

Whitewater

Hydrogeology Ltd.



2015 COMPLIANCE GROUNDWATER MONITORING REPORT

SHELBURNE SOUTH PIT

Prepared for:
Strada Aggregates

Whitewater Hydrogeology Ltd
Phone: 705.888-7064
Email: tecia@white-water.ca

Date: February 2016

February 12, 2016

Strada Aggregates Inc.
30 Floral Parkway
Concord, Ontario
L4K 4R1

Attention: Mr. Grant Horan
Controller

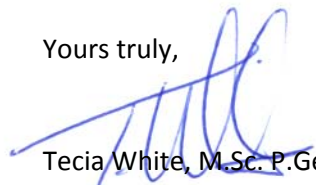
Re: 2015 Compliance Report: Strada Aggregates: Shelburne South Pit

Dear Sir:

Whitewater Hydrogeology Ltd. (Whitewater) is pleased to present the 2015 Compliance Groundwater Monitoring Report for the Shelburne South Pit. The findings indicate that the extraction of aggregate from above the water table has had no measurable influence on the groundwater regime.

If you have any questions or concerns, please do not hesitate to call at any time.

Yours truly,



Tecia White, M.Sc. P.Geo.
Senior Hydrogeologist
Whitewater Hydrogeology Ltd.

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1.0 INTRODUCTION

Strada Aggregates, Inc. (Strada) owns and operates the Shelburne South Pit (formerly known as the Melancthon Pit); a 47.5 ha (117.3 acre) above water aggregate site located in the West Half of Lots 11 and 12, Concession 3 O.S., Township of Melancthon, Dufferin County (Figure 1). The Shelburne South Pit holds a Class “A” Aggregate Resources Act (ARA) license, which is restricted to extracting aggregate material no closer than 1.5 m above the established water table.

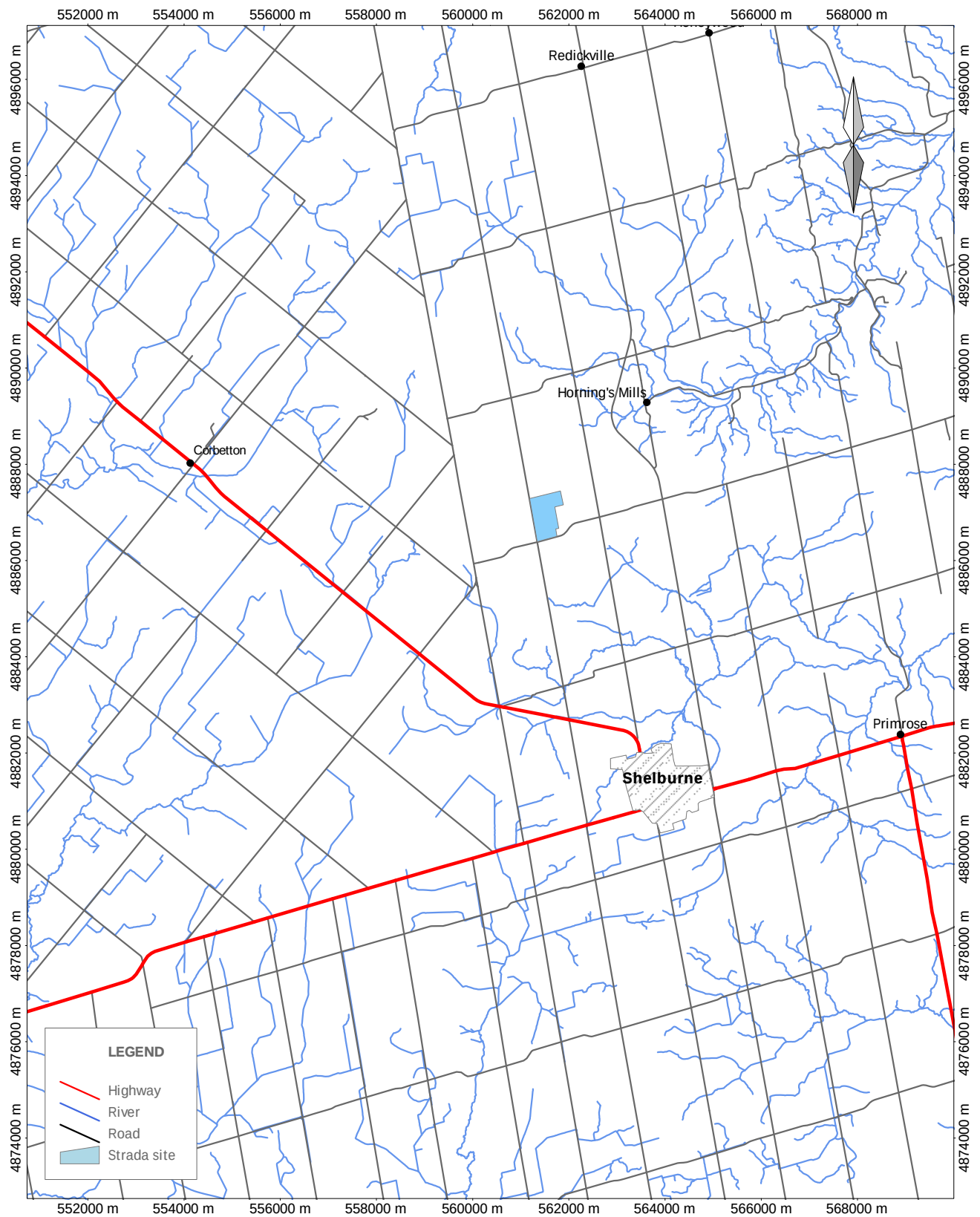
As a condition of the Site Plans, an annual groundwater monitoring report is to be submitted to the Ministry of Natural Resources and Forestry (MNRF) by March 31 of each year. The compliance groundwater monitoring program regulated under the sites ARA license reflects the recommended program outlined in the report “Hydrogeological Assessment Report; Proposed Melancthon Pit” dated March 2010.

1.1 Compliance Monitoring Program

The on-going monitoring program at the site is outlined in Table 1. The information that is highlighted in red represents the components of the program that have been added in addition to the ARA compliance requirements to meet the recommendations made by the Township of Melancthon. The groundwater monitoring program consists of multi-level monitoring wells. These well nests consist of a shallow well (sand and gravel), a deep overburden well (Tavistock Till), and a bedrock well, which are identified as monitors A, B, and C respectively. Monitoring locations are provided on Figure 2.

TABLE 1: COMPLIANCE MONITORING PROGRAM

Well No.	Water Level Elevations		Water Quality (semi-annual)		Water Quality Monitoring Location Rationale
	Continuous Datalogger	Monthly Manuals	General Parameters	Petroleum Hydrocarbons	
OW2-A	X	X	X	X	Up-gradient / Background Water Quality
OW2-B	X	X	X	X	
OW2-C	X	X	X		
OW3-A	X	X	X		Up-gradient / Background Water Quality
OW3-B	X	X			
OW4-A	X	X	X	X	
OW4-B	X	X	X	X	Down-gradient / Water Quality
OW4-C	X	X	X		
OW5-A	X	X	X	X	
OW5-B	X	X	X	X	Down-gradient / Water Quality
OW5-C	X	X			
OW6-A	X	X	X	X	
OW7-A	X	X	X	X	Down-gradient / Water Quality
OW7-C	X	X	X	X	
OW8-A	X	X	X	X	
OW8-B	X	X			Down-gradient of Fuel Storage
OW9-A	X	X			
OW10A	X	X	X		
OW10B	X	X			Down-gradient of Fuel Storage
OW11-A	X	X	X	X	
OW11-C	X	X	X	X	
OW12-A	X	X	X	X	Surface Water Quality
OW13-A	X	X	X	X	
South Pond	X	X	X	X	
Wash Pond	X	X	X	X	



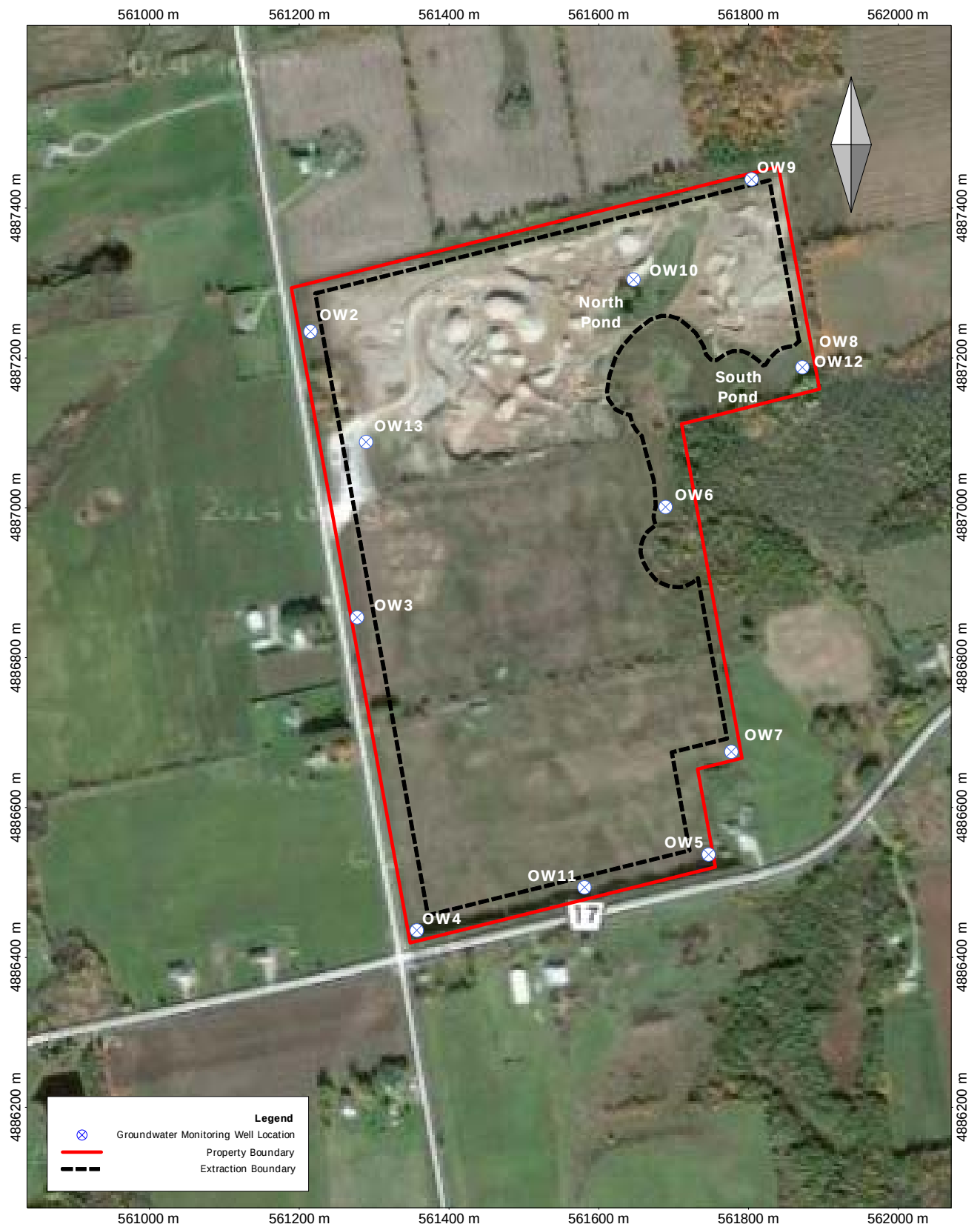


FIGURE 2: MONITORING LOCATION MAP

2.0 HYDROGEOLOGICAL AND HYDROLOGICAL EVALUATION

2.1 Groundwater Elevations

The 2015 groundwater monitoring program consisted of the collection of total pressure (water column equivalent plus barometric pressure) and monthly manual water level measurements. In order to accurately determine the true changes in water level only, barometric pressure fluctuations were removed from the data, which then was corrected to the manual water levels. The 2015 groundwater monitoring results are provided in the following sections.

TABLE 2: 2015 MANUAL GROUNDWATER ELEVATIONS

Well ID	12-Jan	5-Feb	9-Mar	21-Apr	29-May	25-Jun	15-Jul	4-Aug	2-Sep	6-Oct	3-Nov	4-Dec
OW2-A	498.28	497.81	497.52	498.77	498.35	498.17	499.10	498.16	497.61	497.40	496.71	497.23
OW2-B	497.28	497.38	495.79	497.93	497.01	497.19	497.96	496.78	495.92	495.38	495.20	495.70
OW2-C	495.14	494.46	493.94	495.96	495.08	495.24	495.81	494.94	494.15	493.65	493.42	493.77
OW3-A	<498.5	<498.5	<498.5	<498.5	<498.5	<498.5	<498.5	<498.5	<498.5	<498.5	<498.5	<498.5
OW3-B	491.50	491.00	490.19	491.43	491.36	491.21	492.29	491.64	490.68	489.86	489.88	489.86
OW4-A	<498.4	<498.4	<498.4	<498.4	<498.4	<498.4	<498.4	<498.4	<498.4	<498.4	<498.4	<498.4
OW4-B	498.36	498.20	498.08	498.37	498.23	498.29	498.49	498.29	498.15	498.16	498.07	498.12
OW4-C	492.57	492.09	491.46	492.68	492.35	492.29	493.07	492.55	491.85	491.00	490.60	490.58
OW5-A	490.47	490.31	490.08	490.65	490.41	490.43	490.71	490.51	490.24	489.92	489.82	489.85
OW5-B	492.17	491.73	491.14	492.26	491.97	491.93	492.65	492.20	491.51	490.80	490.39	490.35
OW5-C	492.12	491.70	491.10	492.22	491.94	491.89	492.62	492.15	491.48	490.77	490.35	490.31
OW6-A	492.36	492.16	491.77	492.43	492.38	492.42	492.79	492.62	492.16	491.65	491.48	491.58
OW7-A	490.77	490.43	490.16	490.7	490.6	490.58	490.99	490.81	490.46	490.07	489.87	489.84
OW7-C	490.59	490.37	489.78	490.84	490.63	490.57	491.29	490.84	490.16	489.46	489.07	489.04
OW8-A	493.02	492.98	492.80	493.08	493.07	493.14	493.20	493.19	493.06	492.80	492.77	492.74
OW8-B	490.42	490.11	489.58	490.42	490.38	490.34	490.97	490.66	490.05	489.41	489.06	489.00
OW9-A	492.44	492.43	492.16	492.46	492.75	492.82	493.10	493.09	492.70	492.20	491.94	491.83
OW10A	<492.2	<492.2	<492.2	<492.2	<492.2	<492.2	<492.2	<492.2	<492.2	<492.2	<492.2	<492.2
OW10B	489.51	489.06	488.42	489.74	489.21	489.49	490.09	489.67	488.91	488.20	487.87	487.93
OW11-A	3.75	4.2	4.81	3.67	3.95	4.01	3.27	3.75	4.43	5.15	5.58	5.62
OW11-C	3.74	4.19	4.79	3.64	3.94	3.98	3.24	3.72	4.41	5.13	5.57	5.61
OW12-A	492.46	492.42	492.24	492.52	492.51	492.59	492.64	492.63	492.51	492.23	492.21	492.18
OW13-A	497.49	497.45	497.41	497.50	497.48	497.44	497.52	497.52	497.44	497.35	497.32	497.28

Note: OW11 has not been geodetically surveyed

2.1.1 Overburden Groundwater Levels

The water table is found within the sand and gravel aquifer and is monitored at 12 shallow wells. Of these wells, OW3-A, OW4-A and OW10-A remain dry. The water levels for the remaining wells are plotted on Figure 3. Seasonal groundwater fluctuations generally range between 1 and 2 m over the course of a year. Groundwater elevations at OW4-A, OW8-A, OW12-A, and OW13-A do not report this seasonal response. The magnitude of the water fluctuation is a function of the permeability and the specific yield of the aquifer, as well as the volume of effective infiltration. The more permeable the aquifer materials allow for relatively rapid infiltration and percolation resulting in shallow hydraulic gradients.

The groundwater pattern mimics the topographic surface. Generally groundwater in the water table aquifer flows from a high along the western property boundary towards the east. Groundwater elevations range from approximately 499 masl to 491 masl, with a horizontal gradient ranging between 0.01 and 0.02.

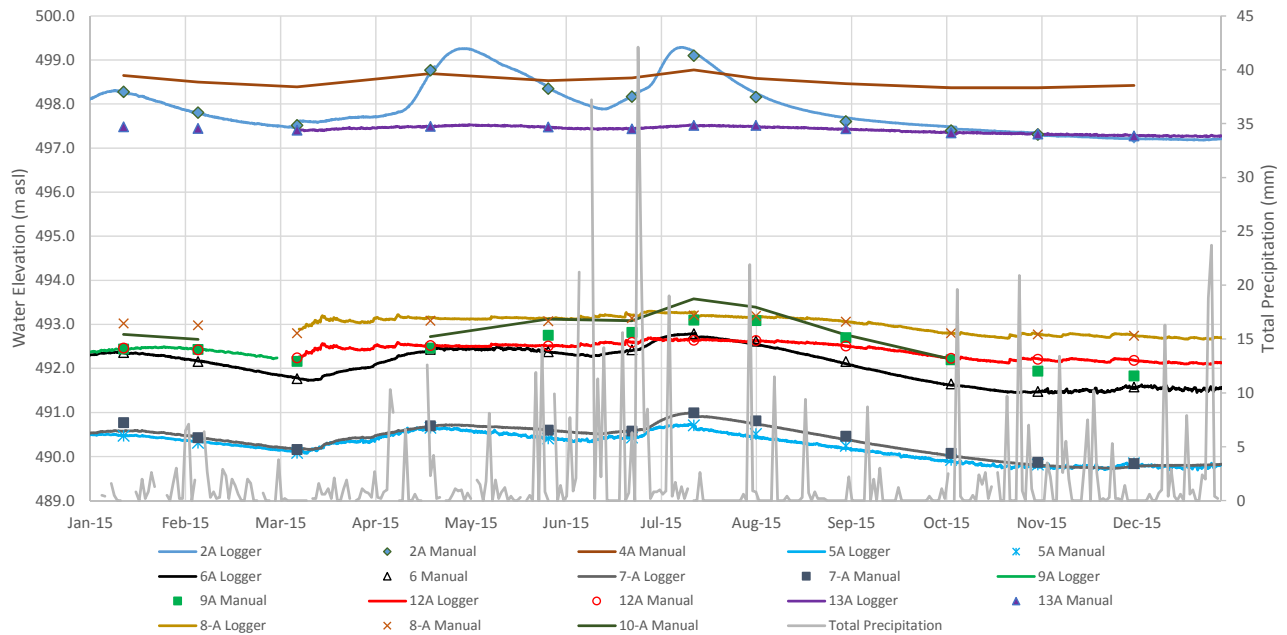


FIGURE 3: WATER TABLE ELEVATIONS

Groundwater elevations have been monitored in the Tavistock Till for the same monitoring period as the water table wells. Unlike the water table aquifer, groundwater in the Till unit is controlled by the glacial re-entrant valley of the Pine River. Groundwater in the Till beneath the Shelburne South Pit flows from a high of approximately 498 masl at OW4B to the low elevation measured at OW8B (489 masl).

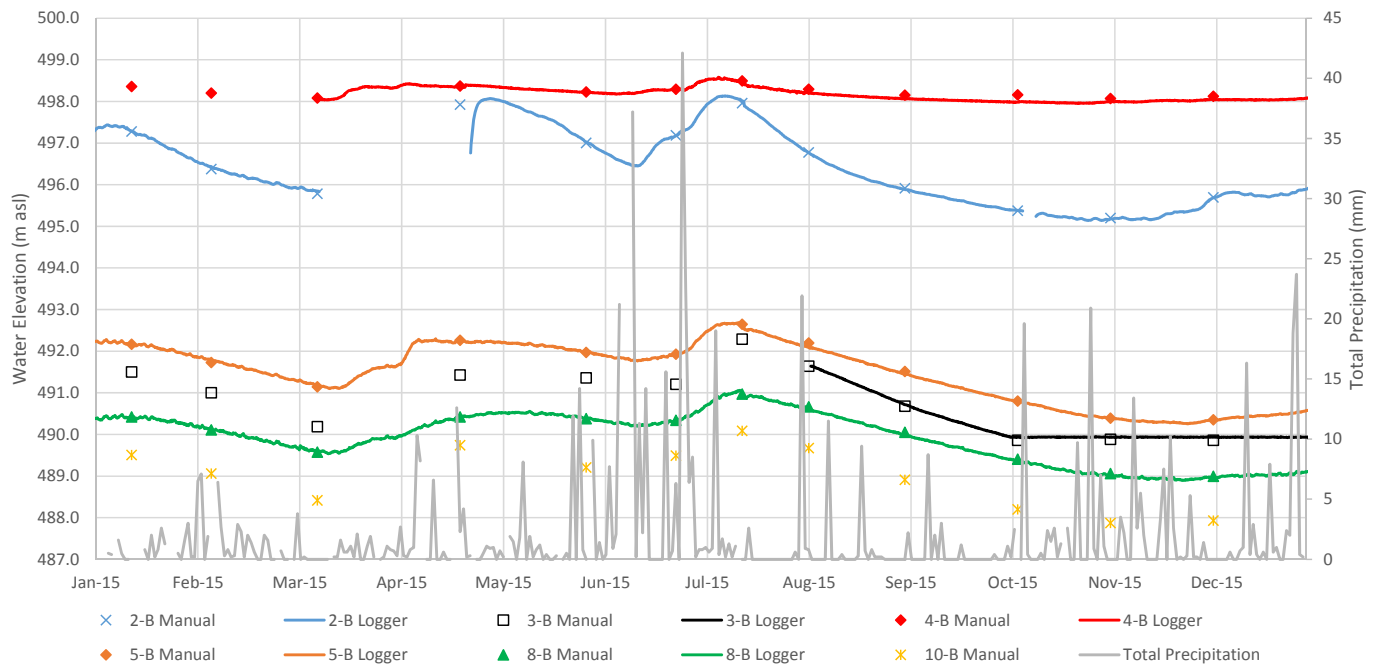


FIGURE 4: TILL GROUNDWATER ELEVATIONS

2.1.2 Bedrock Groundwater Elevations

The bedrock monitoring wells were constructed to monitor the water level in the upper portion of the limestone, with the exception of OW2-C. OW2-C was drilled to a total depth of 72 m, 1 m into the Cabot Head Formation. This well was constructed as an open-hole through the entire limestone sequence (i.e., Amabel and Fossil Hill Formations). The groundwater elevation in the upper bedrock system ranges between 489 masl and 493.5 masl during the drier periods, which increases to between 491 masl and 496 masl during the wet periods of the year (spring freshet or storm events).

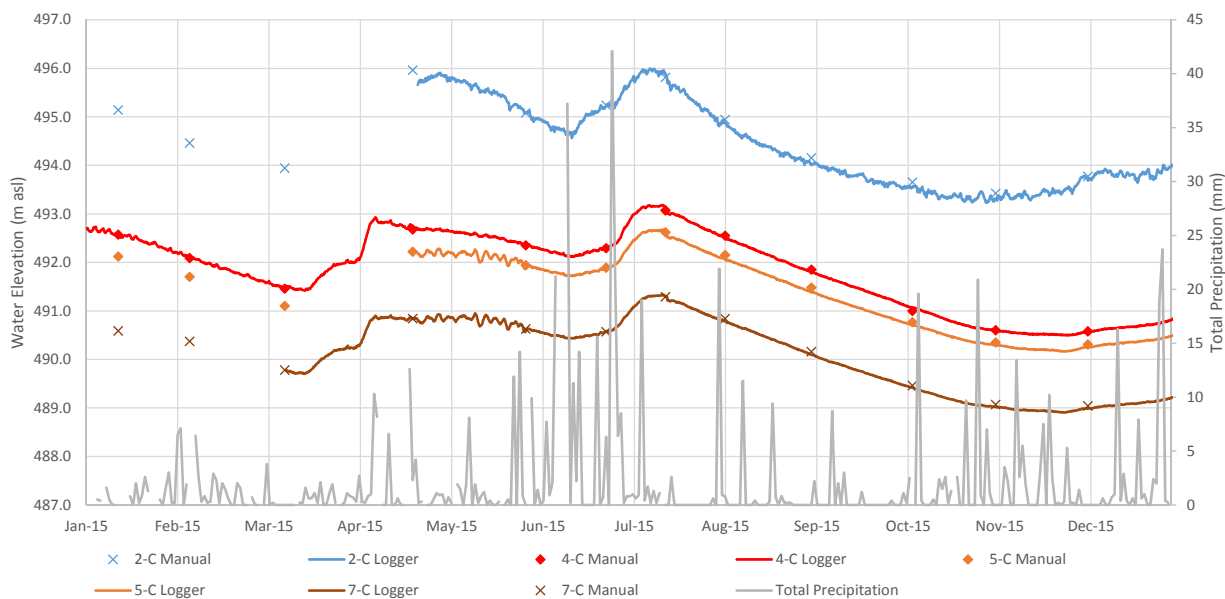


FIGURE 5: BEDROCK GROUNDWATER ELEVATIONS

2.2 Groundwater Quality

2.2.1 Groundwater Monitoring Wells

Water quality sampling at the Shelburne South Pit is completed on a semi-annual basis. In 2015, the monitoring program was completed on May 21 and October 6. Samples were collected and analyzed for general water chemistry, volatile organic compounds (VOCs) and petroleum hydrocarbons (PHC).

Groundwater samples were collected from dedicated monitoring wells following purging of at least three borehole volumes of water from each monitoring well (or until well pumped dry) using dedicated check valve pumps and tubing. Groundwater samples for inorganic analysis were also filtered using disposable 0.45 µm filters (where permissible). The samples obtained for VOC/PHC analyses were obtained from the top of the water column within the well utilizing dedicated bailers prior to any purging.

The groundwater geochemistry at the site is characterized by relatively low concentrations for most parameters. This is illustrated by the fact many inorganic parameters have a concentration that is below laboratory detection limits. The 2015 data remained within the ranges reported prior to the operation of the site and no hydrocarbons were detected. The reports presenting the results from Testmark are provided in Appendix B.

2.3 Surface Water Levels

Continuous water levels from two on-site ponds have been collected over the course of the study period. The data indicates that the water levels peaked in July 2015. The water level in the North Pond reached 493.2 masl, while the water level in the South Pond peaked around 493.0 masl. Both ponds have historically gone dry during periods of drought. However, in 2015 both ponds remained wet throughout the ice-free conditions. Dataloggers were removed in the fall to limit damage to the devices.

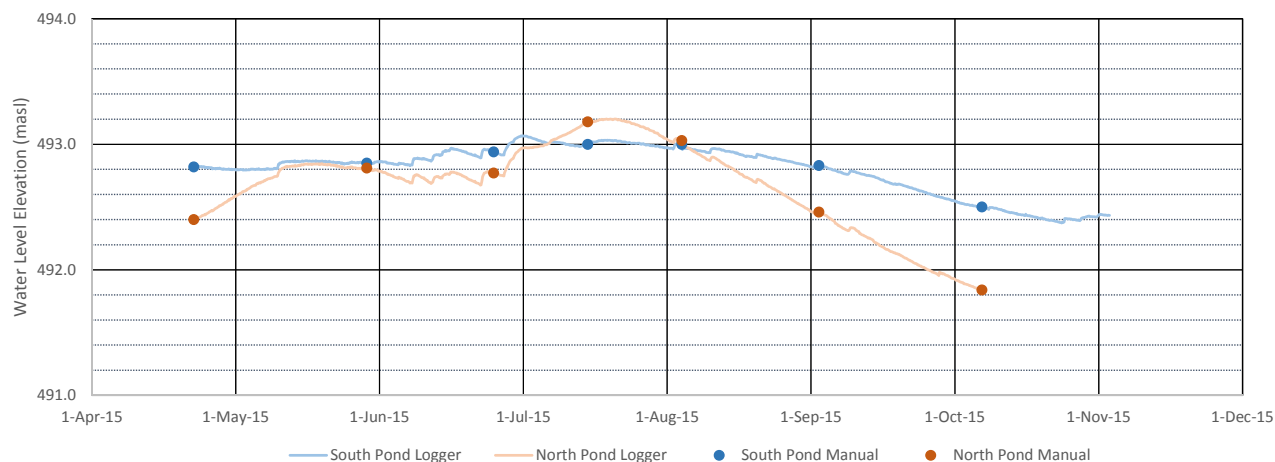


FIGURE 6: SURFACE WATER ELEVATIONS

2.4 Surface Water Quality

The surface water quality from the North and South Pond exhibits a Ca-HCO₃ signature. Based on Gibbs (1970) classification of surface water; surface water chemistry in closed lakes (or wetlands) is controlled by rainfall, rock weathering, and/or evaporation and fractional crystallization. The primary source of HCO₃ in the North Pond is the generation in the soil zone from CO₂, which is carried into the pond during runoff and bank erosion. The quality of the North and South Pond is typical of fresh surface water.

The 2015 data remained within the ranges reported prior to the operation of the site and no hydrocarbons were detected. The reports presenting the results from Testmark are provided in Appendix B.

3.0 CONCLUSIONS AND RECOMMENDATIONS

1. The operation of the Shelburne South Pit is currently not having any measureable impacts on the groundwater regime (water quality or quantity).
2. It is recommended that the compliance monitoring program continue as stipulated on the Site Plans and in agreement with the Township of Melancthon.

APPENDIX A

BOREHOLE LOGS

Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-4				Open Hole C B A
0	508		TOP SOIL	
4	504		SILTY SAND: Brown, occasional stone, loose, dry	
8	500		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
12	496			
16	492			
20	488		TAVISTOCK TILL: Grey, clay with stones, dense to soft, damp	
24	484			
28	480			
32	476			
36	472			
40	468			
44	464			
48	460		AMABEL FORMATION: Dolostone, buff to white, fossiliferous	
52	456			
56	452			
60	448			
64	444			
68	440			
72	436		CABOT HEAD SHALE: Green, soft, damp	
76	432			

Drilling Date: March 2007 / April 2008

Drilling Company: Keith Lang Drilling

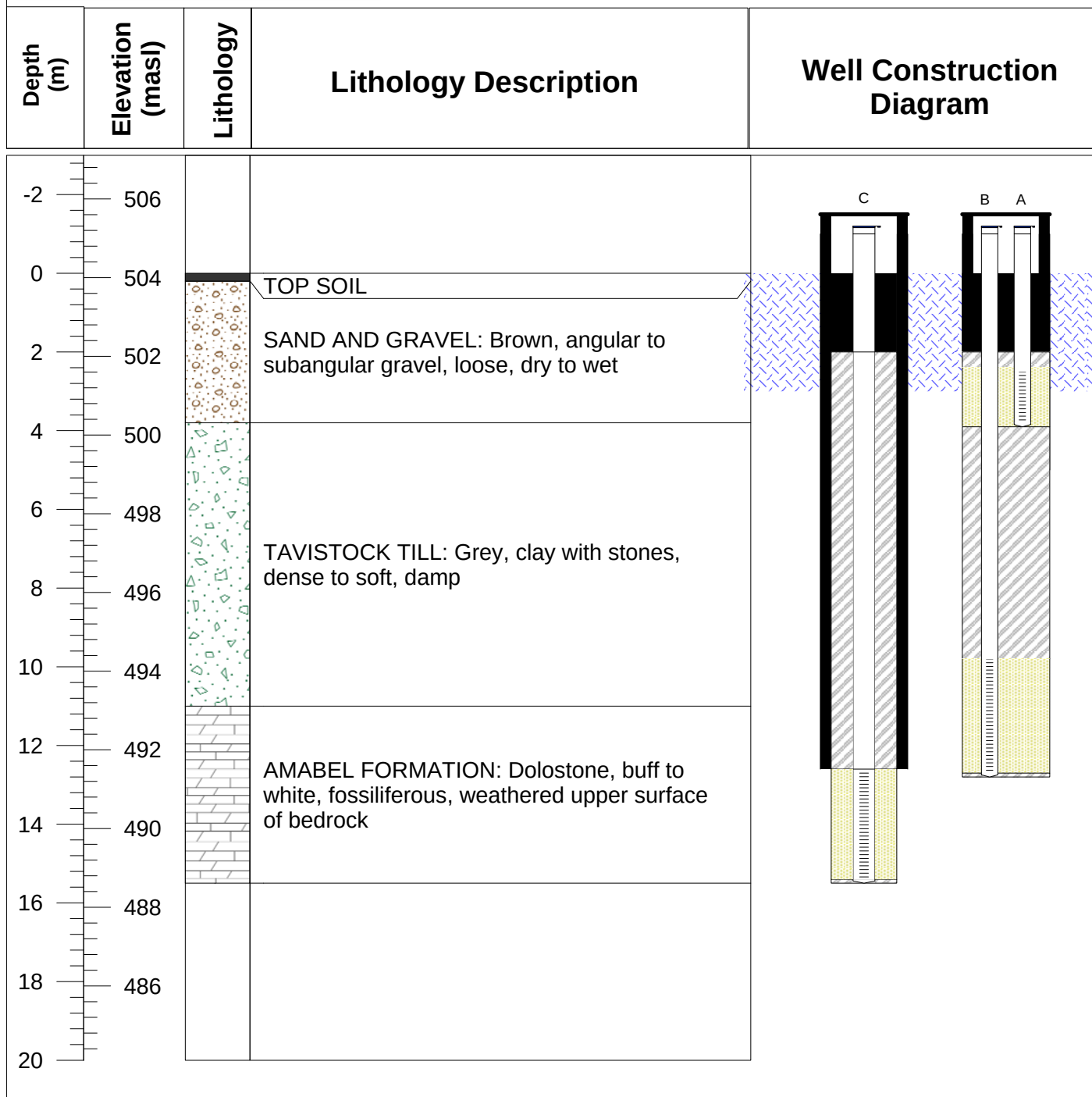
Geologist: Ken Goff / Tecia White

Location: Township of Melancthon

Easting: 561,689

Northing: 4,887,097





Drilling Date: March 2007 / April 2008

Drilling Company: Keith Lang Drilling

Geologist: Ken Goff / Tecia White

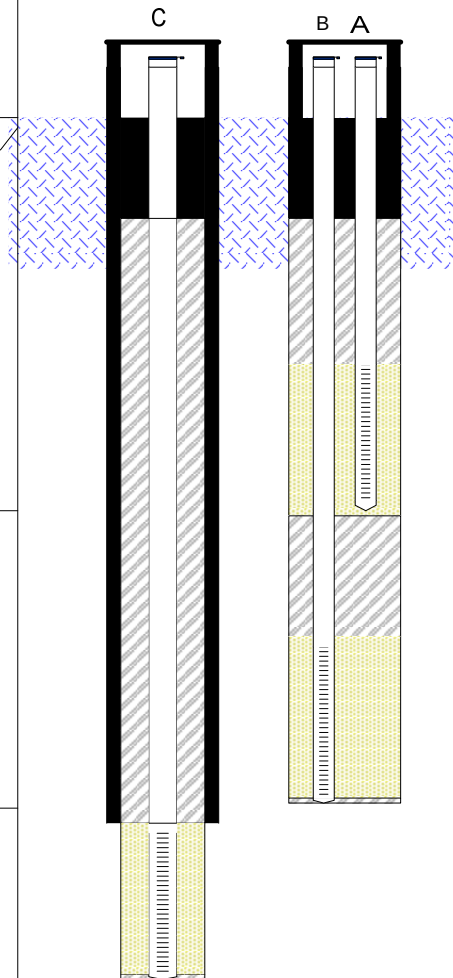
Location: Township of Melancthon

Easting: 561,272

Northing: 4,886,849



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-2	508			
0	506		TOP SOIL	
2	504			
4	502		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
6	500			
8	498			
10	496		SILTY SAND: Brown, occasional stone, loose, dry	
12	494			
14	492		AMABEL FORMATION: Dolostone, buff to white, fossiliferous, weathered upper surface of bedrock	
16	490			
18	488			
20	486			



Drilling Date: March 2007 / April 2008

Drilling Company: Keith Lang Drilling

Geologist: Ken Goff / Tecia White

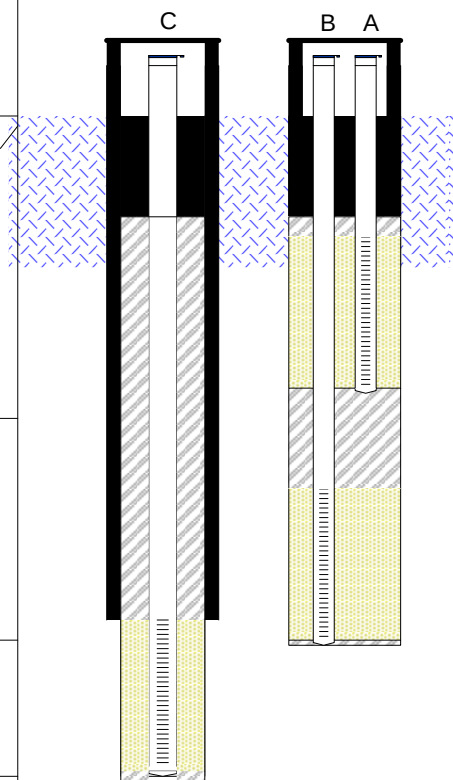
Location: Township of Melancthon

Easting: 561,313

Northing: 4,886,400



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-4				
-2	496			
0	494		TOP SOIL	
2	492		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
4	490			
6	488		TAVISTOCK TILL: Grey, clay with stones, dense to soft, damp	
8	486			
10	484		AMABEL FORMATION: Dolostone, buff to white, fossiliferous, weathered upper surface of bedrock	
12	482			
14	480			
16	478			
18	476			
20	474			



Drilling Date: March 2007 / April 2008

Drilling Company: Keith Lang Drilling

Geologist: Ken Goff / Tecia White

Location: Township of Melancthon

Easting: 561,742

Northing: 4,886,523

Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-2	497			
-1	496			
0	495			
1	494		SILTY SAND: Brown, occasional stone, loose, dry	
2	493			
3	492			
4	491			
5	490		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
6	489			
7	488			
8	487			
9	486			
10	485			
11	484			
12	483			

Drilling Date: Jun-15

Drilling Company: Keith Lang Drilling

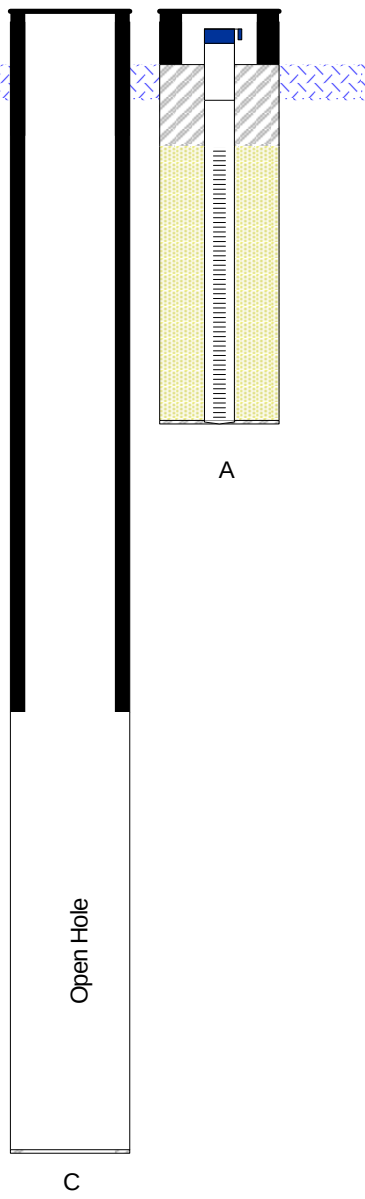
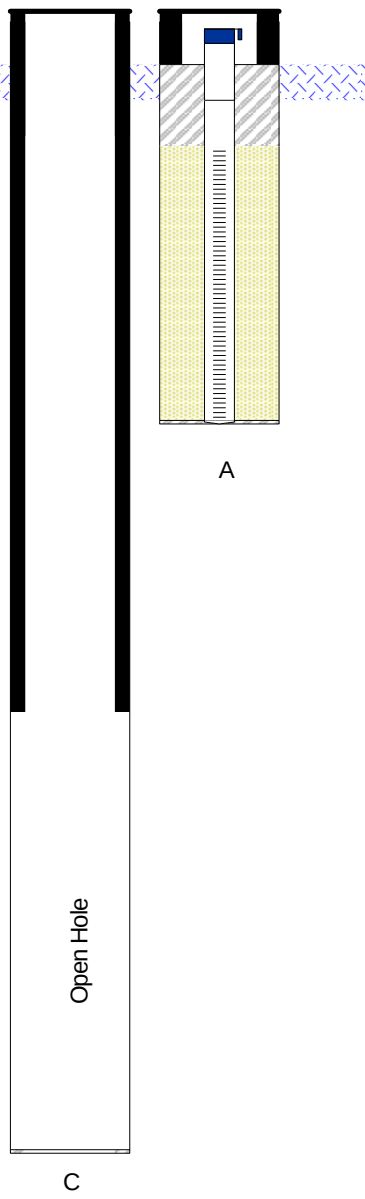
Geologist: Tecia White

Location: Township of Melancthon

Easting: 561,660

Northing: 4,886,939



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-2	-2			 A Open Hole C
0	0			
2	2		SILTY SAND: Brown, occasional stone, loose, dry	
4	4			
6	6		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
8	8			
10	10			
12	12		TAVISTOCK TILL: Grey, clay with stones, dense to soft, damp	
14	14			
16	16			
18	18			 A Open Hole C
20	20			
22	22			
24	24		AMABEL FORMATION: Dolostone, buff to white, fossiliferous, weathered upper surface of bedrock	
26	26			
28	28			
30	30			
32	32			

Drilling Date: Jun-15

Drilling Company: Keith Lang Drilling

Geologist: Tecia White

Location: Township of Melancthon

Easting:

Northing:



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-2	498			
0	496		TOP SOIL	
2	494			
4	492		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
6	490			
8	488			
10	486			
12	484			
14	482		TAVISTOCK TILL: Grey, clay with stones, dense to soft, damp	
16	480			
18	478			
20	476			
22	474		AMABEL FORMATION: Dolostone, buff to white, fossiliferous, weathered upper surface of bedrock	
24	472			

Drilling Date: Jun-15

Drilling Company: Lantech Drilling Services

Geologist: Tecia White

Location: Township of Melancthon

Easting: 561,881

Northing: 4,887,192



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-2	498			
0	496			
2	494			
4	492			
6	490			
8	488			
10	486			
12	484			
14	482			
16	480			
18	478			
20	476			
22				

Drilling Date: March 2007 / April 2008

Drilling Company: Keith Lang Drilling

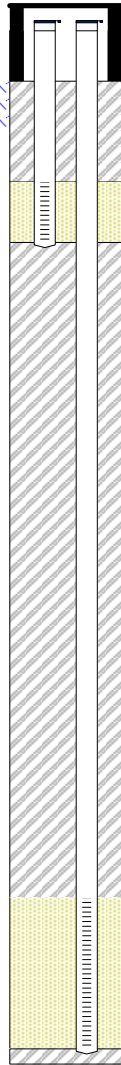
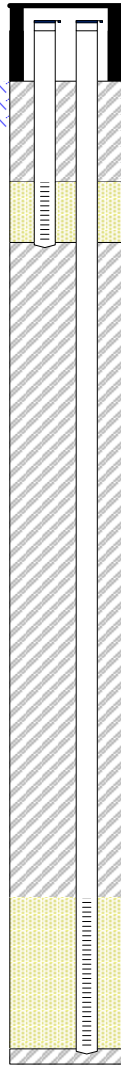
Geologist: Ken Goff / Tecia White

Location: Township of Melancthon

Easting: 561,806

Northing: 4,887,468



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-2	496			
0	494		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
2	492			
4	490		SILTY CLAY: Brown, compact, moist	
6	488			
8	486		SILTY SAND: Brown, occasional stone, loose, dry	
10	484			
12	482			
14	480		TAVISTOCK TILL: Grey, clay with stones, dense to soft, damp	
16	478			
18	476			
20	474		AMABEL FORMATION: Dolostone, buff to white, fossiliferous, weathered upper surface of bedrock	
22				

Drilling Date: March 2007 / April 2008

Drilling Company: Keith Lang Drilling

Geologist: Ken Goff / Tecia White

Location: Township of Melancthon

Easting: 561,628

Northing: 4,887,239



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
2	2			
0	0		SILTY SAND: Brown, occasional stone, loose, dry	
-2	-2			
-4	-4		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
-6	-6			
-8	-8		TAVISTOCK TILL: Grey, clay with stones, dense to soft, damp	
-10	-10			
-12	-12		AMABEL FORMATION: Dolostone, buff to white, fossiliferous, weathered upper surface of bedrock	
-14	-14			
-16	-16			
-18	-18			
-20	-20			

Drilling Date: Jun-15

Drilling Company: Keith Lang Drilling

Geologist: Tecia White

Location: Township of Melancthon

Easting:

Northing:



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-2				
-1	507			
0	506			
1	505		SILTY SAND: Brown, occasional stone, loose, dry	
2	504			
3	503			
4	502			
5	501			
6	500			
7	499		SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	
8	498			
9	497			
10	496			
11	495			
12	494			
13	493			

Drilling Date: Jun-15

Drilling Company: Lantech Drilling Services

Geologist: Tecia White

Location: Township of Melancthon

Easting: 561,282

Northing: 4,887,057



Depth (m)	Elevation (masl)	Lithology	Lithology Description	Well Construction Diagram
-2	507			
-1	506			
0	505			
1	504		SILTY SAND: Brown, occasional stone, loose, dry	
2	503			
3	502			
4	501			
5	500			
6	499			
7	498			
8	497			
9	496			
10	495			
11	494			
12				
			SAND AND GRAVEL: Brown, angular to subangular gravel, loose, dry to wet	

Drilling Date: Jun-15

Drilling Company: Keith Lang Drilling

Geologist: Tecia White

Location: Township of Melancthon

Easting:

Northing:



APPENDIX B

WATER QUALITY RESULTS



TESTMARK Laboratories

Committed to Quality and Service

Analytical Report

Client:	Tecia White	Work Order Number:	239708
Company:	Whitewater Hydrogeology Ltd.	Date Order Received:	4/27/2015
Address:	80 Chamberlain Cres Collingwood, Ontario, L9Y 0C8	Regulation:	Information not provided
Phone:	(705) 888-7064	PO #:	
Fax:		Project #:	
Email:	tecia@white-water.ca		

Analyses were performed on the following samples submitted with your order.

The results relate only to the items tested.

Sample Name	Lab #	Matrix	Type	Comments	Date Collected	Time Collected
OW5A	632724	Ground Water	None		4/21/2015	
OW5B	632725	Ground Water	None		4/21/2015	
OW6A	632726	Ground Water	None		4/21/2015	
OW7A	632727	Ground Water	None		4/21/2015	
OW7C	632728	Ground Water	None		4/21/2015	
OW8A	632729	Ground Water	None		4/21/2015	
OW11A	632730	Ground Water	None		4/21/2015	
OW11C	632731	Ground Water	None		4/21/2015	
OW12A	632732	Ground Water	None		4/21/2015	
OW13	632733	Ground Water	None		4/21/2015	
OW2A	632995	Ground Water	None		4/21/2015	
OW2B	632996	Ground Water	None		4/21/2015	
OW2C	632997	Ground Water	None		4/21/2015	
OW4A	632998	Ground Water	None		4/21/2015	
OW4B	632999	Ground Water	None		4/21/2015	
OW4C	633000	Ground Water	None		4/21/2015	
OW10A	633001	Ground Water	None		4/21/2015	
South Pond	633002	Ground Water	None		4/21/2015	
North Pond	633003	Ground Water	None		4/21/2015	



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Work Order: 239708

The following instrumentation and reference methods were used for your sample(s)

Method Name	Description	Reference
A26-Colour	Determination of Colour by Spectrophotometry Instrument group: Shimadzu UV/Vis	Modified from APHA-2120C
A55-TOC Water	Determination of Total Organic Carbon in Water Instrument group: Phoenix Analyzer	Modified from APHA 5310
Ammonia Water	Determination of Ammonia/Ammonium in Water Instrument group: Internally Subcontracted	Based on APHA-4500NH3 H
OP Water	Determination of Ortho-Phosphate in Water Instrument group: Internally Subcontracted	Based on APHA-4500P
PHC F1 Water	Determination of PHC F1 in Water - Tier 1 CCME Instrument group: Internally Subcontracted	CWS PHC Tier I CCME
PHC F1 Water	Determination of PHC F1 in Water - Tier 1 CCME Instrument group: Internally Subcontracted	CWS PHC Tier I CCME
PHC F2-F4 Water	Determination of PHC (F2-F4) in Water - Tier 1 CCME by GC/FID Instrument group: Internally Subcontracted	CWS PHC Tier I CCME
T01-Alkalinity	Determination of Alkalinity in Water Instrument group: Accumet ISE Meter	Modified from APHA 2320
T02-pH Water	Determination of pH in Water Instrument group: Accumet ISE Meter	Modified from APHA-4500-H+B
T05-Anions Water	Determination of Anions by Ion Chromatography Instrument group: Dionex IC	Modified from SW846-9056
T12-CONDWATER	Determination of conductivity in Water Instrument group: Conductivity Meter	Modified from APHA-2510
T13-Hardness	Determination of Total Hardness Instrument group: Calculation	Modified from APHA-2340B
T13-ICPMS Water	Determination of Metals in Water by ICPMS Instrument group: PE Elan ICP/MS-1	Modified from SW846-6020
T21-Turbidity	Determination of Turbidity by Nephelometry Instrument group: Nephelometer	Modified from APHA-2130 B
TP Water	Determination of Total Phosphorus in Water Instrument group: Internally Subcontracted	Based on APHA-4500P
VOC Water	Determination of Volatile Organic Compounds in Water by P&T/GC/MS Instrument group: Internally Subcontracted	Based on EPA 624

Sample Notes:

Some samples contained a lot of sediment that was not naturally suspended in the water. The samples were shaken and run at a dilution in order to provide data but may not necessarily reflect the turbidity of the sample in a natural state (ie, turbidity in a natural state being the result of solids normally suspended in the sample without agitation). The MDL on those samples will be higher by the dilution factor. BMB 05/04/2015



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Whitewater Hydrogeology Ltd.

Work Order: 239708

This report has been approved by:

Mark Charbonneau, Ph.D.
Lab Director



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Data:

Sample Name: OW5A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632724

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.9	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.068	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.02	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	30	<30	ug/L	20150428.R59f2w5
F3 (C16-C34)	30	409	ug/L	20150428.R59f2w5
F4 (C34-C50)	30	83	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	82	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	316	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.45	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	19.4	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	5.76	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	12.1	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	653	µS/cm	20150430.T12A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW5A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632724

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	279	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	43.8	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	86800	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	329	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	15000	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	4.9	ug/L	20150428.T13A
Potassium	1	5190	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	5330	ug/L	20150428.T13A
Strontium	10	174	ug/L	20150428.T13A
Zinc	1	23.6	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	10	4780	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.02	mg/L	20150427.R23.2B

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1,2-Tetrachloroethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW5A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632724

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,2,4-Trichlorobenzene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	93	% Rec	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr) (Dup)	N/A	92	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloropropane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	96	% Rec	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.) (Dup)	N/A	98	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Acetone (Dup)	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Benzene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW5A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632724

VOC Water				
Parameter	MDL	Result	Units	QAQCID
cis - + trans-1,3-Dichloropropene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Dichloromethane (Dup)	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Ethylbenzene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
m+p-Xylene (Dup)	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl ethyl ketone (Dup)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK) (Dup)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE) (Dup)	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane (Dup)	0.5	<0.5	ug/L	20150426.R14vw2
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
o-Xylene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	101	% Rec	20150426.R14vw2
Toluene-d8 (Surr.) (Dup)	N/A	101	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Total Xylenes (Dup)	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2

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Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW5A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632724

VOC Water				
Parameter	MDL	Result	Units	QAQCID
Trichlorofluoromethane (Dup)	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride (Dup)	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW5B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632725

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.9	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.061	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.0098	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	30	<30	ug/L	20150428.R59f2w5
F3 (C16-C34)	30	<30	ug/L	20150428.R59f2w5
F4 (C34-C50)	30	<30	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	74	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	343	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.71	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	46.1	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	3.72	mg/L	20150501.T05A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW5B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632725

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	12	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	733	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO3)	0.1	281	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	35.8	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	78800	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	302	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	20400	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	5.2	ug/L	20150428.T13A
Potassium	1	2540	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	24800	ug/L	20150428.T13A
Strontium	10	157	ug/L	20150428.T13A
Zinc	1	28.9	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	159	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.953	mg/L	20150427.R23.2B

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2

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TESTMARK Laboratories

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW5B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632725

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	91	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	98	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	101	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2

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Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW5B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632725

VOC Water				
Parameter	MDL	Result	Units	QAQCID
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW6A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632726

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.2	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.026	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.014	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) - Less BTEX (Dup)	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX (Dup)	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	40	<40	ug/L	20150428.R59f2w5
F3 (C16-C34)	40	<40	ug/L	20150428.R59f2w5
F4 (C34-C50)	40	<40	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	78	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	302	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.87	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Bromide (Dup)	0.2	<0.2	mg/L	20150501.T05A

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW6A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632726

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Chloride	0.2	4.92	mg/L	20150501.T05A
Chloride (Dup)	0.2	5.04	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Fluoride (Dup)	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	5.42	mg/L	20150501.T05A
Nitrate (as N) (Dup)	0.04	5.56	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Nitrite (as N) (Dup)	0.04	<0.04	mg/L	20150501.T05A
Phosphate (Dup)	0.2	4.86	mg/L	20150501.T05A
Sulphate	0.2	16	mg/L	20150501.T05A
Sulphate (Dup)	0.2	16.7	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	559	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO3)	0.1	243	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	62.5	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	70500	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	308	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	16200	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	4.2	ug/L	20150428.T13A
Potassium	1	2780	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	4620	ug/L	20150428.T13A
Strontium	10	185	ug/L	20150428.T13A
Zinc	1	2.3	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	181	NTU	20150504.T21A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW6A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632726

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.675	mg/L	20150427.R23.2B

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	91	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	97	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW6A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632726

VOC Water				
Parameter	MDL	Result	Units	QAQCID
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	101	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW7A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632727

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.6	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.066	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.018	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	50	<50	ug/L	20150428.R59f2w5
F3 (C16-C34)	50	<50	ug/L	20150428.R59f2w5
F4 (C34-C50)	50	<50	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	71	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	293	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW7A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632727

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.86	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	7.02	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	5.83	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	19.4	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	561	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	255	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	60.9	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	73600	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	342	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	17300	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	4.9	ug/L	20150428.T13A
Potassium	1	1350	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	3740	ug/L	20150428.T13A
Strontium	10	161	ug/L	20150428.T13A
Zinc	1	4.1	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	25.5	NTU	20150504.T21A
Turbidity (Dup)	0.1	26.2	NTU	20150504.T21A



TESTMARK Laboratories

Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW7A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632727

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.01	1.76	mg/L	20150427.R23.2B

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	87	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	97	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW7A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632727

VOC Water				
Parameter	MDL	Result	Units	QAQCID
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	100	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW7C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632728

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.3	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.158	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	<0.005	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	30	<30	ug/L	20150428.R59f2w5
F3 (C16-C34)	30	295	ug/L	20150428.R59f2w5
F4 (C34-C50)	30	241	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	68	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	161	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW7C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632728

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.73	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	3.18	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	<0.04	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	2.34	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	276	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	123	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	5.6	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	50	20000	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	200	4740	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	17700	ug/L	20150428.T13A
Manganese	10	791	ug/L	20150428.T13A
Molybdenum	1	3.2	ug/L	20150428.T13A
Nickel	1	2.5	ug/L	20150428.T13A
Potassium	1	720	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	3600	ug/L	20150428.T13A
Strontium	1	31.6	ug/L	20150428.T13A
Zinc	1	<1	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	95.5	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.0051	mg/L	20150427.R23.2B

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5/4/2015

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW7C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632728

TP Water				
Parameter	MDL	Result	Units	QAQCID
VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	88	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	96	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW7C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632728

VOC Water				
Parameter	MDL	Result	Units	QAQCID
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	103	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW8A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632729

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.3	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.189	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.018	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	30	<30	ug/L	20150428.R59f2w5
F3 (C16-C34)	30	<30	ug/L	20150428.R59f2w5
F4 (C34-C50)	30	<30	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	60	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	236	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW8A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632729

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.92	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	2.31	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	4.58	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	5.49	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	446	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	204	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	15.7	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	61900	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	283	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	11900	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	4.6	ug/L	20150428.T13A
Potassium	1	551	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	1780	ug/L	20150428.T13A
Strontium	10	141	ug/L	20150428.T13A
Zinc	1	2.4	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	159	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.721	mg/L	20150427.R23.2B

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5/4/2015

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Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW8A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632729

TP Water				
Parameter	MDL	Result	Units	QAQCID
VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	85	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	97	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW8A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632729

VOC Water				
Parameter	MDL	Result	Units	QAQCID
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	103	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW11A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632730

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	2	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.022	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.012	mg/L	20150427.R23.1A
Orthophosphate (as P) (Dup)	0.005	0.014	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	40	<40	ug/L	20150428.R59f2w5
F3 (C16-C34)	40	<40	ug/L	20150428.R59f2w5
F4 (C34-C50)	40	<40	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	60	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	333	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW11A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632730

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.81	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	53	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	2.58	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	10.9	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	754	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	298	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	38.4	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	81500	ug/L	20150428.T13A
Copper	1	1.7	ug/L	20150428.T13A
Iron	20	403	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	22900	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	5.5	ug/L	20150428.T13A
Potassium	1	2460	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	30800	ug/L	20150428.T13A
Strontium	10	160	ug/L	20150428.T13A
Zinc	1	24.7	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	111	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.654	mg/L	20150427.R23.2B

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5/4/2015

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW11A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632730

TP Water				
Parameter	MDL	Result	Units	QAQCID
VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	98	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	98	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2



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Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW11A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632730

VOC Water				
Parameter	MDL	Result	Units	QAQCID
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	102	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW11C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632731

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	8.38	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.934	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	<0.005	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	30	<30	ug/L	20150428.R59f2w5
F3 (C16-C34)	30	<30	ug/L	20150428.R59f2w5
F4 (C34-C50)	30	<30	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	62	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	127	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW11C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632731

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.93	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	43.3	mg/L	20150501.T05A
Fluoride	0.2	1.1	mg/L	20150501.T05A
Nitrate (as N)	0.04	<0.04	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	5.25	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	376	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	129	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	11.5	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	19900	ug/L	20150428.T13A
Copper	1	1.4	ug/L	20150428.T13A
Iron	200	2310	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	19300	ug/L	20150428.T13A
Manganese	1	283	ug/L	20150428.T13A
Molybdenum	1	2.5	ug/L	20150428.T13A
Nickel	1	1.5	ug/L	20150428.T13A
Potassium	1	2700	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	23800	ug/L	20150428.T13A
Strontium	1	18.4	ug/L	20150428.T13A
Zinc	1	2.9	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	76	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.0033	mg/L	20150427.R23.2B

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5/4/2015

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW11C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632731

TP Water				
Parameter	MDL	Result	Units	QAQCID
VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	89	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	97	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2



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Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW11C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632731

VOC Water				
Parameter	MDL	Result	Units	QAQCID
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	101	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW12A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632732

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	2.8	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.046	mg/L	20150428.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.02	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	40	<40	ug/L	20150428.R59f2w5
F3 (C16-C34)	40	<40	ug/L	20150428.R59f2w5
F4 (C34-C50)	40	<40	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	62	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	211	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A



TESTMARK Laboratories

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW12A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632732

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.95	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	1.89	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	3.44	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	5.61	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	389	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	167	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	5.9	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	57400	ug/L	20150428.T13A
Copper	1	2	ug/L	20150428.T13A
Iron	20	290	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	5810	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	4.4	ug/L	20150428.T13A
Potassium	1	405	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	1680	ug/L	20150428.T13A
Strontium	10	144	ug/L	20150428.T13A
Zinc	1	3.8	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	10	15000	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.011	mg/L	20150427.R23.2B

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5/4/2015

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW12A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632732

TP Water				
Parameter	MDL	Result	Units	QAQCID
VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	79	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	97	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW12A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632732

VOC Water				
Parameter	MDL	Result	Units	QAQCID
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	102	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW13

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632733

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	3.3	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.4	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.067	mg/L	20150428.R42.1C

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.02	mg/L	20150427.R23.1A

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150427.R59f1w
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150427.R59f1w

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150428.R59f2w5
F2 (C10-C16)	30	<30	ug/L	20150428.R59f2w5
F3 (C16-C34)	30	<30	ug/L	20150428.R59f2w5
F4 (C34-C50)	30	<30	ug/L	20150428.R59f2w5
o-Terphenyl (Surr.)	N/A	97	% Rec	20150428.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	295	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW13

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632733

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.71	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	9.51	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	5.03	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	8.52	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	563	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	263	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	61	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	59400	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	303	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	27800	ug/L	20150428.T13A
Manganese	1	1.9	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	4.5	ug/L	20150428.T13A
Potassium	1	985	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	2170	ug/L	20150428.T13A
Strontium	10	134	ug/L	20150428.T13A
Zinc	1	<1	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	1	1980	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.014	mg/L	20150427.R23.2B

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Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW13

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632733

TP Water				
Parameter	MDL	Result	Units	QAQCID
VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dibromoethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane	0.2	<0.2	ug/L	20150426.R14vw2
1,2-Dichloroethane-d4 (Surr)	N/A	82	% Rec	20150426.R14vw2
1,2-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1,3-Dichloropropane	0.2	<0.2	ug/L	20150426.R14vw2
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
1-Bromo-4-fluorobenzene (Surr.)	N/A	98	% Rec	20150426.R14vw2
Acetone	30	<30	ug/L	20150426.R14vw2
Benzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Bromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromodichloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Bromoform	0.2	<0.2	ug/L	20150426.R14vw2
Bromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Carbon tetrachloride	0.2	<0.2	ug/L	20150426.R14vw2
Chlorobenzene	0.2	<0.2	ug/L	20150426.R14vw2
Chloroethane	0.2	<0.2	ug/L	20150426.R14vw2
Chloroform	0.2	<0.2	ug/L	20150426.R14vw2
Chloromethane	0.2	<0.2	ug/L	20150426.R14vw2
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Dibromochloromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dibromomethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Dichloromethane	1	<1	ug/L	20150426.R14vw2
Ethylbenzene	0.2	<0.2	ug/L	20150426.R14vw2
Hexachlorobutadiene	0.2	<0.2	ug/L	20150426.R14vw2
m+p-Xylene	0.3	<0.3	ug/L	20150426.R14vw2
Methyl ethyl ketone	0.5	<0.5	ug/L	20150426.R14vw2
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150426.R14vw2
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150426.R14vw2
n-Hexane	0.5	<0.5	ug/L	20150426.R14vw2



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW13

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632733

VOC Water				
Parameter	MDL	Result	Units	QAQCID
o-Xylene	0.2	<0.2	ug/L	20150426.R14vw2
Styrene	0.2	<0.2	ug/L	20150426.R14vw2
Tetrachloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene	0.2	<0.2	ug/L	20150426.R14vw2
Toluene-d8 (Surr.)	N/A	101	% Rec	20150426.R14vw2
Total Xylenes	0.4	<0.4	ug/L	20150426.R14vw2
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150426.R14vw2
Trichloroethylene	0.2	<0.2	ug/L	20150426.R14vw2
Trichlorofluoromethane	0.2	<0.2	ug/L	20150426.R14vw2
Vinyl chloride	0.2	<0.2	ug/L	20150426.R14vw2

Sample Name: OW2A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632995

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.2	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.016	mg/L	20150430.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.026	mg/L	20150428.R23.1C

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150429.R59f1wb
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150429.R59f1wb

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150429.R59f2w5
F2 (C10-C16)	40	<40	ug/L	20150429.R59f2w5
F3 (C16-C34)	40	<40	ug/L	20150429.R59f2w5
F4 (C34-C50)	40	<40	ug/L	20150429.R59f2w5
o-Terphenyl (Surr.)	N/A	77	% Rec	20150429.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	374	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A



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Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW2A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632995

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.61	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	12.8	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	3.06	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	6.84	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	667	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	327	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	50.9	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	99100	ug/L	20150428.T13A
Copper	1	1.7	ug/L	20150428.T13A
Iron	20	403	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	19300	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	6.7	ug/L	20150428.T13A
Potassium	1	2140	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	6100	ug/L	20150428.T13A
Strontium	10	178	ug/L	20150428.T13A
Zinc	1	4.7	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	113	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.113	mg/L	20150429.R23.2A

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW2A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632995

TP Water				
Parameter	MDL	Result	Units	QAQCID
VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,1,2-Tetrachloroethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,1-Trichloroethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2,2-Tetrachloroethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2-Trichloroethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethylene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2,4-Trichlorobenzene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromo-3-chloropropane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromoethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromoethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichlorobenzene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	95	% Rec	20150429.R14vw
1,2-Dichloroethane-d4 (Surr) (Dup)	N/A	110	% Rec	20150429.R14vw
1,2-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloropropane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichlorobenzene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichloropropane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,4-Dichlorobenzene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	93	% Rec	20150429.R14vw
1-Bromo-4-fluorobenzene (Surr.) (Dup)	N/A	93	% Rec	20150429.R14vw
Acetone	30	<30	ug/L	20150429.R14vw
Acetone (Dup)	30	<30	ug/L	20150429.R14vw
Benzene	0.2	<0.2	ug/L	20150429.R14vw
Benzene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Bromobenzene	0.2	<0.2	ug/L	20150429.R14vw
Bromobenzene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Bromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromochloromethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Bromodichloromethane	0.2	<0.2	ug/L	20150429.R14vw



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW2A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632995

VOC Water				
Parameter	MDL	Result	Units	QAQCID
Bromodichloromethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Bromoform	0.2	<0.2	ug/L	20150429.R14vw
Bromoform (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Bromomethane	0.2	<0.2	ug/L	20150429.R14vw
Bromomethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Carbon tetrachloride	0.2	<0.2	ug/L	20150429.R14vw
Carbon tetrachloride (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Chlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
Chlorobenzene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Chloroethane	0.2	<0.2	ug/L	20150429.R14vw
Chloroethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Chloroform	0.2	<0.2	ug/L	20150429.R14vw
Chloroform (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Chloromethane	0.2	<0.2	ug/L	20150429.R14vw
Chloromethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
cis - + trans-1,3-Dichloropropene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,2-Dichloroethylene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,3-Dichloropropene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Dibromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Dibromochloromethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Dibromomethane	0.2	<0.2	ug/L	20150429.R14vw
Dibromomethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Dichlorodifluoromethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Dichloromethane	1	<1	ug/L	20150429.R14vw
Dichloromethane (Dup)	1	<1	ug/L	20150429.R14vw
Ethylbenzene	0.2	<0.2	ug/L	20150429.R14vw
Ethylbenzene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Hexachlorobutadiene	0.2	<0.2	ug/L	20150429.R14vw
Hexachlorobutadiene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
m+p-Xylene	0.3	<0.3	ug/L	20150429.R14vw
m+p-Xylene (Dup)	0.3	<0.3	ug/L	20150429.R14vw
Methyl ethyl ketone	0.5	<0.5	ug/L	20150429.R14vw
Methyl ethyl ketone (Dup)	0.5	<0.5	ug/L	20150429.R14vw
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150429.R14vw
Methyl isobutyl ketone (MIBK) (Dup)	0.5	<0.5	ug/L	20150429.R14vw
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150429.R14vw
Methyl tert-butyl ether (MTBE) (Dup)	0.5	<0.5	ug/L	20150429.R14vw
n-Hexane	0.5	<0.5	ug/L	20150429.R14vw
n-Hexane (Dup)	0.5	<0.5	ug/L	20150429.R14vw
o-Xylene	0.2	<0.2	ug/L	20150429.R14vw
o-Xylene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Styrene	0.2	<0.2	ug/L	20150429.R14vw

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW2A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632995

VOC Water				
Parameter	MDL	Result	Units	QAQCID
Styrene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Tetrachloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Tetrachloroethylene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Toluene	0.2	<0.2	ug/L	20150429.R14vw
Toluene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Toluene-d8 (Surr.)	N/A	90	% Rec	20150429.R14vw
Toluene-d8 (Surr.) (Dup)	N/A	92	% Rec	20150429.R14vw
Total Xylenes	0.4	<0.4	ug/L	20150429.R14vw
Total Xylenes (Dup)	0.4	<0.4	ug/L	20150429.R14vw
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trans-1,2-dichloroethylene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Trans-1,3-dichloropropene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Trichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trichloroethylene (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Trichlorofluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Trichlorofluoromethane (Dup)	0.2	<0.2	ug/L	20150429.R14vw
Vinyl chloride	0.2	<0.2	ug/L	20150429.R14vw
Vinyl chloride (Dup)	0.2	<0.2	ug/L	20150429.R14vw

Sample Name: OW2B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632996

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.1	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.04	mg/L	20150430.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.025	mg/L	20150428.R23.1C

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150429.R59f1wb
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150429.R59f1wb

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150429.R59f2w5
F2 (C10-C16)	40	<40	ug/L	20150429.R59f2w5
F3 (C16-C34)	40	<40	ug/L	20150429.R59f2w5
F4 (C34-C50)	40	<40	ug/L	20150429.R59f2w5

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW2B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632996

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
o-Terphenyl (Surr.)	N/A	66	% Rec	20150429.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	209	mg/L as CaCO ₃	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO ₃	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.94	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	3.36	mg/L	20150501.T05A
Fluoride	0.2	1.4	mg/L	20150501.T05A
Nitrate (as N)	0.04	<0.04	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	11.9	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	337	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	98.4	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	3.8	ug/L	20150428.T13A
Barium	1	7.4	ug/L	20150428.T13A
Boron	2	362	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	16000	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	102	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	14200	ug/L	20150428.T13A
Manganese	1	40.5	ug/L	20150428.T13A
Molybdenum	1	17.3	ug/L	20150428.T13A
Nickel	1	1.4	ug/L	20150428.T13A
Potassium	1	4200	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	35900	ug/L	20150428.T13A
Strontium	10	428	ug/L	20150428.T13A

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW2B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632996

T13-ICPMS Water

Parameter	MDL	Result	Units	QAQCID
Zinc	1	5.5	ug/L	20150428.T13A

T21-Turbidity

Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	137	NTU	20150504.T21A

TP Water

Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.152	mg/L	20150429.R23.2A

VOC Water

Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromoethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	100	% Rec	20150429.R14vw
1,2-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	94	% Rec	20150429.R14vw
Acetone	30	<30	ug/L	20150429.R14vw
Benzene	0.2	<0.2	ug/L	20150429.R14vw
Bromobenzene	0.2	<0.2	ug/L	20150429.R14vw
Bromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromodichloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromoform	0.2	<0.2	ug/L	20150429.R14vw
Bromomethane	0.2	<0.2	ug/L	20150429.R14vw
Carbon tetrachloride	0.2	<0.2	ug/L	20150429.R14vw
Chlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
Chloroethane	0.2	<0.2	ug/L	20150429.R14vw
Chloroform	0.2	<0.2	ug/L	20150429.R14vw
Chloromethane	0.2	<0.2	ug/L	20150429.R14vw
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Dibromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Dibromomethane	0.2	<0.2	ug/L	20150429.R14vw
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150429.R14vw



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW2B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632996

VOC Water				
Parameter	MDL	Result	Units	QAQCID
Dichloromethane	1	<1	ug/L	20150429.R14vw
Ethylbenzene	0.2	<0.2	ug/L	20150429.R14vw
Hexachlorobutadiene	0.2	<0.2	ug/L	20150429.R14vw
m+p-Xylene	0.3	<0.3	ug/L	20150429.R14vw
Methyl ethyl ketone	0.5	<0.5	ug/L	20150429.R14vw
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150429.R14vw
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150429.R14vw
n-Hexane	0.5	<0.5	ug/L	20150429.R14vw
o-Xylene	0.2	<0.2	ug/L	20150429.R14vw
Styrene	0.2	<0.2	ug/L	20150429.R14vw
Tetrachloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Toluene	0.2	<0.2	ug/L	20150429.R14vw
Toluene-d8 (Surr.)	N/A	91	% Rec	20150429.R14vw
Total Xylenes	0.4	<0.4	ug/L	20150429.R14vw
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Trichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trichlorofluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Vinyl chloride	0.2	<0.2	ug/L	20150429.R14vw

Sample Name: OW2C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632997

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A
A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	0.61	mg/L	20150501.T55C
Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.023	mg/L	20150430.R42.1A
Ammonia (as N) (Dup)	0.01	0.028	mg/L	20150430.R42.1A
OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	<0.005	mg/L	20150428.R23.1C
T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	96.3	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	8.8	mg/L as CaCO3	20150429.T01A
T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	8.96	pH	20150430.T02A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW2C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632997

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	1.77	mg/L	20150501.T05A
Fluoride	0.2	0.51	mg/L	20150501.T05A
Nitrate (as N)	0.04	<0.04	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	2.7	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	171	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO3)	0.1	39.5	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	<1	ug/L	20150428.T13A
Boron	2	121	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	50	2390	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	35	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	8150	ug/L	20150428.T13A
Manganese	1	4.2	ug/L	20150428.T13A
Molybdenum	1	2.5	ug/L	20150428.T13A
Nickel	1	<1	ug/L	20150428.T13A
Potassium	1	946	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	24700	ug/L	20150428.T13A
Strontium	1	16.2	ug/L	20150428.T13A
Zinc	1	<1	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	6.9	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	<0.002	mg/L	20150429.R23.2A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW4A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632998

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.2	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.023	mg/L	20150430.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.017	mg/L	20150428.R23.1C

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150429.R59f1wb
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150429.R59f1wb

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150429.R59f2w5
F2 (C10-C16)	50	<50	ug/L	20150429.R59f2w5
F3 (C16-C34)	50	<50	ug/L	20150429.R59f2w5
F4 (C34-C50)	50	<50	ug/L	20150429.R59f2w5
o-Terphenyl (Surr.)	N/A	78	% Rec	20150429.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	302	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.86	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	12.6	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	1.33	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	7.71	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	463	µS/cm	20150430.T12A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW4A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632998

T13-Hardness

Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	197	mg/L	20150501.T13B

T13-ICPMS Water

Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	18	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	58500	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	299	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	12300	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	4.4	ug/L	20150428.T13A
Potassium	1	1680	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	5900	ug/L	20150428.T13A
Strontium	1	120	ug/L	20150428.T13A
Zinc	1	3	ug/L	20150428.T13A

T21-Turbidity

Parameter	MDL	Result	Units	QAQCID
Turbidity	1	288	NTU	20150504.T21A

TP Water

Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.48	mg/L	20150429.R23.2A

VOC Water

Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromoethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	111	% Rec	20150429.R14vw
1,2-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW4A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632998

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	94	% Rec	20150429.R14vw
Acetone	30	<30	ug/L	20150429.R14vw
Benzene	0.2	<0.2	ug/L	20150429.R14vw
Bromobenzene	0.2	<0.2	ug/L	20150429.R14vw
Bromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromodichloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromoform	0.2	<0.2	ug/L	20150429.R14vw
Bromomethane	0.2	<0.2	ug/L	20150429.R14vw
Carbon tetrachloride	0.2	<0.2	ug/L	20150429.R14vw
Chlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
Chloroethane	0.2	<0.2	ug/L	20150429.R14vw
Chloroform	0.2	<0.2	ug/L	20150429.R14vw
Chloromethane	0.2	<0.2	ug/L	20150429.R14vw
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Dibromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Dibromomethane	0.2	<0.2	ug/L	20150429.R14vw
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Dichloromethane	1	<1	ug/L	20150429.R14vw
Ethylbenzene	0.2	<0.2	ug/L	20150429.R14vw
Hexachlorobutadiene	0.2	<0.2	ug/L	20150429.R14vw
m+p-Xylene	0.3	<0.3	ug/L	20150429.R14vw
Methyl ethyl ketone	0.5	<0.5	ug/L	20150429.R14vw
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150429.R14vw
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150429.R14vw
n-Hexane	0.5	<0.5	ug/L	20150429.R14vw
o-Xylene	0.2	<0.2	ug/L	20150429.R14vw
Styrene	0.2	<0.2	ug/L	20150429.R14vw
Tetrachloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Toluene	0.2	<0.2	ug/L	20150429.R14vw
Toluene-d8 (Surr.)	N/A	92	% Rec	20150429.R14vw
Total Xylenes	0.4	<0.4	ug/L	20150429.R14vw
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Trichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trichlorofluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Vinyl chloride	0.2	<0.2	ug/L	20150429.R14vw



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW4B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632999

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.2	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.027	mg/L	20150430.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.013	mg/L	20150428.R23.1C

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150429.R59f1wb
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150429.R59f1wb

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150429.R59f2w5
F2 (C10-C16)	40	<40	ug/L	20150429.R59f2w5
F3 (C16-C34)	40	<40	ug/L	20150429.R59f2w5
F4 (C34-C50)	40	<40	ug/L	20150429.R59f2w5
o-Terphenyl (Surr.)	N/A	60	% Rec	20150429.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	430	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.68	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	34.7	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	5.47	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	14.8	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	675	µS/cm	20150430.T12A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW4B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632999

T13-Hardness

Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	278	mg/L	20150501.T13B

T13-ICPMS Water

Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	45.9	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	79700	ug/L	20150428.T13A
Copper	1	1.5	ug/L	20150428.T13A
Iron	20	373	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	19200	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	5.9	ug/L	20150428.T13A
Potassium	1	770	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	16300	ug/L	20150428.T13A
Strontium	10	155	ug/L	20150428.T13A
Zinc	1	3	ug/L	20150428.T13A

T21-Turbidity

Parameter	MDL	Result	Units	QAQCID
Turbidity	1	555	NTU	20150504.T21A

TP Water

Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.293	mg/L	20150429.R23.2A

VOC Water

Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromoethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	111	% Rec	20150429.R14vw
1,2-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw

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Committed to Quality and Service

Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW4B

Date: 4/21/2015

Matrix: Ground Water

Lab #: 632999

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	93	% Rec	20150429.R14vw
Acetone	30	<30	ug/L	20150429.R14vw
Benzene	0.2	<0.2	ug/L	20150429.R14vw
Bromobenzene	0.2	<0.2	ug/L	20150429.R14vw
Bromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromodichloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromoform	0.2	<0.2	ug/L	20150429.R14vw
Bromomethane	0.2	<0.2	ug/L	20150429.R14vw
Carbon tetrachloride	0.2	<0.2	ug/L	20150429.R14vw
Chlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
Chloroethane	0.2	<0.2	ug/L	20150429.R14vw
Chloroform	0.2	<0.2	ug/L	20150429.R14vw
Chloromethane	0.2	<0.2	ug/L	20150429.R14vw
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Dibromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Dibromomethane	0.2	<0.2	ug/L	20150429.R14vw
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Dichloromethane	1	<1	ug/L	20150429.R14vw
Ethylbenzene	0.2	<0.2	ug/L	20150429.R14vw
Hexachlorobutadiene	0.2	<0.2	ug/L	20150429.R14vw
m+p-Xylene	0.3	<0.3	ug/L	20150429.R14vw
Methyl ethyl ketone	0.5	<0.5	ug/L	20150429.R14vw
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150429.R14vw
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150429.R14vw
n-Hexane	0.5	<0.5	ug/L	20150429.R14vw
o-Xylene	0.2	<0.2	ug/L	20150429.R14vw
Styrene	0.2	<0.2	ug/L	20150429.R14vw
Tetrachloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Toluene	0.2	<0.2	ug/L	20150429.R14vw
Toluene-d8 (Surr.)	N/A	91	% Rec	20150429.R14vw
Total Xylenes	0.4	<0.4	ug/L	20150429.R14vw
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Trichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trichlorofluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Vinyl chloride	0.2	<0.2	ug/L	20150429.R14vw



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW4C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633000

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	1.2	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.027	mg/L	20150430.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.011	mg/L	20150428.R23.1C

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	340	mg/L as CaCO ₃	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO ₃	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.9	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	41.5	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	5.35	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	15.2	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	694	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	299	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	40	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	82900	ug/L	20150428.T13A
Copper	1	4.9	ug/L	20150428.T13A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW4C

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633000

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Iron	20	412	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	22300	ug/L	20150428.T13A
Manganese	1	1.5	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	5.8	ug/L	20150428.T13A
Potassium	1	702	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	19100	ug/L	20150428.T13A
Strontium	10	167	ug/L	20150428.T13A
Zinc	1	15	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	138	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.0888	mg/L	20150429.R23.2A

Sample Name: OW10A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633001

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	2.2	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.053	mg/L	20150430.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	0.0561	mg/L	20150428.R23.1C

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	289	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.86	pH	20150430.T02A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: OW10A

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633001

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	7.59	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	1.71	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	6.18	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	487	µS/cm	20150430.T12A

T13-Hardness				
Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO3)	0.1	217	mg/L	20150501.T13B

T13-ICPMS Water				
Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	54.9	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	64200	ug/L	20150428.T13A
Copper	1	1.1	ug/L	20150428.T13A
Iron	20	308	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	13800	ug/L	20150428.T13A
Manganese	1	<1	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	5	ug/L	20150428.T13A
Potassium	1	449	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	2100	ug/L	20150428.T13A
Strontium	1	107	ug/L	20150428.T13A
Zinc	1	2.8	ug/L	20150428.T13A

T21-Turbidity				
Parameter	MDL	Result	Units	QAQCID
Turbidity	1	1390	NTU	20150504.T21A

TP Water				
Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.01	1.57	mg/L	20150429.R23.2A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: South Pond

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633002

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	3.7	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.016	mg/L	20150430.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	<0.005	mg/L	20150428.R23.1C

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150429.R59f1wb
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150429.R59f1wb

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150429.R59f2w5
F2 (C10-C16)	40	<40	ug/L	20150429.R59f2w5
F3 (C16-C34)	40	<40	ug/L	20150429.R59f2w5
F4 (C34-C50)	40	<40	ug/L	20150429.R59f2w5
o-Terphenyl (Surr.)	N/A	71	% Rec	20150429.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	111	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.79	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	1.92	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	<0.04	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	2.07	mg/L	20150501.T05A

T12-CONDWATER				
Parameter	MDL	Result	Units	QAQCID
Conductivity	1	199	µS/cm	20150430.T12A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: South Pond

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633002

T13-Hardness

Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	79.8	mg/L	20150501.T13B

T13-ICPMS Water

Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	8.4	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	50	27800	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	20	223	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	2520	ug/L	20150428.T13A
Manganese	1	6.5	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	2.2	ug/L	20150428.T13A
Potassium	1	2610	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	745	ug/L	20150428.T13A
Strontium	1	54.7	ug/L	20150428.T13A
Zinc	1	1.6	ug/L	20150428.T13A

T21-Turbidity

Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	0.5	NTU	20150504.T21A

TP Water

Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.014	mg/L	20150429.R23.2A

VOC Water

Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromoethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	106	% Rec	20150429.R14vw
1,2-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: South Pond

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633002

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	94	% Rec	20150429.R14vw
Acetone	30	<30	ug/L	20150429.R14vw
Benzene	0.2	<0.2	ug/L	20150429.R14vw
Bromobenzene	0.2	<0.2	ug/L	20150429.R14vw
Bromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromodichloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromoform	0.2	<0.2	ug/L	20150429.R14vw
Bromomethane	0.2	<0.2	ug/L	20150429.R14vw
Carbon tetrachloride	0.2	<0.2	ug/L	20150429.R14vw
Chlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
Chloroethane	0.2	<0.2	ug/L	20150429.R14vw
Chloroform	0.2	<0.2	ug/L	20150429.R14vw
Chloromethane	0.2	<0.2	ug/L	20150429.R14vw
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Dibromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Dibromomethane	0.2	<0.2	ug/L	20150429.R14vw
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Dichloromethane	1	<1	ug/L	20150429.R14vw
Ethylbenzene	0.2	<0.2	ug/L	20150429.R14vw
Hexachlorobutadiene	0.2	<0.2	ug/L	20150429.R14vw
m+p-Xylene	0.3	<0.3	ug/L	20150429.R14vw
Methyl ethyl ketone	0.5	<0.5	ug/L	20150429.R14vw
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150429.R14vw
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150429.R14vw
n-Hexane	0.5	<0.5	ug/L	20150429.R14vw
o-Xylene	0.2	<0.2	ug/L	20150429.R14vw
Styrene	0.2	<0.2	ug/L	20150429.R14vw
Tetrachloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Toluene	0.2	<0.2	ug/L	20150429.R14vw
Toluene-d8 (Surr.)	N/A	92	% Rec	20150429.R14vw
Total Xylenes	0.4	<0.4	ug/L	20150429.R14vw
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Trichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trichlorofluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Vinyl chloride	0.2	<0.2	ug/L	20150429.R14vw



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: North Pond

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633003

A26-Colour				
Parameter	MDL	Result	Units	QAQCID
True Colour	1	<1	TCU	20150429.T26A
True Colour (Dup)	1	<1	TCU	20150429.T26A

A55-TOC Water				
Parameter	MDL	Result	Units	QAQCID
Total Organic Carbon	0.4	4	mg/L	20150501.T55C
Total Organic Carbon (Dup)	0.4	4.1	mg/L	20150501.T55C

Ammonia Water				
Parameter	MDL	Result	Units	QAQCID
Ammonia (as N)	0.01	0.021	mg/L	20150430.R42.1A

OP Water				
Parameter	MDL	Result	Units	QAQCID
Orthophosphate (as P)	0.005	<0.005	mg/L	20150428.R23.1C

PHC F1 Water				
Parameter	MDL	Result	Units	QAQCID
F1 (C6-C10) - Less BTEX	5	<5	ug/L	20150429.R59f1wb
F1 (C6-C10) Incl. BTEX	5	<5	ug/L	20150429.R59f1wb

PHC F2-F4 Water				
Parameter	MDL	Result	Units	QAQCID
Baseline @ C50	N/A	Yes	NA	20150429.R59f2w5
F2 (C10-C16)	40	<40	ug/L	20150429.R59f2w5
F3 (C16-C34)	40	<40	ug/L	20150429.R59f2w5
F4 (C34-C50)	40	<40	ug/L	20150429.R59f2w5
o-Terphenyl (Surr.)	N/A	71	% Rec	20150429.R59f2w5

T01-Alkalinity				
Parameter	MDL	Result	Units	QAQCID
M-Alkalinity (pH 4.5)	2	210	mg/L as CaCO3	20150429.T01A
M-Alkalinity (pH 4.5) (Dup)	2	218	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3)	2	<2	mg/L as CaCO3	20150429.T01A
P-Alkalinity (pH 8.3) (Dup)	2	<2	mg/L as CaCO3	20150429.T01A

T02-pH Water				
Parameter	MDL	Result	Units	QAQCID
pH	N/A	7.94	pH	20150430.T02A
pH (Dup)	N/A	7.91	pH	20150430.T02A

T05-Anions Water				
Parameter	MDL	Result	Units	QAQCID
Bromide	0.2	<0.2	mg/L	20150501.T05A
Chloride	0.2	4.32	mg/L	20150501.T05A
Fluoride	0.2	<0.2	mg/L	20150501.T05A
Nitrate (as N)	0.04	<0.04	mg/L	20150501.T05A
Nitrite (as N)	0.04	<0.04	mg/L	20150501.T05A
Sulphate	0.2	4.62	mg/L	20150501.T05A



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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: North Pond

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633003

T12-CONDWATER

Parameter	MDL	Result	Units	QAQCID
Conductivity	1	375	µS/cm	20150430.T12A
Conductivity (Dup)	1	375	µS/cm	20150430.T12A

T13-Hardness

Parameter	MDL	Result	Units	QAQCID
Total Hardness (as CaCO ₃)	0.1	177	mg/L	20150501.T13B

T13-ICPMS Water

Parameter	MDL	Result	Units	QAQCID
Aluminum	1	<1	ug/L	20150428.T13A
Antimony	0.5	<0.5	ug/L	20150428.T13A
Arsenic	1	<1	ug/L	20150428.T13A
Barium	1	26.9	ug/L	20150428.T13A
Boron	2	<2	ug/L	20150428.T13A
Cadmium	0.1	<0.1	ug/L	20150428.T13A
Calcium	500	55400	ug/L	20150428.T13A
Copper	1	<1	ug/L	20150428.T13A
Iron	200	560	ug/L	20150428.T13A
Lead	1	<1	ug/L	20150428.T13A
Magnesium	4	9300	ug/L	20150428.T13A
Manganese	1	63.8	ug/L	20150428.T13A
Molybdenum	1	<1	ug/L	20150428.T13A
Nickel	1	3.7	ug/L	20150428.T13A
Potassium	1	2270	ug/L	20150428.T13A
Selenium	1	<1	ug/L	20150428.T13A
Silver	0.1	<0.1	ug/L	20150428.T13A
Sodium	1	1540	ug/L	20150428.T13A
Strontium	1	91.7	ug/L	20150428.T13A
Zinc	1	<1	ug/L	20150428.T13A

T21-Turbidity

Parameter	MDL	Result	Units	QAQCID
Turbidity	0.1	1.23	NTU	20150504.T21A

TP Water

Parameter	MDL	Result	Units	QAQCID
Total Phosphorus (as P)	0.002	0.0474	mg/L	20150429.R23.2A

VOC Water

Parameter	MDL	Result	Units	QAQCID
1,1,1,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,1-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2,2-Tetrachloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1,2-Trichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,1-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
1,2,4-Trichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dibromo-3-chloropropane	0.2	<0.2	ug/L	20150429.R14vw

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: North Pond

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633003

VOC Water				
Parameter	MDL	Result	Units	QAQCID
1,2-Dibromoethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane	0.2	<0.2	ug/L	20150429.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	78	% Rec	20150429.R14vw
1,2-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1,3-Dichloropropane	0.2	<0.2	ug/L	20150429.R14vw
1,4-Dichlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	94	% Rec	20150429.R14vw
Acetone	30	<30	ug/L	20150429.R14vw
Benzene	0.2	<0.2	ug/L	20150429.R14vw
Bromobenzene	0.2	<0.2	ug/L	20150429.R14vw
Bromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromodichloromethane	0.2	<0.2	ug/L	20150429.R14vw
Bromoform	0.2	<0.2	ug/L	20150429.R14vw
Bromomethane	0.2	<0.2	ug/L	20150429.R14vw
Carbon tetrachloride	0.2	<0.2	ug/L	20150429.R14vw
Chlorobenzene	0.2	<0.2	ug/L	20150429.R14vw
Chloroethane	0.2	<0.2	ug/L	20150429.R14vw
Chloroform	0.2	<0.2	ug/L	20150429.R14vw
Chloromethane	0.2	<0.2	ug/L	20150429.R14vw
cis - + trans-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,2-Dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
cis-1,3-Dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Dibromochloromethane	0.2	<0.2	ug/L	20150429.R14vw
Dibromomethane	0.2	<0.2	ug/L	20150429.R14vw
Dichlorodifluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Dichloromethane	1	<1	ug/L	20150429.R14vw
Ethylbenzene	0.2	<0.2	ug/L	20150429.R14vw
Hexachlorobutadiene	0.2	<0.2	ug/L	20150429.R14vw
m+p-Xylene	0.3	<0.3	ug/L	20150429.R14vw
Methyl ethyl ketone	0.5	<0.5	ug/L	20150429.R14vw
Methyl isobutyl ketone (MIBK)	0.5	<0.5	ug/L	20150429.R14vw
Methyl tert-butyl ether (MTBE)	0.5	<0.5	ug/L	20150429.R14vw
n-Hexane	0.5	<0.5	ug/L	20150429.R14vw
o-Xylene	0.2	<0.2	ug/L	20150429.R14vw
Styrene	0.2	<0.2	ug/L	20150429.R14vw
Tetrachloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Toluene	0.2	<0.2	ug/L	20150429.R14vw
Toluene-d8 (Surr.)	N/A	92	% Rec	20150429.R14vw
Total Xylenes	0.4	<0.4	ug/L	20150429.R14vw
Trans-1,2-dichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trans-1,3-dichloropropene	0.2	<0.2	ug/L	20150429.R14vw
Trichloroethylene	0.2	<0.2	ug/L	20150429.R14vw
Trichlorofluoromethane	0.2	<0.2	ug/L	20150429.R14vw
Vinyl chloride	0.2	<0.2	ug/L	20150429.R14vw

6820 Kitimat Rd., Unit #4, Mississauga, ON L5N 5M3

5/4/2015

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Whitewater Hydrogeology Ltd.

Work Order: 239708

Sample Name: North Pond

Date: 4/21/2015

Matrix: Ground Water

Lab #: 633003

VOC Water				
Parameter	MDL	Result	Units	QAQCID

MDL Method detection limit or minimum reporting limit.

% Rec Surrogate compounds are added to the sample in some cases and the recovery is reported as a percent recovered.

QAQCID This is a unique reference to the quality control data set used to generate the reported value.

Data reported for organic analysis in soil samples are corrected for moisture content

Matrix If the matrix is a leachate, the sample was extracted according to regulation 558.

INT Interferences

TNTC Too numerous to count

ND Not detected

NDOGN No Data, Overgrown with Non-Target

NDOGT No Data, Overgrown with Target

NDOGHPC No Data, Overgrown HPC

Unless otherwise specified in the sample comments section of the report, the following statements apply to all samples which were analyzed using the CCME PHC method.

The method as performed complies with the Reference Method for the CWS PHC and is validated for use in this laboratory.

The Chromatogram descended to the baseline at or before nC50.

The nC6 and nC10 response factors were within 30% of the response factor for Toluene.

The nC10, nC16, and nC34 response factors were within 10% of their average.

The nC50 was at least 70% of the nC10-nC16-nC34 average.

The linearity of the calibration curve was within 15% based on response factor.

Any QC data is available on request.

Extraction and analysis hold times were met.

If F4G results are reported, they are not to be added to the C6 to C50 results.

BTEX and selected PAHs have been subtracted from the appropriate fractions only if the parameter names are F1-BTEX, F2-NAPTH, and F3-PAH, otherwise, these compounds have not been subtracted from their respective fractions.

**TESTMARK Laboratories Ltd.***Committed to Quality and Service***CERTIFICATE OF ANALYSIS**

Client:	Tecia White	Work Order Number:	255446
Company:	Whitewater Hydrogeology Ltd.	PO #:	
Address:	80 Chamberlain Cres Collingwood, Ontario, L9Y 0C8	Regulation:	ODWS
Phone:	7058887064	Project #:	
Email:	tecaia@white-water.ca	Fax:	
		DWS #:	
Date Order Received:	10/9/2015	Analysis Started:	10/13/2015
Arrival Temperature:	17.2°C	Analysis Completed:	10/21/2015

WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
2A	674218	Ground Water	None		10/7/2015	12:00:00 AM
2B	674219	Ground Water	None		10/7/2015	12:00:00 AM
2C	674220	Ground Water	None		10/7/2015	12:00:00 AM
4A	674221	Ground Water	None		10/6/2015	12:00:00 AM
4B	674222	Ground Water	None		10/6/2015	12:00:00 AM
4C	674223	Ground Water	None		10/6/2015	12:00:00 AM
5A	674224	Ground Water	None		10/6/2015	12:00:00 AM
5B	674225	Ground Water	None		10/6/2015	12:00:00 AM
6	674226	Ground Water	None		10/6/2015	12:00:00 AM
7A	674227	Ground Water	None		10/6/2015	12:00:00 AM
7C	674228	Ground Water	None		10/6/2015	12:00:00 AM
8A	674229	Ground Water	None		10/6/2015	12:00:00 AM
11A	674230	Ground Water	None		10/6/2015	12:00:00 AM
11C	674231	Ground Water	None		10/6/2015	12:00:00 AM
12A	674232	Ground Water	None		10/6/2015	12:00:00 AM
13A	674233	Ground Water	None		10/7/2015	12:00:00 AM



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CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

South Pond	674234	Surface Water	None		10/7/2015	12:00:00 AM
Wash Pond	674235	Surface Water	None		10/7/2015	12:00:00 AM

METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method Name	Description	Reference
TP	Determination of Total Phosphorus in Water	Based on EPA 365.3
A26-Colour	Determination of Colour by Spectrophotometry	Modified from APHA-2120C
Ammonia	Determination of Ammonia/Ammonium in Water	Based on EPA 350.1
DOC	Determination of Dissolved Organic Carbon in Water	Modified from APHA 5310
BTEX/F1-W	Determination of PHC BTEX/F1 in Water - Tier 1 CCME	CWS PHC Tier I CCME
OP	Determination of Ortho-Phosphate in Water	Based on APHA-4500P
PHC F2-F4 Water	Determination of PHC (F2-F4) in Water - Tier 1 CCME by GC/FID	CWS PHC Tier I CCME
T01-Alkalinity	Determination of Alkalinity in Water	Modified from APHA 2320
pH	Determination of pH in Water	Modified from APHA-4500-H+B
T05-Anions Water	Determination of Anions by Ion Chromatography	Modified from SW846-9056
Field pH	Client Supplied Determination of pH of Water	Field Test
Field Temp	Client Supplied Field Determination of Temperature of Water	Field Test
Conductivity	Determination of conductivity in Water	Modified from APHA-2510
Hardness	Determination of Total Hardness	Modified from APHA-2340B
T13-ICPMS Water	Determination of Metals in Water by ICPMS	Modified from SW846-6020
Turbidity	Determination of Turbidity by Nephelometry	Modified from APHA-2130 B
TDS	Determination of Total Dissolved Solids in water by gravimetry	Modified from APHA-2540
T94-Carbonate	Determination of Carbonate and Bi-Carbonate	Based on APHA-2330
VOC Water	Determination of Volatile Organic Compounds in Water by P&T/GC/MS	Based on EPA 624



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CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

This report has been approved by:

Mark Charbonneau, Ph.D.
Laboratory Director



CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

WORK ORDER RESULTS

Lab ID	674218		674219		674221			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2B		4A			
	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
F1 (C6-C10) - Less BTEX	<5	5	<5	5	<5	5	ug/L	N/A
F1 (C6-C10) Incl. BTEX	<5	5	<5	5	<5	5	ug/L	N/A
Lab ID	674222		674224		674225			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	4B		5A		5B			
	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
F1 (C6-C10) - Less BTEX	<5	5	<5	5	<5	5	ug/L	N/A
F1 (C6-C10) Incl. BTEX	<5	5	<5	5	<5	5	ug/L	N/A
Lab ID	674226		674227		674228			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	6		7A		7C			
	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
F1 (C6-C10) - Less BTEX	<5	5	<5	5	<5	5	ug/L	N/A
F1 (C6-C10) Incl. BTEX	<5	5	<5	5	<5	5	ug/L	N/A
Lab ID	674229		674230		674231			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	8A		11A		11C			
	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
F1 (C6-C10) - Less BTEX	<5	5	<5	5	<5	5	ug/L	N/A
F1 (C6-C10) Incl. BTEX	<5	5	<5	5	<5	5	ug/L	N/A



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Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674232		674233		674234			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
F1 (C6-C10) - Less BTEX	<5	5	<5	5	<5	5	ug/L	N/A
F1 (C6-C10) Incl. BTEX	<5	5	<5	5	<5	5	ug/L	N/A

Lab ID	674235			
Regulation/Standard (If Applicable)	ODWS			
Sample Description	Wash Pond			
	Result	MDL	Units	Regulation Criteria
F1 (C6-C10) - Less BTEX	<5	5	ug/L	N/A
F1 (C6-C10) Incl. BTEX	<5	5	ug/L	N/A

Lab ID	674218		674219		674220			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2B		2C			
Anions	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	N/A
Chloride	9.84	0.1	2.24	0.1	1.4	0.1	mg/L	250
Fluoride	<0.1	0.1	1.3	0.1	0.38	0.1	mg/L	1.5
Nitrate (as N)	1.88	0.03	0.095	0.03	<0.03	0.03	mg/L	10
Nitrite (as N)	<0.03	0.03	<0.03	0.03	<0.03	0.03	mg/L	1
Sulphate	5.72	0.1	9.5	0.1	2.28	0.1	mg/L	500

Lab ID	674221		674222		674223			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	4A		4B		4C			
Anions	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674221		674222		674223			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	4A		4B		4C			
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	N/A
Chloride	11.4	0.1	31.2	0.1	37	0.1	mg/L	250
Fluoride	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	1.5
Nitrate (as N)	2.97	0.03	4.03	0.03	4.59	0.03	mg/L	10
Nitrite (as N)	<0.03	0.03	<0.03	0.03	<0.03	0.03	mg/L	1
Sulphate	16	0.1	12.5	0.1	15.5	0.1	mg/L	500

Lab ID	674224		674225		674226			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	5A		5B		6			
Anions	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	N/A
Chloride	6.3	0.1	50.2	0.1	4.96	0.1	mg/L	250
Fluoride	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	1.5
Nitrate (as N)	6.7	0.03	3.53	0.03	3.97	0.03	mg/L	10
Nitrite (as N)	<0.03	0.03	<0.03	0.03	0.19	0.03	mg/L	1
Sulphate	10.6	0.1	11	0.1	10	0.1	mg/L	500

Lab ID	674227		674228		674229			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	7A		7C		8A			
Anions	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	N/A
Chloride	5.9	0.1	2.58	0.1	1.66	0.1	mg/L	250
Fluoride	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	1.5
Nitrate (as N)	4.04	0.03	0.13	0.03	5.72	0.03	mg/L	10
Nitrite (as N)	<0.03	0.03	<0.03	0.03	<0.03	0.03	mg/L	1
Sulphate	18.6	0.1	1.62	0.1	5.5	0.1	mg/L	500



CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674230		674231		674232			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	11A		11C		12A			
Anions	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	N/A
Chloride	50.7	0.1	44.5	0.1	2.24	0.1	mg/L	250
Fluoride	<0.1	0.1	1.94	0.1	<0.1	0.1	mg/L	1.5
Nitrate (as N)	2.5	0.03	<0.03	0.03	7.8	0.03	mg/L	10
Nitrite (as N)	<0.03	0.03	<0.03	0.03	<0.03	0.03	mg/L	1
Sulphate	10.3	0.1	<0.1	0.1	4.92	0.1	mg/L	500

Lab ID	674233		674234		674235			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	13A		South Pond		Wash Pond			
Anions	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	N/A
Chloride	14.7	0.1	1.16	0.1	8.5	0.1	mg/L	250
Fluoride	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	1.5
Nitrate (as N)	5.93	0.03	<0.03	0.03	<0.03	0.03	mg/L	10
Nitrite (as N)	<0.03	0.03	<0.03	0.03	<0.03	0.03	mg/L	1
Sulphate	9.58	0.1	<0.1	0.1	3.7	0.1	mg/L	500

Lab ID	674234		674235			
Regulation/Standard (If Applicable)	ODWS		ODWS			
Sample Description	South Pond		Wash Pond			
Field Parameters	Result	MDL	Result	MDL	Units	Regulation Criteria
Field pH	7	N/A	7	N/A	pH	N/A
Field Temp	11	N/A	10	N/A	°C	N/A



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CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674218		674218[r]		674219			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2A		2B			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Ammonia	1.25	0.01			<0.01	0.01	mg/L	N/A
Bicarbonate	360	1			191	1	mg/L	N/A
Carbonate	2.3	1			1.6	1	mg/L	N/A
Conductivity	571	1			328	1	µS/cm	N/A
DOC	13.5	0.4	13.5	0.4	1.7	0.4	mg/L	5
M-Alkalinity (pH 4.5)	362	2			193	2	mg/L as CaCO ₃	N/A
OP	0.015	0.005			0.01	0.005	mg/L	N/A
pH	7.84	N/A			7.94	N/A	pH	N/A
Hardness	231	0.1			64.8	0.1	mg/L	100
TP	3.32	0.02			0.0945	0.002	mg/L	N/A
True Colour	<1	1			<1	1	TCU	5
Turbidity	3310	10			126	1	NTU	5

Lab ID	674220		674221		674222			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2C		4A		4B			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674220		674221		674222			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	2C		4A		4B			
Ammonia	<0.01	0.01	<0.01	0.01	<0.01	0.01	mg/L	N/A
Bicarbonate	90.7	1	374	1	339	1	mg/L	N/A
Carbonate	13.5	1	2.3	1	2.7	1	mg/L	N/A
Conductivity	170	1	601	1	701	1	µS/cm	N/A
DOC	0.72	0.4	1.8	0.4	1.6	0.4	mg/L	5
M-Alkalinity (pH 4.5)	105	2	376	2	342	2	mg/L as CaCO3	N/A
OP	<0.005	0.005	0.0056	0.005	0.0059	0.005	mg/L	N/A
pH	9.2	N/A	7.82	N/A	7.93	N/A	pH	N/A
Hardness	28.6	0.1	212	0.1	218	0.1	mg/L	100
TP	<0.002	0.002	0.29	0.002	0.0861	0.002	mg/L	N/A
True Colour	<1	1	<1	1	<1	1	TCU	5
Turbidity	17.4	0.1	619	10	38.8	0.1	NTU	5

Lab ID	674223		674223[r]		674224			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	4C		4C		5A			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Ammonia	<0.01	0.01			<0.01	0.01	mg/L	N/A
Bicarbonate	328	1			360	1	mg/L	N/A
Carbonate	2.3	1			2.4	1	mg/L	N/A
Conductivity	706	1			611	1	µS/cm	N/A
DOC	1.7	0.4			1.9	0.4	mg/L	5
M-Alkalinity (pH 4.5)	330	2			362	2	mg/L as CaCO3	N/A
OP	<0.005	0.005	<0.005	0.005	0.0072	0.005	mg/L	N/A
pH	7.88	N/A			7.85	N/A	pH	N/A
Hardness	205	0.1			231	0.1	mg/L	100
TP	0.137	0.002			1.91	0.02	mg/L	N/A
True Colour	<1	1			<1	1	TCU	5
Turbidity	817	10			2140	10	NTU	5



CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674225		674226		674227			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	5B		6		7A			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Ammonia	<0.01	0.01	0.049	0.01	<0.01	0.01	mg/L	N/A
Bicarbonate	345	1	292	1	308	1	mg/L	N/A
Carbonate	2.5	1	2.3	1	2	1	mg/L	N/A
Conductivity	745	1	515	1	553	1	µS/cm	N/A
DOC	2.3	0.4	3.2	0.4	2	0.4	mg/L	5
M-Alkalinity (pH 4.5)	347	2	294	2	310	2	mg/L as CaCO ₃	N/A
OP	0.0072	0.005	0.0075	0.005	<0.005	0.005	mg/L	N/A
pH	7.88	N/A	7.92	N/A	7.83	N/A	pH	N/A
Hardness	204	0.1	170	0.1	192	0.1	mg/L	100
TP	1.36	0.02	0.722	0.002	1.51	0.02	mg/L	N/A
True Colour	<1	1	1.5	1	<1	1	TCU	5
Turbidity	1400	10	1340	10	2350	10	NTU	5

Lab ID	674228		674229		674230			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	7C		8A		11A			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674228		674229		674230			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	7C		8A		11A			
Ammonia	0.017	0.01	<0.01	0.01	<0.01	0.01	mg/L	N/A
Bicarbonate	142	1	260	1	325	1	mg/L	N/A
Carbonate	<1	1	2	1	2.5	1	mg/L	N/A
Conductivity	234	1	480	1	750	1	µS/cm	N/A
DOC	1.9	0.4	2	0.4	2.2	0.4	mg/L	5
M-Alkalinity (pH 4.5)	143	2	262	2	328	2	mg/L as CaCO ₃	N/A
OP	<0.005	0.005	0.0053	0.005	0.0075	0.005	mg/L	N/A
pH	7.7	N/A	7.92	N/A	7.91	N/A	pH	N/A
Hardness	80.1	0.1	176	0.1	208	0.1	mg/L	100
TP	0.0099	0.002	1.45	0.02	0.283	0.002	mg/L	N/A
True Colour	<1	1	<1	1	<1	1	TCU	5
Turbidity	111	1	1370	10	551	10	NTU	5

Lab ID	674231		674232		674233			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	11C		12A		13A			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Ammonia	0.84	0.01	<0.01	0.01	<0.01	0.01	mg/L	N/A
Bicarbonate	108	1	212	1	299	1	mg/L	N/A
Carbonate	<1	1	2.1	1	2.5	1	mg/L	N/A
Conductivity	339	1	417	1	599	1	µS/cm	N/A
DOC	7.93	0.4	2.2	0.4	1.7	0.4	mg/L	5
M-Alkalinity (pH 4.5)	109	2	214	2	302	2	mg/L as CaCO ₃	N/A
OP	<0.005	0.005	0.0061	0.005	0.015	0.005	mg/L	N/A
pH	7.93	N/A	8.03	N/A	7.95	N/A	pH	N/A
Hardness	75.1	0.1	138	0.1	199	0.1	mg/L	100
TP	0.0041	0.002	4.83	0.02	4.6	0.02	mg/L	N/A
True Colour	<1	1	2.5	1	<1	1	TCU	5
Turbidity	54.1	1	4260	10	2650	10	NTU	5



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Lab ID	674233[r]		674234		674235			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	13A		South Pond		Wash Pond			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Conductivity	596	1	237	1	411	1	µS/cm	N/A
M-Alkalinity (pH 4.5)	315	2	135	2	215	2	mg/L as CaCO ₃	N/A
pH	7.94	N/A	7.6	N/A	7.89	N/A	pH	N/A
Ammonia			<0.01	0.01	0.26	0.01	mg/L	N/A
Bicarbonate			134	1	213	1	mg/L	N/A
Carbonate			<1	1	1.6	1	mg/L	N/A
DOC			5.23	0.4	5.47	0.4	mg/L	5
OP			<0.005	0.005	0.015	0.005	mg/L	N/A
Hardness			79.8	0.1	151	0.1	mg/L	100
TP			0.0232	0.002	0.0371	0.002	mg/L	N/A
True Colour			8.7	1	11.8	1	TCU	5
Turbidity			0.37	0.1	1.51	0.1	NTU	5

Lab ID	674235[r]			
Regulation/Standard (If Applicable)	ODWS			
Sample Description	Wash Pond			
General Chemistry	Result	MDL	Units	Regulation Criteria
True Colour	11.9	1	TCU	5
Turbidity	1.6	0.1	NTU	5

Lab ID	674218		674219		674220			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2B		2C			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



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Lab ID	674218		674219		674220			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2B		2C			
Aluminum	<1	1	<1	1	<1	1	ug/L	N/A
Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	6
Arsenic	<1	1	<1	1	<1	1	ug/L	25
Barium	70.1	1	13.5	1	<1	1	ug/L	1000
Boron	<2	2	269	2	112	2	ug/L	5000
Calcium	74500	500	11800	50	2770	50	ug/L	N/A
Copper	<1	1	<1	1	<1	1	ug/L	1000
Iron	1070	20	237	20	93	20	ug/L	300
Magnesium	10800	4	8590	4	5260	4	ug/L	N/A
Manganese	30.8	1	40.1	1	4.6	1	ug/L	50
Molybdenum	<1	1	15.3	1	3	1	ug/L	N/A
Nickel	5.2	1	1.2	1	<1	1	ug/L	N/A
Potassium	2080	1	2970	1	886	1	ug/L	N/A
Selenium	<1	1	<1	1	<1	1	ug/L	10
Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	N/A
Sodium	3530	1	17200	1	12000	1	ug/L	20000
Strontium	147	10	356	10	16.3	1	ug/L	N/A
Zinc	8.4	1	2.5	1	2.5	1	ug/L	5000

Lab ID	674220[r]		674221		674222			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2C		4A		4B			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



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Lab ID	674220[r]		674221		674222			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2C		4A		4B			
Aluminum	<1	1	<1	1	<1	1	ug/L	N/A
Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	6
Arsenic	<1	1	<1	1	<1	1	ug/L	25
Barium	<1	1	32.6	1	59.6	1	ug/L	1000
Boron	109	2	<2	2	<2	2	ug/L	5000
Calcium	2610	50	66800	50	68300	50	ug/L	N/A
Copper	<1	1	<1	1	1.3	1	ug/L	1000
Iron	116	20	607	20	593	20	ug/L	300
Magnesium	5380	4	11000	4	11600	4	ug/L	N/A
Manganese	4.9	1	5.2	1	<1	1	ug/L	50
Molybdenum	3	1	<1	1	<1	1	ug/L	N/A
Nickel	<1	1	6.1	1	5.8	1	ug/L	N/A
Potassium	869	1	1930	1	712	1	ug/L	N/A
Selenium	<1	1	1.1	1	<1	1	ug/L	10
Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	N/A
Sodium	12000	1	4720	1	9530	1	ug/L	20000
Strontium	17.7	1	153	10	148	10	ug/L	N/A
Zinc	2	1	3	1	1.9	1	ug/L	5000

Lab ID	674223		674224		674225			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	4C		5A		5B			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



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Lab ID	674223		674224		674225			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	4C		5A		5B			
Aluminum	<1	1	<1	1	<1	1	ug/L	N/A
Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	6
Arsenic	1.2	1	<1	1	<1	1	ug/L	25
Barium	40.7	1	67	1	42.3	1	ug/L	1000
Boron	<2	2	<2	2	<2	2	ug/L	5000
Calcium	61200	50	75300	500	61200	50	ug/L	N/A
Copper	2.3	1	1.2	1	1.1	1	ug/L	1000
Magnesium	12700	4	10500	4	12400	4	ug/L	N/A
Manganese	1.3	1	<1	1	<1	1	ug/L	50
Molybdenum	<1	1	<1	1	<1	1	ug/L	N/A
Nickel	5.7	1	5.1	1	5.5	1	ug/L	N/A
Potassium	708	1	4790	1	2250	1	ug/L	N/A
Selenium	<1	1	<1	1	<1	1	ug/L	10
Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	N/A
Sodium	9050	1	2030	1	12300	1	ug/L	20000
Strontium	141	10	151	10	146	10	ug/L	N/A
Zinc	26.5	1	1.4	1	27.1	1	ug/L	5000
Iron			571	20	558	20	ug/L	300

Lab ID	674226		674227		674228			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	6		7A		7C			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



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Lab ID	674226		674227		674228			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	6		7A		7C			
Aluminum	<1	1	<1	1	<1	1	ug/L	N/A
Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	6
Arsenic	<1	1	<1	1	<1	1	ug/L	25
Barium	72.5	1	65.1	1	6.5	1	ug/L	1000
Boron	<2	2	<2	2	3.4	2	ug/L	5000
Calcium	52800	50	60000	50	15100	50	ug/L	N/A
Copper	<1	1	1	1	<1	1	ug/L	1000
Iron	473	20	531	20	6600	200	ug/L	300
Magnesium	9330	4	10200	4	10300	4	ug/L	N/A
Manganese	5	1	<1	1	268	1	ug/L	50
Molybdenum	<1	1	<1	1	1	1	ug/L	N/A
Nickel	4.6	1	5	1	1.5	1	ug/L	N/A
Potassium	2390	1	1260	1	621	1	ug/L	N/A
Selenium	1.5	1	<1	1	1.1	1	ug/L	10
Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	N/A
Sodium	1910	1	1860	1	1770	1	ug/L	20000
Strontium	138	10	141	10	27.2	1	ug/L	N/A
Zinc	1.5	1	1.7	1	1.7	1	ug/L	5000

Lab ID	674229		674230		674231			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	8A		11A		11C			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



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Lab ID	674229		674230		674231			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	8A		11A		11C			
Aluminum	<1	1	<1	1	<1	1	ug/L	N/A
Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	6
Arsenic	<1	1	<1	1	<1	1	ug/L	25
Barium	19.3	1	45.3	1	8.8	1	ug/L	1000
Boron	<2	2	<2	2	8	2	ug/L	5000
Calcium	58000	50	63600	50	10300	50	ug/L	N/A
Copper	<1	1	1.1	1	<1	1	ug/L	1000
Iron	471	20	617	20	1720	20	ug/L	300
Magnesium	7670	4	11900	4	12000	4	ug/L	N/A
Manganese	1.2	1	<1	1	132	1	ug/L	50
Molybdenum	<1	1	<1	1	1.2	1	ug/L	N/A
Nickel	4.7	1	5.7	1	1.1	1	ug/L	N/A
Potassium	617	1	1980	1	2210	1	ug/L	N/A
Selenium	<1	1	<1	1	<1	1	ug/L	10
Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	N/A
Sodium	1020	1	13700	1	13100	1	ug/L	20000
Strontium	162	10	152	10	15.2	1	ug/L	N/A
Zinc	<1	1	23.4	1	2	1	ug/L	5000

Lab ID	674232		674233		674234			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



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Lab ID	674232		674233		674234			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
Aluminum	<1	1	<1	1	<1	1	ug/L	N/A
Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	6
Arsenic	<1	1	<1	1	1.4	1	ug/L	25
Barium	8.9	1	69.6	1	11.2	1	ug/L	1000
Boron	<2	2	<2	2	<2	2	ug/L	5000
Calcium	48900	50	53500	50	26400	50	ug/L	N/A
Copper	<1	1	<1	1	<1	1	ug/L	1000
Iron	407	20	477	20	337	20	ug/L	300
Magnesium	3870	4	16000	4	3360	4	ug/L	N/A
Manganese	<1	1	1.2	1	12.7	1	ug/L	50
Molybdenum	<1	1	<1	1	<1	1	ug/L	N/A
Nickel	4.1	1	3.9	1	2.3	1	ug/L	N/A
Potassium	1000	1	975	1	2340	1	ug/L	N/A
Selenium	<1	1	<1	1	<1	1	ug/L	10
Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	N/A
Sodium	747	1	1340	1	325	1	ug/L	20000
Strontium	150	10	134	10	79.3	1	ug/L	N/A
Zinc	1	1	2	1	<1	1	ug/L	5000

Lab ID	674235		674235[r]			
Regulation/Standard (If Applicable)	ODWS		ODWS			
Sample Description	Wash Pond		Wash Pond			
Metals	Result	MDL	Result	MDL	Units	Regulation Criteria



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Lab ID	674235		674235[r]			
Regulation/Standard (If Applicable)	ODWS		ODWS			
Sample Description	Wash Pond		Wash Pond			
Aluminum	<1	1	<1	1	ug/L	N/A
Antimony	<0.5	0.5	<0.5	0.5	ug/L	6
Arsenic	1	1	<1	1	ug/L	25
Barium	38.9	1	34.7	1	ug/L	1000
Boron	2.3	2	3.5	2	ug/L	5000
Calcium	46100	50	44500	50	ug/L	N/A
Copper	1.4	1	5.2	1	ug/L	1000
Iron	764	20	657	20	ug/L	300
Magnesium	8760	4	8530	4	ug/L	N/A
Manganese	27.9	1	26.9	1	ug/L	50
Molybdenum	<1	1	<1	1	ug/L	N/A
Nickel	3.8	1	3.6	1	ug/L	N/A
Potassium	3100	1	2870	1	ug/L	N/A
Selenium	<1	1	<1	1	ug/L	10
Silver	<0.1	0.1	<0.1	0.1	ug/L	N/A
Sodium	1930	1	1880	1	ug/L	20000
Strontium	99.9	1	97.5	1	ug/L	N/A
Zinc	1.6	1	3.8	1	ug/L	5000

Lab ID	674218		674219		674221			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2B		4A			
Petroleum Hydrocarbons	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	NA	N/A
F2 (C10-C16)	<40	40	<40	40	<40	40	ug/L	N/A
F3 (C16-C34)	923	40	82	40	<40	40	ug/L	N/A
F4 (C34-C50)	50	40	180	40	<40	40	ug/L	N/A



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Lab ID	674222		674224		674225			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	4B		5A		5B			
Petroleum Hydrocarbons	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	NA	N/A
F2 (C10-C16)	<40	40	<60	60	<40	40	ug/L	N/A
F3 (C16-C34)	47	40	<60	60	<40	40	ug/L	N/A
F4 (C34-C50)	<40	40	<60	60	<40	40	ug/L	N/A
Lab ID	674226		674227		674228			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	6		7A		7C			
Petroleum Hydrocarbons	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	NA	N/A
F2 (C10-C16)	<30	30	<30	30	<40	40	ug/L	N/A
F3 (C16-C34)	81	30	57	30	120	40	ug/L	N/A
F4 (C34-C50)	<30	30	<30	30	<40	40	ug/L	N/A
Lab ID	674229		674230		674231			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	8A		11A		11C			
Petroleum Hydrocarbons	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	NA	N/A
F2 (C10-C16)	<40	40	<40	40	<30	30	ug/L	N/A
F3 (C16-C34)	50	40	72	40	43	30	ug/L	N/A
F4 (C34-C50)	<40	40	<40	40	<30	30	ug/L	N/A
Lab ID	674232		674233		674234			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
Petroleum Hydrocarbons	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria



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Lab ID	674232		674233		674234			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	NA	N/A
F2 (C10-C16)	<50	50	<50	50	<40	40	ug/L	N/A
F3 (C16-C34)	146	50	73	50	<40	40	ug/L	N/A
F4 (C34-C50)	<50	50	<50	50	<40	40	ug/L	N/A

Lab ID	674235			
Regulation/Standard (If Applicable)	ODWS			
Sample Description	Wash Pond			
Petroleum Hydrocarbons	Result	MDL	Units	Regulation Criteria
Baseline @ C50	Yes	N/A	NA	N/A
F2 (C10-C16)	<50	50	ug/L	N/A
F3 (C16-C34)	72	50	ug/L	N/A
F4 (C34-C50)	<50	50	ug/L	N/A

Lab ID	674218		674219		674220			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2B		2C			
Solids	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
TDS	324	10	184	3	96.1	3	mg/L	500

Lab ID	674220[r]		674221		674222			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2C		4A		4B			
Solids	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
TDS	94	3	348	3	404	3	mg/L	500



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Lab ID	674223		674224		674225			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	4C		5A		5B			
Solids	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
TDS	420	3	340	20	440	6	mg/L	500
Lab ID	674226		674227		674228			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	6		7A		7C			
Solids	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
TDS	293	8	328	10	125	3	mg/L	500
Lab ID	674229		674230		674231			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	8A		11A		11C			
Solids	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
TDS	270	20	428	6	179	3	mg/L	500
Lab ID	674232		674233		674234			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
Solids	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
TDS	320	20	330	10	127	3	mg/L	500
Lab ID	674235							
Regulation/Standard (If Applicable)	ODWS							
Sample Description	Wash Pond							
Solids	Result	MDL	Units	Regulation Criteria				
TDS	218	3	mg/L	500				



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Company: Whitewater Hydrogeology Ltd.

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Lab ID	674218		674218[r]		674219			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2A		2B			
VOC	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
1,1,1,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,1-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	14
1,2,4-Trichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromo-3-chloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromoethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	200
1,2-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
1,2-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,4-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Acetone	<30	30	<30	30	<30	30	ug/L	N/A
Benzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Bromobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromodichloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromoform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Carbon tetrachloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Chlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	80
Chloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloroform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis - + trans-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A



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CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674218		674218[r]		674219			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2A		2A		2B			
cis-1,2-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichlorodifluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichloromethane	<1	1	<1	1	<1	1	ug/L	50
Ethylbenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2.4
Hexachlorobutadiene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
m+p-Xylene	<0.3	0.3	<0.3	0.3	<0.3	0.3	ug/L	300
Methyl ethyl ketone	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl isobutyl ketone (MIBK)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl tert-butyl ether (MTBE)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
n-Hexane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
o-Xylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	300
Styrene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Tetrachloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	30
Toluene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	24
Total Xylenes	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	N/A
Trans-1,2-dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trans-1,3-dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Trichlorofluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Vinyl chloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2

Lab ID	674220		674221		674222			
Regulation/Standard (If Applicable)	ODWS		ODWS		ODWS			
Sample Description	2C		4A		4B			
VOC	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
1,1,1,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,1-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A



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Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674220		674221		674222			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	2C		4A		4B			
1,1,2,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	14
1,2,4-Trichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromo-3-chloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromoethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	200
1,2-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
1,2-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,4-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Acetone	<30	30	<30	30	<30	30	ug/L	N/A
Benzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Bromobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromodichloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromoform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Carbon tetrachloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Chlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	80
Chloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloroform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis - + trans-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,2-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A



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CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674220		674221		674222			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	2C		4A		4B			
Dichlorodifluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichloromethane	<1	1	<1	1	<1	1	ug/L	50
Ethylbenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2.4
Hexachlorobutadiene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
m+p-Xylene	<0.3	0.3	<0.3	0.3	<0.3	0.3	ug/L	300
Methyl ethyl ketone	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl isobutyl ketone (MIBK)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl tert-butyl ether (MTBE)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
n-Hexane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
o-Xylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	300
Styrene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Tetrachloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	30
Toluene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	24
Total Xylenes	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	N/A
Trans-1,2-dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trans-1,3-dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Trichlorofluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Vinyl chloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2

Lab ID	674223		674224		674225			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	4C		5A		5B			
VOC	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
1,1,1,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,1-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	14



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Company: Whitewater Hydrogeology Ltd.

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Lab ID	674223		674224		674225			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	4C		5A		5B			
1,2,4-Trichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromo-3-chloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromoethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	200
1,2-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
1,2-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,4-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Acetone	<30	30	<30	30	<30	30	ug/L	N/A
Benzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Bromobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromodichloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromoform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Carbon tetrachloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Chlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	80
Chloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloroform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis - + trans-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,2-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichlorodifluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichloromethane	<1	1	<1	1	<1	1	ug/L	50
Ethylbenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2.4
Hexachlorobutadiene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A



CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674223		674224		674225			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	4C		5A		5B			
m+p-Xylene	<0.3	0.3	<0.3	0.3	<0.3	0.3	ug/L	300
Methyl ethyl ketone	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl isobutyl ketone (MIBK)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl tert-butyl ether (MTBE)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
n-Hexane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
o-Xylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	300
Styrene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Tetrachloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	30
Toluene	<0.2	0.2	0.28	0.2	0.35	0.2	ug/L	24
Total Xylenes	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	N/A
Trans-1,2-dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trans-1,3-dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Trichlorofluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Vinyl chloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2

Lab ID	674226		674227		674228			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	6		7A		7C			
VOC	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
1,1,1,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,1-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	14
1,2,4-Trichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromo-3-chloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromoethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	200



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CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674226		674227		674228			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	6		7A		7C			
1,2-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
1,2-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,4-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Acetone	<30	30	<30	30	<30	30	ug/L	N/A
Benzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Bromobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromodichloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromoform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Carbon tetrachloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Chlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	80
Chloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloroform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis - + trans-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,2-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichlorodifluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichloromethane	<1	1	<1	1	<1	1	ug/L	50
Ethylbenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2.4
Hexachlorobutadiene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
m+p-Xylene	<0.3	0.3	<0.3	0.3	<0.3	0.3	ug/L	300
Methyl ethyl ketone	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl isobutyl ketone (MIBK)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl tert-butyl ether (MTBE)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A



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Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674226		674227		674228			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	6		7A		7C			
n-Hexane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
o-Xylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	300
Styrene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Tetrachloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	30
Toluene	<0.2	0.2	0.26	0.2	<0.2	0.2	ug/L	24
Total Xylenes	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	N/A
Trans-1,2-dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trans-1,3-dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Trichlorofluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Vinyl chloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2

Lab ID	674229		674230		674231			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	8A		11A		11C			
VOC	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
1,1,1,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,1-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	14
1,2,4-Trichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromo-3-chloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromoethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	200
1,2-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
1,2-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A



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Lab ID	674229		674230		674231			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	8A		11A		11C			
1,4-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Acetone	<30	30	<30	30	<30	30	ug/L	N/A
Benzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Bromobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromodichloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromoform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Carbon tetrachloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Chlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	80
Chloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloroform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis - + trans-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,2-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichlorodifluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichloromethane	<1	1	<1	1	<1	1	ug/L	50
Ethylbenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2.4
Hexachlorobutadiene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
m+p-Xylene	<0.3	0.3	<0.3	0.3	<0.3	0.3	ug/L	300
Methyl ethyl ketone	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl isobutyl ketone (MIBK)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl tert-butyl ether (MTBE)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
n-Hexane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
o-Xylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	300
Styrene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Tetrachloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	30



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Company: Whitewater Hydrogeology Ltd.

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Lab ID	674229		674230		674231			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	8A		11A		11C			
Toluene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	24
Total Xylenes	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	N/A
Trans-1,2-dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trans-1,3-dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Trichlorofluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Vinyl chloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2

Lab ID	674232		674233		674234			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
VOC	Result	MDL	Result	MDL	Result	MDL	Units	Regulation Criteria
1,1,1,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,1-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2,2-Tetrachloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1,2-Trichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,1-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	14
1,2,4-Trichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromo-3-chloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dibromoethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,2-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	200
1,2-Dichloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
1,2-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,3-Dichloropropane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
1,4-Dichlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Acetone	<30	30	<30	30	<30	30	ug/L	N/A
Benzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Bromobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A



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Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

Lab ID	674232		674233		674234			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
Bromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromodichloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromoform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Bromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Carbon tetrachloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Chlorobenzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	80
Chloroethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloroform	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Chloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis - + trans-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,2-Dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
cis-1,3-Dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromochloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dibromomethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichlorodifluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Dichloromethane	<1	1	<1	1	<1	1	ug/L	50
Ethylbenzene	0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2.4
Hexachlorobutadiene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
m+p-Xylene	0.39	0.3	<0.3	0.3	<0.3	0.3	ug/L	300
Methyl ethyl ketone	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl isobutyl ketone (MIBK)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
Methyl tert-butyl ether (MTBE)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
n-Hexane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	N/A
o-Xylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	300
Styrene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Tetrachloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	30
Toluene	0.65	0.2	<0.2	0.2	<0.2	0.2	ug/L	24
Total Xylenes	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	N/A
Trans-1,2-dichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Trans-1,3-dichloropropene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A



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Lab ID	674232		674233		674234			
Regulation/Standard (if Applicable)	ODWS		ODWS		ODWS			
Sample Description	12A		13A		South Pond			
Trichloroethylene	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	5
Trichlorofluoromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	N/A
Vinyl chloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	2

Lab ID	674235			
Regulation/Standard (if Applicable)	ODWS			
Sample Description	Wash Pond			
VOC	Result	MDL	Units	Regulation Criteria
1,1,1,2-Tetrachloroethane	<0.2	0.2	ug/L	N/A
1,1,1-Trichloroethane	<0.2	0.2	ug/L	N/A
1,1,2,2-Tetrachloroethane	<0.2	0.2	ug/L	N/A
1,1,2-Trichloroethane	<0.2	0.2	ug/L	N/A
1,1-Dichloroethane	<0.2	0.2	ug/L	N/A
1,1-Dichloroethylene	<0.2	0.2	ug/L	14
1,2,4-Trichlorobenzene	<0.2	0.2	ug/L	N/A
1,2-Dibromo-3-chloropropane	<0.2	0.2	ug/L	N/A
1,2-Dibromoethane	<0.2	0.2	ug/L	N/A
1,2-Dichlorobenzene	<0.2	0.2	ug/L	200
1,2-Dichloroethane	<0.2	0.2	ug/L	5
1,2-Dichloropropane	<0.2	0.2	ug/L	N/A
1,3-Dichlorobenzene	<0.2	0.2	ug/L	N/A
1,3-Dichloropropane	<0.2	0.2	ug/L	N/A
1,4-Dichlorobenzene	<0.2	0.2	ug/L	5
Acetone	<30	30	ug/L	N/A
Benzene	<0.2	0.2	ug/L	5
Bromobenzene	<0.2	0.2	ug/L	N/A
Bromochloromethane	<0.2	0.2	ug/L	N/A
Bromodichloromethane	<0.2	0.2	ug/L	N/A
Bromoform	<0.2	0.2	ug/L	N/A
Bromomethane	<0.2	0.2	ug/L	N/A



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Lab ID	674235			
Regulation/Standard (if Applicable)	ODWS			
Sample Description	Wash Pond			
Carbon tetrachloride	<0.2	0.2	ug/L	5
Chlorobenzene	<0.2	0.2	ug/L	80
Chloroethane	<0.2	0.2	ug/L	N/A
Chloroform	<0.2	0.2	ug/L	N/A
Chloromethane	<0.2	0.2	ug/L	N/A
cis - + trans-1,3-Dichloropropene	<0.2	0.2	ug/L	N/A
cis-1,2-Dichloroethylene	<0.2	0.2	ug/L	N/A
cis-1,3-Dichloropropene	<0.2	0.2	ug/L	N/A
Dibromochloromethane	<0.2	0.2	ug/L	N/A
Dibromomethane	<0.2	0.2	ug/L	N/A
Dichlorodifluoromethane	<0.2	0.2	ug/L	N/A
Dichloromethane	<1	1	ug/L	50
Ethylbenzene	<0.2	0.2	ug/L	2.4
Hexachlorobutadiene	<0.2	0.2	ug/L	N/A
m+p-Xylene	<0.3	0.3	ug/L	300
Methyl ethyl ketone	<0.5	0.5	ug/L	N/A
Methyl isobutyl ketone (MIBK)	<0.5	0.5	ug/L	N/A
Methyl tert-butyl ether (MTBE)	<0.5	0.5	ug/L	N/A
n-Hexane	<0.5	0.5	ug/L	N/A
o-Xylene	<0.2	0.2	ug/L	300
Styrene	<0.2	0.2	ug/L	N/A
Tetrachloroethylene	<0.2	0.2	ug/L	30
Toluene	<0.2	0.2	ug/L	24
Total Xylenes	<0.4	0.4	ug/L	N/A
Trans-1,2-dichloroethylene	<0.2	0.2	ug/L	N/A
Trans-1,3-dichloropropene	<0.2	0.2	ug/L	N/A
Trichloroethylene	<0.2	0.2	ug/L	5
Trichlorofluoromethane	<0.2	0.2	ug/L	N/A
Vinyl chloride	<0.2	0.2	ug/L	2



CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

QUALITY CONTROL DATA

THIS SECTION REPORTS QC RESULTS ASSOCIATED WITH THE TEST BATCH; THESE ARE NOT YOUR SAMPLE RESULTS

A23.2-TP Water(KL)

%RPD						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
TP	N/A	%	0	0.6	20	20151014.K23.2C
Method Blank						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
TP	0.002	mg/L	0	<0.002	0.006	20151014.K23.2C
Positive Control						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
TP	0.002	mg/L	0.04	0.0455	0.06	20151014.K23.2C
TP	0.002	mg/L	0.16	0.221	0.24	20151014.K23.2C
Sample Spike						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
TP	N/A	% Rec	75	109	125	20151014.K23.2C

A26-Colour

%RPD						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Colour (True)	N/A	%	0	0	20	20151013.T26A
CRM						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Colour (True)	1	TCU	34.2	42.6	51.3	20151013.T26A
Positive Control						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Colour (True)	1	TCU	60	69.9	80	20151013.T26A

A42-Ammonia Water(KL)

%RPD						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Ammonia	N/A	%	0	5.8	20	20151013.K42C



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Method Blank						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Ammonia	0.01	mg/L	0	<0.01	0.03	20151013.K42C
Positive Control						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Ammonia	0.01	mg/L	0.2	0.243	0.3	20151013.K42C
Sample Spike						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Ammonia	N/A	% Rec	75	84	125	20151013.K42C

A55-DOC Water

%RPD						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
DOC	N/A	%	0	0	20	20151013.T55A
Method Blank						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
DOC	0.4	mg/L	0	<0.4	1.2	20151013.T55A
Positive Control						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
DOC	0.4	mg/L	16	18.5	24	20151013.T55A
Sample Spike						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
DOC	N/A	% Rec	80	92.7	120	20151013.T55A

PHC F2-F4 Water

Surrogate						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
o-Terphenyl (Surr.)	N/A	% Rec	N/A	72	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	81	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	79	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	77	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	118	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	74	N/A	20151016.R59f2w3



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o-Terphenyl (Surr.)	N/A	% Rec	N/A	71	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	68	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	67	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	65	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	57	N/A	20151016.R59f2w3
o-Terphenyl (Surr.)	N/A	% Rec	N/A	76	N/A	20151016.R59f2w3

T01-Alkalinity

%RPD

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
M-ALK	N/A	%	0	4.2	20	20151015.T01A

Positive Control

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
M-ALK	2	mg/L as CaCO3	85	112	115	20151015.T01A

T02-pH Water

%RPD

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
pH	N/A	pH	0	0	0.2	20151015.T02B

Positive Control

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
pH	N/A	pH	7.86	8.02	8.14	20151015.T02B

T05-Anions Water

%RPD

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Bromide	N/A	%	0	N/A	20	20151016.T05A
Chloride	N/A	%	0	0	20	20151016.T05A
Fluoride	N/A	%	0	N/A	20	20151016.T05A
Nitrate	N/A	%	0	N/A	20	20151016.T05A
Nitrite	N/A	%	0	N/A	20	20151016.T05A
Sulfate	N/A	%	0	0.4	20	20151016.T05A



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Method Blank						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Bromide	0.05	mg/L	0	<0.05	0.15	20151016.T05A
Chloride	0.05	mg/L	0	<0.05	0.15	20151016.T05A
Fluoride	0.05	mg/L	0	<0.05	0.15	20151016.T05A
Nitrate	0.01	mg/L	0	<0.01	0.045	20151016.T05A
Nitrite	0.01	mg/L	0	<0.01	0.045	20151016.T05A
Sulfate	0.05	mg/L	0	<0.05	0.15	20151016.T05A
Positive Control						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Bromide	0.05	mg/L	20	26.1	30	20151016.T05A
Chloride	0.05	mg/L	8	9	12	20151016.T05A
Fluoride	0.05	mg/L	8	10.1	12	20151016.T05A
Nitrate	0.01	mg/L	1.8	1.94	2.7	20151016.T05A
Nitrite	0.01	mg/L	2.4	2.81	3.6	20151016.T05A
Sulfate	0.05	mg/L	20	22.4	30	20151016.T05A
Sample Spike						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Bromide		% Rec	70		130	20151016.T05A
Chloride	N/A	% Rec	70	86.2	130	20151016.T05A
Fluoride		% Rec	70		130	20151016.T05A
Nitrate		% Rec	70		130	20151016.T05A
Nitrite		% Rec	70		130	20151016.T05A
Sulfate	N/A	% Rec	70	86.5	130	20151016.T05A

T12-CONDWATER

%RPD						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
cond	N/A	%	0	0.5	20	20151015.T12A
Positive Control						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
cond	1	µS/cm	75	105	125	20151015.T12A



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T13-ICPMS Water

%RPD

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Ag	N/A	%	0	N/A	20	20151019.T13A
Ag	N/A	%	0	N/A	20	20151019.T13B
Al	N/A	%	0	N/A	20	20151019.T13B
Al	N/A	%	0	N/A	20	20151019.T13A
As	N/A	%	0	N/A	20	20151019.T13B
As	N/A	%	0	N/A	20	20151019.T13A
B	N/A	%	0	2	20	20151019.T13A
B	N/A	%	0	N/A	20	20151019.T13B
Ba	N/A	%	0	11	20	20151019.T13B
Ba	N/A	%	0	N/A	20	20151019.T13A
Ca	N/A	%	0	3	20	20151019.T13B
Ca	N/A	%	0	5	20	20151019.T13A
Cu	N/A	%	0	N/A	20	20151019.T13A
Cu	N/A	%	0	N/A	20	20151019.T13B
Fe	N/A	%	0	15	20	20151019.T13B
Fe	N/A	%	0	N/A	20	20151019.T13A
K	N/A	%	0	1	20	20151019.T13A
K	N/A	%	0	7	20	20151019.T13B
Mg	N/A	%	0	2	20	20151019.T13A
Mg	N/A	%	0	2	20	20151019.T13B
Mn	N/A	%	0	3	20	20151019.T13B
Mn	N/A	%	0	N/A	20	20151019.T13A
Mo	N/A	%	0	N/A	20	20151019.T13A
Mo	N/A	%	0	N/A	20	20151019.T13B
Na	N/A	%	0	0	20	20151019.T13A
Na	N/A	%	0	2	20	20151019.T13B
Ni	N/A	%	0	N/A	20	20151019.T13A
Ni	N/A	%	0	N/A	20	20151019.T13B
Sb	N/A	%	0	N/A	20	20151019.T13B
Sb	N/A	%	0	N/A	20	20151019.T13A



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Se	N/A	%	0	N/A	20	20151019.T13A
Se	N/A	%	0	N/A	20	20151019.T13B
Sr	N/A	%	0	2	20	20151019.T13B
Sr	N/A	%	0	8	20	20151019.T13A
Zn	N/A	%	0	N/A	20	20151019.T13A
Zn	N/A	%	0	N/A	20	20151019.T13B
Blank						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Ag	0.1	ug/L	0	<0.1	0.1	20151019.T13A
Ag	0.1	ug/L	0	<0.1	0.1	20151019.T13B
Al	1	ug/L	0	<1	1	20151019.T13A
Al	1	ug/L	0	<1	1	20151019.T13B
As	1	ug/L	0	<1	1	20151019.T13A
As	1	ug/L	0	<1	1	20151019.T13B
B	2	ug/L	0	<2	2	20151019.T13A
B	2	ug/L	0	<2	2	20151019.T13B
Ba	1	ug/L	0	<1	1	20151019.T13B
Ba	1	ug/L	0	<1	1	20151019.T13A
Ca	50	ug/L	0	<50	50	20151019.T13A
Ca	50	ug/L	0	<50	50	20151019.T13B
Cu	1	ug/L	0	<1	1	20151019.T13A
Cu	1	ug/L	0	<1	1	20151019.T13B
Fe	20	ug/L	0	<20	20	20151019.T13A
Fe	20	ug/L	0	<20	20	20151019.T13B
K	1	ug/L	0	<1	1	20151019.T13A
K	1	ug/L	0	<1	1	20151019.T13B
Mg	4	ug/L	0	<4	4	20151019.T13A
Mg	4	ug/L	0	<4	4	20151019.T13B
Mn	1	ug/L	0	<1	1	20151019.T13A
Mn	1	ug/L	0	<1	1	20151019.T13B
Mo	1	ug/L	0	<1	1	20151019.T13A
Mo	1	ug/L	0	<1	1	20151019.T13B
Na	1	ug/L	0	<1	1	20151019.T13B



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Na	1	ug/L	0	<1	1	20151019.T13A
Ni	1	ug/L	0	<1	1	20151019.T13A
Ni	1	ug/L	0	<1	1	20151019.T13B
Sb	0.5	ug/L	0	<0.5	0.5	20151019.T13A
Sb	0.5	ug/L	0	<0.5	0.5	20151019.T13B
Se	1	ug/L	0	<1	1	20151019.T13B
Se	1	ug/L	0	<1	1	20151019.T13A
Sr	1	ug/L	0	<1	1	20151019.T13A
Sr	1	ug/L	0	<1	1	20151019.T13B
Zn	1	ug/L	0	<1	1	20151019.T13A
Zn	1	ug/L	0	<1	1	20151019.T13B

CRM

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Al	1	ug/L	89.9	105	110.1	20151019.T13B
Al	1	ug/L	89.9	91.8	110.1	20151019.T13A
As	1	ug/L	8.78	10.4	12.4	20151019.T13A
As	1	ug/L	8.78	11.2	12.4	20151019.T13B
B	2	ug/L	63.4	75.2	94.7	20151019.T13A
B	2	ug/L	63.4	88.6	94.7	20151019.T13B
Ba	1	ug/L	7.12	7.8	8.7	20151019.T13A
Ba	1	ug/L	7.12	8.1	8.7	20151019.T13B
Ca	50	ug/L	365	440	599	20151019.T13B
Ca	50	ug/L	365	385	599	20151019.T13A
Cu	1	ug/L	13.6	16	17.6	20151019.T13B
Cu	1	ug/L	13.6	15.8	17.6	20151019.T13A
Fe	20	ug/L	24.1	26	31.6	20151019.T13B
Fe	20	ug/L	24.1	28	31.6	20151019.T13A
K	1	ug/L	362	425	446	20151019.T13A
K	1	ug/L	362	438	446	20151019.T13B
Mg	4	ug/L	41.5	46.6	50.1	20151019.T13A
Mg	4	ug/L	41.5	43.9	50.1	20151019.T13B
Mn	1	ug/L	5.27	5.7	6.43	20151019.T13B
Mn	1	ug/L	5.27	5.8	6.43	20151019.T13A



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Mo	1	ug/L	19.8	20.8	25.3	20151019.T13A
Mo	1	ug/L	19.8	23.7	25.3	20151019.T13B
Na	1	ug/L	190	250	268	20151019.T13A
Na	1	ug/L	190	265	268	20151019.T13B
Ni	1	ug/L	17.9	21.5	21.9	20151019.T13B
Ni	1	ug/L	17.9	19.8	21.9	20151019.T13A
Sb	0.5	ug/L	10.6	12.7	13.2	20151019.T13B
Sb	0.5	ug/L	10.6	12.2	13.2	20151019.T13A
Se	1	ug/L	52.2	57.7	64.9	20151019.T13A
Se	1	ug/L	52.2	61.3	64.9	20151019.T13B
Sr	1	ug/L	131	132	151	20151019.T13A
Sr	1	ug/L	131	147	151	20151019.T13B
Zn	1	ug/L	38.9	46	46.2	20151019.T13B
Zn	1	ug/L	38.9	45.4	46.2	20151019.T13A

Positive Control

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Al	N/A	%	80	101	120	20151019.T13B
Al	N/A	%	80	102	120	20151019.T13A
As	N/A	%	80	111	120	20151019.T13A
As	N/A	%	80	116	120	20151019.T13B
B	N/A	%	80	104	120	20151019.T13A
B	N/A	%	80	93	120	20151019.T13B
Ba	N/A	%	80	115	120	20151019.T13A
Ba	N/A	%	80	113	120	20151019.T13B
Ca	N/A	%	80	98	120	20151019.T13B
Ca	N/A	%	80	107	120	20151019.T13A
Cu	N/A	%	80	105	120	20151019.T13A
Cu	N/A	%	80	113	120	20151019.T13B
Fe	N/A	%	80	100	120	20151019.T13B
Fe	N/A	%	80	104	120	20151019.T13A
K	N/A	%	80	91	120	20151019.T13B
K	N/A	%	80	108	120	20151019.T13A
Mg	N/A	%	80	113	120	20151019.T13A



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Mg	N/A	%	80	91	120	20151019.T13B
Mn	N/A	%	80	108	120	20151019.T13A
Mn	N/A	%	80	82	120	20151019.T13B
Mo	N/A	%	80	100	120	20151019.T13A
Mo	N/A	%	80	100	120	20151019.T13B
Na	N/A	%	80	109	120	20151019.T13B
Na	N/A	%	80	106	120	20151019.T13A
Ni	N/A	%	80	109	120	20151019.T13B
Ni	N/A	%	80	102	120	20151019.T13A
Sb	N/A	%	80	112	120	20151019.T13A
Sb	N/A	%	80	119	120	20151019.T13B
Se	N/A	%	80	104	120	20151019.T13B
Se	N/A	%	80	109	120	20151019.T13A
Zn	N/A	%	80	111	120	20151019.T13A
Zn	N/A	%	80	96	120	20151019.T13B

Sample Spike

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Al	N/A	% Rec	70	104	130	20151019.T13A
Al	N/A	% Rec	70	106	130	20151019.T13B
As	N/A	% Rec	70	107	130	20151019.T13A
As	N/A	% Rec	70	111	130	20151019.T13B
B	N/A	% Rec	70	94	130	20151019.T13A
B	N/A	% Rec	70	94	130	20151019.T13B
Ba	N/A	% Rec	70	116	130	20151019.T13A
Ba	N/A	% Rec	70	92	130	20151019.T13B
Ca	N/A	% Rec	70	92	130	20151019.T13A
Ca	N/A	% Rec	70	92	130	20151019.T13B
Cu	N/A	% Rec	70	101	130	20151019.T13A
Cu	N/A	% Rec	70	101	130	20151019.T13B
Fe	N/A	% Rec	70	92	130	20151019.T13B
Fe	N/A	% Rec	70	98	130	20151019.T13A
Mg	N/A	% Rec	70	91	130	20151019.T13B
Mg	N/A	% Rec	70	98	130	20151019.T13A



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Mn	N/A	% Rec	70	83	130	20151019.T13B
Mn	N/A	% Rec	70	76	130	20151019.T13A
Mo	N/A	% Rec	70	92	130	20151019.T13B
Mo	N/A	% Rec	70	95	130	20151019.T13A
Ni	N/A	% Rec	70	95	130	20151019.T13A
Ni	N/A	% Rec	70	96	130	20151019.T13B
Sb	N/A	% Rec	70	122	130	20151019.T13A
Sb	N/A	% Rec	70	130	130	20151019.T13B
Se	N/A	% Rec	70	98	130	20151019.T13A
Se	N/A	% Rec	70	103	130	20151019.T13B
Zn	N/A	% Rec	70	90	130	20151019.T13A
Zn	N/A	% Rec	70	95	130	20151019.T13B

T21-Turbidity

%RPD

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Turbidity	N/A	%	0	5.8	20	20151015.T21A

CRM

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Turbidity	0.1	NTU	2.56	2.71	3.68	20151015.T21A

Method Blank

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
Turbidity	0.1	NTU	0	<0.1	0.3	20151015.T21A

T27-TDS

%RPD

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
TDS	N/A	%	0	2.2	20	20151013.T27A

CRM

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
TDS	30	mg/L	578	629	718	20151013.T27A

Method Blank

Parameter	MDL	Units	LCL	Result	UCL	QAQCID
TDS	3	mg/L	0	<3	6	20151013.T27A



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Positive Control						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
TDS	3	mg/L	160	191	240	20151013.T27A

VOC Water

Surrogate						
Parameter	MDL	Units	LCL	Result	UCL	QAQCID
1,2-Dichloroethane-d4 (Surr)	N/A	% Rec	N/A	84	N/A	20151015.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	% Rec	N/A	87	N/A	20151015.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	% Rec	N/A	85	N/A	20151015.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	% Rec	N/A	82	N/A	20151015.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	% Rec	N/A	81	N/A	20151015.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	% Rec	N/A	86	N/A	20151015.R14vw
1,2-Dichloroethane-d4 (Surr)	N/A	% Rec	N/A	83	N/A	20151015.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	% Rec	N/A	90	N/A	20151015.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	% Rec	N/A	91	N/A	20151015.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	% Rec	N/A	89	N/A	20151015.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	% Rec	N/A	88	N/A	20151015.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	% Rec	N/A	87	N/A	20151015.R14vw
1-Bromo-4-fluorobenzene (Surr.)	N/A	% Rec	N/A	95	N/A	20151015.R14vw
Toluene-d8 (Surr.)	N/A	% Rec	N/A	89	N/A	20151015.R14vw
Toluene-d8 (Surr.)	N/A	% Rec	N/A	83	N/A	20151015.R14vw
Toluene-d8 (Surr.)	N/A	% Rec	N/A	84	N/A	20151015.R14vw
Toluene-d8 (Surr.)	N/A	% Rec	N/A	85	N/A	20151015.R14vw
Toluene-d8 (Surr.)	N/A	% Rec	N/A	86	N/A	20151015.R14vw
Toluene-d8 (Surr.)	N/A	% Rec	N/A	87	N/A	20151015.R14vw
Toluene-d8 (Surr.)	N/A	% Rec	N/A	88	N/A	20151015.R14vw



TESTMARK Laboratories Ltd.

Committed to Quality and Service

CERTIFICATE OF ANALYSIS

Company: Whitewater Hydrogeology Ltd.

Work Order Number: 255446

LEGEND

% Rec	Surrogate compounds are added to the sample in some cases and the recovery is reported as a % recovered
Back	Background
EC	Escherichia coli
FC	Fecal Coliforms
HPC	Heterotrophic Plate Count
INT	Interferences are evident on the plate and therefore bacterial colonies cannot be properly counted (interferences can be anything that inhibit the proper growth and formation of target colonies)
LCL	Lower Control Limit
Matrix	If the matrix is a leachate, the sample was extracted according to Regulation 558
MDL	Method detection limit or minimum reporting limit
NDOGN	No Data, Overgrown with Non-Target
NDOGT	No Data, Overgrown with Target
TC	Total Coliforms
QAQCID	This is a unique reference to the quality control data set used to generate the reported value. Contact our lab for this information, as it is traceable through our LIMS.
UCL	Upper Control Limit

Any QC data is available on request.

For the analysis of Total Petroleum Hydrocarbons, the Chromatogram descended to the baseline at or before nC50; if F4G results are reported, they are not to be added to the C6 to C50 results.

BTEX and selected PAHs have been subtracted from the appropriate fractions only if the parameter names are F1-BTEX, F2-NAPTH, and F3-PAH, otherwise these compounds have not been subtracted from their respective fractions.

Data reported for organic analysis in soils samples are corrected for moisture content.

An "r" after the Lab ID indicates a laboratory replicate.