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Chain of Custody Record

Nº 61039

Pg. 1 of 1

Company Name: <u>INTERA</u>	Project Ref: <u>09-205</u>	Date Required: _____
Contact Name: <u>Sean Sterling</u>	PO# _____	Turn Around Time: <input type="checkbox"/> 1-day <input type="checkbox"/> 2-day <input type="checkbox"/> Regular
Address: <u>1 Raymond St</u>	Quote # _____ <input type="checkbox"/> Not Quoted	
Tel: <u>613 232 2525</u> Cell: <u>613 858 0185</u>	Preservative to be added by Paracel? <input type="checkbox"/> Yes <input type="checkbox"/> No	Regulatory/Guideline Requirements
Email: <u>ssterling@intera.ca</u>		

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

Sample Information					Analysis Required														
Paracel Order #	Sample Identification	Matrix	Air Volume ml	# Containers	Date Sampled dd/mm/yy	Bac. T	T. coliform	Bact Plate	H.P.C. Plate										Hazardous? (Y/N)
0938237	MW3-L	GW	250	1	17 Sept 09 17:00	x	x	x											N
	3604741	GW	250	1	17 Sept 09 15:45	x	x	x											N

Comments: MW3-L was collected from non drinking water
3604741 was collected from drinking water.

Relinquished By: <u>M. Melan</u> Date: <u>18-Sept-09</u> Time: <u>10:09</u>	Received at Depot: Date: _____ Time: _____	Received at Lab: <u>Ueoc</u> Date: <u>9/18/09</u> Time: <u>12:30</u>	Verified By: <u>Ueoc</u> Date: <u>9/18/09</u> Time: <u>12:59</u>
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Subcontracted Analysis

INTERA Engineering Ltd.

Suite 200, 1 Raymond St.
Ottawa, ON K1R 1A2
Attn: Sean Sterling

Tel: (613) 232-2525
Fax: (613) 232-7149

Paracel Report No.: **0939259**
Client Project(s): **09-205**
Client PO:
Reference:
CoC Number: **61031**

Order Date: 24-Sep-09
Report Date: 7-Oct-09

Sample(s) from this project were subcontracted for the listed parameters. A copy of the subcontractor's report is attached

Paracel ID	Client ID	Analysis
0939259-10	MW1-a	Chlorine, total pH Solids, total dissolved Solids, total suspended Turbidity
0939259-12	MW1-c	Ammonia, as N Phosphorus, total (water) Total Kjeldahl Nitrogen, water
0939259-16	3604741-a	Chlorine, total pH Solids, total dissolved Solids, total suspended Turbidity
0939259-18	3604741-c	Ammonia, as N Phosphorus, total (water) Total Kjeldahl Nitrogen, water



Client: Parcel Laboratories Ltd.
300-2319 St. Laurent Blvd.
Ottawa, ON
K1G 4J8

Attention: Mr. Dale Robertson

Report Number: 2923718
Date: 2009-10-06
Date Submitted: 2009-09-25
Project: 0939259

Chain of Custody Number: 727210

P.O. Number:
Matrix: Water

PARAMETER	LAB ID:		UNITS	MRL	746520				TYPE	LIMIT	UNITS
	Sample Date:	Sample ID:			2009-09-16	2009-09-16	2009-09-17	2009-09-17			
Chlorine (total)			mg/L	0.04	MW1-a	MW1-c	3604741-a	3604741-c			
Conductivity			uS/cm	5	0.07		0.10				
N-NH3 (Ammonia)			mg/L	0.02	963	<0.02	918	<0.02			
pH					7.85		7.94				
Total Dissolved Solids (COND - CALC)			mg/L	5	626	0.14	597	0.14			
Total Kjeldahl Nitrogen			mg/L	0.10		<0.01		0.02			
Total Phosphorus			mg/L	0.01	<2		<2				
Total Suspended Solids			mg/L	2	0.6		5.4				
Turbidity			NTU	0.1							

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

Comment:

746520: Holding time for Total Chlorine analysis was exceeded and results are unreliable.

746522: Holding time for Total Chlorine analysis was exceeded and results are unreliable.

APPROVAL:

Ewan McRobbie
Inorganic Lab Supervisor

Certificate of Analysis

INTERA Engineering Ltd.

Suite 200, 1 Raymond St.

Ottawa, ON K1R 1A2

Attn: Sean Sterling

Phone: (613) 232-2525

Fax: (613) 232-7149

Client PO:

Project: 09-205

Custody: 61031

Report Date: 7-Oct-2009

Order Date: 24-Sep-2009

Order #: 0939259

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

Paracel ID	Client ID
0939259-01	MW3-a
0939259-02	MW3-b
0939259-03	MW3-c
0939259-04	MW3-d
0939259-05	MW3-e
0939259-06	MW5-b
0939259-07	MW5-c
0939259-08	MW5-d
0939259-09	MW5-e
0939259-10	MW1-a
0939259-11	MW1-b
0939259-13	MW2-a
0939259-14	MW2-b
0939259-15	MW2-c
0939259-16	3604741-a
0939259-17	3604741-b

Approved By:



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

Any use of these results implies your agreement that our total liability in connection with this work, however arising shall be limited to the amount paid by you for this work, and that our employees or agents shall not under circumstances be liable to you in connection with this work

Certificate of Analysis

Report Date: 07-Oct-2009

Order Date: 24-Sep-2009

Client: **INTERA Engineering Ltd.**

Client PO:

Project Description: 09-205

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Alkalinity, total	EPA 310.1 - Titration	30-Sep-09	30-Sep-09
Ammonia, as N	EPA 351.2 - Auto Colour	29-Sep-09	29-Sep-09
Anions	EPA 300.1 - IC	30-Sep-09	30-Sep-09
Chlorine, total	HACH - DPD Colourimetric	28-Sep-09	28-Sep-09
Conductivity	EPA 120.1 - probe	29-Sep-09	30-Sep-09
Metals, low level	EPA 200.8 - ICP-MS	1-Oct-09	1-Oct-09
pH	EPA 150.1 - pH probe		28-Sep-09
Phosphorus, total	EPA 365.4 - Auto Colour, digestion	29-Sep-09	29-Sep-09
Solids, dissolved	EPA SM 2540C - gravimetric, filtration		29-Sep-09
Solids, total suspended	SM 2540D - Gravimetric	28-Sep-09	28-Sep-09
Total Kjeldahl Nitrogen	EPA 351.2 - Auto Colour, digestion	28-Sep-09	28-Sep-09
Turbidity	SM 2130B - Turbidity meter	28-Sep-09	28-Sep-09

Certificate of Analysis

Report Date: 07-Oct-2009

Order Date: 24-Sep-2009

 Client: **INTERA Engineering Ltd.**

Client PO:

Project Description: 09-205

	Client ID:	MW3-a	MW3-b	MW3-c	MW3-d
	Sample Date:	17-Sep-09	17-Sep-09	17-Sep-09	17-Sep-09
	Sample ID:	0939259-01	0939259-02	0939259-03	0939259-04
	MDL/Units	Water	Water	Water	Water

General Inorganics

	MDL/Units	MW3-a	MW3-b	MW3-c	MW3-d
Alkalinity, total	5 mg/L	-	-	202	-
Chlorine, total	0.01 mg/L	-	-	<0.01 [1]	-
Conductivity	5 uS/cm	-	-	427	-
pH	0.05 pH Units	-	-	7.88	-
Total Dissolved Solids	10 mg/L	-	-	266	-
Total Suspended Solids	2 mg/L	-	-	4	-
Turbidity	0.1 NTU	-	-	1.0 [1]	-

Anions

	MDL/Units	MW3-a	MW3-b	MW3-c	MW3-d
Bromide	0.1 mg/L	-	-	<0.1	-
Chloride	1 mg/L	-	-	13	-
Fluoride	0.1 mg/L	-	-	0.6	-
Nitrate as N	0.1 mg/L	<0.1	0.1	0.2	-
Nitrite as N	0.05 mg/L	-	-	<0.05	-
Phosphate as P	1 mg/L	-	-	<1	-
Sulphate	1 mg/L	-	-	25	-

Metals

	MDL/Units	MW3-a	MW3-b	MW3-c	MW3-d
Aluminum	1 ug/L	-	-	-	41
Antimony	0.5 ug/L	-	-	-	1.5
Arsenic	1 ug/L	-	-	-	<1
Barium	5 ug/L	-	-	-	98
Beryllium	0.5 ug/L	-	-	-	<0.5
Boron	10.0 ug/L	-	-	-	16.5
Cadmium	0.1 ug/L	-	-	-	<0.1
Calcium	100 ug/L	-	-	-	55900
Chromium	1 ug/L	-	-	-	<1
Cobalt	0.5 ug/L	-	-	-	<0.5
Copper	0.5 ug/L	-	-	-	0.9
Iron	100 ug/L	-	-	-	<100
Lead	0.1 ug/L	-	-	-	<0.1
Magnesium	200 ug/L	-	-	-	18400
Manganese	5 ug/L	-	-	-	5

Certificate of Analysis

Report Date: 07-Oct-2009

Order Date: 24-Sep-2009

 Client: **INTERA Engineering Ltd.**

Client PO:

Project Description: 09-205

	Client ID:	MW3-a	MW3-b	MW3-c	MW3-d
	Sample Date:	17-Sep-09	17-Sep-09	17-Sep-09	17-Sep-09
	Sample ID:	0939259-01	0939259-02	0939259-03	0939259-04
	MDL/Units	Water	Water	Water	Water
Molybdenum	1 ug/L	-	-	-	2
Nickel	1 ug/L	-	-	-	1
Potassium	100 ug/L	-	-	-	971
Selenium	1 ug/L	-	-	-	<1
Silver	0.1 ug/L	-	-	-	0.7
Sodium	200 ug/L	-	-	-	7650
Strontium	10 ug/L	-	-	-	490
Thallium	0.1 ug/L	-	-	-	<0.1
Tin	5 ug/L	-	-	-	<5
Titanium	5 ug/L	-	-	-	<5
Tungsten	10 ug/L	-	-	-	<10
Uranium	0.1 ug/L	-	-	-	1.7
Vanadium	1 ug/L	-	-	-	2
Zinc	10 ug/L	-	-	-	<10

Certificate of Analysis

Report Date: 07-Oct-2009

Order Date: 24-Sep-2009

 Client: **INTERA Engineering Ltd.**

Client PO:

Project Description: 09-205

	Client ID:	MW3-e	MW5-b	MW5-c	MW5-d
	Sample Date:	17-Sep-09	16-Sep-09	16-Sep-09	16-Sep-09
	Sample ID:	0939259-05	0939259-06	0939259-07	0939259-08
	MDL/Units	Water	Water	Water	Water

General Inorganics

Parameter	MDL/Units	MW3-e	MW5-b	MW5-c	MW5-d
Alkalinity, total	5 mg/L	-	-	294 [1]	-
Ammonia as N	0.01 mg/L	0.07	-	-	-
Chlorine, total	0.01 mg/L	-	-	0.01 [1]	-
Conductivity	5 uS/cm	-	-	805 [1]	-
pH	0.05 pH Units	-	-	7.56	-
Phosphorus, total	0.01 mg/L	0.02	-	-	-
Total Dissolved Solids	10 mg/L	-	-	540	-
Total Suspended Solids	2 mg/L	-	-	2	-
Total Kjeldahl Nitrogen	0.1 mg/L	0.2	-	-	-
Turbidity	0.1 NTU	-	-	1.0 [1]	-

Anions

Parameter	MDL/Units	MW3-e	MW5-b	MW5-c	MW5-d
Bromide	0.1 mg/L	-	-	<0.1	-
Chloride	1 mg/L	-	-	145	-
Fluoride	0.1 mg/L	-	-	<0.1	-
Nitrate as N	0.1 mg/L	-	0.3	<0.1	-
Nitrite as N	0.05 mg/L	-	-	<0.05	-
Phosphate as P	1 mg/L	-	-	<1	-
Sulphate	1 mg/L	-	-	50	-

Metals

Parameter	MDL/Units	MW3-e	MW5-b	MW5-c	MW5-d
Aluminum	1 ug/L	-	-	-	7
Antimony	0.5 ug/L	-	-	-	0.8
Arsenic	1 ug/L	-	-	-	<1
Barium	5 ug/L	-	-	-	138
Beryllium	0.5 ug/L	-	-	-	<0.5
Boron	10.0 ug/L	-	-	-	<10.0
Cadmium	0.1 ug/L	-	-	-	<0.1
Calcium	100 ug/L	-	-	-	96900
Chromium	1 ug/L	-	-	-	<1
Cobalt	0.5 ug/L	-	-	-	0.5
Copper	0.5 ug/L	-	-	-	0.8
Iron	100 ug/L	-	-	-	<100
Lead	0.1 ug/L	-	-	-	<0.1

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

Certificate of Analysis

Report Date: 07-Oct-2009

Order Date: 24-Sep-2009

 Client: **INTERA Engineering Ltd.**

Client PO:

Project Description: 09-205

	Client ID:	MW3-e	MW5-b	MW5-c	MW5-d
	Sample Date:	17-Sep-09	16-Sep-09	16-Sep-09	16-Sep-09
	Sample ID:	0939259-05	0939259-06	0939259-07	0939259-08
	MDL/Units	Water	Water	Water	Water
Magnesium	200 ug/L	-	-	-	28400
Manganese	5 ug/L	-	-	-	28
Molybdenum	1 ug/L	-	-	-	1
Nickel	1 ug/L	-	-	-	3
Potassium	100 ug/L	-	-	-	2370
Selenium	1 ug/L	-	-	-	<1
Silver	0.1 ug/L	-	-	-	0.1
Sodium	200 ug/L	-	-	-	37100
Strontium	10 ug/L	-	-	-	258
Thallium	0.1 ug/L	-	-	-	<0.1
Tin	5 ug/L	-	-	-	<5
Titanium	5 ug/L	-	-	-	<5
Tungsten	10 ug/L	-	-	-	<10
Uranium	0.1 ug/L	-	-	-	0.2
Vanadium	1 ug/L	-	-	-	3
Zinc	10 ug/L	-	-	-	<10

Certificate of Analysis

Report Date: 07-Oct-2009

Order Date: 24-Sep-2009

 Client: **INTERA Engineering Ltd.**

Client PO:

Project Description: 09-205

	Client ID:	MW5-e	MW1-a	MW1-b	MW2-a
	Sample Date:	16-Sep-09	16-Sep-09	16-Sep-09	16-Sep-09
	Sample ID:	0939259-09	0939259-10	0939259-11	0939259-13
	MDL/Units	Water	Water	Water	Water

General Inorganics

Parameter	MDL/Units	MW5-e	MW1-a	MW1-b	MW2-a
Alkalinity, total	5 mg/L	-	312 [1]	-	368 [1]
Ammonia as N	0.01 mg/L	0.04	-	-	-
Chlorine, total	0.01 mg/L	-	-	-	0.01 [1]
Conductivity	5 uS/cm	-	-	-	906 [1]
pH	0.05 pH Units	-	-	-	7.32
Phosphorus, total	0.01 mg/L	0.04	-	-	-
Total Dissolved Solids	10 mg/L	-	-	-	510
Total Suspended Solids	2 mg/L	-	-	-	<2
Total Kjeldahl Nitrogen	0.1 mg/L	0.3	-	-	-
Turbidity	0.1 NTU	-	-	-	1.3 [1]

Anions

Parameter	MDL/Units	MW5-e	MW1-a	MW1-b	MW2-a
Bromide	0.1 mg/L	-	<0.1	-	<0.1
Chloride	1 mg/L	-	155	-	106
Fluoride	0.1 mg/L	-	0.3	-	0.5
Nitrate as N	0.1 mg/L	-	2.0	-	0.4
Nitrite as N	0.05 mg/L	-	<0.05	-	<0.05
Phosphate as P	1 mg/L	-	<1	-	<1
Sulphate	1 mg/L	-	70	-	67

Metals

Parameter	MDL/Units	MW5-e	MW1-a	MW1-b	MW2-a
Aluminum	1 ug/L	-	-	<1	-
Antimony	0.5 ug/L	-	-	<0.5	-
Arsenic	1 ug/L	-	-	<1	-
Barium	5 ug/L	-	-	153	-
Beryllium	0.5 ug/L	-	-	<0.5	-
Boron	10.0 ug/L	-	-	21.2	-
Cadmium	0.1 ug/L	-	-	<0.1	-
Calcium	100 ug/L	-	-	96700	-
Chromium	1 ug/L	-	-	2	-
Cobalt	0.5 ug/L	-	-	<0.5	-
Copper	0.5 ug/L	-	-	8.1	-
Iron	100 ug/L	-	-	<100	-
Lead	0.1 ug/L	-	-	0.2	-

Certificate of Analysis

Report Date: 07-Oct-2009

Order Date: 24-Sep-2009

 Client: **INTERA Engineering Ltd.**

Client PO:

Project Description: 09-205

	Client ID:	MW5-e	MW1-a	MW1-b	MW2-a
	Sample Date:	16-Sep-09	16-Sep-09	16-Sep-09	16-Sep-09
	Sample ID:	0939259-09	0939259-10	0939259-11	0939259-13
	MDL/Units	Water	Water	Water	Water
Magnesium	200 ug/L	-	-	20200	-
Manganese	5 ug/L	-	-	<5	-
Molybdenum	1 ug/L	-	-	<1	-
Nickel	1 ug/L	-	-	2	-
Potassium	100 ug/L	-	-	3210	-
Selenium	1 ug/L	-	-	1	-
Silver	0.1 ug/L	-	-	<0.1	-
Sodium	200 ug/L	-	-	53500	-
Strontium	10 ug/L	-	-	550	-
Thallium	0.1 ug/L	-	-	<0.1	-
Tin	5 ug/L	-	-	<5	-
Titanium	5 ug/L	-	-	<5	-
Tungsten	10 ug/L	-	-	<10	-
Uranium	0.1 ug/L	-	-	1.2	-
Vanadium	1 ug/L	-	-	4	-
Zinc	10 ug/L	-	-	<10	-