13, 2011

Project Name: Nunatta Environmental Services "Landfarm"

Licensee: Nunatta Environmental Services

Mailing Address: Box 267,  
Iqaluit, Nunavut  
X0A 0H0

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

## General Background Information on the Project (\*optional):

Nunatta Environmental Services Inc. (Nunatta) owns and operates a Hydrocarbon-Impacted Soil Landfarm Facility in the City of Iqaluit, Nunavut. This treatment facility is commonly referred to as a 'landfarm'. Nunatta operations consist in accepting soils impacted with petroleum products at various concentrations at the landfarm's geosynthetic lined cells and allow indigenous soil microorganisms with the assistance of fertilizers to degrade petroleum products into compounds such as water, carbon dioxide and hydrogen sulfide. Soils accepted at the landfarm are contaminated with diesel fuel, gasoline and other automotive oils.

Licence Requirements: the licensee must provide the following information in accordance with

Part B ▼ Item 1 ▼

**A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.**

Water Source(s): Run-off water, contaminated water from clean-up site

Water Quantity:

	Quantity Allowable Domestic (cu.m)
	Actual Quantity Used Domestic (cu.m)
	Quantity Allowable Drilling (cu.m)
	Total Quantity Used Drilling (cu.m)

## Waste Management and/or Disposal

- ☐ Solid Waste Disposal  
☐ Sewage  
☐ Drill Waste  
☐ Greywater  
☐ Hazardous  
☒ Other:

Hydrocarbon Contaminated Soils

## Additional Details:

18 cubic meters of water was received into landfarm from outside sources. These waters were used inside the cells to wet soils. This was a very dry year and no surface water was collected or pumped off during the summer months.

**A list of unauthorized discharges and a summary of follow-up actions taken.**

Spill No.:  (as reported to the Spill Hot-line)  
 Date of Spill:   
 Date of Notification to an Inspector:   
 Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

**Revisions to the Spill Contingency Plan**

SCP submitted and approved - no revision required or proposed



Additional Details:

**Revisions to the Abandonment and Restoration Plan**

AR plan submitted and approved - no revision required or proposed



Additional Details:

**Progressive Reclamation Work Undertaken**

Additional Details (i.e., work completed and future works proposed)

There was a total of 1021 Meters received at landfarm in 2009 giving us a grand total of 7478 meters  
 Soils taken in and placed in cell # 1. Large rocks were removed and soils were piled into cell #2 to be further screened out next summer. Cell #3 had soils lightly treated with fertilizer and put into windrows. Rocks were removed from soils will be aerated and rocks cleaned. Limited space inside cells prompted construction of a holding or staging cell (referred to as cell #4) as we had an unusual number of spills in 2009 and contaminated soil has to be removed from spill site in order to remediate. The new cell was constructed using a 30mm liner and in accordance to preapproved Engineering Drawings prepared by Dillon Engineering. The construction was supervised by Axel D Have P Eng. Several photographs were taken at various stages during the construction and are attached to this report. Not enough sand was located to complete inside, will be completed in 2010

**Results of the Monitoring Program including:**

**The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;**

Not Applicable (N/A)



Additional Details:

**The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;**

Details described below



Additional Details:

Cell#1 N 63-45-816  
W 068-32-667

Cell #2 N 63-45-825  
W068-32-708

These coordinates are to center of cells  
Corner locations are included in attachment.

Cell#3 N 63-45-828  
W068-32-738

Cell #4 N 63-45-781  
W 068-32-705

This cell was added as a temporary storage cell  
but as we worked into the project it  
developed into full scale cell as construction  
proceeded.

**Results of any additional sampling and/or analysis that was requested by an Inspector**

No additional sampling requested by an Inspector or the Board



Additional Details: (date of request, analysis of results, data attached, etc)

**Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.**

 No additional sampling requested by an Inspector or the Board
 

Additional Details: (Attached or provided below)

**Any responses or follow-up actions on inspection/compliance reports**

 No inspection and/or compliance report issued by INAC
 

Additional Details: (Dates of Report, Follow-up by the Licensee)

**Any additional comments or information for the Board to consider**

November of 2008 after a change in Management, Franz Environmental was contracted to install 4 new Monitoring wells around the perimeter of the landfarm. In order to fit the new overflow cell we removed one of the test wells. This well was installed as MW08-4. New mapping referred to as WM6.

**Date Submitted:**

Jan 19th 2011

**Submitted/Prepared by:**

Nunatta Environmental Services Inc, Iqaluit, Nu

**Contact Information:**
**Tel:** 867-979-1488

**Fax:** 867-979-1478

**email:** [nunatta@northwestel.net](mailto:nunatta@northwestel.net)

## GPS Coordinates for water sources utilized

[illegible]

### GPS Locations of areas of waste disposal

[illegible]



Nunatta Environmental Services Inc.  
P.O. Box 267  
Iqaluit, NU X0A 0H0

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

**RECEIPT OF OIL - IMPACTED SOILS  
BY CLIENT & JOB #  
AS AT 31/12/09**

<b>Date of Invoice</b>	<b>Customer</b>	<b>Job #</b>	<b>Details (Cu. Mtrs. Received)</b>
Jan 30/09	NP REIT	08-850	26.0
August 6/09	Meeka Mike	09-851-2	70.4
Oct 28/09	GN I Finance	09-900	54.0
Sept 18/09	Neevee Wilkins	09-901	7.0
Oct 1/09	NorhweTel	09-904	17.0
April 07/09	NP REIT	09-906	108.0
Dec 31/09	City of Iqaluit	09-907	159.4
Oct 23/09	NorhweTel	09-908	4.0
Oct 28/09	NP REIT	09-910	49.3
Oct 28/09	Frosty Refriger.	09-914	82.5
Oct 28/09	Chris Thomas	09-917	46.0
Nov 8/09	Qikiqtaaluk C.	09-921	158.2
Dec 31/09	Lena Evic-Twerdin	09-926	86.0
Dec 31/09	NPREIT	09-934	13.5
Dec 31/09	City of Iqaluit	09-935	90.0
Oct 7/09	City of Iqaluit	09-939	40.0
Oct 7/09	Kudlik Constr.	09-942	8.0
Dec 22/09	Qudlik Energy	09-943	2.0

**Total Cubic Meters of Oil-impacted Soil Received:**

**1,021.3**

**Soil Remediation - Deferred Revenue Calculations  
Annual Reconciliation**

Page 1 of 2

Year	Details	Extended															
Soil	(Cu. Mtrs. Average	Price	Per														
Received	Received)	Price	Invoice	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			Liability
																	at Y/E
<b>2003</b>	3919.6	\$ 174.46	#####	#####	#####	#####	#####	#####	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	#####
<b>2004</b>	708	\$ 289.27	#####	\$ -	\$ 40,960	\$ 40,960	\$ 40,960	\$ 40,960	\$ 40,960	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	#####
<b>2005</b>	377.8	\$ 198.01	\$ 74,800	\$ -	\$ -	\$ 14,960	\$ 14,960	\$ 14,960	\$ 14,960	\$ 14,960	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	#####
<b>2006</b>	164.0	\$ 212.47	\$ 34,845	\$ -	\$ -	\$ -	\$ 6,969	\$ 6,969	\$ 6,969	\$ 6,969	\$ 6,969	\$ -	\$ -	\$ -	\$ -	\$ -	#####
<b>2007</b>	525.1	\$ 248.86	#####	\$ -	\$ -	\$ -	\$ -	\$ 26,132	\$ 26,132	\$ 26,132	\$ 26,132	\$ 26,132	\$ -	\$ -	\$ -	\$ -	#####
<b>2008</b>	1077.3	\$ 250.19	#####	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 53,903	\$ 53,903	\$ 53,903	\$ 53,903	\$ 53,903	\$ -	\$ -	\$ -	#####
<b>2009</b>	1021.3	\$ 250.00	#####	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,065	\$ 51,065	\$ 51,065	\$ 51,065	\$ 51,065	\$ 51,065	\$ 51,065	#####
<b>Totals</b>	<b>5694.4</b>	<b>\$198.25</b>	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	<b>\$51,065</b>	

**Year-end Balances: 2003:**      **Total Revenue for Year:**      #####  
**Revenue Applicable to 2003:**      ##### Yr 1  
**Deferred Revenue at Year-end - 2003:**      ##### **Agreed to Balance Sheet**

**2004:**      **Opening Balance from Previous Year:**      #####  
**Less Revenue Applicable to Year 2003**      ##### Yr 2  
**Plus Revenue for 2004**      #####  
**Less Revenue Applicable to Year 2004**      \$ 40,960 Yr 1  
**Deferred Revenue at Year-end - 2004:**      ##### **Agreed to Balance Sheet**

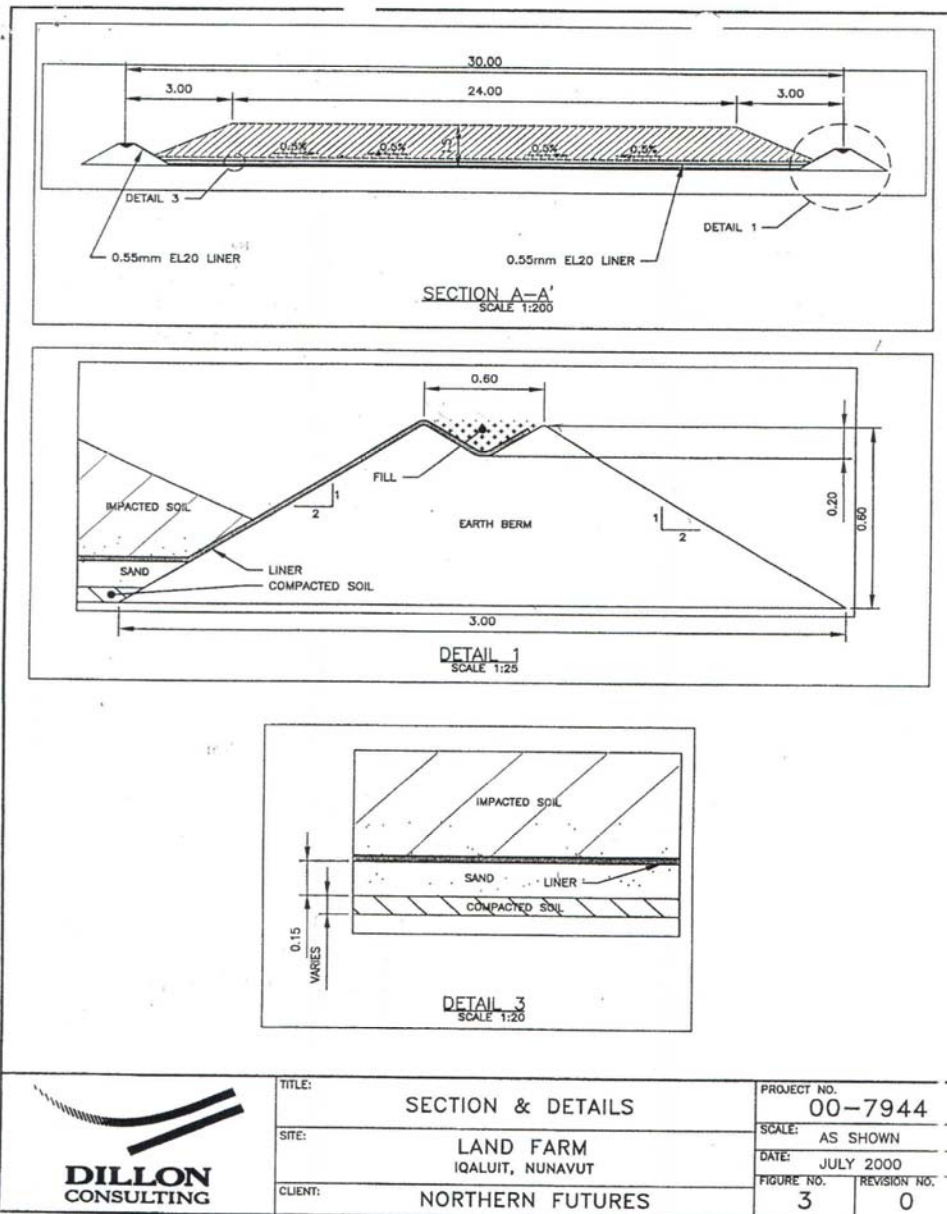
**2005:**      **Opening Balance from Previous Year:**      #####  
**Less Revenue Applicable to Year 2003**      ##### Yr 3  
**Less Revenue Applicable to Year 2004**      \$ 40,960 Yr 2  
**Plus Revenue for 2005**      \$ 74,800  
**Less Revenue Applicable to Year 2005**      \$ 14,960 Yr 1  
**Deferred Revenue at Year-end - 2005:**      ##### **Agreed to Balance Sheet**

**Nunatta Environmental Services Inc.**  
**Soil Remediation - Deferred Revenue Calculations**  
**Annual Reconciliation**

Page 2 of 2

<b>2006:</b>	<b>Opening Balance from Previous Year:</b>	#####	
	<b>Less Revenue Applicable to Year 2003</b>	#####	Yr 4
	<b>Less Revenue Applicable to Year 2004</b>	\$ 40,960	Yr 3
	<b>Less Revenue Applicable to Year 2005</b>	\$ 14,960	Yr 2
	<b>Plus Revenue for 2006</b>	\$ 34,845	
	<b>Less Revenue Applicable to Year 2006</b>	\$ 6,969	Yr 1
	<b>Deferred Revenue at Year-end - 2006:</b>	#####	<b>Agreed to Balance Sheet</b>
<b>2007:</b>	<b>Opening Balance from Previous Year:</b>	#####	
	<b>Less Revenue Applicable to Year 2003</b>	#####	Yr 5
	<b>Less Revenue Applicable to Year 2004</b>	\$ 40,960	Yr 4
	<b>Less Revenue Applicable to Year 2005</b>	\$ 14,960	Yr 3
	<b>Less Revenue Applicable to Year 2006</b>	\$ 6,969	Yr 2
	<b>Plus Revenue for 2007</b>	#####	
	<b>Less Revenue Applicable to Year 2007</b>	\$ 26,132	Yr 1
	<b>Deferred Revenue at Year-end - 2007:</b>	#####	<b>Out of Balance by \$1,000</b>
<b>2008:</b>	<b>Opening Balance from Previous Year:</b>	#####	
	<b>Less Revenue Applicable to Year 2004</b>	\$ 40,960	Yr 5
	<b>Less Revenue Applicable to Year 2005</b>	\$ 14,960	Yr 4
	<b>Less Revenue Applicable to Year 2006</b>	\$ 6,969	Yr 3
	<b>Less Revenue Applicable to Year 2007</b>	\$ 26,132	Yr 2
	<b>Plus Revenue for 2008</b>	#####	
	<b>Less Revenue Applicable to Year 2008</b>	\$ 53,903	Yr 1
	<b>Deferred Revenue at Year-end - 2008:</b>	#####	<b>Agreed to Balance Sheet</b>
<b>2009:</b>	<b>Opening Balance from Previous Year:</b>	#####	Yr 5
	<b>Less Revenue Applicable to Year 2005</b>	\$ 14,960	Yr 4
	<b>Less Revenue Applicable to Year 2006</b>	\$ 6,969	Yr 3
	<b>Less Revenue Applicable to Year 2007</b>	\$ 26,132	Yr 2
	<b>Less Revenue Applicable to Year 2008</b>	\$ 53,903	
	<b>Plus Revenue for 2009</b>	#####	
	<b>Less Revenue Applicable to Year 2009</b>	\$ 51,065	
	<b>Deferred Revenue at Year-end - 2009:</b>	#####	<b>Agreed to Balance Sheet</b>





This is a scanned copy of the original engineers drawings used  
 In the construction of the new Cell #4  
 This design has proven to work very well here In the North  
 with the soil types we have to work with.  
 All the Cells at Nunatta were constructed using this design and have  
 proven very strong and stable.



During the warm months of 2009 we began the construction of an overflow cell. This was in response to an unusual number of fuel tank ruptures in Iqaluit. We began by digging out large rocks and putting down a layer of screened out material.





All work was monitored by Axel Have (P.eng)

Approved Cell construction drawings were Engineered by Dillon and have been the model used in constructing of all cells on Nunatta Landfarm as it has proven to be a good design for this northern location and soils we have to work with.

Length, Width and Grade was checked with the use of transit



Sand was brought in and put through a shaker to remove all rocks down to less than  $\frac{1}{2}$  inch





This was placed on an already smooth base and compacted, then another layer added and compacted again. Grade was corrected throughout this process.



Walls were constructed of waste rocks in bottom and soils that pack on top to make for firm walls



Excavator and loader used to carry materials and to pack walls tight





Small stones were raked out of inside cells and walls were covered with screened sand.  
To complete the formation of cell containment area.





The whole area was raked and picked clean of any small debris that could puncture the liner.  
The transition from floor to wall was shaped so as not to have sharp angle which could cause a rip



The opening in the end wall was to allow passage of man and machine.  
We thought it best to keep access until liner was installed then fill in hole.  
This position later became a ramp to allow access into cell.  
One of two access points into cell #4



This is the new liner uncrated.  
Total weight 2200 pounds or 1000Kg



**LAYFIELD****Flexible Membrane Liner****80M**

LENGTH

UNROLL

Customer Name:

**NUNATTA ENV.**

Material:

**Enviro Liner 6030 Blk**Sales Order  
**191266**

Liner Size:

**80M X 30.48**Stockcode  
**03LE1030**

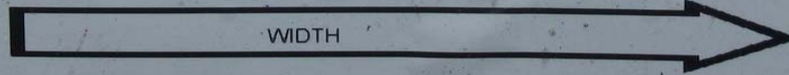
QC Number

**191266**

Panel Number

**1**

PULLOUT



WIDTH

**30.48**DATE: **Sen 02. 2005****Made In Canada**

Showing liner label.

This was adhered to side of roll.

Kept in file as proof of purchase



Unrolling of liner prior to unfolding across the width of the cell area



Shows length of cell area, liner unrolled and ready to unfold across the cell wall (left on photo)





First couple folds out.  
Takes many hands to pull liner evenly into position.



Liner in position and placing of sand on top of walls underway to keep the wind from getting under liner  
Equipment cannot drive on liner with out sand to aid in spreading out weight over larger area.  
Plans call for 6 inches of compacted sand over liner.  
We feel more than this is required and will add 16-18 inches.





Screening plant and stacker used to get sand into new cell without damaging the liner. Sand was shoveled out until no more sand was available. Completion of cell will continue Summer of 2010 when city will allow removal of more sand from pit.

Paracel Laboratory	Client Nunatta Environmental Services Inc.
Certificate of Analysis	Attention Ivan Charalambij
Work Order: 0921	Reference Preferred Supplier Pricing
Report Date: 7/21	Project Number 09-923

*Note: This is not the original data. Please refer to PDF / Hardcopy report.*

LAB ID	Parameter	Units	MRL	0929062-01	0929062-02	0929062-03
CLIENT ID				Cell 3 - 2009 -	Cell 3 - 2009 -	Cell 3 - 2009 - 3
DATE SAMPLED				09-Jul-09	09-Jul-09	09-Jul-09
DATE RECEIVED				14-Jul-09	14-Jul-09	14-Jul-09
MATRIX				Soil	Soil	Soil
	% Solids	% by Wt.	0.1	91.3	91.1	89.2
	Benzene	ug/g	0.03	<0.03	<0.03	<0.03
	Ethylbenzene	ug/g	0.05	<0.05	0.05	0.06
	Toluene	ug/g	0.05	0.05	0.07	0.06
	m,p-Xylenes	ug/g	0.05	0.27	0.26	0.26
	o-Xylene	ug/g	0.05	0.11	0.11	0.14
	F1 PHCs (C6-C10)	ug/g	10	<10	<10	<10
	F2 PHCs (C10-C16)	ug/g	10	1530	1640	1300
	F3 PHCs (C16-C34)	ug/g	10	721	1030	991
	F4 PHCs (C34-C50)	ug/g	10	83	50	92

Paracel Laboratories Ltd.  
Certificate of Analysis  
Work Order: 0929062  
Report Date: 7/20/2009 1:41:41 PM

Client Nunatta Environmental Services Inc.  
Attention Ivan Charalambij  
Reference Preferred Supplier Pricing  
Project Number 09-923

Note: This is not the original data. Please refer to PDF / Hardcopy report.

LAB ID  
CLIENT ID  
DATE SAMPLED  
DATE RECEIVED  
MATRIX

Parameter	Units	MRL	0929062-01 Cell 3 - 2009 - 09-Jul-09 14-Jul-09 Soil	0929062-02 Cell 3 - 2009 - 09-Jul-09 14-Jul-09 Soil	0929062-03 Cell 3 - 2009 - 3 09-Jul-09 14-Jul-09 Soil
% Solids	% by Wt.	0.1	91.3	91.1	89.2
Benzene	ug/g	0.03	<0.03	<0.03	<0.03
Ethylbenzene	ug/g	0.05	<0.05	0.05	0.06
Toluene	ug/g	0.05	0.05	0.07	0.06
m,p-Xylenes	ug/g	0.05	0.27	0.26	0.26
o-Xylene	ug/g	0.05	0.11	0.11	0.14
F1 PHCs (C6-C10)	ug/g	10	<10	<10	<10
F2 PHCs (C10-C16)	ug/g	10	1530	1640	1300
F3 PHCs (C16-C34)	ug/g	10	721	1030	991
F4 PHCs (C34-C50)	ug/g	10	83	50	92

Note: This is not the original data. Please refer to PDF / Hardcopy report.

Parameter	Units	MRL		0938209-01	0938209-02	0938209-03	0938209-04	0938209-05	0938209-06	0938209-07	0938209-08	0938209-09
LAB ID				0938209-01	0938209-02	0938209-03	0938209-04	0938209-05	0938209-06	0938209-07	0938209-08	0938209-09
CLIENT ID				Cell 1 - 09-1	Cell 1 - 09-2	Cell 1 - 09-3	Cell 2 - 09-1	Cell 2 - 09-2	Cell 2 - 09-3	Cell 3 - 09-1	Cell 3 - 09-2	Cell 3 - 09-3
DATE SAMPLED				15-Sep-09	15-Sep-09	15-Sep-09	15-Sep-09	15-Sep-09	15-Sep-09	15-Sep-09	15-Sep-09	15-Sep-09
DATE RECEIVED				17-Sep-09	17-Sep-09	17-Sep-09	17-Sep-09	17-Sep-09	17-Sep-09	17-Sep-09	17-Sep-09	17-Sep-09
MATRIX				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
% Solids	% by Wt.	0.1	91.5	92.9	95	92.4	92.1	91.8	89.1	89.4	93.1	
Antimony	ug/g dry	1	<1	<1	<1	<1	<1	<1	<1	3	2	
Arsenic	ug/g dry	1	1	1	1	<1	<1	<1	<1	<1	<1	
Barium	ug/g dry	10	31	26	31	33	29	31	50	46	36	
Beryllium	ug/g dry	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Boron, available	ug/g dry	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Cadmium	ug/g dry	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chromium	ug/g dry	5	23	25	25	24	27	26	26	26	26	
Chromium (VI)	ug/g dry	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	
Cobalt	ug/g dry	1	5	5	5	6	5	5	8	8	6	
Copper	ug/g dry	5	12	12	11	14	12	13	25	30	15	
Iron	ug/g dry	200	24800	25800	26000	24900	27900	25300	26300	26800	27300	
Lead	ug/g dry	1	21	26	15	14	12	17	20	9	33	
Mercury	ug/g dry	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Molybdenum	ug/g dry	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Nickel	ug/g dry	5	8	8	8	9	9	9	11	11	9	
Selenium	ug/g dry	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Silver	ug/g dry	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Thallium	ug/g dry	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Tin	ug/g dry	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Vanadium	ug/g dry	10	48	52	54	48	59	54	60	66	58	
Zinc	ug/g dry	20	47	48	41	47	45	52	54	50	45	
F1 PHCs (C6-C10)	ug/g	10	<10	<10	22	<10	<10	<10	<10	<10	<10	
F2 PHCs (C10-C16)	ug/g	10	1220	666	366	776	1050	849	1140	1670	1640	
F3 PHCs (C16-C34)	ug/g	10	743	666	436	452	428	519	1410	1150	704	
F4 PHCs (C34-C50)	ug/g	10	42	125	72	65	87	133	224	76	142	

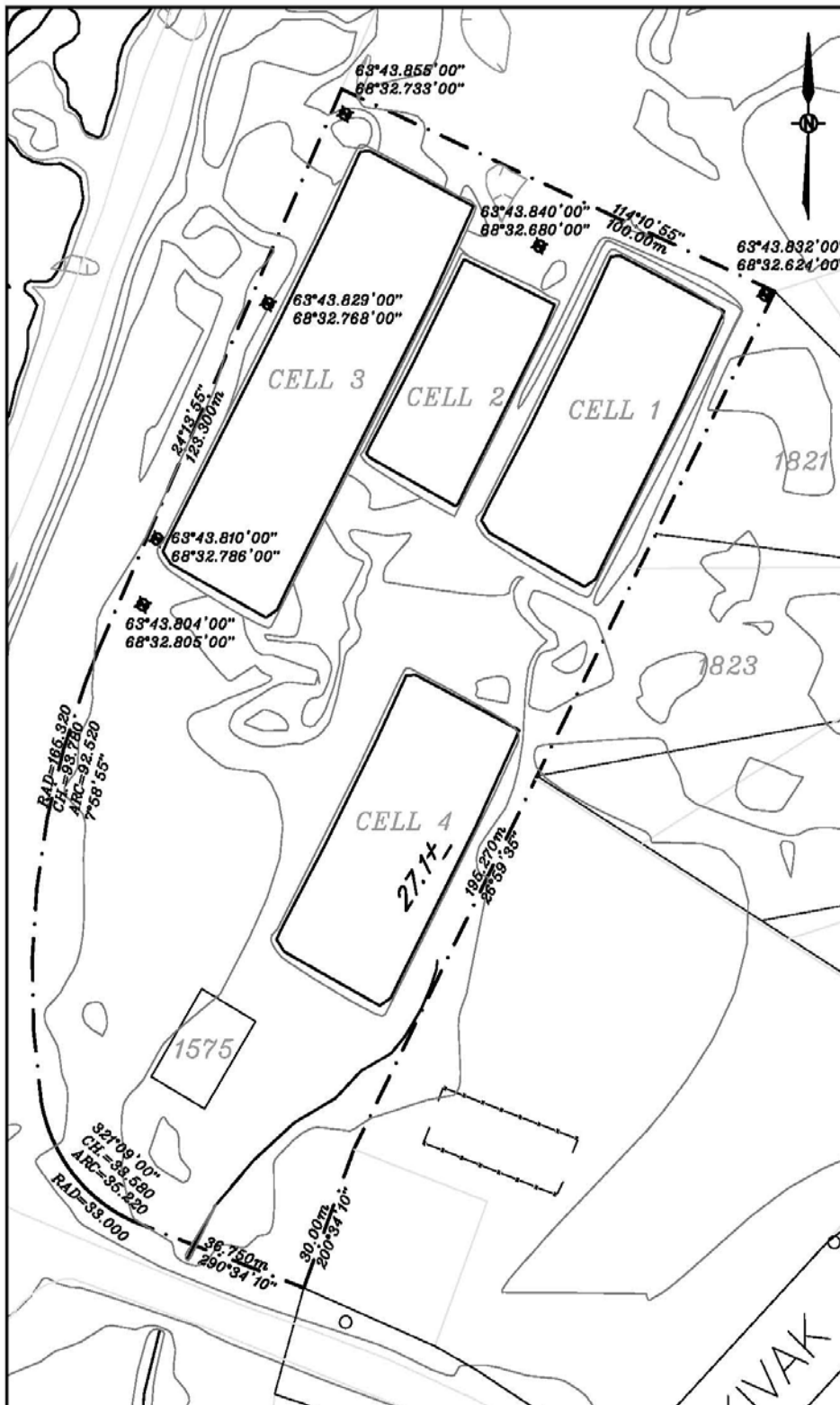
Paracel Laboratories Ltd.  
 Certificate of Analysis  
 Work Order: 0929063  
 Report Date: 7/20/2009 1:37:43

Client Nunatta Environmental Services Inc.  
 Attention Ivan Charalambij  
 Reference Preferred Supplier Pricing  
 Project Number 09-923

*Note: This is not the original data. Please refer to PDF / Hardcopy report.*

LAB ID	Parameter	Units	MRL	
CLIENT ID				0929063-01
DATE SAMPLED				MW08 - 04
DATE RECEIVED				13-Jul-09
MATRIX				14-Jul-09
				Water
	Aluminum	ug/L	10	942
	Antimony	ug/L	1	<1
	Arsenic	ug/L	10	<10
	Barium	ug/L	10	14
	Boron	ug/L	50	<50
	Cadmium	ug/L	1	<1
	Calcium	ug/L	200	41300
	Chromium	ug/L	50	<50
	Copper	ug/L	5	7
	Iron	ug/L	200	1310
	Lead	ug/L	1	<1
	Manganese	ug/L	50	<50
	Mercury	ug/L	0.1	<0.1
	Selenium	ug/L	5	<5
	Sodium	ug/L	200	3690
	Uranium	ug/L	5	<5
	Zinc	ug/L	20	<20
	Benzene	ug/L	0.5	<0.5
	Bromodichloromethane	ug/L	0.4	<0.4
	Bromoform	ug/L	0.5	<0.5
	Bromomethane	ug/L	0.7	<0.7
	Carbon Tetrachloride	ug/L	0.5	<0.5
	Chlorobenzene	ug/L	0.4	<0.4
	Chloroethane	ug/L	1	<1.0
	Chloroform	ug/L	0.5	<0.5
	Chloromethane	ug/L	3	<3.0
	Dibromochloromethane	ug/L	0.5	<0.5
	1,2-Dibromoethane	ug/L	1	<1.0
	1,2-Dichlorobenzene	ug/L	0.4	<0.4
	1,3-Dichlorobenzene	ug/L	0.4	<0.4
	1,4-Dichlorobenzene	ug/L	0.4	<0.4
	1,1-Dichloroethane	ug/L	0.5	<0.5
	1,2-Dichloroethane	ug/L	0.5	<0.5
	1,1-Dichloroethylene	ug/L	0.5	<0.5
	cis-1,2-Dichloroethylene	ug/L	0.4	<0.4
	trans-1,2-Dichloroethylene	ug/L	1	<1.0
	1,2-Dichloropropane	ug/L	0.5	<0.5
	cis-1,3-Dichloropropylene	ug/L	0.4	<0.4
	trans-1,3-Dichloropropylene	ug/L	0.5	<0.5
	Ethylbenzene	ug/L	0.5	<0.5
	Methylene Chloride	ug/L	4	<4.0
	Styrene	ug/L	0.4	<0.4

1,1,1,2-Tetrachloroethane	ug/L	0.5	<0.5
1,1,2,2-Tetrachloroethane	ug/L	0.6	<0.6
Tetrachloroethylene	ug/L	0.5	<0.5
Toluene	ug/L	0.5	<0.5
1,1,1-Trichloroethane	ug/L	0.4	<0.4
1,1,2-Trichloroethane	ug/L	0.6	<0.6
Trichloroethylene	ug/L	0.4	<0.4
Trichlorofluoromethane	ug/L	1	<1.0
1,3,5-Trimethylbenzene	ug/L	0.5	<0.5
Vinyl chloride	ug/L	0.4	<0.4
m,p-Xylenes	ug/L	0.5	<0.5
o-Xylene	ug/L	0.5	<0.5
F2 PHCs (C10-C16)	ug/L	100	<100
F3 PHCs (C16-C34)	ug/L	100	<100
F4 PHCs (C34-C50)	ug/L	100	<100
Acenaphthene	ug/L	0.05	<0.05
Acenaphthylene	ug/L	0.05	<0.05
Anthracene	ug/L	0.01	<0.01
Benzo[a]anthracene	ug/L	0.01	<0.01
Benzo[a]pyrene	ug/L	0.01	<0.01
Benzo[b]fluoranthene	ug/L	0.05	<0.05
Benzo[g,h,i]perylene	ug/L	0.05	<0.05
Benzo[k]fluoranthene	ug/L	0.05	<0.05
Biphenyl	ug/L	0.05	<0.05
Chrysene	ug/L	0.05	<0.05
Dibenzo[a,h]anthracene	ug/L	0.05	<0.05
Fluoranthene	ug/L	0.01	<0.01
Fluorene	ug/L	0.05	<0.05
Indeno[1,2,3-cd]pyrene	ug/L	0.05	<0.05
1-Methylnaphthalene	ug/L	0.05	<0.05
2-Methylnaphthalene	ug/L	0.05	<0.05
Naphthalene	ug/L	0.05	<0.05
Phenanthrene	ug/L	0.05	<0.05
Pyrene	ug/L	0.01	<0.01
PCBs, total	ug/L	0.05	<0.05



**GENERAL NOTES:**  
 1 ALL PROPERTY LINE BEARINGS AND DIMENSIONS HAVE BEEN PROVIDED BY THE CITY OF IQUALUIT  
 2 CONTRACTOR IS TO REPORT IMMEDIATELY ANY DISCREPANCIES ON THE DRAWINGS TO THE ENGINEER

**LEGEND:**

- PROPERTY LINE
- EXISTING GRADE ELEVATION
- EXISTING LIGHT POLE
- ENTRANCE/EXIT
- EXISTING POWER POLE
- PROPOSED GRADE ELEVATION
- NEW LIGHT POLE
- WATER TEST WELLS

ALL SITE INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY OF:  
 LOT 1, BLOCK 229  
 SOURCE: CITY OF IQUALUIT  
 LOT AREA = 20,233.27m<sup>2</sup>



1  
G3

**AV PLAN**

SCALE: 1:1200

**PROJECT:**  
**SITE SURVEY AND ELEVATIONS**

**CLIENT DEPARTMENT:**  
**NUNATTA ENVIRONMENTAL INC.**

**COMMUNITY:**  
**IQUALUIT, NU**

**LOT 1, BLOCK 229**

**DATE:**  
**OCTOBER 2009**

**DRAWN BY:**  
**T.STOKES**

**SPG.3**

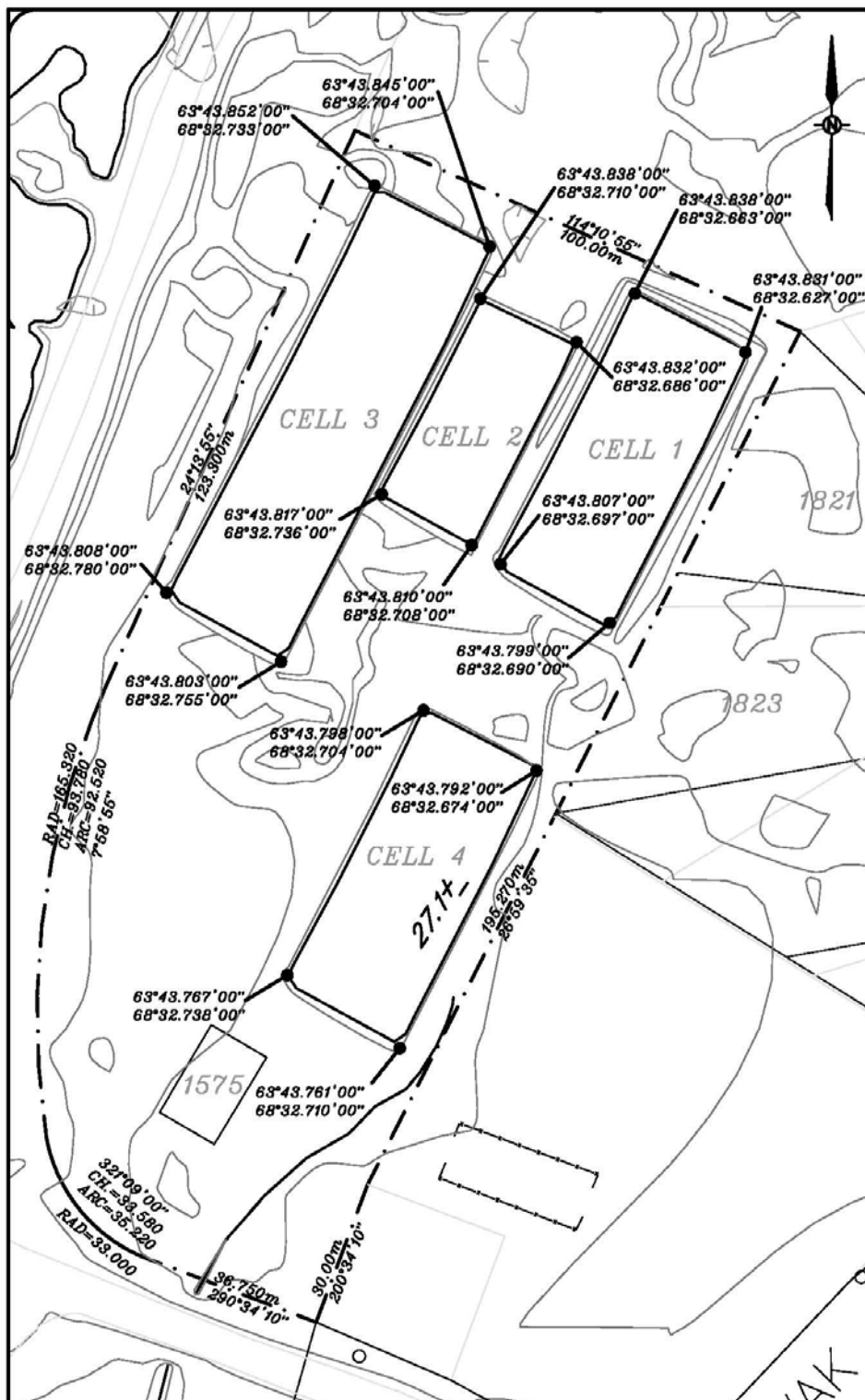
This is an over view of the land farm with  
Overflow cell #4 in place.


Water Monitoring well #MW 6  
( previously refered to asMW 08-4)





Land farm elevations shown in meters



 <div style="display: inline-block; vertical-align: middle;"> <p><b>GPS LOCATION</b></p> <p>SCALE: 1:1200</p> </div>	<b>PROJECT:</b> <b>SITE SURVEY AND ELEVATIONS</b>	<b>LOT 1, BLOCK 229</b>	
	<b>CLIENT DEPARTMENT:</b> <b>NUNATTA ENVIRONMENTAL INC.</b>	<b>DATE:</b> 2009	<div style="font-size: 48pt; font-weight: bold;">SPG.6</div>
	<b>COMMUNITY:</b> <b>IQALUIT, NU</b>	<b>DRAWN BY:</b> T.STOKES	

GPS coordinates of cell corners