
Appendix 5.1.2.2A
Surface Water and Sediment Quality
2011 - 2013 Baseline Report
(Part 2 of 2)



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 17-MAY-12
Report Date: 29-MAY-12 14:38 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1149027
Project P.O. #: 2220
Job Reference: EC-63191
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1149027-1 12-4678 ~ WQ1 Sampled By: CLIENT on 15-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-MAY-12 26-MAY-12	R2372916 R2372917
L1149027-2 12-4679 ~ WQ4 Sampled By: CLIENT on 15-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-MAY-12 26-MAY-12	R2372916 R2372917
L1149027-3 12-4680 ~ WQ6 Sampled By: CLIENT on 15-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-MAY-12 26-MAY-12	R2372916 R2372917
L1149027-4 12-4681 ~ WQ7 Sampled By: CLIENT on 15-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-MAY-12 26-MAY-12	R2372916 R2372917
L1149027-5 12-4682 ~ WQ14 Sampled By: CLIENT on 15-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-MAY-12 26-MAY-12	R2372916 R2372917
L1149027-6 12-4683 ~ WQ DUPLICATE Sampled By: CLIENT on 15-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-MAY-12 26-MAY-12	R2372916 R2372917
L1149027-7 12-4684 ~FIELD BLANK Sampled By: CLIENT on 15-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-MAY-12 26-MAY-12	R2372916 R2372917

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1149027

Report Date: 29-MAY-12

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Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2372916							
WG1478423-10	DUP	L1151181-1						
Cyanide, Total		0.0200	0.0203		mg/L	1.4	20	26-MAY-12
WG1478423-6	DUP	L1149558-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-MAY-12
WG1478423-8	DUP	L1151296-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-MAY-12
WG1478423-2	LCS							
Cyanide, Total			89.0		%		80-120	26-MAY-12
WG1478423-3	LCS							
Cyanide, Total			91.9		%		80-120	26-MAY-12
WG1478423-4	LCS							
Cyanide, Total			89.7		%		80-120	26-MAY-12
WG1478423-5	LCS							
Cyanide, Total			92.3		%		80-120	26-MAY-12
WG1478423-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	26-MAY-12
WG1478423-12	MB							
Cyanide, Total			<0.0050		mg/L		0.005	26-MAY-12
WG1478423-11	MS	L1151181-1						
Cyanide, Total			90.4		%		70-130	26-MAY-12
WG1478423-7	MS	L1149558-1						
Cyanide, Total			100.2		%		70-130	26-MAY-12
WG1478423-9	MS	L1151296-4						
Cyanide, Total			82.4		%		70-130	26-MAY-12
CN-WAD-CFA-VA		Water						
Batch	R2372917							
WG1478430-10	DUP	L1151296-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-MAY-12
WG1478430-12	DUP	L1151181-1						
Cyanide, Weak Acid Diss		0.0054	<0.0050	RPD-NA	mg/L	N/A	20	26-MAY-12
WG1478430-3	DUP	L1148993-13						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-MAY-12
WG1478430-8	DUP	L1149558-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-MAY-12
WG1478430-15	LCS							
Cyanide, Weak Acid Diss			103.4		%		80-120	26-MAY-12
WG1478430-2	LCS							
Cyanide, Weak Acid Diss			101.6		%		80-120	26-MAY-12



Quality Control Report

Workorder: L1149027

Report Date: 29-MAY-12

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Client: AMEC EARTH & ENVIRONMENTAL
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2372917							
WG1478430-5	LCS							
	Cyanide, Weak Acid Diss		103.8		%		80-120	26-MAY-12
WG1478430-6	LCS							
	Cyanide, Weak Acid Diss		101.4		%		80-120	26-MAY-12
WG1478430-7	LCS							
	Cyanide, Weak Acid Diss		100.1		%		80-120	26-MAY-12
WG1478430-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-MAY-12
WG1478430-14	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-MAY-12
WG1478430-11	MS	L1151296-4						
	Cyanide, Weak Acid Diss		80.0		%		70-130	26-MAY-12
WG1478430-13	MS	L1151181-1						
	Cyanide, Weak Acid Diss		90.7		%		70-130	26-MAY-12
WG1478430-4	MS	L1148993-13						
	Cyanide, Weak Acid Diss		99.6		%		70-130	26-MAY-12
WG1478430-9	MS	L1149558-1						
	Cyanide, Weak Acid Diss		97.2		%		70-130	26-MAY-12

Quality Control Report

Workorder: L1149027

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63233
Project Number: VE52095
Project Name: NewGold Blackwater
Date Received: 2012/05/23
Date of Report: 2012/05/30
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4916	12-4916-D	12-4917	12-4918
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/05/22 0:00	Lab Duplicate	2012/05/22 0:00	2012/05/22 0:00
					MDL				
SR	2012/05/28	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	21	24	11	70
SR	2012/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.048	0.048	0.028	0.145
SR	2012/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.06	0.05	0.10
SR	2012/05/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	0.034	0.027
SR	2012/05/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.004	0.004	0.005	0.003
SR	2012/05/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.0	1.0	0.7	4.2
EL	2012/05/28	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	48	56	60	100
EL	2012/05/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	10	9	9	4
SR	2012/05/30	Turbidity	NTU	APHA 2130-b	0.1	2.1	2.2	0.9	1.5
SR	2012/05/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.7	0.6	1.1	1.4

Water Analysis

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4919	12-4920	12-4921	12-4922
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
SR	2012/05/28	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	54	12	11	13
SR	2012/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.113	0.033	0.033	0.032
SR	2012/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.06	0.07	0.05
SR	2012/05/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	0.005
SR	2012/05/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.005	0.004	0.005	0.004
SR	2012/05/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.6	1.1	0.7	0.8
EL	2012/05/28	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	84	44	60	60
EL	2012/05/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	10	3	< 2	< 2
SR	2012/05/30	Turbidity	NTU	APHA 2130-b	0.1	2.2	1.5	1.5	0.9
SR	2012/05/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.9	0.9	1.2	0.8

Water Analysis

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4923	12-4924	12-4925	12-4926
					Client ID:	WQ13	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
SR	2012/05/28	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	53	55	3	2
SR	2012/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.112	0.114	0.007	0.006
SR	2012/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.09	0.03	0.03
SR	2012/05/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
SR	2012/05/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	0.004	< 0.003	< 0.003
SR	2012/05/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.1	4.3	< 0.5	< 0.5
EL	2012/05/28	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	88	84	< 4	4
EL	2012/05/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	9	9	< 2	< 2
SR	2012/05/30	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.8	0.2	0.3
SR	2012/05/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.1	1.1	0.7	0.6

Water Analysis

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4916	12-4916-D	12-4917	12-4918
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/05/22 0:00	Lab Duplicate	2012/05/22 0:00	2012/05/22 0:00
					MDL				
EL	2012/05/28	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/24	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.9	11.3	12.5	8.2
RC	2012/05/24	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.0	11.3	12.5	8.3
SR	2012/05/25	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.039	0.040	0.024	< 0.003
RC	2012/05/28	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.026	0.023	0.008	0.006
EL	2012/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.23	---	0.24	0.23

Water Analysis

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4919	12-4920	12-4921	12-4922
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
EL	2012/05/28	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/24	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.4	12.9	19.5	10.4
RC	2012/05/24	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.4	12.9	19.6	10.4
SR	2012/05/25	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	0.050	0.038	0.027
RC	2012/05/28	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.007	0.009	0.010	0.005
EL	2012/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.20	0.19	0.25	0.15

Water Analysis

Project No. VE52095

 Final
 File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4923	12-4924	12-4925	12-4926
					Client ID:	WQ13	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
EL	2012/05/28	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/24	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.5	9.4	< 0.1	< 0.1
RC	2012/05/24	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.5	9.4	< 0.1	< 0.1
SR	2012/05/25	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	0.016	0.016
RC	2012/05/28	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.007	0.008	< 0.001	< 0.001
EL	2012/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.23	0.21	< 0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4916	12-4916-D	12-4917	12-4918
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/05/22 0:00	Lab Duplicate	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.247	0.247	0.313	0.029
RC	2012/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	0.00006	< 0.00005	< 0.00005
RC	2012/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0006	0.0006	0.0003	0.0005
RC	2012/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00506	0.00510	0.00381	0.00639
RC	2012/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	< 0.001	< 0.001	0.001
RC	2012/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0006	0.0006	< 0.0003	< 0.0003
RC	2012/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00006	0.00006	0.00004	< 0.00002
RC	2012/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0004	0.0033
RC	2012/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.3200	0.3200	0.2250	0.0643
RC	2012/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00011	0.00005	0.00013
RC	2012/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01230	0.01220	0.00895	0.03180
RC	2012/05/29	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00029	0.00029	0.00010	0.00053
RC	2012/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00008	0.00019	0.00020
RC	2012/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.041800	0.041800	0.020600	0.095900
RC	2012/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0068	0.0067	0.0058	0.0011
RC	2012/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00017	0.00010	0.00009
RC	2012/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0012	0.0012	0.0003	0.0001
RC	2012/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0095	0.0093	0.0035	0.0060

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4919	12-4920	12-4921	12-4922
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.145	0.335	0.544	0.202
RC	2012/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0004	0.0001	0.0001
RC	2012/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00761	0.00640	0.00681	0.00580
RC	2012/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0004	< 0.0003
RC	2012/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00002	0.00004	< 0.00002
RC	2012/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0019	0.0004	0.0091	0.0007
RC	2012/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2350	0.2190	0.2650	0.1510
RC	2012/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	0.00008	0.00043	< 0.00005
RC	2012/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02840	0.00836	0.00366	0.00794
RC	2012/05/29	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00050	0.00016	0.00006	0.00023
RC	2012/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	0.00029	0.00023	0.00006
RC	2012/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.079100	0.032700	0.032400	0.035400
RC	2012/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0051	0.0058	0.0063	0.0030
RC	2012/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00013	0.00015	0.00019
RC	2012/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0003	0.0005	0.0001
RC	2012/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0030	0.0029	0.0070	0.0030

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4923	12-4924	12-4925	12-4926
					Client ID:	WQ13	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.187	0.210	< 0.002	< 0.002
RC	2012/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	< 0.0001	< 0.0001
RC	2012/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00814	0.00812	< 0.00005	< 0.00005
RC	2012/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00005	< 0.00002	< 0.00002
RC	2012/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0004	< 0.0001	< 0.0001
RC	2012/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2610	0.2810	< 0.0001	< 0.0001
RC	2012/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
RC	2012/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02760	0.02930	< 0.00005	< 0.00005
RC	2012/05/29	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00048	0.00050	< 0.00005	< 0.00005
RC	2012/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00020	< 0.00005	< 0.00005
RC	2012/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.079600	0.079600	< 0.000005	< 0.000005
RC	2012/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0074	0.0076	< 0.0002	< 0.0002
RC	2012/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00011	< 0.00005	< 0.00005
RC	2012/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0006	< 0.0001	< 0.0001
RC	2012/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0005	< 0.0005	< 0.0005

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4916	12-4916-D	12-4917	12-4918
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/05/22 0:00	Lab Duplicate	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.119	0.119	0.199	0.010
RC	2012/05/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0004	0.0002	0.0004
RC	2012/05/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00390	0.00376	0.00290	0.00584
RC	2012/05/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/05/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0005	0.0004	< 0.0003	< 0.0003
RC	2012/05/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00004	0.00003	< 0.00002
RC	2012/05/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0006	0.0006	0.0003	0.0033
RC	2012/05/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1340	0.1320	0.1250	0.0222
RC	2012/05/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00013
RC	2012/05/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00391	0.00402	0.00257	0.01610
RC	2012/05/29	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	0.00013	< 0.00005	0.00033
RC	2012/05/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00022	0.00019	0.00020
RC	2012/05/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.038800	0.038100	0.019600	0.095100
RC	2012/05/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0020	0.0022	0.0020	0.0002
RC	2012/05/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00009	0.00005	0.00006
RC	2012/05/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00086	0.00082	0.00022	0.00011
RC	2012/05/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0095	0.0093	0.0035	0.0060
SR	2012/05/28	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.43	7.41	7.04	7.97

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4919	12-4920	12-4921	12-4922
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.048	0.226	0.428	0.152
RC	2012/05/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0002	< 0.0001	< 0.0001
RC	2012/05/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00668	0.00528	0.00593	0.00511
RC	2012/05/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/05/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	0.0004	< 0.0003
RC	2012/05/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00004	< 0.00002
RC	2012/05/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0019	0.0003	0.0091	0.0007
RC	2012/05/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0778	0.1240	0.1970	0.1000
RC	2012/05/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	< 0.00005	0.00043	< 0.00005
RC	2012/05/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01440	0.00271	0.00219	0.00370
RC	2012/05/29	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00035	0.00008	< 0.00005	0.00010
RC	2012/05/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00038	0.00029	0.00023	0.00006
RC	2012/05/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.079100	0.030000	0.031300	0.033100
RC	2012/05/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0008	0.0028	0.0052	0.0021
RC	2012/05/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00010	0.00014	0.00017
RC	2012/05/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00027	0.00022	0.00050	0.00014
RC	2012/05/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0030	0.0029	0.0070	0.0030
SR	2012/05/28	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.88	7.15	7.05	7.14

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4923	12-4924	12-4925	12-4926
					Client ID:	WQ13	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.050	0.045	< 0.002	< 0.002
RC	2012/05/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004	< 0.0001	< 0.0001
RC	2012/05/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00666	0.00664	< 0.00005	< 0.00005
RC	2012/05/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/05/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/05/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	< 0.0001	< 0.0001
RC	2012/05/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0794	0.0807	< 0.0001	< 0.0001
RC	2012/05/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01450	0.01470	< 0.00005	< 0.00005
RC	2012/05/29	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00035	0.00035	< 0.00005	< 0.00005
RC	2012/05/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00022	0.00020	< 0.00005	< 0.00005
RC	2012/05/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.079600	0.079000	< 0.000005	< 0.000005
RC	2012/05/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0009	0.0012	< 0.0002	< 0.0002
RC	2012/05/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00007	< 0.00005	< 0.00005
RC	2012/05/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00023	0.00026	< 0.00005	< 0.00005
RC	2012/05/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
SR	2012/05/28	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.83	7.86	6.73	6.31

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4916	12-4916-D	12-4917	12-4918
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/05/22 0:00	Lab Duplicate	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.8	5.7	2.8	18.6
RC	2012/05/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.29	1.27	0.75	4.48
RC	2012/05/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	0.02	< 0.01	< 0.01
RC	2012/05/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
RC	2012/05/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.54	5.45	4.12	4.38
RC	2012/05/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.0	2.0	1.5	3.6
SR	2012/05/28	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	19.7	19.4	10.1	64.8

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4919	12-4920	12-4921	12-4922
					Client ID:	WO9	WO10	WO11	WO12
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.4	3.9	4.4	4.1
RC	2012/05/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.23	0.75	0.81	0.64
RC	2012/05/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.01	< 0.01
RC	2012/05/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/05/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.58	4.45	4.95	3.54
RC	2012/05/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	1.6	1.6	1.3
SR	2012/05/28	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	49.4	12.7	14.3	12.9

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4923	12-4924	12-4925	12-4926
					Client ID:	WQ13	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.4	14.2	< 0.5	< 0.5
RC	2012/05/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.15	3.20	< 0.50	< 0.50
RC	2012/05/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/05/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.7	< 0.5	< 0.5
RC	2012/05/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.60	4.64	< 0.01	< 0.01
RC	2012/05/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	2.9	< 0.5	< 0.5
SR	2012/05/28	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	48.9	48.6	< 6.0	< 6.0

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4916	12-4916-D	12-4917	12-4918
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/05/22 0:00	Lab Duplicate	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.1	6.1	3.0	19.6
RC	2012/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.47	1.48	0.82	4.69
RC	2012/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.04	0.04	< 0.02	0.02
RC	2012/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
RC	2012/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.54	5.45	4.12	4.38
RC	2012/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.1	2.1	1.6	3.6
SR	2012/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	21.3	21.4	10.8	68.2

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63233

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4919	12-4920	12-4921	12-4922
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	15.0	4.1	4.6	4.4
RC	2012/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.53	0.82	0.90	0.71
RC	2012/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.58	4.45	4.95	3.54
RC	2012/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.9	1.6	1.7	1.4
SR	2012/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	52.1	13.7	15.1	13.9

Water Analysis - Total Metals

Project No. VE52095		Final File No. EC-63233							
Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-4923	12-4924	12-4925	12-4926
					Client ID:	WQ13	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00	2012/05/22 0:00
					MDL				
RC	2012/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	15.2	15.1	< 0.5	< 0.5
RC	2012/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.55	3.58	< 0.50	< 0.50
RC	2012/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.02	0.03	< 0.02	< 0.02
RC	2012/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	0.7	< 0.5	< 0.5
RC	2012/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.60	4.64	< 0.01	< 0.01
RC	2012/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.9	2.9	< 0.5	< 0.5
SR	2012/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	52.6	52.5	< 6.0	< 6.0

Quality Control Standard

Project No.

File No. EC-63233

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
SR	2012/05/28	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	62	56-77	65.00	QC-ALK/F-46
SR	2012/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.78	2.54-2.94	2.79	CC-EC-0.02M-41
SR	2012/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.49	0.44-0.58	0.50	QC-ALK/F-46
SR	2012/05/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.74	1.44-1.76	1.60	CC-Anion-117B
SR	2012/05/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.624	0.54-0.66	0.60	CC-Anion-117B
SR	2012/05/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	30.1	25.2-30.8	28.00	CC-Anion-117B
EL	2012/05/28	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	700	628-1059	844.00	OCP-E2-SLD02008
EL	2012/05/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	26	26-36	31.00	OCP-E2-SLD02008
SR	2012/05/30	Turbidity	NTU	APHA 2130-b	0.1	11	8.5-11.5	10.00	QC-Turb-5
SR	2012/05/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.4	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/05/28	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.58	0.47-0.74	0.61	NH3SC-001
RC	2012/05/24	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.8	3.3-4.3	3.80	DMD-TOC-90-Low
RC	2012/05/24	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	39.2	33.1-42.6	37.90	DMD-TOC-90-Mid
SR	2012/05/25	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.865	0.72-0.88	0.80	CC-Anion-116BL
RC	2012/05/28	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	254	225-275	250.00	MS-CCV-HIGH
EL	2012/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	9.59	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/28	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	52.2	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	98.6	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/28	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	99.9	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/28	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.5	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	52.4	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.4	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	53.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/28	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	51.9	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/05/28	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	48.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/29	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.285000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/05/28	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	51.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.6	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.4	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/05/28	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.9	45-55	50.00	MS-CCV-HIGH

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Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/28	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	247	225-275	250.00	MS-CCV-HIGH
RC	2012/05/28	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	254	225-275	250.00	MS-CCV-HIGH
RC	2012/05/28	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	97.4	90-110	100.00	MS-CCV-HIGH
RC	2012/05/28	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	50.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.6	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/23	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	50.8	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/23	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	98.7	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/23	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	50.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	53.0	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	49.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	50.8	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.7	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/23	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.4	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/05/23	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/29	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.285000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/05/23	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	50.3	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.7	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/05/23	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	48.9	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	253	225-275	250.00	MS-CCV-HIGH
RC	2012/05/23	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	258	225-275	250.00	MS-CCV-HIGH
RC	2012/05/23	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	102	90-110	100.00	MS-CCV-HIGH
RC	2012/05/23	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	49.7	45.0-55.0	50.00	MS-CCV-HIGH
SR	2012/05/28	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.05	5.92-6.08	6.00	QC-pH-3

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/23	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/23	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25600	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/23	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	256	225-275	250.00	MS-CCV-HIGH

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Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/23	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/05/23	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
RC	2012/05/23	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25900	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/28	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	26000	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/28	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26100	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/28	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	254	225-275	250.00	MS-CCV-HIGH
RC	2012/05/28	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/05/28	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
RC	2012/05/28	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26300	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095

File No. EC-63233

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63237
Project Number: VE52095
Project Name: NewGold Blackwater
Date Received: 2012/05/24
Date of Report: 2012/05/31
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5025	12-5025-D	12-5026	12-5027
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/05/23 0:00	Lab Duplicate	2012/05/23 0:00	2012/05/23 0:00
					MDL				
SR	2012/05/25	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	5	5	8	12
SR	2012/05/25	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.026	0.027	0.046	0.031
SR	2012/05/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.07	0.09	0.07
SR	2012/05/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	0.011
SR	2012/05/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	0.003	0.007	< 0.003
SR	2012/05/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.4	1.6	7.2	1.0
EL	2012/05/28	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	56	64	68	40
EL	2012/05/28	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	6	< 2
JL	2012/05/31	Turbidity	NTU	APHA 2130-b	0.1	3.1	3.1	7.4	2.6
SR	2012/05/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.4	1.4	2.0	1.1

Water Analysis

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5028	12-5029
					Client ID:	WQ7	WQ14
					Sample Date:	2012/05/23 0:00	2012/05/23 0:00
					MDL		
SR	2012/05/25	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	17	50
SR	2012/05/25	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.045	0.104
SR	2012/05/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.09
SR	2012/05/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.008	0.006
SR	2012/05/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
SR	2012/05/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.4	2.5
EL	2012/05/28	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	60	80
EL	2012/05/28	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	26	2
JL	2012/05/31	Turbidity	NTU	APHA 2130-b	0.1	11	2.3
SR	2012/05/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.0	1.2

Water Analysis

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5025	12-5025-D	12-5026	12-5027
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/05/23 0:00	Lab Duplicate	2012/05/23 0:00	2012/05/23 0:00
					MDL				
EL	2012/05/28	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/24	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	16.0	16.2	14.3	11.3
RC	2012/05/24	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	16.0	16.2	14.5	11.5
SR	2012/05/25	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.018	0.018	0.031	0.040
RC	2012/05/28	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.010	0.011	0.012	0.006
EL	2012/05/29	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.37	0.34	0.63	0.15

Water Analysis

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5028	12-5029
					Client ID:	WQ7	WQ14
					Sample Date:	2012/05/23 0:00	2012/05/23 0:00
					MDL		
EL	2012/05/28	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02
RC	2012/05/24	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.6	11.1
RC	2012/05/24	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.6	11.1
SR	2012/05/25	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.046	< 0.003
RC	2012/05/28	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.009	0.006
EL	2012/05/29	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.33	0.26

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5025	12-5025-D	12-5026	12-5027
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/05/23 0:00	Lab Duplicate	2012/05/23 0:00	2012/05/23 0:00
					MDL				
RC	2012/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.458	0.463	0.644	0.262
RC	2012/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00008	0.00017	< 0.00005
RC	2012/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0023	0.0005
RC	2012/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00542	0.00542	0.00572	0.00648
RC	2012/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000087	< 0.000015
RC	2012/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00004	0.00008	< 0.00002
RC	2012/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0006	0.0004
RC	2012/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2940	0.2980	0.4650	0.1770
RC	2012/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00006	0.00064	0.00009
RC	2012/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01150	0.01170	0.04560	0.00722
RC	2012/05/29	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00006	< 0.00005	0.00021
RC	2012/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00022	0.00026	0.00018
RC	2012/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.023900	0.024000	0.032600	0.031400
RC	2012/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0078	0.0081	0.0109	0.0038
RC	2012/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00013	0.00013	0.00007	0.00017
RC	2012/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0005	0.0002
RC	2012/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0047	0.0048	0.0562	0.0028

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5028	12-5029
					Client ID:	WQ7	WQ14
					Sample Date:	2012/05/23 0:00	2012/05/23 0:00
					MDL		
RC	2012/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.617	0.035
RC	2012/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005
RC	2012/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0002
RC	2012/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00923	0.00771
RC	2012/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
RC	2012/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015
RC	2012/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0008	< 0.0003
RC	2012/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00018	< 0.00002
RC	2012/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0002
RC	2012/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.5950	0.1440
RC	2012/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	< 0.00005
RC	2012/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
RC	2012/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02210	0.00447
RC	2012/05/29	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2012/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00026	0.00047
RC	2012/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00048	< 0.00005
RC	2012/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006
RC	2012/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.040300	0.070300
RC	2012/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0200	0.0008
RC	2012/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	< 0.00005
RC	2012/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0013	0.0001
RC	2012/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0076	0.0015

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5025	12-5025-D	12-5026	12-5027
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/05/23 0:00	Lab Duplicate	2012/05/23 0:00	2012/05/23 0:00
					MDL				
RC	2012/05/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.288	0.284	0.292	0.201
RC	2012/05/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00008	0.00017	< 0.00005
RC	2012/05/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004	0.0013	0.0004
RC	2012/05/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00413	0.00402	0.00281	0.00567
RC	2012/05/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000043	< 0.000015
RC	2012/05/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/05/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0004	0.0004	0.0003
RC	2012/05/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1570	0.1580	0.1520	0.1100
RC	2012/05/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00008	< 0.00005
RC	2012/05/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00674	0.00673	0.00744	0.00196
RC	2012/05/29	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00005	< 0.00005	0.00019
RC	2012/05/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.022500	0.022500	0.030500	0.030100
RC	2012/05/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0024	0.0025	0.0036	0.0025
RC	2012/05/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	0.00012	0.00005	0.00014
RC	2012/05/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00021	0.00012	0.00017
RC	2012/05/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0056	0.0056	0.0506	0.0028
SR	2012/05/25	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.73	6.88	7.02	7.14

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5028	12-5029
					Client ID:	WQ7	WQ14
					Sample Date:	2012/05/23 0:00	2012/05/23 0:00
					MDL		
RC	2012/05/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.189	0.020
RC	2012/05/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	< 0.00005
RC	2012/05/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0002
RC	2012/05/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00511	0.00742
RC	2012/05/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2012/05/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015
RC	2012/05/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003
RC	2012/05/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002
RC	2012/05/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0002
RC	2012/05/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1400	0.1010
RC	2012/05/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2012/05/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00625	0.00194
RC	2012/05/29	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2012/05/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00040
RC	2012/05/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006
RC	2012/05/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.037500	0.068000
RC	2012/05/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/05/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/05/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0025	0.0005
RC	2012/05/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	< 0.00005
RC	2012/05/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00044	0.00014
RC	2012/05/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0076	0.0015
SR	2012/05/25	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.40	7.83

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5025	12-5025-D	12-5026	12-5027
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/05/23 0:00	Lab Duplicate	2012/05/23 0:00	2012/05/23 0:00
					MDL				
RC	2012/05/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	2.6	2.6	5.2	3.8
RC	2012/05/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.57	0.57	0.88	0.65
RC	2012/05/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.01	0.01	0.01	< 0.01
RC	2012/05/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/05/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.52	4.43	4.70	4.53
RC	2012/05/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	1.7	2.0	1.5
RC	2012/05/27	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	8.7	8.7	16.7	12.2

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5028	12-5029
					Client ID:	WQ7	WQ14
					Sample Date:	2012/05/23 0:00	2012/05/23 0:00
					MDL		
RC	2012/05/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.7	13.7
RC	2012/05/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.32	3.01
RC	2012/05/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01
RC	2012/05/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.6
RC	2012/05/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.95	5.55
RC	2012/05/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.0	2.9
RC	2012/05/27	D-Hardness as CaCO ₃	mg/L (ppm)	Calculation	6.0	19.7	46.6

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5025	12-5025-D	12-5026	12-5027
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/05/23 0:00	Lab Duplicate	2012/05/23 0:00	2012/05/23 0:00
					MDL				
RC	2012/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.7	2.7	5.5	3.9
RC	2012/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.59	0.60	0.94	0.66
RC	2012/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	0.02	< 0.02
RC	2012/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.52	4.43	4.70	4.53
RC	2012/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.7	2.0	1.5
RC	2012/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	9.1	9.1	17.5	12.5

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63237

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5028	12-5029
					Client ID:	WQ7	WQ14
					Sample Date:	2012/05/23 0:00	2012/05/23 0:00
					MDL		
RC	2012/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.9	14.0
RC	2012/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.40	3.02
RC	2012/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.03	< 0.02
RC	2012/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.6
RC	2012/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.95	5.55
RC	2012/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.0	2.9
RC	2012/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	20.6	47.3

Quality Control Standard

Project No.

File No. EC-63237

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
SR	2012/05/25	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	64	56-77	65.00	QC-ALK/F-46
SR	2012/05/25	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.79	2.54-2.94	2.79	CC-EC-0.02M-41
SR	2012/05/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.53	0.44-0.58	0.50	QC-ALK/F-46
SR	2012/05/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.74	1.44-1.76	1.60	CC-Anion-117B
SR	2012/05/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.624	0.54-0.66	0.60	CC-Anion-117B
SR	2012/05/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	28.7	25.2-30.8	28.00	CC-Anion-117B
EL	2012/05/28	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	700	628-1059	844.00	OCP-E2-SLD02008
EL	2012/05/28	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	26	26-36	31.00	OCP-E2-SLD02008
JL	2012/05/31	Turbidity	NTU	APHA 2130-b	0.1	17	14.53-19.49	17.01	D2-TURB01052
SR	2012/05/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.4	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/05/28	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.58	0.47-0.74	0.61	NH3SC-001
RC	2012/05/24	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	39.2	33.1-42.6	37.90	DMD-TOC-90-Mid
RC	2012/05/24	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	39.2	33.1-42.6	37.90	DMD-TOC-90-Mid
SR	2012/05/25	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.865	0.72-0.88	0.80	CC-Anion-116BL
RC	2012/05/28	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	254	225-275	250.00	MS-CCV-HIGH
EL	2012/05/29	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	9.59	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/28	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	52.2	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	98.6	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/28	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	99.9	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/28	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.5	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	52.4	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.4	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	53.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/28	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	51.9	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/05/28	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	48.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/29	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.285000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/05/28	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	51.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.6	45-55	50.00	MS-CCV-HIGH
RC	2012/05/28	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.4	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/05/28	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.9	45-55	50.00	MS-CCV-HIGH

Quality Control Standard

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File No. EC-63237

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/28	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	247	225-275	250.00	MS-CCV-HIGH
RC	2012/05/28	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	254	225-275	250.00	MS-CCV-HIGH
RC	2012/05/28	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	97.4	90-110	100.00	MS-CCV-HIGH
RC	2012/05/28	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	50.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/28	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.6	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/23	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	52.0	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/23	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	99.4	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/23	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	48.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	53.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	51.0	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	53.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	99.1	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/23	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	51.3	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/05/23	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/29	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.285000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/05/23	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	51.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	48.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.6	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/05/23	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	49.6	45-55	50.00	MS-CCV-HIGH
RC	2012/05/23	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	246	225-275	250.00	MS-CCV-HIGH
RC	2012/05/23	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	252	225-275	250.00	MS-CCV-HIGH
RC	2012/05/23	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	94.0	90-110	100.00	MS-CCV-HIGH
RC	2012/05/23	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/23	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	48.8	45.0-55.0	50.00	MS-CCV-HIGH
SR	2012/05/25	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.07	5.92-6.08	6.00	QC-pH-3

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/23	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/23	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	26200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/23	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	263	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63237

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/23	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/05/23	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	121	105-129	117.00	MS-CCV-HIGH
RC	2012/05/23	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	26100	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/28	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	26000	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/28	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26100	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/28	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	254	225-275	250.00	MS-CCV-HIGH
RC	2012/05/28	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/05/28	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
RC	2012/05/28	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26300	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095

File No. EC-63237

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 23-MAY-12
Report Date: 31-MAY-12 15:00 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1150853
Project P.O. #: 2220
Job Reference: EC-63233
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1150853-1 12-4916~WQ3 Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		29-MAY-12 29-MAY-12	R2373786 R2373787
L1150853-2 12-4917~WQ5 Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		29-MAY-12 29-MAY-12	R2373786 R2373787
L1150853-3 12-4918~WQ8 Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		29-MAY-12 29-MAY-12	R2373786 R2373787
L1150853-4 12-4919~WQ9 Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		29-MAY-12 29-MAY-12	R2373786 R2373787
L1150853-5 12-4920~WQ10 Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		29-MAY-12 29-MAY-12	R2373786 R2373787
L1150853-6 12-4921~WQ11 Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		29-MAY-12 29-MAY-12	R2373786 R2373787
L1150853-7 12-4922~WQ12 Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		29-MAY-12 29-MAY-12	R2373786 R2373787
L1150853-8 12-4923~WQ13 Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		29-MAY-12 29-MAY-12	R2373786 R2373787
L1150853-9 12-4924~WQ DUPLICATE Sampled By: CLIENT on 22-MAY-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1150853-9 12-4924-WQ DUPLICATE Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 29-MAY-12 29-MAY-12	 R2373786 R2373787
L1150853-10 12-4925-FIELD BLANK Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 29-MAY-12 29-MAY-12	 R2373786 R2373787
L1150853-11 12-4926-TRIP BLANK Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 29-MAY-12 29-MAY-12	 R2373786 R2373787

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1150853

Report Date: 31-MAY-12

Page 1 of 4

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2373786							
WG1479732-13	DUP	L1151693-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479732-16	DUP	L1150853-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479732-19	DUP	L1150914-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479732-4	DUP	L1149614-3						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479732-7	DUP	L1148880-9						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479732-12	LCS							
Cyanide, Total			92.8		%		80-120	29-MAY-12
WG1479732-15	LCS							
Cyanide, Total			89.3		%		80-120	29-MAY-12
WG1479732-18	LCS							
Cyanide, Total			92.3		%		80-120	29-MAY-12
WG1479732-2	LCS							
Cyanide, Total			88.7		%		80-120	29-MAY-12
WG1479732-22	LCS							
Cyanide, Total			88.5		%		80-120	29-MAY-12
WG1479732-3	LCS							
Cyanide, Total			89.7		%		80-120	29-MAY-12
WG1479732-6	LCS							
Cyanide, Total			91.8		%		80-120	29-MAY-12
WG1479732-9	LCS							
Cyanide, Total			90.1		%		80-120	29-MAY-12
WG1479732-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	29-MAY-12
WG1479732-21	MB							
Cyanide, Total			<0.0050		mg/L		0.005	29-MAY-12
WG1479732-14	MS	L1151693-2						
Cyanide, Total			99.4		%		70-130	29-MAY-12
WG1479732-17	MS	L1150853-1						
Cyanide, Total			99.0		%		70-130	29-MAY-12
WG1479732-20	MS	L1150914-4						
Cyanide, Total			101.3		%		70-130	29-MAY-12
WG1479732-5	MS	L1149614-3						
Cyanide, Total			99.7		%		70-130	29-MAY-12



Quality Control Report

Workorder: L1150853

Report Date: 31-MAY-12

Page 2 of 4

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2373786							
WG1479732-8 MS		L1148880-9						
Cyanide, Total			98.3		%		70-130	29-MAY-12
CN-WAD-CFA-VA								
	Water							
Batch	R2373787							
WG1479735-14 DUP		L1150853-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479735-17 DUP		L1150914-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479735-4 DUP		L1149614-3						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479735-7 DUP		L1148880-9						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	29-MAY-12
WG1479735-12 LCS								
Cyanide, Weak Acid Diss			105.2		%		80-120	29-MAY-12
WG1479735-13 LCS								
Cyanide, Weak Acid Diss			104.4		%		80-120	29-MAY-12
WG1479735-16 LCS								
Cyanide, Weak Acid Diss			102.0		%		80-120	29-MAY-12
WG1479735-2 LCS								
Cyanide, Weak Acid Diss			99.6		%		80-120	29-MAY-12
WG1479735-20 LCS								
Cyanide, Weak Acid Diss			109.2		%		80-120	29-MAY-12
WG1479735-3 LCS								
Cyanide, Weak Acid Diss			105.0		%		80-120	29-MAY-12
WG1479735-6 LCS								
Cyanide, Weak Acid Diss			104.2		%		80-120	29-MAY-12
WG1479735-9 LCS								
Cyanide, Weak Acid Diss			104.1		%		80-120	29-MAY-12
WG1479735-1 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	29-MAY-12
WG1479735-19 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	29-MAY-12
WG1479735-15 MS		L1150853-1						
Cyanide, Weak Acid Diss			102.7		%		70-130	29-MAY-12
WG1479735-18 MS		L1150914-4						
Cyanide, Weak Acid Diss			101.6		%		70-130	29-MAY-12
WG1479735-5 MS		L1149614-3						



Quality Control Report

Workorder: L1150853

Report Date: 31-MAY-12

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Client: AMEC EARTH & ENVIRONMENTAL
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2373787							
WG1479735-5 MS		L1149614-3						
Cyanide, Weak Acid Diss			102.7		%		70-130	29-MAY-12
WG1479735-8 MS		L1148880-9						
Cyanide, Weak Acid Diss			98.4		%		70-130	29-MAY-12

Quality Control Report

Workorder: L1150853

Report Date: 31-MAY-12

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 4 of 4

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 24-MAY-12
Report Date: 04-JUN-12 13:06 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1151662
Project P.O. #: 2220
Job Reference: EC-63237
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1151662-1 WQ1~(12-5025) Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-MAY-12 31-MAY-12	R2375283 R2375285
L1151662-2 WQ4~(12-5026) Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-MAY-12 31-MAY-12	R2375283 R2375285
L1151662-3 WQ6~(12-5027) Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-MAY-12 31-MAY-12	R2375283 R2375285
L1151662-4 WQ7~(125028) Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-MAY-12 31-MAY-12	R2375283 R2375285
L1151662-5 WQ14~(12-5029) Sampled By: CLIENT on 22-MAY-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-MAY-12 31-MAY-12	R2375283 R2375285

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:
GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1151662

Report Date: 04-JUN-12

Page 1 of 4

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2375283							
WG1481342-11	DUP	L1153141-9						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481342-14	DUP	L1152565-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481342-17	DUP	L1153667-11						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481342-3	DUP	L1151662-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481342-10	LCS							
Cyanide, Total			89.0		%		80-120	31-MAY-12
WG1481342-13	LCS							
Cyanide, Total			89.0		%		80-120	31-MAY-12
WG1481342-16	LCS							
Cyanide, Total			87.6		%		80-120	31-MAY-12
WG1481342-19	LCS							
Cyanide, Total			87.2		%		80-120	31-MAY-12
WG1481342-2	LCS							
Cyanide, Total			86.3		%		80-120	31-MAY-12
WG1481342-5	LCS							
Cyanide, Total			86.9		%		80-120	31-MAY-12
WG1481342-6	LCS							
Cyanide, Total			87.6		%		80-120	31-MAY-12
WG1481342-9	LCS							
Cyanide, Total			87.0		%		80-120	31-MAY-12
WG1481342-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	31-MAY-12
WG1481342-20	MB							
Cyanide, Total			<0.0050		mg/L		0.005	31-MAY-12
WG1481342-12	MS	L1153141-9						
Cyanide, Total			98.2		%		70-130	31-MAY-12
WG1481342-15	MS	L1152565-1						
Cyanide, Total			95.8		%		70-130	31-MAY-12
WG1481342-18	MS	L1153667-11						
Cyanide, Total			98.8		%		70-130	31-MAY-12
WG1481342-4	MS	L1151662-1						
Cyanide, Total			97.6		%		70-130	31-MAY-12
CN-WAD-CFA-VA		Water						



Quality Control Report

Workorder: L1151662

Report Date: 04-JUN-12

Page 2 of 4

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2375285							
WG1481350-12	DUP	L1151057-6						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481350-15	DUP	L1153141-9						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481350-19	DUP	L1153667-11						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481350-3	DUP	L1151662-1						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481350-6	DUP	L1152347-8						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-MAY-12
WG1481350-11	LCS							
	Cyanide, Weak Acid Diss		99.96		%		80-120	31-MAY-12
WG1481350-14	LCS							
	Cyanide, Weak Acid Diss		100.6		%		80-120	31-MAY-12
WG1481350-17	LCS							
	Cyanide, Weak Acid Diss		99.5		%		80-120	31-MAY-12
WG1481350-18	LCS							
	Cyanide, Weak Acid Diss		100.0		%		80-120	31-MAY-12
WG1481350-2	LCS							
	Cyanide, Weak Acid Diss		101.1		%		80-120	31-MAY-12
WG1481350-21	LCS							
	Cyanide, Weak Acid Diss		100.1		%		80-120	31-MAY-12
WG1481350-5	LCS							
	Cyanide, Weak Acid Diss		100.9		%		80-120	31-MAY-12
WG1481350-8	LCS							
	Cyanide, Weak Acid Diss		101.4		%		80-120	31-MAY-12
WG1481350-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	31-MAY-12
WG1481350-22	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	31-MAY-12
WG1481350-13	MS	L1151057-6						
	Cyanide, Weak Acid Diss		100.0		%		70-130	31-MAY-12
WG1481350-16	MS	L1153141-9						
	Cyanide, Weak Acid Diss		99.4		%		70-130	31-MAY-12
WG1481350-20	MS	L1153667-11						
	Cyanide, Weak Acid Diss		101.3		%		70-130	31-MAY-12
WG1481350-4	MS	L1151662-1						
	Cyanide, Weak Acid Diss		100.9		%		70-130	31-MAY-12



Quality Control Report

Workorder: L1151662

Report Date: 04-JUN-12

Page 3 of 4

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2375285							
WG1481350-4 MS		L1151662-1						
Cyanide, Weak Acid Diss			100.9		%		70-130	31-MAY-12
WG1481350-7 MS		L1152347-8						
Cyanide, Weak Acid Diss			100.1		%		70-130	31-MAY-12

Quality Control Report

Workorder: L1151662

Report Date: 04-JUN-12

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Page 4 of 4

Contact: KRISTINE CONNOR

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

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Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63271
Project Number: VE52095
Project Name: NewGold Blackwater
Date Received: 2012/05/30
Date of Report: 2012/06/07
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5328	12-5328-D	12-5329	12-5330
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/05/28 0:00	Lab Duplicate	2012/05/29 0:00	2012/05/28 0:00
					MDL				
SR	2012/05/31	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	3	6	21	8
SR	2012/05/31	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.026	0.025	0.049	0.044
SR	2012/05/31	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.12	0.08	0.07
SR	2012/05/31	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.014	0.014	0.014	0.010
SR	2012/05/31	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.004	0.004	0.005	0.004
SR	2012/05/31	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.8	0.7	0.5	5.0
EL	2012/05/31	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	48	44	24	48
EL	2012/05/30	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	2	3	< 2
JL	2012/06/06	Turbidity	NTU	APHA 2130-b	0.1	2.4	2.3	2.2	2.4
SR	2012/05/31	Chloride-D	mg/L (ppm)	APHA 4110	0.1	2.7	2.6	2.1	2.9

Water Analysis

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5331	12-5332	12-5333	12-5334
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
SR	2012/05/31	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	9	12	17	70
SR	2012/05/31	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.026	0.031	0.040	0.146
SR	2012/05/31	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.06	0.08	0.10
SR	2012/05/31	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.010	< 0.005	0.008	0.015
SR	2012/05/31	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.004	0.004	0.004	< 0.003
SR	2012/05/31	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	0.6	0.9	4.1
EL	2012/05/31	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	24	20	28	64
EL	2012/05/30	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	2	37	4
JL	2012/06/06	Turbidity	NTU	APHA 2130-b	0.1	1.3	1.7	13	1.6
SR	2012/05/31	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.5	1.4	2.0	1.8

Water Analysis

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5335	12-5336	12-5337	12-5338
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/28 0:00	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
SR	2012/05/31	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	51	12	10	13
SR	2012/05/31	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.110	0.031	0.031	0.037
SR	2012/05/31	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.09	0.07	0.07	0.07
SR	2012/05/31	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.009	0.017	< 0.005	0.038
SR	2012/05/31	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	0.004	0.006	0.005
SR	2012/05/31	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.9	0.5	< 0.5	0.6
EL	2012/05/31	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	60	20	48	20
EL	2012/05/30	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	11	4	< 2	< 2
JL	2012/06/06	Turbidity	NTU	APHA 2130-b	0.1	5.3	3.0	3.4	2.7
SR	2012/05/31	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.5	1.6	1.6	2.0

Water Analysis

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5339	12-5340	12-5341	12-5342
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
SR	2012/05/31	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	50	48	17	2
SR	2012/05/31	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.109	0.102	0.042	0.003
SR	2012/05/31	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.09	0.10	0.05	0.02
SR	2012/05/31	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.011	0.027	0.012	0.010
SR	2012/05/31	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.005	0.005	0.005	< 0.003
SR	2012/05/31	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.2	2.2	1.0	< 0.5
EL	2012/05/31	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	60	52	56	8
EL	2012/05/30	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	7	< 2	40	< 2
JL	2012/06/06	Turbidity	NTU	APHA 2130-b	0.1	3.6	1.1	12	< 0.1
SR	2012/05/31	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.4	2.3	1.5	0.7

Water Analysis

Project No. VE52095

 Final
 File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5343
					Client ID:	Travel Blank
					Sample Date:	2012/05/28 0:00
					MDL	
SR	2012/05/31	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	2
SR	2012/05/31	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.004
SR	2012/05/31	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02
SR	2012/05/31	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.010
SR	2012/05/31	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
SR	2012/05/31	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5
EL	2012/05/31	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	4
EL	2012/05/30	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
JL	2012/06/06	Turbidity	NTU	APHA 2130-b	0.1	< 0.1
SR	2012/05/31	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.8

Water Analysis

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5328	12-5328-D	12-5329	12-5330
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/05/28 0:00	Lab Duplicate	2012/05/29 0:00	2012/05/28 0:00
					MDL				
EL	2012/06/05	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.04	0.03	< 0.02	0.02
RC	2012/06/05	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	13.6	13.9	10.4	12.0
RC	2012/06/05	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	14.0	14.0	10.4	12.0
SR	2012/05/31	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/05/31	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.007	0.006	0.013	0.003
EL	2012/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.24	0.28	0.18	0.30

Water Analysis

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5331	12-5332	12-5333	12-5334
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
EL	2012/06/05	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.03	0.02	0.02	0.02
RC	2012/06/05	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.9	10.0	11.8	8.0
RC	2012/06/05	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.9	10.0	11.8	8.0
SR	2012/05/31	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/05/31	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.002	0.002	0.003	0.001
EL	2012/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.18	0.14	0.19	0.19

Water Analysis

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5335	12-5336	12-5337	12-5338
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/28 0:00	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
EL	2012/06/05	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.03	0.03	0.02	0.03
RC	2012/06/05	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.5	12.1	18.4	10.2
RC	2012/06/05	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.5	12.1	18.4	10.2
SR	2012/05/31	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/05/31	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.003	0.002	0.005	< 0.001
EL	2012/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.19	0.15	0.14	0.09

Water Analysis

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5339	12-5340	12-5341	12-5342
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
EL	2012/06/05	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	0.02	< 0.02
RC	2012/06/05	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.4	11.4	11.9	0.1
RC	2012/06/05	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.4	11.4	11.9	0.1
SR	2012/05/31	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/05/31	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.003	0.003	0.003	< 0.001
EL	2012/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.16	0.19	0.15	< 0.08

Water Analysis

Project No. VE52095

 Final
 File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5343
					Client ID:	Travel Blank
					Sample Date:	2012/05/28 0:00
					MDL	
EL	2012/06/05	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.03
RC	2012/06/05	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
RC	2012/06/05	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
SR	2012/05/31	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
RC	2012/05/31	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001
EL	2012/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5328	12-5328-D	12-5329	12-5330
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/05/28 0:00	Lab Duplicate	2012/05/29 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/31	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.328	0.323	0.115	0.306
RC	2012/05/31	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00005	0.00014
RC	2012/05/31	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0004	0.0014
RC	2012/05/31	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00384	0.00386	0.00361	0.00298
RC	2012/05/31	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/31	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/31	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000050	0.000051	< 0.000015	0.000049
RC	2012/05/31	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0003	< 0.0003
RC	2012/05/31	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00059	0.00053	0.00045	0.00039
RC	2012/05/31	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0003	0.0002
RC	2012/05/31	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2110	0.2110	0.1530	0.1860
RC	2012/05/31	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00010	< 0.00005	0.00013
RC	2012/05/31	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/31	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01100	0.01110	0.00384	0.00538
RC	2012/06/05	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/31	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00006	0.00028	< 0.00005
RC	2012/05/31	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/31	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.019500	0.019600	0.039300	0.027800
RC	2012/05/31	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/31	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0048	0.0049	0.0021	0.0054
RC	2012/05/31	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	0.00018	0.00011	< 0.00005
RC	2012/05/31	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0008	0.0002
RC	2012/05/31	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0068	0.0067	0.0016	0.0452

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5331	12-5332	12-5333	12-5334
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/31	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.199	0.184	0.266	0.013
RC	2012/05/31	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
RC	2012/05/31	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0007	0.0005	0.0005
RC	2012/05/31	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00273	0.00510	0.00668	0.00598
RC	2012/05/31	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/31	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/31	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000025	0.000018
RC	2012/05/31	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/31	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00040	< 0.00002	0.00005	< 0.00002
RC	2012/05/31	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0003	0.0004	0.0003
RC	2012/05/31	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1180	0.1220	0.2820	0.0443
RC	2012/05/31	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/31	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00239	0.00624	0.01740	0.03660
RC	2012/06/05	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/31	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00013	0.00022	0.00017	0.00054
RC	2012/05/31	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00010	< 0.00005
RC	2012/05/31	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/31	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.018700	0.028900	0.034400	0.096500
RC	2012/05/31	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/31	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0018	0.0023	0.0045	0.0006
RC	2012/05/31	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00019	0.00018	0.00008
RC	2012/05/31	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0001	0.0007	0.0002
RC	2012/05/31	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0020	0.0023	0.0012	0.0011

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5335	12-5336	12-5337	12-5338
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/28 0:00	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/31	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.167	0.247	0.434	0.146
RC	2012/05/31	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0004	0.0001	0.0001
RC	2012/05/31	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00750	0.00517	0.00573	0.00551
RC	2012/05/31	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/31	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/31	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000058	< 0.000015	0.000069	0.000044
RC	2012/05/31	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/31	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	< 0.00002	0.00002	< 0.00002
RC	2012/05/31	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0006	0.0008	0.0004
RC	2012/05/31	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2480	0.1440	0.2050	0.1130
RC	2012/05/31	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/31	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.03030	0.00450	0.00281	0.00651
RC	2012/06/05	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/31	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00046	0.00015	0.00005	0.00026
RC	2012/05/31	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/31	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.077900	0.029100	0.028600	0.038100
RC	2012/05/31	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/31	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0063	0.0037	0.0050	0.0024
RC	2012/05/31	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00015	0.00016	0.00019
RC	2012/05/31	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0006	0.0002	0.0005	0.0001
RC	2012/05/31	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0020	0.0027	0.0024	0.0120

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5339	12-5340	12-5341	12-5342
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/31	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.085	0.028	0.291	< 0.002
RC	2012/05/31	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0002	0.0005	< 0.0001
RC	2012/05/31	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00721	0.00775	0.00701	< 0.00005
RC	2012/05/31	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/31	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/31	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000059	< 0.000015	0.000018	< 0.000015
RC	2012/05/31	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/31	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	0.00007	< 0.00002
RC	2012/05/31	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0004	< 0.0001
RC	2012/05/31	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1500	0.1310	0.3270	< 0.0001
RC	2012/05/31	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00006	< 0.00005
RC	2012/05/31	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/31	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02580	0.00393	0.02090	< 0.00005
RC	2012/06/05	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/31	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00043	0.00043	0.00018	< 0.00005
RC	2012/05/31	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00025	< 0.00005
RC	2012/05/31	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/31	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.076400	0.070100	0.033800	< 0.000005
RC	2012/05/31	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/31	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/31	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0022	0.0006	0.0061	< 0.0002
RC	2012/05/31	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	< 0.00005	0.00018	< 0.00005
RC	2012/05/31	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0001	0.0009	< 0.0001
RC	2012/05/31	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0012	0.0011	0.0010	< 0.0005

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5343
					Client ID:	Travel Blank
					Sample Date:	2012/05/28 0:00
					MDL	
RC	2012/05/31	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002
RC	2012/05/31	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/05/31	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/05/31	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/05/31	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/05/31	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001
RC	2012/05/31	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015
RC	2012/05/31	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003
RC	2012/05/31	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002
RC	2012/05/31	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/05/31	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/05/31	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/05/31	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001
RC	2012/05/31	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/05	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/05/31	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/05/31	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/05/31	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006
RC	2012/05/31	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/05/31	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005
RC	2012/05/31	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/05/31	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/05/31	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002
RC	2012/05/31	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/05/31	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/05/31	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5328	12-5328-D	12-5329	12-5330
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/05/28 0:00	Lab Duplicate	2012/05/29 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/30	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.275	0.273	0.092	0.170
RC	2012/05/30	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00005	0.00014
RC	2012/05/30	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0003	0.0004	0.0012
RC	2012/05/30	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00345	0.00344	0.00335	0.00210
RC	2012/05/30	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/30	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/30	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000030	0.000041	< 0.000015	0.000034
RC	2012/05/30	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	0.0003	< 0.0003
RC	2012/05/30	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/05/30	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0006	0.0005	0.0005	0.0004
RC	2012/05/30	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1350	0.1340	0.1050	0.0855
RC	2012/05/30	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/30	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00530	0.00530	0.00057	0.00159
RC	2012/06/05	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/30	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00021	< 0.00005
RC	2012/05/30	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/30	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.019500	0.019600	0.039300	0.027800
RC	2012/05/30	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/30	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0026	0.0027	0.0014	0.0016
RC	2012/05/30	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00018	0.00018	0.00010	< 0.00005
RC	2012/05/30	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00010	0.00066	< 0.00005
RC	2012/05/30	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0068	0.0067	0.0016	0.0452
SR	2012/05/31	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.89	6.82	7.65	7.18

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5331	12-5332	12-5333	12-5334
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/30	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.196	0.151	0.161	0.009
RC	2012/05/30	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
RC	2012/05/30	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0006	0.0003	0.0004
RC	2012/05/30	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00262	0.00490	0.00456	0.00594
RC	2012/05/30	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/30	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/30	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000025	< 0.000015
RC	2012/05/30	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/30	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00003	< 0.00002
RC	2012/05/30	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0003	0.0004	0.0002
RC	2012/05/30	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0993	0.0808	0.1190	0.0176
RC	2012/05/30	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/30	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00096	0.00591	0.01040
RC	2012/06/05	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/30	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00019	0.00017	0.00054
RC	2012/05/30	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00010	< 0.00005
RC	2012/05/30	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/30	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.018700	0.028900	0.034400	0.096500
RC	2012/05/30	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/30	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0013	0.0016	0.0019	0.0002
RC	2012/05/30	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00018	0.00014	0.00008
RC	2012/05/30	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005	0.00027	< 0.00005
RC	2012/05/30	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0020	0.0023	0.0012	0.0011
SR	2012/05/31	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.14	7.29	7.45	8.11

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5335	12-5336	12-5337	12-5338
					Client ID:	WO9	WO10	WO11	WO12
					Sample Date:	2012/05/28 0:00	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/30	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.042	0.195	0.390	0.114
RC	2012/05/30	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0003	< 0.0001	0.0001
RC	2012/05/30	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00656	0.00475	0.00515	0.00518
RC	2012/05/30	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/30	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/30	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000058	< 0.000015	0.000069	0.000044
RC	2012/05/30	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/30	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00002	< 0.00002
RC	2012/05/30	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0006	0.0008	0.0004
RC	2012/05/30	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0739	0.1030	0.1620	0.0775
RC	2012/05/30	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/30	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01220	0.00058	0.00025	0.00187
RC	2012/06/05	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/30	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00046	0.00015	0.00005	0.00025
RC	2012/05/30	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/30	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.077900	0.029100	0.028600	0.038100
RC	2012/05/30	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/30	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0019	0.0036	0.0013
RC	2012/05/30	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00014	0.00015	0.00019
RC	2012/05/30	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00011	0.00038	< 0.00005
RC	2012/05/30	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0020	0.0027	0.0024	0.0120
SR	2012/05/31	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.97	7.22	6.94	7.33

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5339	12-5340	12-5341	12-5342
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/30	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.044	0.026	0.139	< 0.002
RC	2012/05/30	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0002	0.0003	< 0.0001
RC	2012/05/30	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00663	0.00775	0.00434	< 0.00005
RC	2012/05/30	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/30	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/30	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000018	< 0.000015
RC	2012/05/30	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/05/30	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/05/30	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0004	< 0.0001
RC	2012/05/30	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0839	0.1020	0.1020	< 0.0001
RC	2012/05/30	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/05/30	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01390	0.00106	0.00537	< 0.00005
RC	2012/06/05	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/05/30	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00043	0.00041	0.00018	< 0.00005
RC	2012/05/30	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00025	< 0.00005
RC	2012/05/30	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/05/30	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.076400	0.070100	0.033800	< 0.000005
RC	2012/05/30	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/05/30	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/05/30	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0006	0.0012	< 0.0002
RC	2012/05/30	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005	0.00013	< 0.00005
RC	2012/05/30	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	< 0.00005	0.00025	< 0.00005
RC	2012/05/30	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0012	0.0011	< 0.0005	< 0.0005
SR	2012/05/31	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.93	7.89	7.39	5.91

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5343
					Client ID:	Travel Blank
					Sample Date:	2012/05/28 0:00
					MDL	
RC	2012/05/30	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002
RC	2012/05/30	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/05/30	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/05/30	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/05/30	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
RC	2012/05/30	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
RC	2012/05/30	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
RC	2012/05/30	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/05/30	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/05/30	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/05/30	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/05	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/05/30	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006
RC	2012/05/30	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005
RC	2012/05/30	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/05/30	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
RC	2012/05/30	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/05/30	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005
SR	2012/05/31	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.81

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5328	12-5328-D	12-5329	12-5330
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/05/28 0:00	Lab Duplicate	2012/05/29 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/30	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	2.1	2.1	5.6	4.6
RC	2012/05/30	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	< 0.50	1.38	0.79
RC	2012/05/30	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.01	0.01	0.02	< 0.01
RC	2012/05/30	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/05/30	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.03	4.04	5.88	4.60
RC	2012/05/30	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.5	1.5	2.1	1.8
RC	2012/05/30	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	7.0	7.0	19.8	14.8

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5331	12-5332	12-5333	12-5334
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/30	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	2.6	3.6	4.9	19.7
RC	2012/05/30	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.71	0.61	1.08	4.75
RC	2012/05/30	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/05/30	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
RC	2012/05/30	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.19	4.56	4.69	4.70
RC	2012/05/30	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.5	1.6	1.8	3.6
RC	2012/05/30	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	9.4	11.4	16.6	68.6

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5335	12-5336	12-5337	12-5338
					Client ID:	WO9	WO10	WO11	WO12
					Sample Date:	2012/05/28 0:00	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/30	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.5	3.6	3.9	4.6
RC	2012/05/30	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.45	0.69	0.75	0.77
RC	2012/05/30	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.01	< 0.01
RC	2012/05/30	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/05/30	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.78	4.49	4.92	3.62
RC	2012/05/30	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	1.7	1.7	1.5
RC	2012/05/30	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	50.4	11.7	12.7	14.7

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5339	12-5340	12-5341	12-5342
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/30	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.3	13.4	4.8	< 0.5
RC	2012/05/30	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.80	2.90	1.06	< 0.50
RC	2012/05/30	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/05/30	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	0.6	< 0.5	< 0.5
RC	2012/05/30	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.82	5.52	4.65	< 0.01
RC	2012/05/30	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.2	2.7	1.8	< 0.5
RC	2012/05/30	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	51.2	45.4	16.4	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5343
					Client ID:	Travel Blank
					Sample Date:	2012/05/28 0:00
					MDL	
RC	2012/05/30	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/05/30	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50
RC	2012/05/30	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/05/30	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/05/30	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/05/30	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/05/30	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5328	12-5328-D	12-5329	12-5330
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/05/28 0:00	Lab Duplicate	2012/05/29 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/31	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.1	2.1	5.6	4.6
RC	2012/05/31	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	< 0.50	1.41	0.82
RC	2012/05/31	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/31	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/05/31	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.03	4.04	5.88	4.60
RC	2012/05/31	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.5	1.5	2.1	1.8
RC	2012/05/31	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	7.1	7.1	19.9	14.9

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5331	12-5332	12-5333	12-5334
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/31	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.6	3.6	4.9	19.7
RC	2012/05/31	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.74	0.63	1.11	4.86
RC	2012/05/31	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/31	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
RC	2012/05/31	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.19	4.56	4.69	4.70
RC	2012/05/31	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.5	1.6	1.8	3.6
RC	2012/05/31	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	9.5	11.5	16.7	69.1

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5335	12-5336	12-5337	12-5338
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/05/28 0:00	2012/05/29 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/31	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	14.5	3.6	3.9	4.6
RC	2012/05/31	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.53	0.71	0.78	0.78
RC	2012/05/31	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/31	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/05/31	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.78	4.49	4.92	3.62
RC	2012/05/31	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.9	1.7	1.7	1.5
RC	2012/05/31	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	50.8	11.8	12.8	14.7

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5339	12-5340	12-5341	12-5342
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00	2012/05/28 0:00
					MDL				
RC	2012/05/31	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	14.3	13.4	4.8	< 0.5
RC	2012/05/31	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.80	2.97	1.13	< 0.50
RC	2012/05/31	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/05/31	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	0.6	< 0.5	< 0.5
RC	2012/05/31	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.82	5.52	4.65	< 0.01
RC	2012/05/31	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.2	2.7	1.8	< 0.5
RC	2012/05/31	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	51.2	45.7	16.7	< 6.0

Water Analysis - Total Metals

Project No. VE52095

 Final
 File No. EC-63271

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5343
					Client ID:	Travel Blank
					Sample Date:	2012/05/28 0:00
					MDL	
RC	2012/05/31	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/05/31	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50
RC	2012/05/31	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02
RC	2012/05/31	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/05/31	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01
RC	2012/05/31	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/05/31	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Quality Control Standard

Project No.

File No. EC-63271

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
SR	2012/05/31	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	61	56-77	65.00	QC-ALK/F-46
SR	2012/05/31	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.77	2.54-2.94	2.79	CC-EC-0.02M-41
SR	2012/05/31	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-ALK/F-46
SR	2012/05/31	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.67	1.44-1.76	1.60	CC-Anion-117B
SR	2012/05/31	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.628	0.54-0.66	0.60	CC-Anion-117B
SR	2012/05/31	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	29.5	25.2-30.8	28.00	CC-Anion-117B
EL	2012/05/31	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	780	628-1059	844.00	OCP-E2-SLD02008
EL	2012/05/30	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	28	26-36	31.00	OCP-E2-SLD02008
JL	2012/06/06	Turbidity	NTU	APHA 2130-b	0.1	17	14.53-19.49	17.01	D2-TURB01052
SR	2012/05/31	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.3	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/06/05	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.63	0.47-0.74	0.61	NH3SC-001
RC	2012/06/05	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.7	3.3-4.3	3.80	DMD-TOC-90-Low
RC	2012/06/05	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	36.3	33.1-42.6	37.90	DMD-TOC-90-Mid
SR	2012/05/31	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.855	0.72-0.88	0.80	CC-Anion-116BL
RC	2012/05/31	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	243	225-275	250.00	MS-CCV-HIGH
EL	2012/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	8.14	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/31	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	50.0	45-55	50.00	MS-CCV-HIGH
RC	2012/05/31	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	97.9	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/31	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	97.8	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/31	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.3	45-55	50.00	MS-CCV-HIGH
RC	2012/05/31	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/31	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	45.5	45-55	50.00	MS-CCV-HIGH
RC	2012/05/31	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/31	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/31	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/31	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.5	45-55	50.00	MS-CCV-HIGH
RC	2012/05/31	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	51.3	45-55	50.00	MS-CCV-HIGH
RC	2012/05/31	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	98.4	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/31	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.2	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/05/31	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	48.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/05	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.270000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/05/31	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/31	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/31	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	49.4	45-55	50.00	MS-CCV-HIGH
RC	2012/05/31	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.4	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/05/31	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.3	45-55	50.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63271

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/31	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	250	225-275	250.00	MS-CCV-HIGH
RC	2012/05/31	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	260	225-275	250.00	MS-CCV-HIGH
RC	2012/05/31	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/31	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	99.5	90-110	100.00	MS-CCV-HIGH
RC	2012/05/31	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	50.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/31	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.9	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/30	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	51.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/30	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/30	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	99.1	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/30	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/30	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/30	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	51.6	45-55	50.00	MS-CCV-HIGH
RC	2012/05/30	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/30	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/30	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/30	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	50.5	45-55	50.00	MS-CCV-HIGH
RC	2012/05/30	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.6	45-55	50.00	MS-CCV-HIGH
RC	2012/05/30	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/05/30	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.3	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/05/30	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	48.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/05	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.270000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/05/30	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	51.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/30	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	51.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/30	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	47.1	45-55	50.00	MS-CCV-HIGH
RC	2012/05/30	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.8	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/05/30	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	51.4	45-55	50.00	MS-CCV-HIGH
RC	2012/05/30	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	248	225-275	250.00	MS-CCV-HIGH
RC	2012/05/30	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	242	225-275	250.00	MS-CCV-HIGH
RC	2012/05/30	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	49.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/30	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90-110	100.00	MS-CCV-HIGH
RC	2012/05/30	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/05/30	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	48.9	45.0-55.0	50.00	MS-CCV-HIGH
SR	2012/05/31	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.02	5.92-6.08	6.00	QC-pH-3

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/30	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25500	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/30	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	26200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/30	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	258	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63271

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/30	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/05/30	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
RC	2012/05/30	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	26300	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/05/31	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25000	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/31	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/05/31	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	243	225-275	250.00	MS-CCV-HIGH
RC	2012/05/31	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	24000	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/05/31	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	117	105-129	117.00	MS-CCV-HIGH
RC	2012/05/31	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26300	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095

File No. EC-63271

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 30-MAY-12
Report Date: 07-JUN-12 15:19 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1154508
Project P.O. #: 2220
Job Reference: EC-63271
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1154508-1 12-5328~WQ1 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-2 12-5329~WQ3 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-3 12-5330~WQ4 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-4 12-5331~WQ5 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-5 12-5332~WQ6 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-6 12-5333~WQ7 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-7 12-5334~WQ8 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-8 12-5335~WQ9 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-9 12-5336~WQ10 Sampled By: CLIENT Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1154508-9 12-5336~WQ10 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-10 12-5337~WQ11 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-11 12-5338~WQ12 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-12 12-5339~WQ13 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-13 12-5340~WQ14 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-14 12-5341~WQ DUPLICATE Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-15 12-5342~FILED BLANK Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087
L1154508-16 12-5343~TRAVEL BLANK Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUN-12	R2378086
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUN-12	R2378087

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1154508

Report Date: 07-JUN-12

Page 1 of 4

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2378086							
WG1483882-12	DUP	L1153539-4						
Cyanide, Total		0.0082	0.0083		mg/L	0.2	20	06-JUN-12
WG1483882-15	DUP	L1155220-12						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1483882-18	DUP	L1155220-24						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1483882-2	DUP	L1154508-13						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1483882-22	DUP	L1154396-14						
Cyanide, Total		<0.050	<0.050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1483882-11	LCS							
Cyanide, Total			97.6		%		80-120	06-JUN-12
WG1483882-14	LCS							
Cyanide, Total			97.5		%		80-120	06-JUN-12
WG1483882-17	LCS							
Cyanide, Total			96.7		%		80-120	06-JUN-12
WG1483882-20	LCS							
Cyanide, Total			97.4		%		80-120	06-JUN-12
WG1483882-21	LCS							
Cyanide, Total			95.1		%		80-120	06-JUN-12
WG1483882-25	LCS							
Cyanide, Total			95.0		%		80-120	06-JUN-12
WG1483882-4	LCS							
Cyanide, Total			90.2		%		80-120	06-JUN-12
WG1483882-5	LCS							
Cyanide, Total			94.7		%		80-120	06-JUN-12
WG1483882-8	LCS							
Cyanide, Total			98.2		%		80-120	06-JUN-12
WG1483882-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-JUN-12
WG1483882-24	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-JUN-12
WG1483882-13	MS	L1153539-4						
Cyanide, Total			83.5		%		70-130	06-JUN-12
WG1483882-16	MS	L1155220-12						
Cyanide, Total			94.0		%		70-130	06-JUN-12
WG1483882-19	MS	L1155220-24						
Cyanide, Total			92.7		%		70-130	06-JUN-12



Quality Control Report

Workorder: L1154508

Report Date: 07-JUN-12

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Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2378086							
WG1483882-3	MS	L1154508-13						
Cyanide, Total			95.0		%		70-130	06-JUN-12
CN-WAD-CFA-VA								
	Water							
Batch	R2378087							
WG1484668-16	DUP	L1155220-12						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1484668-19	DUP	L1155220-24						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1484668-23	DUP	L1154396-14						
Cyanide, Weak Acid Diss		<0.050	<0.050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1484668-3	DUP	L1154508-13						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1484668-6	DUP	L1152666-6						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUN-12
WG1484668-11	LCS							
Cyanide, Weak Acid Diss			102.5		%		80-120	06-JUN-12
WG1484668-14	LCS							
Cyanide, Weak Acid Diss			97.6		%		80-120	06-JUN-12
WG1484668-15	LCS							
Cyanide, Weak Acid Diss			98.4		%		80-120	06-JUN-12
WG1484668-18	LCS							
Cyanide, Weak Acid Diss			98.6		%		80-120	06-JUN-12
WG1484668-2	LCS							
Cyanide, Weak Acid Diss			100.5		%		80-120	06-JUN-12
WG1484668-21	LCS							
Cyanide, Weak Acid Diss			99.0		%		80-120	06-JUN-12
WG1484668-22	LCS							
Cyanide, Weak Acid Diss			98.4		%		80-120	06-JUN-12
WG1484668-26	LCS							
Cyanide, Weak Acid Diss			105.6		%		80-120	06-JUN-12
WG1484668-5	LCS							
Cyanide, Weak Acid Diss			95.8		%		80-120	06-JUN-12
WG1484668-8	LCS							
Cyanide, Weak Acid Diss			96.9		%		80-120	06-JUN-12
WG1484668-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	06-JUN-12
WG1484668-25	MB							



Quality Control Report

Workorder: L1154508

Report Date: 07-JUN-12

Page 3 of 4

Client: AMEC EARTH & ENVIRONMENTAL
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2378087							
WG1484668-25 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	06-JUN-12
WG1484668-17 MS		L1155220-12						
Cyanide, Weak Acid Diss			93.4		%		70-130	06-JUN-12
WG1484668-20 MS		L1155220-24						
Cyanide, Weak Acid Diss			90.5		%		70-130	06-JUN-12
WG1484668-4 MS		L1154508-13						
Cyanide, Weak Acid Diss			88.6		%		70-130	06-JUN-12
WG1484668-7 MS		L1152666-6						
Cyanide, Weak Acid Diss			90.1		%		70-130	06-JUN-12

Quality Control Report

Workorder: L1154508

Report Date: 07-JUN-12

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Page 4 of 4

Contact: KRISTINE CONNOR

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLM	Detection Limit Adjusted For Sample Matrix Effects
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63325
Project Number: VE52095
Project Name: NewGold Blackwater
Date Received: 2012/06/07
Date of Report: 2012/06/14
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5784	12-5784-D	12-5785	12-5786
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/04 0:00	Lab Duplicate	2012/06/05 0:00	2012/06/04 0:00
					MDL				
SR	2012/06/12	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	4	5	24	9
SR	2012/06/12	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.018	0.018	0.051	0.041
SR	2012/06/12	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.03	0.05	0.05
SR	2012/06/09	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	0.010	0.007
SR	2012/06/09	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/09	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.2	1.1	0.9	5.0
EL	2012/06/11	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	44	48	56	60
EL	2012/06/12	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	3	3
JL	2012/06/07	Turbidity	NTU	APHA 2130-b	0.1	3.3	3.3	2.3	2.3
SR	2012/06/09	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.6	0.6	0.5	1.2

Water Analysis

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5787	12-5788	12-5789	12-5790
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
SR	2012/06/12	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	11	12	21	75
SR	2012/06/12	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.026	0.030	0.042	0.149
SR	2012/06/12	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.04	0.07
SR	2012/06/09	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.010	0.006	0.006	0.011
SR	2012/06/09	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/09	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	1.0	1.1	4.1
EL	2012/06/11	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	48	48	52	92
EL	2012/06/12	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	21	4
JL	2012/06/07	Turbidity	NTU	APHA 2130-b	0.1	1.0	1.3	5.8	1.8
SR	2012/06/09	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.6	0.7	0.7

Water Analysis

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5791	12-5792	12-5793	12-5794
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/04 0:00	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
SR	2012/06/12	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	61	13	11	18
SR	2012/06/12	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.125	0.029	0.032	0.037
SR	2012/06/12	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.03	0.04	0.03
SR	2012/06/09	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.009	0.012	< 0.005	< 0.005
SR	2012/06/09	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/09	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.7	0.7	0.6	0.8
EL	2012/06/11	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	84	40	60	52
EL	2012/06/12	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	6	3	< 2	< 2
JL	2012/06/07	Turbidity	NTU	APHA 2130-b	0.1	3.4	2.3	1.3	1.6
SR	2012/06/09	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.7	0.5	0.6	0.7

Water Analysis

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5795	12-5796	12-5797	12-5798
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
SR	2012/06/12	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	61	56	56	< 1
SR	2012/06/12	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.121	0.111	0.111	< 0.001
SR	2012/06/12	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.06	0.06	< 0.02
SR	2012/06/09	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.006	< 0.005	0.006	< 0.005
SR	2012/06/09	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/09	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.5	2.0	2.2	< 0.5
EL	2012/06/11	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	72	92	84	< 4
EL	2012/06/12	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	7	< 2	< 2	< 2
JL	2012/06/07	Turbidity	NTU	APHA 2130-b	0.1	3.2	3.5	1.8	0.1
SR	2012/06/09	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.8	0.7	0.8	0.3

Water Analysis

Project No. VE52095

 Final
 File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5799
					Client ID:	Travel Blank
					Sample Date:	2012/06/04 0:00
					MDL	
SR	2012/06/12	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	< 1
SR	2012/06/12	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001
SR	2012/06/12	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02
SR	2012/06/09	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005
SR	2012/06/09	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
SR	2012/06/09	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5
EL	2012/06/11	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4
EL	2012/06/12	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
JL	2012/06/07	Turbidity	NTU	APHA 2130-b	0.1	< 0.1
SR	2012/06/09	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3

Water Analysis

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5784	12-5784-D	12-5785	12-5786
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/04 0:00	Lab Duplicate	2012/06/05 0:00	2012/06/04 0:00
					MDL				
EL	2012/06/12	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/12	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.9	11.1	9.1	10.8
RC	2012/06/12	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.1	11.2	9.5	10.9
SR	2012/06/09	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/11	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.006	0.006	0.016	0.004
EL	2012/06/12	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.20	0.21	0.17	0.21

Water Analysis

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5787	12-5788	12-5789	12-5790
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
EL	2012/06/12	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/12	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.6	7.7	9.9	8.4
RC	2012/06/12	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.9	8.1	10.0	8.6
SR	2012/06/09	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/11	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.005	0.002	0.005	0.002
EL	2012/06/12	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.19	0.11	0.15	0.27

Water Analysis

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5791	12-5792	12-5793	12-5794
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/04 0:00	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
EL	2012/06/12	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/12	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.9	10.3	16.9	8.9
RC	2012/06/12	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.0	10.3	16.9	8.9
SR	2012/06/09	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/11	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.003	0.004	0.007	< 0.001
EL	2012/06/12	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.20	0.18	0.20	0.14

Water Analysis

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5795	12-5796	12-5797	12-5798
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
EL	2012/06/12	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/12	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.0	10.3	10.4	0.4
RC	2012/06/12	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.0	10.5	10.5	0.5
SR	2012/06/09	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/11	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.004	0.003	0.005	0.002
EL	2012/06/12	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.22	0.14	0.13	< 0.08

Water Analysis

Project No. VE52095

 Final
 File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5799
					Client ID:	Travel Blank
					Sample Date:	2012/06/04 0:00
					MDL	
EL	2012/06/12	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02
RC	2012/06/12	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
RC	2012/06/12	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
SR	2012/06/09	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
RC	2012/06/11	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001
EL	2012/06/12	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5784	12-5784-D	12-5785	12-5786
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/04 0:00	Lab Duplicate	2012/06/05 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/11	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.340	0.337	0.092	0.187
RC	2012/06/11	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	0.00006	0.00015
RC	2012/06/11	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0004	0.0005	0.0015
RC	2012/06/11	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00391	0.00379	0.00389	0.00292
RC	2012/06/11	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/11	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000044
RC	2012/06/11	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0004	< 0.0003
RC	2012/06/11	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00006	0.00007	0.00004	0.00004
RC	2012/06/11	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0004	0.0004
RC	2012/06/11	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2420	0.2420	0.1400	0.1340
RC	2012/06/11	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00032	< 0.00005
RC	2012/06/11	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/11	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00700	0.00709	0.00674	0.02430
RC	2012/06/13	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/11	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00008	0.00030	< 0.00005
RC	2012/06/11	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00026	0.00019	0.00029
RC	2012/06/11	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/11	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.018000	0.018100	0.044100	0.029300
RC	2012/06/11	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0065	0.0065	0.0015	0.0022
RC	2012/06/11	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	0.00018	0.00013	0.00006
RC	2012/06/11	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0009	< 0.0001
RC	2012/06/11	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0026	0.0026	< 0.0005	0.0436

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5787	12-5788	12-5789	12-5790
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/11	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.171	0.119	0.193	0.016
RC	2012/06/11	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00007	0.00005	< 0.00005
RC	2012/06/11	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0007	0.0005	0.0005
RC	2012/06/11	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00308	0.00451	0.00604	0.00638
RC	2012/06/11	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/11	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/11	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0004	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/11	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	0.00009	< 0.00002
RC	2012/06/11	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0003	0.0004	0.0002
RC	2012/06/11	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1050	0.0884	0.2490	0.0433
RC	2012/06/11	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/11	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00440	0.00600	0.01570	0.02330
RC	2012/06/13	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/11	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00031	0.00025	0.00053
RC	2012/06/11	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00019	0.00028	0.00025	0.00021
RC	2012/06/11	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/11	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.021600	0.028800	0.038100	0.096900
RC	2012/06/11	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0018	0.0014	0.0045	0.0006
RC	2012/06/11	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00022	0.00019	0.00009
RC	2012/06/11	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	< 0.0001	0.0006	< 0.0001
RC	2012/06/11	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0010	< 0.0005	< 0.0005

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5791	12-5792	12-5793	12-5794
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/04 0:00	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/11	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.086	0.208	0.334	0.101
RC	2012/06/11	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00005
RC	2012/06/11	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0004	0.0001	0.0002
RC	2012/06/11	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00717	0.00503	0.00547	0.00551
RC	2012/06/11	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/11	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/11	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/11	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00004	0.00004	0.00002
RC	2012/06/11	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0006	0.0002
RC	2012/06/11	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1460	0.1530	0.1620	0.1230
RC	2012/06/11	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/11	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02320	0.00632	0.00247	0.01010
RC	2012/06/13	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	0.000009	< 0.000005
RC	2012/06/11	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00047	0.00018	0.00006	0.00042
RC	2012/06/11	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00024	0.00023	0.00022	0.00007
RC	2012/06/11	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/11	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.082600	0.028500	0.032400	0.040500
RC	2012/06/11	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0023	0.0034	0.0036	0.0016
RC	2012/06/11	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00017	0.00016	0.00022
RC	2012/06/11	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0002	0.0004	< 0.0001
RC	2012/06/11	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0007	< 0.0005	< 0.0005

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5795	12-5796	12-5797	12-5798
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/11	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.060	0.020	0.019	< 0.002
RC	2012/06/11	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0002	0.0003	< 0.0001
RC	2012/06/11	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00913	0.00834	0.00836	< 0.00005
RC	2012/06/11	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/11	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/11	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/11	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00002	< 0.00002	< 0.00002
RC	2012/06/11	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0002	< 0.0001
RC	2012/06/11	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1410	0.1470	0.1410	< 0.0001
RC	2012/06/11	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/11	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02330	0.00909	0.00787	< 0.00005
RC	2012/06/13	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/11	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00066	0.00050	0.00046	< 0.00005
RC	2012/06/11	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	0.00021	0.00023	< 0.00005
RC	2012/06/11	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/11	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.105000	0.077600	0.077200	< 0.000005
RC	2012/06/11	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0021	0.0006	0.0006	< 0.0002
RC	2012/06/11	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/11	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/11	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5799
					Client ID:	Travel Blank
					Sample Date:	2012/06/04 0:00
					MDL	
RC	2012/06/11	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002
RC	2012/06/11	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/11	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/11	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/11	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/11	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001
RC	2012/06/11	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015
RC	2012/06/11	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003
RC	2012/06/11	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002
RC	2012/06/11	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/11	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/11	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/11	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001
RC	2012/06/11	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/13	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/06/11	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/11	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/11	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006
RC	2012/06/11	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/11	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005
RC	2012/06/11	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/11	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/11	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002
RC	2012/06/11	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/11	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/11	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5784	12-5784-D	12-5785	12-5786
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/04 0:00	Lab Duplicate	2012/06/05 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/12	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.219	0.217	0.071	0.130
RC	2012/06/12	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	< 0.00005	0.00008	0.00015
RC	2012/06/12	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0002	0.0003	0.0011
RC	2012/06/12	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00259	0.00261	0.00343	0.00217
RC	2012/06/12	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/12	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/12	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/12	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	0.0004	< 0.0003
RC	2012/06/12	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	0.00002	0.00002	< 0.00002
RC	2012/06/12	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0004	0.0004
RC	2012/06/12	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1040	0.1040	0.0867	0.0582
RC	2012/06/12	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/12	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00303	0.00301	0.00235	0.00459
RC	2012/06/13	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/12	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00007	0.00025	< 0.00005
RC	2012/06/12	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00025	0.00026	0.00019	0.00029
RC	2012/06/12	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/12	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.016900	0.016700	0.042400	0.028500
RC	2012/06/12	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/12	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0022	0.0022	0.0010	0.0010
RC	2012/06/12	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00014	0.00009	< 0.00005
RC	2012/06/12	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00052	< 0.00005
RC	2012/06/12	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0023	0.0023	< 0.0005	0.0423
SR	2012/06/12	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.78	6.73	7.55	7.11

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5787	12-5788	12-5789	12-5790
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/12	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.163	0.096	0.110	0.006
RC	2012/06/12	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00007	0.00005	< 0.00005
RC	2012/06/12	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0005	0.0003	0.0003
RC	2012/06/12	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00267	0.00416	0.00428	0.00556
RC	2012/06/12	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/12	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/12	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/12	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0004	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/12	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	< 0.00002	0.00003	< 0.00002
RC	2012/06/12	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0003	0.0004	0.0002
RC	2012/06/12	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0816	0.0536	0.0891	0.0183
RC	2012/06/12	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/12	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00197	0.00201	0.00628	0.00488
RC	2012/06/13	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/12	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00023	0.00020	0.00045
RC	2012/06/12	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00028	0.00025	0.00021
RC	2012/06/12	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/12	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.020800	0.028000	0.035600	0.093100
RC	2012/06/12	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/12	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0011	0.0008	0.0013	< 0.0002
RC	2012/06/12	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00018	0.00012	0.00008
RC	2012/06/12	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
SR	2012/06/12	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.07	7.23	7.44	8.04

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5791	12-5792	12-5793	12-5794
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/04 0:00	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/12	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.027	0.159	0.301	0.079
RC	2012/06/12	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00005
RC	2012/06/12	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0002	< 0.0001	< 0.0001
RC	2012/06/12	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00614	0.00410	0.00492	0.00483
RC	2012/06/12	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/12	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/12	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/12	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/12	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00003	< 0.00002
RC	2012/06/12	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0006	0.0002
RC	2012/06/12	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0600	0.0866	0.1310	0.0779
RC	2012/06/12	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/12	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01010	0.00181	0.00125	0.00423
RC	2012/06/13	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	0.000009	< 0.000005
RC	2012/06/12	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00042	0.00015	< 0.00005	0.00042
RC	2012/06/12	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00023	0.00022	0.00007
RC	2012/06/12	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/12	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.079200	0.027200	0.031200	0.038500
RC	2012/06/12	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/12	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0016	0.0027	0.0009
RC	2012/06/12	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00014	0.00013	0.00018
RC	2012/06/12	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00012	< 0.00005
RC	2012/06/12	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
SR	2012/06/12	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.90	7.16	7.17	7.37

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5795	12-5796	12-5797	12-5798
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/12	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.025	0.016	0.016	< 0.002
RC	2012/06/12	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0001	0.0001	< 0.0001
RC	2012/06/12	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00631	0.00799	0.00805	< 0.00005
RC	2012/06/12	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/12	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/12	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/12	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/12	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	< 0.00002	< 0.00002	< 0.00002
RC	2012/06/12	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0002	< 0.0001
RC	2012/06/12	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0626	0.0964	0.0991	< 0.0001
RC	2012/06/12	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/12	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01080	0.00462	0.00460	< 0.00005
RC	2012/06/13	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/12	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00046	0.00044	0.00042	< 0.00005
RC	2012/06/12	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00021	0.00023	< 0.00005
RC	2012/06/12	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/12	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.079900	0.074500	0.075200	< 0.000005
RC	2012/06/12	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/12	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0004	0.0003	< 0.0002
RC	2012/06/12	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/12	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
SR	2012/06/12	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.96	7.91	7.93	5.48

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5799
					Client ID:	Travel Blank
					Sample Date:	2012/06/04 0:00
					MDL	
RC	2012/06/12	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002
RC	2012/06/12	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/12	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/12	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/06/12	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
RC	2012/06/12	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
RC	2012/06/12	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
RC	2012/06/12	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/12	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/12	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/06/12	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/13	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/06/12	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006
RC	2012/06/12	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005
RC	2012/06/12	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/12	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
RC	2012/06/12	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/12	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005
SR	2012/06/12	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.23

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5784	12-5784-D	12-5785	12-5786
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/04 0:00	Lab Duplicate	2012/06/05 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/12	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	1.8	6.1	4.8
RC	2012/06/12	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	< 0.50	1.41	0.74
RC	2012/06/12	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.02	< 0.01
RC	2012/06/12	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/06/12	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.18	4.37	6.32	4.44
RC	2012/06/12	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.4	1.4	2.2	1.8
SR	2012/06/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	< 6.0	20.9	15.0

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5787	12-5788	12-5789	12-5790
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/12	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	3.6	5.1	18.8
RC	2012/06/12	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.76	0.58	1.11	4.40
RC	2012/06/12	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/06/12	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
RC	2012/06/12	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.60	4.72	4.72	4.29
RC	2012/06/12	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.6	1.6	1.9	3.4
SR	2012/06/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	10.3	11.3	17.4	65.0

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5791	12-5792	12-5793	12-5794
					Client ID:	WO9	WO10	WO11	WO12
					Sample Date:	2012/06/04 0:00	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/12	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	15.2	3.5	4.4	4.7
RC	2012/06/12	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.51	0.65	0.81	0.77
RC	2012/06/12	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/06/12	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/06/12	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.86	4.54	5.42	3.59
RC	2012/06/12	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.0	1.6	1.6	1.5
SR	2012/06/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	52.3	11.3	14.2	15.0

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5795	12-5796	12-5797	12-5798
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/12	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	15.2	14.3	14.5	< 0.5
RC	2012/06/12	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.47	3.01	3.00	< 0.50
RC	2012/06/12	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/06/12	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.5	0.5	< 0.5
RC	2012/06/12	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.70	5.54	5.68	< 0.01
RC	2012/06/12	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	2.8	2.7	< 0.5
SR	2012/06/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	52.3	48.1	48.5	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5799
					Client ID:	Travel Blank
					Sample Date:	2012/06/04 0:00
					MDL	
RC	2012/06/12	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/06/12	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50
RC	2012/06/12	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/06/12	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/06/12	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/06/12	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
SR	2012/06/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5784	12-5784-D	12-5785	12-5786
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/04 0:00	Lab Duplicate	2012/06/05 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/11	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.9	1.9	6.3	4.9
RC	2012/06/11	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	< 0.50	1.41	0.76
RC	2012/06/11	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	0.02	< 0.02
RC	2012/06/11	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/06/11	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.48	4.43	6.32	4.61
RC	2012/06/11	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.4	1.4	2.2	1.8
SR	2012/06/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	6.3	6.3	21.5	15.3

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5787	12-5788	12-5789	12-5790
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/11	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	3.7	5.4	19.5
RC	2012/06/11	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.78	0.60	1.17	4.60
RC	2012/06/11	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/11	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
RC	2012/06/11	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.60	4.72	4.83	4.32
RC	2012/06/11	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.6	1.6	1.9	3.4
SR	2012/06/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	10.6	11.6	18.3	67.6

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5791	12-5792	12-5793	12-5794
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/04 0:00	2012/06/05 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/11	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	15.6	3.6	4.5	4.9
RC	2012/06/11	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.63	0.68	0.85	0.80
RC	2012/06/11	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/11	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/06/11	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.86	4.57	5.42	3.59
RC	2012/06/11	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	1.6	1.6	1.5
SR	2012/06/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	54.0	11.7	14.7	15.6

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5795	12-5796	12-5797	12-5798
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00	2012/06/04 0:00
					MDL				
RC	2012/06/11	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	19.9	14.9	14.8	< 0.5
RC	2012/06/11	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.65	3.14	3.10	< 0.50
RC	2012/06/11	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/11	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	0.5	0.5	< 0.5
RC	2012/06/11	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.70	5.62	5.68	< 0.01
RC	2012/06/11	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.9	2.8	2.8	< 0.5
SR	2012/06/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	64.8	50.1	49.8	< 6.0

Water Analysis - Total Metals

Project No. VE52095

 Final
 File No. EC-63325

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-5799
					Client ID:	Travel Blank
					Sample Date:	2012/06/04 0:00
					MDL	
RC	2012/06/11	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/06/11	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50
RC	2012/06/11	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02
RC	2012/06/11	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/06/11	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01
RC	2012/06/11	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
SR	2012/06/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Quality Control Standard

Project No.

File No. EC-63325

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
SR	2012/06/12	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	64	56-77	65.00	QC-ALK/F-47
SR	2012/06/12	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.80	2.54-2.94	2.79	CC-EC-0.02M-42
SR	2012/06/12	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.50	0.44-0.58	0.50	QC-ALK/F-47
SR	2012/06/09	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.73	1.44-1.76	1.60	CC-Anion-117B
SR	2012/06/09	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.642	0.54-0.66	0.60	CC-Anion-117B
SR	2012/06/09	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	29.8	25.2-30.8	28.00	CC-Anion-117B
EL	2012/06/11	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4552	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/06/12	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	140	134-153	144.00	OCP-E2-SLD02009
JL	2012/06/07	Turbidity	NTU	APHA 2130-b	0.1	17	14.53-19.49	17.01	D2-TURB01052
SR	2012/06/09	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.3	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/06/12	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.61	0.47-0.74	0.61	NH3SC-001
RC	2012/06/12	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.8	3.3-4.3	3.80	DMD-TOC-90-Low
RC	2012/06/12	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	41.8	33.1-42.6	37.90	DMD-TOC-90-Mid
SR	2012/06/09	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.867	0.72-0.88	0.80	CC-Anion-117BL
RC	2012/06/11	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	240	225-275	250.00	MS-CCV-HIGH
EL	2012/06/12	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	8.84	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/11	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	45.8	45-55	50.00	MS-CCV-HIGH
RC	2012/06/11	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/11	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/11	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.9	45-55	50.00	MS-CCV-HIGH
RC	2012/06/11	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	49.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/11	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	49.2	45-55	50.00	MS-CCV-HIGH
RC	2012/06/11	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/11	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/11	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/11	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	51.9	45-55	50.00	MS-CCV-HIGH
RC	2012/06/11	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	50.6	45-55	50.00	MS-CCV-HIGH
RC	2012/06/11	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	102	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/11	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	49.5	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/06/11	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/13	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.281000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/06/11	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	51.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/11	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	52.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/11	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.0	45-55	50.00	MS-CCV-HIGH
RC	2012/06/11	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.8	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/06/11	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	51.3	45-55	50.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63325

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/11	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	245	225-275	250.00	MS-CCV-HIGH
RC	2012/06/11	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	256	225-275	250.00	MS-CCV-HIGH
RC	2012/06/11	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/11	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	102	90-110	100.00	MS-CCV-HIGH
RC	2012/06/11	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	51.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/11	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.0	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/12	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	52.0	45-55	50.00	MS-CCV-HIGH
RC	2012/06/12	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	110	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/12	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/12	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45-55	50.00	MS-CCV-HIGH
RC	2012/06/12	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/12	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	50.9	45-55	50.00	MS-CCV-HIGH
RC	2012/06/12	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/12	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/12	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	50.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/12	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	51.8	45-55	50.00	MS-CCV-HIGH
RC	2012/06/12	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.5	45-55	50.00	MS-CCV-HIGH
RC	2012/06/12	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/12	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	50.3	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/06/12	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	48.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/13	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.281000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/06/12	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	50.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/12	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	51.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/12	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	48.8	45-55	50.00	MS-CCV-HIGH
RC	2012/06/12	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.5	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/06/12	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	51.1	45-55	50.00	MS-CCV-HIGH
RC	2012/06/12	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	242	225-275	250.00	MS-CCV-HIGH
RC	2012/06/12	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.00	MS-CCV-HIGH
RC	2012/06/12	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	48.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/12	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	98.9	90-110	100.00	MS-CCV-HIGH
RC	2012/06/12	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	48.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/12	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	52.5	45.0-55.0	50.00	MS-CCV-HIGH
SR	2012/06/12	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.02	5.92-6.08	6.00	QC-pH-3

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/12	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25000	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/12	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/12	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	266	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63325

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/12	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25200	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/06/12	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	110	105-129	117.00	MS-CCV-HIGH
RC	2012/06/12	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/11	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/11	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25000	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/11	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	240	225-275	250.00	MS-CCV-HIGH
RC	2012/06/11	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/06/11	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	115	105-129	117.00	MS-CCV-HIGH
RC	2012/06/11	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25500	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095

File No. EC-63325

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 07-JUN-12
Report Date: 15-JUN-12 14:00 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1158839
Project P.O. #: 2220
Job Reference: EC-63325
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1158839-1 12-5784~WQ1 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-2 12-5785~WQ3 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-3 12-5786~WQ4 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-4 12-5787~WQ5 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-5 12-5788~WQ6 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-6 12-5789~WQ7 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-7 12-5790~WQ8 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-8 12-5791~WQ9 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-9 12-5792~WQ10 Sampled By: CLIENT Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1158839-9 12-5792~WQ10 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-10 12-5793~WQ11 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-11 12-5794~WQ12 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-12 12-5795~WQ13 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-13 12-5796~WQ14 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-14 12-5797~WQ DUPLICATE Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-15 12-5798~FIELD BLANK Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568
L1158839-16 12-5799~TRAVEL BLANK Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		14-JUN-12 14-JUN-12	R2382556 R2382568

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:
GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1158839

Report Date: 15-JUN-12

Page 1 of 3

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2382556							
WG1489524-10	DUP	L1158839-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-JUN-12
WG1489524-13	DUP	L1159010-5						
Cyanide, Total		0.0962	0.0974		mg/L	1.3	20	14-JUN-12
WG1489524-7	DUP	L1158767-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-JUN-12
WG1489524-12	LCS							
Cyanide, Total			92.7		%		80-120	14-JUN-12
WG1489524-16	LCS							
Cyanide, Total			90.8		%		80-120	14-JUN-12
WG1489524-2	LCS							
Cyanide, Total			90.0		%		80-120	14-JUN-12
WG1489524-3	LCS							
Cyanide, Total			92.0		%		80-120	14-JUN-12
WG1489524-6	LCS							
Cyanide, Total			92.0		%		80-120	14-JUN-12
WG1489524-9	LCS							
Cyanide, Total			91.2		%		80-120	14-JUN-12
WG1489524-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-JUN-12
WG1489524-15	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-JUN-12
WG1489524-11	MS	L1158839-2						
Cyanide, Total			99.2		%		70-130	14-JUN-12
WG1489524-14	MS	L1159010-5						
Cyanide, Total			93.9		%		70-130	14-JUN-12
WG1489524-8	MS	L1158767-2						
Cyanide, Total			98.9		%		70-130	14-JUN-12
CN-WAD-CFA-VA		Water						
Batch	R2382568							
WG1489529-10	DUP	L1158839-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-JUN-12
WG1489529-13	DUP	L1159010-5						
Cyanide, Weak Acid Diss		0.0088	0.0089		mg/L	0.9	20	14-JUN-12
WG1489529-7	DUP	L1158767-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-JUN-12
WG1489529-12	LCS							
Cyanide, Weak Acid Diss			100.3		%		80-120	14-JUN-12



Quality Control Report

Workorder: L1158839

Report Date: 15-JUN-12

Page 2 of 3

Client: AMEC EARTH & ENVIRONMENTAL
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2382568							
WG1489529-16	LCS							
	Cyanide, Weak Acid Diss		101.7		%		80-120	14-JUN-12
WG1489529-2	LCS							
	Cyanide, Weak Acid Diss		102.6		%		80-120	14-JUN-12
WG1489529-3	LCS							
	Cyanide, Weak Acid Diss		101.9		%		80-120	14-JUN-12
WG1489529-6	LCS							
	Cyanide, Weak Acid Diss		102.8		%		80-120	14-JUN-12
WG1489529-9	LCS							
	Cyanide, Weak Acid Diss		103.5		%		80-120	14-JUN-12
WG1489529-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	14-JUN-12
WG1489529-15	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	14-JUN-12
WG1489529-11	MS	L1158839-2						
	Cyanide, Weak Acid Diss		99.4		%		70-130	14-JUN-12
WG1489529-14	MS	L1159010-5						
	Cyanide, Weak Acid Diss		95.7		%		70-130	14-JUN-12
WG1489529-8	MS	L1158767-2						
	Cyanide, Weak Acid Diss		98.3		%		70-130	14-JUN-12

Quality Control Report

Workorder: L1158839

Report Date: 15-JUN-12

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 3 of 3

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Environmental Division

Report to:	Report Format / Distribution	Service Requested:
Company: AMEC Earth & Environmental, Chemistry Dept.	<input type="checkbox"/> Standard <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Regular Service (Default)
Contact: Kristine Connor	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax	<input type="checkbox"/> Rush Service (2-3 Days)
Address: 5667-70 Street, Edmonton, AB T6B 3P6	Email 1: kristine.connor@amec.com	<input type="checkbox"/> Priority Service (1 Day or ASAP)
Phone: (780) 989-4580 Fax: (780) 377-3600	Email 2: charlene.rollheiser@amec.com	<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS

Invoice To: <input checked="" type="checkbox"/> Same as Report	Indicate Bottles: Filtered / Preserved (F/P) →								
Company: Same	Client / Project Information:								
Contact:	Job #:								
Address:	PO/AFE: EC-63325								
Sample	Legal Site Description:								
Phone: Fax:	Quote #:								
Lab Work Order # (lab use only)	ALS Contact: Maureen Olinek	Sampler (Initials):							
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	Cyanide Total and WAD	H2SO4 Method	Hazardous?	Highly Contaminated?	Number of Containers
	16 Water Samples (See attached)	see attached		Water	X	X			x



Guidelines / Regulations	Special Instructions / Hazardous Details
	Please list both ID'S on results

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Relinquished By: jeffery connor	Date & Time: 07-Jun-12	Received By: <i>Cher</i>	Date & Time: <i>12:17</i>	Temperature: <i>13.8</i>	Sample Condition (lab use only): Samples Received in Good Condition? Y / N (if no provided details)
Relinquished By:	Date & Time:	Received By:	Date & Time:		

Rec'd 07-June-12

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63357
Project Number: VE52095
Project Name: NewGold Blackwater
Date Received: 2012/06/13
Date of Report: 2012/06/20
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6078	12-6078-D	12-6079	12-6080
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/11 0:00	Lab Duplicate	2012/06/12 0:00	2012/06/11 0:00
					MDL				
SR	2012/06/15	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	4	5	30	13
SR	2012/06/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.015	0.015	0.055	0.041
SR	2012/06/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.03	0.06	0.05
SR	2012/06/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	0.008	0.008
SR	2012/06/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	0.003	< 0.003	< 0.003
SR	2012/06/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.6	0.7	0.6	4.9
EL	2012/06/19	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	44	40	64	52
EL	2012/06/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	3	3	< 2
JL	2012/06/14	Turbidity	NTU	APHA 2130-b	0.1	5.4	6.0	1.7	1.0
SR	2012/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.3	0.4	0.9

Water Analysis

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6081	12-6082	12-6083	12-6084
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
SR	2012/06/15	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	12	16	23	77
SR	2012/06/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.027	0.029	0.039	0.145
SR	2012/06/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.05	0.08
SR	2012/06/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.006	0.005	0.005	< 0.005
SR	2012/06/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	0.8	0.8	3.6
EL	2012/06/19	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	52	48	52	100
EL	2012/06/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	12	3
JL	2012/06/14	Turbidity	NTU	APHA 2130-b	0.1	0.8	1.0	5.0	1.4
SR	2012/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.4	0.3	0.4

Water Analysis

Project No. VE52095

 Final
 File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6085	12-6086	12-6087	12-6088
					Client ID:	WO9	WO10	WO11	WO12
					Sample Date:	2012/06/11 0:00	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
SR	2012/06/15	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	63	12	13	23
SR	2012/06/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.118	0.025	0.034	0.036
SR	2012/06/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.03	0.04	0.03
SR	2012/06/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.005	< 0.005	< 0.005	< 0.005
SR	2012/06/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.0	0.6	< 0.5	0.5
EL	2012/06/19	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	96	44	60	40
EL	2012/06/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	6	3	< 2	< 2
JL	2012/06/14	Turbidity	NTU	APHA 2130-b	0.1	3.0	3.8	1.1	1.1
SR	2012/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.3	0.6	0.3

Water Analysis

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6089	12-6090	12-6091	12-6092
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
SR	2012/06/15	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	65	66	63	3
SR	2012/06/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.120	0.121	0.119	< 0.001
SR	2012/06/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.07	0.06	< 0.02
SR	2012/06/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
SR	2012/06/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.0	1.8	2.9	< 0.5
EL	2012/06/19	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	92	100	88	4
EL	2012/06/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	8	< 2	7	< 2
JL	2012/06/14	Turbidity	NTU	APHA 2130-b	0.1	2.6	0.9	2.8	0.1
SR	2012/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.4	0.3	< 0.1

Water Analysis

Project No. VE52095

 Final
 File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6093
					Client ID:	Travel Blank
					Sample Date:	2012/06/11 0:00
					MDL	
SR	2012/06/15	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	2
SR	2012/06/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001
SR	2012/06/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02
SR	2012/06/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005
SR	2012/06/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
SR	2012/06/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5
EL	2012/06/19	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4
EL	2012/06/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
JL	2012/06/14	Turbidity	NTU	APHA 2130-b	0.1	< 0.1
SR	2012/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1

Water Analysis

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6078	12-6078-D	12-6079	12-6080
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/11 0:00	Lab Duplicate	2012/06/12 0:00	2012/06/11 0:00
					MDL				
EL	2012/06/15	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.8	8.9	7.7	10.5
RC	2012/06/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.2	9.2	7.8	10.6
SR	2012/06/13	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.004	0.004	0.013	0.002
EL	2012/06/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.16	0.17	< 0.08	0.38

Water Analysis

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Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6081	12-6082	12-6083	12-6084
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
EL	2012/06/15	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.7	6.9	8.9	7.9
RC	2012/06/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.8	7.0	8.9	7.9
SR	2012/06/13	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.001	0.001	0.003	0.002
EL	2012/06/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.20	0.13	0.13	0.12

Water Analysis

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File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6085	12-6086	12-6087	12-6088
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/11 0:00	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
EL	2012/06/15	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.2	8.4	14.9	8.6
RC	2012/06/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.5	8.5	14.9	8.6
SR	2012/06/13	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.001	0.003	0.004	< 0.001
EL	2012/06/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.18	0.18	0.11	0.16

Water Analysis

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Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6089	12-6090	12-6091	12-6092
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
EL	2012/06/15	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.7	9.5	8.2	< 0.1
RC	2012/06/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.0	9.5	8.4	< 0.1
SR	2012/06/13	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.001	0.002	< 0.001
EL	2012/06/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.11	0.20	0.11	< 0.08

Water Analysis

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 Final
 File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6093
					Client ID:	Travel Blank
					Sample Date:	2012/06/11 0:00
					MDL	
EL	2012/06/15	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02
RC	2012/06/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
RC	2012/06/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
SR	2012/06/13	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
RC	2012/06/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001
EL	2012/06/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6078	12-6078-D	12-6079	12-6080
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/11 0:00	Lab Duplicate	2012/06/12 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.421	0.422	0.086	0.154
RC	2012/06/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00006	0.00015
RC	2012/06/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0005	0.0013
RC	2012/06/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00383	0.00401	0.00442	0.00256
RC	2012/06/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000022
RC	2012/06/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0006	< 0.0003
RC	2012/06/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00004	0.00003	< 0.00002
RC	2012/06/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0015	0.0012	0.0004	0.0011
RC	2012/06/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2810	0.2840	0.1270	0.0787
RC	2012/06/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00770	0.00766	0.00623	0.00360
RC	2012/06/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	0.00005	0.00028	< 0.00005
RC	2012/06/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00024	0.00026	0.00019	0.00032
RC	2012/06/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.015100	0.015100	0.049500	0.032900
RC	2012/06/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0092	0.0091	0.0016	0.0011
RC	2012/06/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00016	0.00009	< 0.00005
RC	2012/06/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0009	< 0.0001
RC	2012/06/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0032	0.0032	0.0009	0.0493

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6081	12-6082	12-6083	12-6084
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.173	0.110	0.197	0.010
RC	2012/06/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00006	< 0.00005	0.00006
RC	2012/06/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0007	0.0003	0.0004
RC	2012/06/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00294	0.00426	0.00556	0.00734
RC	2012/06/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.001
RC	2012/06/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	0.00003	< 0.00002
RC	2012/06/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0005	0.0005	0.0002
RC	2012/06/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1010	0.0855	0.2070	0.0296
RC	2012/06/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00394	0.00604	0.01200	0.01060
RC	2012/06/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00030	0.00020	0.00063
RC	2012/06/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00021	0.00029	0.00027	0.00023
RC	2012/06/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.023800	0.028600	0.036100	0.096500
RC	2012/06/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0013	0.0013	0.0045	0.0003
RC	2012/06/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00023	0.00014	0.00005
RC	2012/06/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	< 0.0001	0.0004	< 0.0001
RC	2012/06/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0013	0.0016	0.0016	0.0010

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6085	12-6086	12-6087	12-6088
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/11 0:00	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.058	0.291	0.346	0.107
RC	2012/06/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0003	< 0.0001	0.0001
RC	2012/06/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00743	0.00592	0.00578	0.00528
RC	2012/06/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0004	0.0007
RC	2012/06/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00003	0.00003	0.00002
RC	2012/06/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0006	0.0002
RC	2012/06/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1280	0.2150	0.1550	0.1210
RC	2012/06/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01950	0.01080	0.00188	0.01040
RC	2012/06/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00055	0.00019	0.00009	0.00034
RC	2012/06/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00030	0.00025	0.00024	0.00011
RC	2012/06/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.083600	0.031700	0.035800	0.040700
RC	2012/06/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0020	0.0060	0.0031	0.0014
RC	2012/06/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00019	0.00013	0.00018
RC	2012/06/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0003	0.0004	< 0.0001
RC	2012/06/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0012	0.0022	0.0011	0.0011

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6089	12-6090	12-6091	12-6092
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.032	0.016	0.061	0.058
RC	2012/06/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0002	0.0006	0.0004
RC	2012/06/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.09200	0.00980	0.00697	0.00706
RC	2012/06/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.009	< 0.001	< 0.001	< 0.001
RC	2012/06/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	< 0.00002	0.00003	0.00002
RC	2012/06/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0023	0.0003	0.0003	0.0004
RC	2012/06/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0685	0.1700	0.1360	0.1330
RC	2012/06/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01170	0.01010	0.02090	0.02160
RC	2012/06/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00047	0.00046	0.00046	0.00043
RC	2012/06/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00026	0.00025	0.00029	< 0.00005
RC	2012/06/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.083400	0.091100	0.084200	0.083900
RC	2012/06/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0006	0.0005	0.0020	0.0016
RC	2012/06/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	< 0.00005	0.00008	0.00008
RC	2012/06/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001	0.0002	0.0002
RC	2012/06/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0389	0.0009	< 0.0005	< 0.0005

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6093
					Client ID:	Travel Blank
					Sample Date:	2012/06/11 0:00
					MDL	
RC	2012/06/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002
RC	2012/06/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014
RC	2012/06/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002
RC	2012/06/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015
RC	2012/06/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003
RC	2012/06/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002
RC	2012/06/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001
RC	2012/06/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/06/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006
RC	2012/06/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005
RC	2012/06/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002
RC	2012/06/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6078	12-6078-D	12-6079	12-6080
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/11 0:00	Lab Duplicate	2012/06/12 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.296	0.298	0.075	0.144
RC	2012/06/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00006	0.00015
RC	2012/06/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0005	0.0013
RC	2012/06/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00249	0.00250	0.00363	0.00243
RC	2012/06/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000022
RC	2012/06/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	0.0006	< 0.0003
RC	2012/06/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00003	0.00003	< 0.00002
RC	2012/06/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	0.0001	0.0001	0.0002
RC	2012/06/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1280	0.1290	0.0808	0.0613
RC	2012/06/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00308	0.00305	0.00278	0.00360
RC	2012/06/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	0.00005	0.00028	< 0.00005
RC	2012/06/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00026	0.00019	0.00032
RC	2012/06/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.014500	0.014500	0.047500	0.031800
RC	2012/06/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0049	0.0049	0.0012	0.0011
RC	2012/06/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00015	0.00009	< 0.00005
RC	2012/06/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00016	0.00085	< 0.00005
RC	2012/06/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0032	0.0032	0.0009	0.0493
SR	2012/06/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.43	6.39	7.27	6.87

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6081	12-6082	12-6083	12-6084
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.159	0.098	0.126	0.007
RC	2012/06/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00006	< 0.00005	0.00006
RC	2012/06/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0007	0.0003	0.0004
RC	2012/06/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00307	0.00371	0.00419	0.00734
RC	2012/06/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	0.001
RC	2012/06/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	< 0.00002	0.00003	< 0.00002
RC	2012/06/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	< 0.0001	0.0002	< 0.0001
RC	2012/06/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0877	0.0541	0.0956	0.0195
RC	2012/06/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00297	0.00250	0.00611	0.00308
RC	2012/06/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00030	0.00020	0.00063
RC	2012/06/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00021	0.00029	0.00027	0.00023
RC	2012/06/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.023500	0.027200	0.034600	0.124000
RC	2012/06/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0013	0.0010	0.0019	0.0002
RC	2012/06/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00021	0.00013	0.00010
RC	2012/06/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	< 0.00005	0.00026	0.00006
RC	2012/06/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0013	0.0016	0.0016	0.0010
SR	2012/06/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.96	6.92	7.11	7.84

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6085	12-6086	12-6087	12-6088
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/11 0:00	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.033	0.218	0.325	0.092
RC	2012/06/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0003	< 0.0001	0.0001
RC	2012/06/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00614	0.00379	0.00523	0.00488
RC	2012/06/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	0.0004	< 0.0003
RC	2012/06/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00005	0.00003	0.00003	0.00002
RC	2012/06/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0001	0.0004	< 0.0001
RC	2012/06/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0685	0.1110	0.1320	0.0845
RC	2012/06/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01090	0.00228	0.00146	0.00591
RC	2012/06/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00055	0.00019	0.00009	0.00034
RC	2012/06/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00030	0.00025	0.00024	0.00011
RC	2012/06/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.080100	0.025500	0.034200	0.039300
RC	2012/06/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0006	0.0037	0.0031	0.0012
RC	2012/06/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00016	0.00013	0.00018
RC	2012/06/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00022	0.00042	< 0.00005
RC	2012/06/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0012	0.0022	0.0011	0.0011
SR	2012/06/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.76	6.93	7.06	7.08

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6089	12-6090	12-6091	12-6092
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.026	0.013	0.028	< 0.002
RC	2012/06/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0002	0.0006	< 0.0001
RC	2012/06/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00627	0.00924	0.00627	< 0.00005
RC	2012/06/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	0.002
RC	2012/06/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	< 0.00002	0.00003	< 0.00002
RC	2012/06/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	< 0.0001	0.0002	< 0.0001
RC	2012/06/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0653	0.1170	0.0749	< 0.0001
RC	2012/06/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01170	0.00593	0.01350	< 0.00005
RC	2012/06/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00047	0.00046	0.00046	< 0.00005
RC	2012/06/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00025	0.00029	< 0.00005
RC	2012/06/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.080600	0.086400	0.079900	< 0.000005
RC	2012/06/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0004	0.0004	< 0.0002
RC	2012/06/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	< 0.00005	0.00008	< 0.00005
RC	2012/06/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	0.00008	0.00022	< 0.00005
RC	2012/06/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	0.0009	< 0.0005	< 0.0005
SR	2012/06/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.78	7.79	7.78	5.83

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6093
					Client ID:	Travel Blank
					Sample Date:	2012/06/11 0:00
					MDL	
RC	2012/06/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002
RC	2012/06/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/06/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
RC	2012/06/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
RC	2012/06/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
RC	2012/06/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/06/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/06/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006
RC	2012/06/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005
RC	2012/06/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
RC	2012/06/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005
SR	2012/06/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.47

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6078	12-6078-D	12-6079	12-6080
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/11 0:00	Lab Duplicate	2012/06/12 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	1.5	1.5	6.7	5.0
RC	2012/06/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	< 0.50	1.50	0.82
RC	2012/06/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.02	< 0.01
RC	2012/06/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/06/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.28	4.22	7.37	5.20
RC	2012/06/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.3	1.2	2.4	1.9
RC	2012/06/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	< 6.0	22.8	15.9

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6081	12-6082	12-6083	12-6084
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.1	3.4	4.9	25.4
RC	2012/06/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.85	0.54	1.08	4.33
RC	2012/06/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/06/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
RC	2012/06/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.71	4.92	5.02	4.49
RC	2012/06/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	1.6	1.8	3.4
RC	2012/06/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	11.2	10.7	16.6	81.3

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6085	12-6086	12-6087	12-6088
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/11 0:00	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	15.1	3.1	4.7	4.7
RC	2012/06/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.44	0.58	0.93	0.79
RC	2012/06/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/06/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/06/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.75	4.65	5.81	3.70
RC	2012/06/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.0	1.5	1.8	1.5
RC	2012/06/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	51.8	10.0	15.6	15.1

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6089	12-6090	12-6091	12-6092
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	15.2	16.7	14.9	< 0.5
RC	2012/06/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.44	3.29	3.93	< 0.50
RC	2012/06/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/06/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.5	0.7	< 0.5
RC	2012/06/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.95	6.27	4.78	< 0.01
RC	2012/06/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	3.0	3.3	< 0.5
RC	2012/06/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	52.1	55.3	53.5	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6093
					Client ID:	Travel Blank
					Sample Date:	2012/06/11 0:00
					MDL	
RC	2012/06/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/06/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50
RC	2012/06/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/06/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/06/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/06/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/06/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6078	12-6078-D	12-6079	12-6080
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/11 0:00	Lab Duplicate	2012/06/12 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.5	1.5	6.9	5.2
RC	2012/06/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	< 0.50	1.58	0.82
RC	2012/06/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	0.20	< 0.02
RC	2012/06/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/06/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.28	4.22	7.37	5.20
RC	2012/06/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.3	1.2	2.4	1.9
RC	2012/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	< 6.0	23.8	16.3

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6081	12-6082	12-6083	12-6084
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.2	3.5	5.1	25.4
RC	2012/06/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.85	0.54	1.10	4.50
RC	2012/06/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
RC	2012/06/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.71	4.92	5.02	4.49
RC	2012/06/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.6	1.8	3.4
RC	2012/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	11.4	10.9	17.2	82.0

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6085	12-6086	12-6087	12-6088
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/11 0:00	2012/06/12 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	15.7	3.8	5.0	4.9
RC	2012/06/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.54	0.58	0.93	0.79
RC	2012/06/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/06/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.75	4.65	5.81	3.70
RC	2012/06/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	1.5	1.8	1.5
RC	2012/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	53.7	11.9	16.2	15.6

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6089	12-6090	12-6091	12-6092
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00	2012/06/11 0:00
					MDL				
RC	2012/06/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	15.7	17.1	15.7	15.9
RC	2012/06/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.54	3.42	3.93	3.57
RC	2012/06/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	0.5	0.7	0.6
RC	2012/06/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.95	6.27	4.78	4.61
RC	2012/06/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.1	3.0	3.3	2.9
RC	2012/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	53.8	56.7	55.5	54.4

Water Analysis - Total Metals

Project No. VE52095

 Final
 File No. EC-63357

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6093
					Client ID:	Travel Blank
					Sample Date:	2012/06/11 0:00
					MDL	
RC	2012/06/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/06/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50
RC	2012/06/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02
RC	2012/06/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/06/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01
RC	2012/06/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Quality Control Standard

Project No.

File No. EC-63357

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
SR	2012/06/15	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	66	56-77	65.00	QC-ALK/F-47
SR	2012/06/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.77	2.54-2.94	2.79	CC-EC-0.02M-42
SR	2012/06/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.51	0.44-0.58	0.50	QC-ALK/F-47
SR	2012/06/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.60	1.44-1.76	1.60	CC-Anion-117B
SR	2012/06/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.637	0.54-0.66	0.60	CC-Anion-117B
SR	2012/06/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.3	25.2-30.8	28.00	CC-Anion-117B
EL	2012/06/19	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4592	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/06/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	151	134-153	144.00	OCP-E2-SLD02009
JL	2012/06/14	Turbidity	NTU	APHA 2130-b	0.1	16	14.53-19.49	17.01	D2-TURB01052
SR	2012/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.7	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/06/15	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.61	0.47-0.74	0.61	NH3SC-001
RC	2012/06/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.8	3.3-4.3	3.80	DMD-TOC-91-Low
RC	2012/06/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	37.3	33.1-42.6	37.90	DMD-TOC-91-Mid
SR	2012/06/13	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.787	0.72-0.88	0.80	CC-Anion-117BL
RC	2012/06/18	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	255	225-275	250.00	MS-CCV-HIGH
EL	2012/06/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	16.2	12.08 - 18.12	15.10	QC-Nut-B2-01111

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/18	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	53.6	45-55	50.00	MS-CCV-HIGH
RC	2012/06/18	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	98.8	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/18	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/18	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.9	45-55	50.00	MS-CCV-HIGH
RC	2012/06/18	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/18	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	49.9	45-55	50.00	MS-CCV-HIGH
RC	2012/06/18	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/18	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/18	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/18	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	51.1	45-55	50.00	MS-CCV-HIGH
RC	2012/06/18	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	47.7	45-55	50.00	MS-CCV-HIGH
RC	2012/06/18	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/18	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.4	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/06/18	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	48.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/15	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.266000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/06/18	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/18	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/18	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/06/18	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.5	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/06/18	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.9	45-55	50.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63357

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/18	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	243	225-275	250.00	MS-CCV-HIGH
RC	2012/06/18	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	256	225-275	250.00	MS-CCV-HIGH
RC	2012/06/18	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/18	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	98.0	90-110	100.00	MS-CCV-HIGH
RC	2012/06/18	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/18	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	50.4	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/17	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	53.2	45-55	50.00	MS-CCV-HIGH
RC	2012/06/17	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	108	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/17	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/17	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	48.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/17	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	53.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/17	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	51.8	45-55	50.00	MS-CCV-HIGH
RC	2012/06/17	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/17	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/17	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/17	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	50.7	45-55	50.00	MS-CCV-HIGH
RC	2012/06/17	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/17	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	102	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/17	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	55.0	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/06/17	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/15	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.266000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/06/17	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	50.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/17	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	52.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/17	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	50.7	45-55	50.00	MS-CCV-HIGH
RC	2012/06/17	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.7	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/06/17	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.7	45-55	50.00	MS-CCV-HIGH
RC	2012/06/17	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	245	225-275	250.00	MS-CCV-HIGH
RC	2012/06/17	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	249	225-275	250.00	MS-CCV-HIGH
RC	2012/06/17	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	49.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/17	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	94.8	90-110	100.00	MS-CCV-HIGH
RC	2012/06/17	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/17	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	52.2	45.0-55.0	50.00	MS-CCV-HIGH
SR	2012/06/15	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-3

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/17	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/17	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24700	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/17	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	261	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63357

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/17	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24500	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/06/17	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	121	105-129	117.00	MS-CCV-HIGH
RC	2012/06/17	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25500	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/18	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/18	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/18	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	255	225-275	250.00	MS-CCV-HIGH
RC	2012/06/18	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25400	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/06/18	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	124	105-129	117.00	MS-CCV-HIGH
RC	2012/06/18	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25800	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095

File No. EC-63357

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-63557
71

Chain of Custody Record/Analysis Request

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

YES
Please attach a copy of this quote

NO

Quote #:

QN-521

Temperature Received:

14.5 °C

Receiver's Comments

ISSUING OFFICE:	Burnaby, BC	Project Name:	NewGold Blackwater	Sampler:		Phone No.:	504-294-3811
Project Manager:	Bruce Ott	Project Number:	VE52095	Task:		Phase:	
Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	yyyy/mm/dd	Matrix		Task:	
FOR LAB USE ONLY	yyyy/mm/dd	Matrix		Task:		Task:	
WQ1	7-6078	6/1/2012	water	1L Bottle	2	2	X
WQ3	79	6/1/2012	water	250 mL Jar	2	2	X
WQ4	80	6/1/2012	water	40 mL Vial	2	2	X
WQ5	81	6/1/2012	water	1L Polyethylene	2	2	X
WQ6	82	6/1/2012	water	100 mL Amber	2	2	X
WQ7	83	6/1/2012	water	250 mL Polyethylene	2	2	X
WQ8	84	6/1/2012	water	125 mL Polyethylene	2	2	X
WQ9	85	6/1/2012	water	Water potability	2	2	X
WQ10	86	6/1/2012	water	Total and ortho- Phosphorus	2	2	X
WQ11	87	6/1/2012	water	Cyanide (total and WAD)	2	2	X
WQ12	88	6/1/2012	water	TSS	2	2	X
WQ13	89	6/1/2012	water	Total and dissolved metals (Ultra ICP/MS)	2	2	X
WQ14	90	6/1/2012	water	Ammonia and TKN	2	2	X
Dup	91	6/1/2012	water	Organic carbon (TOC, DOC)	2	2	X
Field Blank	92	6/1/2012	water	50% RUSH (Please Notify Lab Prior To Submission)	2	2	X
Travel Blank	93	6/1/2012	water	100% RUSH (Please Notify Lab Prior To Submission)	2	2	X

RELINQUISHED BY:	SIGNATURE:	RECEIVED BY:	SIGNATURE:	RELINQUISHED BY:	SIGNATURE:	RECEIVED BY:	SIGNATURE:
Printed Name:	L. Nordin	Printed Name:	Colin Cole	Printed Name:		Printed Name:	
Firm:	AMEC	Firm:	AMEC	Firm:		Firm:	
Avision Management Services		Avision Management Services		Avision Management Services		Avision Management Services	
Date/Time:	6/12/2012 14:00	Date/Time:	18 Jun 12 7:40	Date/Time:		Date/Time:	

Comments:

- 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)
- 2) Please use Low Level nitrate and nitrite
- 3) Please analyze CN⁻⁴ and CN-WAD using H2SO4 method.



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 13-JUN-12
Report Date: 21-JUN-12 10:45 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1161703
Project P.O. #: 2220
Job Reference: EC-63357
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1161703-1 12-6078~WQ1 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-2 12-6079~WQ3 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-3 12-6080~WQ4 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-4 12-6081~WQ5 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-5 12-6082~WQ6 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-6 12-6083~WQ7 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-7 12-6084~WQ8 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-8 12-6085~WQ9 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-9 12-6086~WQ10 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1161703-9 12-6086~WQ10 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-10 12-6087~WQ11 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-11 12-6088~WQ12 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-12 12-6089~WQ13 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-13 12-6090~WQ14 Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-14 12-6091~WQ DUPLICATE Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-15 12-6092~FIELD BLANK Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318
L1161703-16 12-6093~TRAVEL BLANK Sampled By: CLIENT on 12-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-12 19-JUN-12	R2385314 R2385318

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1161703

Report Date: 21-JUN-12

Page 1 of 4

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2385314							
WG1492373-12	DUP	L1159393-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492373-15	DUP	L1159627-15						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492373-17	DUP	L1161309-12						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492373-4	DUP	L1160966-10						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492373-9	DUP	L1158567-5						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492373-11	LCS							
Cyanide, Total			94.2		%		80-120	19-JUN-12
WG1492373-14	LCS							
Cyanide, Total			93.8		%		80-120	19-JUN-12
WG1492373-19	LCS							
Cyanide, Total			92.6		%		80-120	19-JUN-12
WG1492373-2	LCS							
Cyanide, Total			91.2		%		80-120	19-JUN-12
WG1492373-3	LCS							
Cyanide, Total			92.5		%		80-120	19-JUN-12
WG1492373-6	LCS							
Cyanide, Total			93.5		%		80-120	19-JUN-12
WG1492373-7	LCS							
Cyanide, Total			89.7		%		80-120	19-JUN-12
WG1492373-8	LCS							
Cyanide, Total			93.4		%		80-120	19-JUN-12
WG1492373-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	19-JUN-12
WG1492373-20	MB							
Cyanide, Total			<0.0050		mg/L		0.005	19-JUN-12
WG1492373-10	MS	L1158567-5						
Cyanide, Total			105.4		%		70-130	19-JUN-12
WG1492373-13	MS	L1159393-2						
Cyanide, Total			107.2		%		70-130	19-JUN-12
WG1492373-16	MS	L1159627-15						
Cyanide, Total			105.1		%		70-130	19-JUN-12
WG1492373-18	MS	L1161309-12						
Cyanide, Total			102.6		%		70-130	19-JUN-12



Quality Control Report

Workorder: L1161703

Report Date: 21-JUN-12

Page 2 of 4

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2385314							
WG1492373-5	MS	L1160966-10						
Cyanide, Total			108.1		%		70-130	19-JUN-12
CN-WAD-CFA-VA								
	Water							
Batch	R2385318							
WG1492378-12	DUP	L1159393-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492378-15	DUP	L1159627-15						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492378-17	DUP	L1161309-12						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492378-4	DUP	L1160966-10						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492378-9	DUP	L1158567-5						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-12
WG1492378-11	LCS							
Cyanide, Weak Acid Diss			110.8		%		80-120	19-JUN-12
WG1492378-14	LCS							
Cyanide, Weak Acid Diss			104.5		%		80-120	19-JUN-12
WG1492378-19	LCS							
Cyanide, Weak Acid Diss			108.9		%		80-120	19-JUN-12
WG1492378-2	LCS							
Cyanide, Weak Acid Diss			105.9		%		80-120	19-JUN-12
WG1492378-3	LCS							
Cyanide, Weak Acid Diss			109.7		%		80-120	19-JUN-12
WG1492378-6	LCS							
Cyanide, Weak Acid Diss			104.7		%		80-120	19-JUN-12
WG1492378-7	LCS							
Cyanide, Weak Acid Diss			107.1		%		80-120	19-JUN-12
WG1492378-8	LCS							
Cyanide, Weak Acid Diss			108.9		%		80-120	19-JUN-12
WG1492378-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	19-JUN-12
WG1492378-20	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	19-JUN-12
WG1492378-10	MS	L1158567-5						
Cyanide, Weak Acid Diss			107.7		%		70-130	19-JUN-12
WG1492378-13	MS	L1159393-2						



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Client: AMEC EARTH & ENVIRONMENTAL
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2385318							
WG1492378-13 MS		L1159393-2						
Cyanide, Weak Acid Diss			107.0		%		70-130	19-JUN-12
WG1492378-16 MS		L1159627-15						
Cyanide, Weak Acid Diss			106.8		%		70-130	19-JUN-12
WG1492378-18 MS		L1161309-12						
Cyanide, Weak Acid Diss			99.96		%		70-130	19-JUN-12
WG1492378-5 MS		L1160966-10						
Cyanide, Weak Acid Diss			104.5		%		70-130	19-JUN-12

Quality Control Report

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5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Environmental Division

Report to:	Report Format / Distribution	Service Requested:
Company: AMEC Earth & Environmental, Chemistry Dept.	<input type="checkbox"/> Standard <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Regular Service (Default)
Contact: Kristine Connor	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax	<input type="checkbox"/> Rush Service (2-3 Days)
Address: 5667-70 Street, Edmonton, AB T6B 3P6	Email 1: kristine.connor@amec.com	<input type="checkbox"/> Priority Service (1 Day or ASAP)
	Email 2: charlene.rollheiser@amec.com	<input type="checkbox"/> Emergency Service (<1 Day / Weekend) - Contact ALS
Phone: (780) 989-4580 Fax: (780) 377-3600		

Invoice To: <input checked="" type="checkbox"/> Same as Report	Indicate Bottles: Filtered / Preserved (F/P) →→
-----------------------------------------------------------------------	-------------------------------------------------

Company: Same	Client / Project Information:
Contact:	Job #:
Address:	PO/AFE: EC-63357
Sample	Legal Site Description:
Phone: Fax:	Quote #:

Lab Work Order # (lab use only)	ALS Contact:	Maureen Olinek	Sampler (Initials):	Analysis Request																				
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	Cyanide Total and WAD																Hazardous?	Highly Contaminated?	Number of Containers	
	16 water samples (See attached)	see attached	attached	Water	X																			x

Guidelines / Regulations	Special Instructions / Hazardous Details
	Please list both ID's on results. Please use H2S04 Method

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Relinquished By:	jeffery connor	Date & Time:	13-Jun-12	Received By:	<i>[Signature]</i>	Date & Time:	13-Jun-12	Sample Condition (lab use only)	
Relinquished By:		Date & Time:		Received By:		Date & Time:	12:49	Temperature	17.8°C
								Samples Received in Good Condition? Y / N (if no provided details)	



FileNbr	SampleName	LabNbr	DateSampled	Description
EC-63357	WQ1	12-6078-	2012/06/11	Water
EC-63357	WQ3	12-6079-	2012/06/12	Water
EC-63357	WQ4	12-6080-	2012/06/11	Water
EC-63357	WQ5	12-6081-	2012/06/12	Water
EC-63357	WQ6	12-6082-	2012/06/11	Water
EC-63357	WQ7	12-6083-	2012/06/11	Water
EC-63357	WQ8	12-6084-	2012/06/11	Water
EC-63357	WQ9	12-6085-	2012/06/11	Water
EC-63357	WQ10	12-6086-	2012/06/12	Water
EC-63357	WQ11	12-6087-	2012/06/11	Water
EC-63357	WQ12	12-6088-	2012/06/11	Water
EC-63357	WQ13	12-6089-	2012/06/11	Water
EC-63357	WQ14	12-6090-	2012/06/11	Water
EC-63357	WQ Duplicate	12-6091-	2012/06/11	Water
EC-63357	Field Blank	12-6092-	2012/06/11	Water
EC-63357	Travel Blank	12-6093-	2012/06/11	Water



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63411
Project Number: VE52095
Project Name: NewGold Blackwater
Date Received: 2012/06/20
Date of Report: 2012/06/27
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6461	12-6461-D	12-6462	12-6463
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/19 0:00	2012/06/18 0:00
					MDL				
SR	2012/06/23	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	4	5	32	15
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.019	0.018	0.065	0.044
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.03	0.05	0.06
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.005	0.005	0.007	0.024
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.7	0.8	0.9	5.0
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	27	32	52	60
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	2	2	< 2
JL	2012/06/25	Turbidity	NTU	APHA 2130-b	0.1	2.6	2.7	1.9	0.6
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.5	0.3	0.8

Water Analysis

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6464	12-6465	12-6466	12-6467
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
SR	2012/06/23	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	12	17	23	75
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.030	0.040	0.044	0.147
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.03	0.04	0.07
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.008	0.010	0.008	0.008
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	0.8	0.9	3.6
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	36	44	64	96
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	7	4
JL	2012/06/25	Turbidity	NTU	APHA 2130-b	0.1	0.9	0.8	3.5	1.2
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.3	0.3	0.4

Water Analysis

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6468	12-6469	12-6470	12-6471
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/18 0:00	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
SR	2012/06/23	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	63	14	20	18
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.124	0.031	0.040	0.038
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.05	0.04	0.03
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.008	0.009	0.007	0.006
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.2	0.8	0.5	0.8
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	88	44	56	36
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	5	< 2	< 2	< 2
JL	2012/06/25	Turbidity	NTU	APHA 2130-b	0.1	2.6	1.8	1.4	1.0
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.3	0.3	0.3

Water Analysis

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6472	12-6473	12-6474	12-6475
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
SR	2012/06/23	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	63	72	11	3
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.127	0.139	0.029	< 0.001
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.07	0.04	< 0.02
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	0.007	0.005	< 0.005
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.2	2.2	0.7	< 0.5
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	76	76	36	< 4
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	6	< 2	< 2	< 2
JL	2012/06/25	Turbidity	NTU	APHA 2130-b	0.1	3.2	1.5	0.9	0.2
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.5	0.2	< 0.1

Water Analysis

Project No. VE52095

 Final
 File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6476
					Client ID:	Trip Blank
					Sample Date:	2012/06/18 0:00
					MDL	
SR	2012/06/23	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	2
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
JL	2012/06/25	Turbidity	NTU	APHA 2130-b	0.1	0.2
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1

Water Analysis

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6461	12-6461-D	12-6462	12-6463
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/19 0:00	2012/06/18 0:00
					MDL				
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.5	8.7	7.0	9.7
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.0	9.0	7.1	10.1
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.003	< 0.001	0.016	< 0.001
EL	2012/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.16	0.13	0.09	0.19

Water Analysis

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6464	12-6465	12-6466	12-6467
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.5	6.4	8.2	8.1
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.6	6.6	8.2	8.3
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2012/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.09	0.12	< 0.08	0.30

Water Analysis

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6468	12-6469	12-6470	12-6471
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/18 0:00	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.4	7.7	14.1	8.1
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.4	7.9	14.6	8.2
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	0.002	0.008
EL	2012/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.14	< 0.08	0.14	0.11

Water Analysis

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6472	12-6473	12-6474	12-6475
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.4	8.4	10.1	0.2
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.4	8.5	10.1	0.2
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2012/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.15	0.11	0.11	0.16

Water Analysis

Project No. VE52095

 Final
 File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6476
					Client ID:	Trip Blank
					Sample Date:	2012/06/18 0:00
					MDL	
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001
EL	2012/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6461	12-6461-D	12-6462	12-6463
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/19 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.310	0.349	0.085	0.126
RC	2012/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00010
RC	2012/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0003	0.0006	0.0012
RC	2012/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00298	0.00302	0.00414	0.00228
RC	2012/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000034
RC	2012/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0009	< 0.0003
RC	2012/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1590	0.1600	0.1290	0.0538
RC	2012/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00500	0.00500	0.00689	0.00135
RC	2012/06/26	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00037	0.00019	0.00037	0.00006
RC	2012/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00034	0.00023	0.00280	0.00028
RC	2012/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.016000	0.014900	0.051800	0.030100
RC	2012/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0047	0.0046	0.0017	0.0009
RC	2012/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00026	0.00019	0.00010	< 0.00005
RC	2012/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0011	0.0001
RC	2012/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0042	0.0040	0.0030	0.0468

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6464	12-6465	12-6466	12-6467
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.167	0.104	0.334	0.012
RC	2012/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00089	< 0.00005
RC	2012/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0008	0.0005	0.0005
RC	2012/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00284	0.00395	0.00731	0.00607
RC	2012/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	0.012	< 0.001
RC	2012/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000122	< 0.000015
RC	2012/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0005	< 0.0003	0.0007	< 0.0003
RC	2012/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	0.00010	< 0.00002
RC	2012/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0363	< 0.0001
RC	2012/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0977	0.0754	0.1900	0.0278
RC	2012/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00094	< 0.00005
RC	2012/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00371	0.00485	0.01230	0.00842
RC	2012/06/26	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00030	0.00030	0.00047
RC	2012/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00019	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	0.0009	< 0.0006
RC	2012/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.023500	0.027100	0.046700	0.098000
RC	2012/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0021	< 0.0001
RC	2012/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0013	0.0013	0.0039	0.0004
RC	2012/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00022	0.00013	0.00010
RC	2012/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0002	0.0005	0.0002
RC	2012/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0027	0.0025	0.1330	0.0016

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6468	12-6469	12-6470	12-6471
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/18 0:00	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.064	0.205	0.355	0.110
RC	2012/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0004	0.0001	0.0002
RC	2012/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00691	0.00537	0.00612	0.00572
RC	2012/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	0.0005	0.0003	0.0004
RC	2012/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	0.00002	< 0.00002
RC	2012/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0003	< 0.0001
RC	2012/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1390	0.1370	0.1490	0.1190
RC	2012/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02430	0.00520	0.00208	0.01150
RC	2012/06/26	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00050	0.00024	0.00007	0.00038
RC	2012/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00024	0.00009
RC	2012/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.084500	0.028600	0.037700	0.041700
RC	2012/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0021	0.0029	0.0038	0.0016
RC	2012/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00017	0.00015	0.00020
RC	2012/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0005	0.0002
RC	2012/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0015	0.0035	0.0028	0.0039

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6472	12-6473	12-6474	12-6475
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.063	0.042	0.194	< 0.002
RC	2012/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0003	0.0005	< 0.0001
RC	2012/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00730	0.01940	0.00342	< 0.00005
RC	2012/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	0.001	< 0.001	0.003
RC	2012/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0004	< 0.0001
RC	2012/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1410	0.2580	0.0930	< 0.0001
RC	2012/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02520	0.01870	0.00379	< 0.00005
RC	2012/06/26	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00051	0.00050	0.00059	< 0.00005
RC	2012/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00029	0.00022	0.00024	< 0.00005
RC	2012/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.087200	0.099100	0.021700	< 0.000005
RC	2012/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0022	0.0012	0.0014	< 0.0002
RC	2012/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00007	0.00019	< 0.00005
RC	2012/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0003	< 0.0001
RC	2012/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0022	0.0015	0.0019	< 0.0005

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6476
					Client ID:	Trip Blank
					Sample Date:	2012/06/18 0:00
					MDL	
RC	2012/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002
RC	2012/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.003
RC	2012/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000028
RC	2012/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003
RC	2012/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005
RC	2012/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001
RC	2012/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/26	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006
RC	2012/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005
RC	2012/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002
RC	2012/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6461	12-6461-D	12-6462	12-6463
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/19 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.207	0.209	0.066	0.108
RC	2012/06/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00009
RC	2012/06/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0006	0.0012
RC	2012/06/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00240	0.00222	0.00359	0.00218
RC	2012/06/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000034
RC	2012/06/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	0.0009	< 0.0003
RC	2012/06/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/06/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0773	0.0801	0.0828	0.0423
RC	2012/06/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00397	0.00287	0.00363	0.00135
RC	2012/06/26	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00037	0.00019	0.00037	0.00006
RC	2012/06/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00034	0.00023	0.00280	0.00028
RC	2012/06/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.016000	0.014900	0.048200	0.029900
RC	2012/06/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0020	0.0018	0.0013	0.0007
RC	2012/06/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00019	0.00010	< 0.00005
RC	2012/06/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00031	0.00031	0.00114	0.00012
RC	2012/06/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0042	0.0040	0.0028	0.0468
SR	2012/06/23	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.45	6.81	7.64	7.22

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6464	12-6465	12-6466	12-6467
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.146	0.076	0.334	0.005
RC	2012/06/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00089	< 0.00005
RC	2012/06/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0007	0.0005	0.0005
RC	2012/06/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00262	0.00358	0.00731	0.00539
RC	2012/06/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	0.012	< 0.001
RC	2012/06/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000122	< 0.000015
RC	2012/06/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0005	< 0.0003	0.0007	< 0.0003
RC	2012/06/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00010	< 0.00002
RC	2012/06/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	0.0363	< 0.0001
RC	2012/06/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0789	0.0464	0.0777	0.0193
RC	2012/06/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00094	< 0.00005
RC	2012/06/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00293	0.00244	0.01070	0.00165
RC	2012/06/26	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00028	0.00030	0.00046
RC	2012/06/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00024	0.00840	0.00021
RC	2012/06/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	0.0009	< 0.0006
RC	2012/06/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.023200	0.026700	0.046700	0.091300
RC	2012/06/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	0.0014	< 0.0001
RC	2012/06/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0010	0.0007	0.0021	< 0.0002
RC	2012/06/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00022	0.00012	0.00010
RC	2012/06/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00032	0.00018	0.00050	0.00024
RC	2012/06/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0027	0.0025	0.1330	0.0016
SR	2012/06/23	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.27	7.49	7.54	8.07

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6468	12-6469	12-6470	12-6471
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/18 0:00	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.021	0.151	0.295	0.079
RC	2012/06/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0004	0.0001	0.0002
RC	2012/06/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00602	0.00376	0.00526	0.00473
RC	2012/06/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	0.0005	0.0003	0.0004
RC	2012/06/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00002	< 0.00002
RC	2012/06/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0668	0.0808	0.1180	0.0823
RC	2012/06/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01460	0.00223	0.00145	0.00676
RC	2012/06/26	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00050	0.00024	0.00007	0.00037
RC	2012/06/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00019	0.00024	0.00009
RC	2012/06/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.079700	0.027600	0.035800	0.039500
RC	2012/06/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0020	0.0032	0.0010
RC	2012/06/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	0.00017	0.00015	0.00020
RC	2012/06/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00037	0.00032	0.00054	0.00022
RC	2012/06/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0015	0.0035	0.0028	0.0039
SR	2012/06/23	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	8.01	7.33	7.42	7.45

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6472	12-6473	12-6474	12-6475
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.020	0.010	0.170	< 0.002
RC	2012/06/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0002	0.0005	< 0.0001
RC	2012/06/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00622	0.00959	0.00313	< 0.00005
RC	2012/06/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	0.001
RC	2012/06/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/06/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/06/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0693	0.1300	0.0771	< 0.0001
RC	2012/06/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01610	0.00779	0.00242	< 0.00005
RC	2012/06/26	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00045	0.00046	0.00056	< 0.00005
RC	2012/06/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00029	0.00022	0.00024	< 0.00005
RC	2012/06/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.081400	0.092700	0.021100	< 0.000005
RC	2012/06/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0002	0.0009	< 0.0002
RC	2012/06/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00007	0.00019	< 0.00005
RC	2012/06/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00034	0.00026	0.00031	< 0.00005
RC	2012/06/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0022	0.0015	0.0019	< 0.0005
SR	2012/06/23	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	8.01	8.06	7.25	5.53

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6476
					Client ID:	Trip Blank
					Sample Date:	2012/06/18 0:00
					MDL	
RC	2012/06/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002
RC	2012/06/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/06/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
RC	2012/06/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
RC	2012/06/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
RC	2012/06/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/06/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/26	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/06/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006
RC	2012/06/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005
RC	2012/06/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/06/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
RC	2012/06/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/06/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005
SR	2012/06/23	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.48

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6461	12-6461-D	12-6462	12-6463
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/19 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	1.6	7.7	5.0
RC	2012/06/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	< 0.50	1.76	0.78
RC	2012/06/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.02	< 0.01
RC	2012/06/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/06/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.93	3.97	6.50	4.99
RC	2012/06/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.4	1.3	2.6	1.9
RC	2012/06/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	< 6.0	26.6	15.7

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6464	12-6465	12-6466	12-6467
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.4	3.6	23.5	18.5
RC	2012/06/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.86	0.56	4.88	4.32
RC	2012/06/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	15.4	< 0.01
RC	2012/06/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	40.3	0.7
RC	2012/06/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.04	4.43	4.93	3.93
RC	2012/06/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	1.6	107	3.4
RC	2012/06/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.0	11.3	78.8	64.0

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6468	12-6469	12-6470	12-6471
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/18 0:00	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	15.9	3.8	5.4	5.0
RC	2012/06/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.56	0.68	0.98	0.77
RC	2012/06/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	0.01
RC	2012/06/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	< 0.5	< 0.5	< 0.5
RC	2012/06/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.26	4.46	5.33	3.46
RC	2012/06/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.0	1.7	1.8	1.5
RC	2012/06/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	54.3	12.3	17.6	15.7

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6472	12-6473	12-6474	12-6475
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	15.9	18.1	3.2	< 0.5
RC	2012/06/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.53	3.64	0.76	< 0.50
RC	2012/06/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/06/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	< 0.5	< 0.5	< 0.5
RC	2012/06/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.24	5.62	4.17	< 0.01
RC	2012/06/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	3.2	1.6	< 0.5
RC	2012/06/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	54.2	60.0	11.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6476
					Client ID:	Trip Blank
					Sample Date:	2012/06/18 0:00
					MDL	
RC	2012/06/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/06/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50
RC	2012/06/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/06/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/06/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/06/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/06/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6461	12-6461-D	12-6462	12-6463
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/19 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.6	7.7	5.1
RC	2012/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	< 0.50	1.76	0.79
RC	2012/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	0.02	< 0.02
RC	2012/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.38	4.28	6.73	4.99
RC	2012/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.3	1.3	2.5	1.8
RC	2012/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	< 6.0	26.6	15.8

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6464	12-6465	12-6466	12-6467
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.4	3.6	5.4	19.2
RC	2012/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.87	0.56	23.5	4.45
RC	2012/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	4.88	< 0.02
RC	2012/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	15.4	0.7
RC	2012/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.31	4.69	5.05	4.01
RC	2012/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.8	1.6	107	3.4
RC	2012/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.1	11.2	110	66.4

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6468	12-6469	12-6470	12-6471
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/06/18 0:00	2012/06/19 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	16.0	3.8	5.6	5.1
RC	2012/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.69	0.68	1.03	0.79
RC	2012/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.39	4.79	5.62	3.46
RC	2012/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	1.7	1.9	1.5
RC	2012/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	55.0	12.3	18.2	15.9

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6472	12-6473	12-6474	12-6475
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	16.4	18.6	3.2	< 0.5
RC	2012/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.70	3.84	0.77	< 0.50
RC	2012/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
RC	2012/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.32	5.88	4.44	< 0.01
RC	2012/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.9	3.2	1.6	< 0.5
RC	2012/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	56.2	62.2	11.1	< 6.0

Water Analysis - Total Metals

Project No. VE52095

 Final
 File No. EC-63411

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6476
					Client ID:	Trip Blank
					Sample Date:	2012/06/18 0:00
					MDL	
RC	2012/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50
RC	2012/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02
RC	2012/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01
RC	2012/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Quality Control Standard

Project No.

File No. EC-63411

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
SR	2012/06/23	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	66	56-77	65.00	QC-ALK/F-47
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.79	2.54-2.94	2.79	CC-EC-0.02M-42
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.51	0.44-0.58	0.50	QC-ALK/F-47
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.54	1.44-1.76	1.60	CC-Anion-117B
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.614	0.54-0.66	0.60	CC-Anion-117B
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.3	25.2-30.8	28.00	CC-Anion-117B
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4680	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	149	134-153	144.00	OCP-E2-SLD02009
JL	2012/06/25	Turbidity	NTU	APHA 2130-b	0.1	17	14.53-19.49	17.01	D2-TURB01052
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.59	0.47-0.74	0.61	NH3SC-001
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.8	3.3-4.3	3.80	DMD-TOC-91-Low
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	35.6	33.1-42.6	37.90	DMD-TOC-91-Mid
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.745	0.72-0.88	0.80	CC-Anion-117BL
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	253	225-275	250.00	MS-CCV-HIGH
EL	2012/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	11.9	11.5 - 18.6	15.10	QC-Nut-B2-01111

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/25	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	51.6	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	95.2	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/25	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	98.6	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/25	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.0	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	52.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	53.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.5	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	46.7	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/25	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	52.5	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/06/25	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	49.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/26	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.279000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/06/25	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.5	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.8	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/06/25	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	49.5	45-55	50.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63411

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/25	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	253	225-275	250.00	MS-CCV-HIGH
RC	2012/06/25	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	260	225-275	250.00	MS-CCV-HIGH
RC	2012/06/25	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	97.6	90-110	100.00	MS-CCV-HIGH
RC	2012/06/25	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.8	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/21	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	52.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	104	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/21	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	104	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/21	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	48.9	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	51.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	49.1	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	51.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	52.0	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.5	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	98.0	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/21	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	52.0	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/06/21	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/26	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.279000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/06/21	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	53.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	48.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.4	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/06/21	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	251	225-275	250.00	MS-CCV-HIGH
RC	2012/06/21	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	255	225-275	250.00	MS-CCV-HIGH
RC	2012/06/21	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	97.9	90-110	100.00	MS-CCV-HIGH
RC	2012/06/21	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	54.4	45.0-55.0	50.00	MS-CCV-HIGH
SR	2012/06/23	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.02	5.92-6.08	6.00	QC-pH-4

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/21	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	26300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/21	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24900	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/21	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	260	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

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Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/21	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/06/21	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	118	105-129	117.00	MS-CCV-HIGH
RC	2012/06/21	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/25	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	24500	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/25	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/25	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	253	225-275	250.00	MS-CCV-HIGH
RC	2012/06/25	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	24700	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/06/25	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
RC	2012/06/25	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25800	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095

File No. EC-63411

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63412
Project Number: VE52095
Project Name: NewGold Blackwater
Date Received: 2012/06/20
Date of Report: 2012/06/27
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6477	12-6477-D	12-6478	12-6479
					Client ID:	BW101	BW101	BW161	WQ17
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/18 0:00	2012/06/18 0:00
					MDL				
SR	2012/06/23	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	11	---	37	11
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.094	---	0.109	0.029
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.17	---	0.13	0.04
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.008	---	0.005	0.009
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	25.4	---	13.3	0.7
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	72	---	64	12
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	14	15	3	< 2
JL	2012/06/26	Turbidity	NTU	APHA 2130-b	0.1	110	110	19	0.4
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	---	0.3	0.3

Water Analysis

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6480	12-6481
					Client ID:	WQ18	WQ19
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00
					MDL		
SR	2012/06/23	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320		63	101
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.118	0.191
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.13	0.07
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.009	0.089
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.0	2.2
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	96	124
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	3
JL	2012/06/26	Turbidity	NTU	APHA 2130-b	0.1	3.3	0.9
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.9

Water Analysis

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6477	12-6477-D	12-6478	12-6479
					Client ID:	BW101	BW101	BW161	WQ17
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/18 0:00	2012/06/18 0:00
					MDL				
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	1.5	1.3	2.2	9.6
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	1.5	1.3	2.2	9.6
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.149	0.147	0.067	< 0.001
EL	2012/06/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	0.09	0.20

Water Analysis

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6480	12-6481
					Client ID:	WQ18	WQ19
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00
					MDL		
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.4	2.6
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.4	2.9
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.025	< 0.001
EL	2012/06/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.33	0.10

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6477	12-6477-D	12-6478	12-6479
					Client ID:	BW101	BW101	BW161	WQ17
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	< 0.002	0.004	0.217
RC	2012/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	0.00018	< 0.00005	< 0.00005
RC	2012/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0185	0.0187	0.0089	0.0006
RC	2012/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00898	0.00890	0.01230	0.00337
RC	2012/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	0.001	< 0.001
RC	2012/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0003	0.0004	< 0.0003	< 0.0003
RC	2012/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00003
RC	2012/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0007
RC	2012/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	9.33	9.54	3.95	0.0934
RC	2012/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.006	0.006	0.006	< 0.001
RC	2012/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	1.11	1.13	0.44300	0.00335
RC	2012/06/26	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00059	0.00056	0.00072	0.00057
RC	2012/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00025
RC	2012/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.038400	0.037400	0.046400	0.022900
RC	2012/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	0.0002	0.0014
RC	2012/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00016
RC	2012/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002
RC	2012/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0258	0.0263	0.0067	0.0037

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6480	12-6481
					Client ID:	WQ18	WQ19
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00
					MDL		
RC	2012/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.079	0.008
RC	2012/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004
RC	2012/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00489	0.00924
RC	2012/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	0.001
RC	2012/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015
RC	2012/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003
RC	2012/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	< 0.00002
RC	2012/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001
RC	2012/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2910	0.0209
RC	2012/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
RC	2012/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02350	0.00136
RC	2012/06/26	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2012/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00054	0.00069
RC	2012/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00063	< 0.00005
RC	2012/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006
RC	2012/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.047900	0.123000
RC	2012/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0040	0.0003
RC	2012/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00026
RC	2012/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0013	0.0008
RC	2012/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0020	0.0024

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6477	12-6477-D	12-6478	12-6479
					Client ID:	BW101	BW101	BW161	WQ17
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	0.004	0.153
RC	2012/06/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	0.00012	< 0.00005	< 0.00005
RC	2012/06/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0184	0.0186	0.0084	0.0006
RC	2012/06/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00835	0.00816	0.01200	0.00330
RC	2012/06/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/06/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/06/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	0.0004	< 0.0003	< 0.0003
RC	2012/06/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00003
RC	2012/06/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	9.09	9.28	3.79	0.0593
RC	2012/06/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	0.006	0.006	0.006	< 0.001
RC	2012/06/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	1.03	1.05	0.41700	0.00335
RC	2012/06/26	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/06/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00051	0.00052	0.00064	0.00024
RC	2012/06/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00025
RC	2012/06/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/06/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.038400	0.037400	0.045400	0.022900
RC	2012/06/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	0.0010
RC	2012/06/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00010
RC	2012/06/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00021
RC	2012/06/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0256	0.0259	0.0067	0.0037
SR	2012/06/23	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.27	---	7.78	7.29

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6480	12-6481
					Client ID:	WQ18	WQ19
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00
					MDL		
RC	2012/06/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.039	0.006
RC	2012/06/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004
RC	2012/06/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00378	0.00844
RC	2012/06/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2012/06/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015
RC	2012/06/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003
RC	2012/06/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	< 0.00002
RC	2012/06/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1640	0.0121
RC	2012/06/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2012/06/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00383	0.00136
RC	2012/06/26	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2012/06/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00052	0.00061
RC	2012/06/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00063	< 0.00005
RC	2012/06/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006
RC	2012/06/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.046900	0.116000
RC	2012/06/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/06/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/06/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0021	< 0.0002
RC	2012/06/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00026
RC	2012/06/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00119	0.00078
RC	2012/06/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0020	0.0024
SR	2012/06/23	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	8.01	8.22

Water Analysis - Dissolved Metals

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6477	12-6477-D	12-6478	12-6479
					Client ID:	BW101	BW101	BW161	WQ17
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	8.1	8.2	11.4	3.7
RC	2012/06/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.63	1.66	1.33	0.87
RC	2012/06/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.15	0.16	0.07	< 0.01
RC	2012/06/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	2.0	2.0	2.0	< 0.5
RC	2012/06/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	8.45	8.45	6.94	4.40
RC	2012/06/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.0	2.0	4.2	1.9
RC	2012/06/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	27.0	27.4	33.9	12.8

Water Analysis - Dissolved Metals

Project No. VE52095

 Final
 File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6480	12-6481
					Client ID:	WQ18	WQ19
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00
					MDL		
RC	2012/06/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	9.3	28.5
RC	2012/06/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.32	3.50
RC	2012/06/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.03	< 0.01
RC	2012/06/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.6	< 0.5
RC	2012/06/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	8.50	5.06
RC	2012/06/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.2	2.7
RC	2012/06/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	45.0	85.6

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6477	12-6477-D	12-6478	12-6479
					Client ID:	BW101	BW101	BW161	WQ17
					Sample Date:	2012/06/18 0:00	Lab Duplicate	2012/06/18 0:00	2012/06/18 0:00
					MDL				
RC	2012/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	8.1	8.2	11.5	3.7
RC	2012/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.63	1.66	1.36	0.87
RC	2012/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.16	0.16	0.07	< 0.02
RC	2012/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.0	2.1	2.1	< 0.5
RC	2012/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	9.23	9.15	7.58	4.40
RC	2012/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.0	2.0	4.3	1.9
RC	2012/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	27.0	27.4	34.3	12.8

Water Analysis - Total Metals

Project No. VE52095

Final
File No. EC-63412

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6480	12-6481
					Client ID:	WQ18	WQ19
					Sample Date:	2012/06/19 0:00	2012/06/18 0:00
					MDL		
RC	2012/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	9.4	28.8
RC	2012/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.68	3.61
RC	2012/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.04	< 0.02
RC	2012/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	0.5
RC	2012/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	8.89	5.37
RC	2012/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.3	2.7
RC	2012/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	47.0	86.7

Quality Control Standard

Project No.

File No. EC-63412

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
SR	2012/06/23	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	66	56-77	65.00	QC-ALK/F-47
SR	2012/06/23	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.79	2.54-2.94	2.79	CC-EC-0.02M-42
SR	2012/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.51	0.44-0.58	0.50	QC-ALK/F-47
SR	2012/06/20	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.54	1.44-1.76	1.60	CC-Anion-117B
SR	2012/06/20	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.614	0.54-0.66	0.60	CC-Anion-117B
SR	2012/06/20	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.3	25.2-30.8	28.00	CC-Anion-117B
EL	2012/06/26	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4584	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/06/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	149	134-153	144.00	OCP-E2-SLD02009
JL	2012/06/26	Turbidity	NTU	APHA 2130-b	0.1	17	14.53-19.49	17.01	D2-TURB01052
SR	2012/06/20	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/06/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.59	0.47-0.74	0.61	NH3SC-001
RC	2012/06/25	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.8	3.3-4.3	3.80	DMD-TOC-91-Low
RC	2012/06/25	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	35.6	33.1-42.6	37.90	DMD-TOC-91-Mid
SR	2012/06/20	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.745	0.72-0.88	0.80	CC-Anion-117BL
RC	2012/06/25	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	253	225-275	250.00	MS-CCV-HIGH
EL	2012/06/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	13.1	11.5 - 18.6	15.10	QC-Nut-B2-01111

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/25	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	51.6	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	95.2	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/25	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	98.6	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/25	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.0	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	52.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	53.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.5	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	46.7	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/25	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	52.5	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/06/25	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	49.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/26	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.279000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/06/25	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.5	45-55	50.00	MS-CCV-HIGH
RC	2012/06/25	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.8	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/06/25	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	49.5	45-55	50.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63412

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/25	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	253	225-275	250.00	MS-CCV-HIGH
RC	2012/06/25	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	260	225-275	250.00	MS-CCV-HIGH
RC	2012/06/25	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	97.6	90-110	100.00	MS-CCV-HIGH
RC	2012/06/25	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/25	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.8	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/21	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	52.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	104	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/21	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	104	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/21	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	48.9	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	51.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	49.1	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	51.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	52.0	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.5	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	98.0	90.0-110	100.00	MS-CCV-HIGH
RC	2012/06/21	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	52.0	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/06/21	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/26	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.279000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/06/21	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	53.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	48.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.4	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/06/21	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.3	45-55	50.00	MS-CCV-HIGH
RC	2012/06/21	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	251	225-275	250.00	MS-CCV-HIGH
RC	2012/06/21	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	255	225-275	250.00	MS-CCV-HIGH
RC	2012/06/21	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	97.9	90-110	100.00	MS-CCV-HIGH
RC	2012/06/21	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/06/21	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	54.4	45.0-55.0	50.00	MS-CCV-HIGH
SR	2012/06/23	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.02	5.92-6.08	6.00	QC-pH-4

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/21	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	26300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/21	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24900	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/21	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	260	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63412

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/21	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/06/21	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	118	105-129	117.00	MS-CCV-HIGH
RC	2012/06/21	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/06/25	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	24500	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/25	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/06/25	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	253	225-275	250.00	MS-CCV-HIGH
RC	2012/06/25	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	24700	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/06/25	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
RC	2012/06/25	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25800	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095

File No. EC-63412

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 20-JUN-12
Report Date: 28-JUN-12 12:40 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1165410
Project P.O. #: 2220
Job Reference: EC-63412
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1165410-1 BW101~(12-6477) Sampled By: CLIENT on 19-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-JUN-12 26-JUN-12	R2389117 R2389119
L1165410-2 BW161~(12-6478) Sampled By: CLIENT on 19-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-JUN-12 26-JUN-12	R2389117 R2389119
L1165410-3 WQ17~(12-6479) Sampled By: CLIENT on 19-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-JUN-12 26-JUN-12	R2389117 R2389119
L1165410-4 WQ18~(12-6480) Sampled By: CLIENT on 19-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-JUN-12 26-JUN-12	R2389117 R2389119
L1165410-5 WQ19~(12-6481) Sampled By: CLIENT on 19-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		26-JUN-12 26-JUN-12	R2389117 R2389119

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1165410

Report Date: 28-JUN-12

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Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2389117							
WG1496916-11	DUP	L1163947-9						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496916-15	DUP	L1163033-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496916-17	DUP	L1163033-16						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496916-21	DUP	L1163748-7						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496916-25	DUP	L1163748-21						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496916-29	DUP	L1165410-5						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496916-7	DUP	L1163147-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496916-10	LCS							
Cyanide, Total			93.6		%		80-120	26-JUN-12
WG1496916-14	LCS							
Cyanide, Total			93.0		%		80-120	26-JUN-12
WG1496916-2	LCS							
Cyanide, Total			90.0		%		80-120	26-JUN-12
WG1496916-20	LCS							
Cyanide, Total			93.7		%		80-120	26-JUN-12
WG1496916-24	LCS							
Cyanide, Total			93.5		%		80-120	26-JUN-12
WG1496916-28	LCS							
Cyanide, Total			94.4		%		80-120	26-JUN-12
WG1496916-32	LCS							
Cyanide, Total			91.8		%		80-120	26-JUN-12
WG1496916-6	LCS							
Cyanide, Total			93.1		%		80-120	26-JUN-12
WG1496916-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	26-JUN-12
WG1496916-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	26-JUN-12
WG1496916-19	MB							
Cyanide, Total			<0.0050		mg/L		0.005	26-JUN-12
WG1496916-23	MB							
Cyanide, Total			<0.0050		mg/L		0.005	26-JUN-12



Quality Control Report

Workorder: L1165410

Report Date: 28-JUN-12

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Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed	
CN-T-CFA-VA		Water							
Batch	R2389117								
WG1496916-27	MB								
Cyanide, Total			<0.0050		mg/L		0.005	26-JUN-12	
WG1496916-31	MB								
Cyanide, Total			<0.0050		mg/L		0.005	26-JUN-12	
WG1496916-5	MB								
Cyanide, Total			<0.0050		mg/L		0.005	26-JUN-12	
WG1496916-9	MB								
Cyanide, Total			<0.0050		mg/L		0.005	26-JUN-12	
WG1496916-12	MS	L1163947-9							
Cyanide, Total			98.0		%		70-130	26-JUN-12	
WG1496916-16	MS	L1163033-1							
Cyanide, Total			101.1		%		70-130	26-JUN-12	
WG1496916-18	MS	L1163033-16							
Cyanide, Total			98.0		%		70-130	26-JUN-12	
WG1496916-22	MS	L1163748-7							
Cyanide, Total			98.8		%		70-130	26-JUN-12	
WG1496916-26	MS	L1163748-21							
Cyanide, Total			83.4		%		70-130	26-JUN-12	
WG1496916-30	MS	L1165410-5							
Cyanide, Total			98.6		%		70-130	26-JUN-12	
WG1496916-8	MS	L1163147-4							
Cyanide, Total			99.9		%		70-130	26-JUN-12	
CN-WAD-CFA-VA		Water							
Batch	R2389119								
WG1496925-13	DUP	L1163033-1							
Cyanide, Weak Acid Diss			<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496925-15	DUP	L1163033-16							
Cyanide, Weak Acid Diss			<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496925-19	DUP	L1163748-7							
Cyanide, Weak Acid Diss			<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496925-23	DUP	L1163748-21							
Cyanide, Weak Acid Diss			<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496925-27	DUP	L1165410-5							
Cyanide, Weak Acid Diss			<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496925-5	DUP	L1163147-4							
Cyanide, Weak Acid Diss			<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12
WG1496925-9	DUP	L1163947-9							
Cyanide, Weak Acid Diss			<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	26-JUN-12



Quality Control Report

Workorder: L1165410

Report Date: 28-JUN-12

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Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2389119							
WG1496925-12	LCS							
	Cyanide, Weak Acid Diss		97.5		%		80-120	26-JUN-12
WG1496925-18	LCS							
	Cyanide, Weak Acid Diss		99.0		%		80-120	26-JUN-12
WG1496925-2	LCS							
	Cyanide, Weak Acid Diss		102.6		%		80-120	26-JUN-12
WG1496925-22	LCS							
	Cyanide, Weak Acid Diss		98.9		%		80-120	26-JUN-12
WG1496925-26	LCS							
	Cyanide, Weak Acid Diss		99.5		%		80-120	26-JUN-12
WG1496925-30	LCS							
	Cyanide, Weak Acid Diss		99.0		%		80-120	26-JUN-12
WG1496925-4	LCS							
	Cyanide, Weak Acid Diss		98.0		%		80-120	26-JUN-12
WG1496925-8	LCS							
	Cyanide, Weak Acid Diss		100.0		%		80-120	26-JUN-12
WG1496925-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-JUN-12
WG1496925-11	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-JUN-12
WG1496925-17	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-JUN-12
WG1496925-21	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-JUN-12
WG1496925-25	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-JUN-12
WG1496925-29	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-JUN-12
WG1496925-3	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-JUN-12
WG1496925-7	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	26-JUN-12
WG1496925-10	MS	L1163947-9						
	Cyanide, Weak Acid Diss		96.0		%		70-130	26-JUN-12
WG1496925-14	MS	L1163033-1						
	Cyanide, Weak Acid Diss		100.0		%		70-130	26-JUN-12
WG1496925-16	MS	L1163033-16						
	Cyanide, Weak Acid Diss		97.7		%		70-130	26-JUN-12
WG1496925-20	MS	L1163748-7						



Quality Control Report

Workorder: L1165410

Report Date: 28-JUN-12

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Client: AMEC EARTH & ENVIRONMENTAL
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2389119							
WG1496925-20 MS		L1163748-7						
Cyanide, Weak Acid Diss			93.4		%		70-130	26-JUN-12
WG1496925-24 MS		L1163748-21						
Cyanide, Weak Acid Diss			89.9		%		70-130	26-JUN-12
WG1496925-28 MS		L1165410-5						
Cyanide, Weak Acid Diss			97.1		%		70-130	26-JUN-12
WG1496925-6 MS		L1163147-4						
Cyanide, Weak Acid Diss			98.3		%		70-130	26-JUN-12

Quality Control Report

Workorder: L1165410

Report Date: 28-JUN-12

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

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Contact: KRISTINE CONNOR

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 20-JUN-12
Report Date: 29-JUN-12 16:06 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1165411
Project P.O. #: 2220
Job Reference: EC-63411
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1165411-1 WQ3~(12-6462) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-2 WQ4~(12-6463) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-3 WQ5~(12-6464) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-4 WQ6~(12-6465) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-5 WQ7~(12-6466) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-6 WQ8~(12-6467) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-7 WQ9~(12-6468) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-8 WQ10~(12-6469) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-9 WQ11~(12-6470) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1165411-9 WQ11~(12-6470) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-10 WQ12~(12-6471) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-11 WQ13~(12-6472) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-12 WQ14~(12-6473) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-13 WQ DUPLICATE~(12-6474) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-14 FIELD BLANK~(12-6475) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-15 TRIP BLANK~(12-6476) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673
L1165411-16 WQ1~(12-6461) Sampled By: CLIENT on 16-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		28-JUN-12 28-JUN-12	R2390671 R2390673

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

- mg/kg - milligrams per kilogram based on dry weight of sample*
- mg/kg wwt - milligrams per kilogram based on wet weight of sample*
- mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight*
- mg/L - unit of concentration based on volume, parts per million.*
- < - Less than.*

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1165411

Report Date: 29-JUN-12

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Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2390671							
WG1498288-13	DUP	L1166217-29						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498288-17	DUP	L1167546-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498288-19	DUP	L1164703-23						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498288-5	DUP	L1165411-16						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498288-9	DUP	L1166217-17						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498288-12	LCS							
Cyanide, Total			90.6		%		80-120	28-JUN-12
WG1498288-16	LCS							
Cyanide, Total			90.6		%		80-120	28-JUN-12
WG1498288-2	LCS							
Cyanide, Total			92.0		%		80-120	28-JUN-12
WG1498288-22	LCS							
Cyanide, Total			92.3		%		80-120	28-JUN-12
WG1498288-24	LCS							
Cyanide, Total			90.5		%		80-120	28-JUN-12
WG1498288-26	LCS							
Cyanide, Total			89.0		%		80-120	28-JUN-12
WG1498288-4	LCS							
Cyanide, Total			91.7		%		80-120	28-JUN-12
WG1498288-8	LCS							
Cyanide, Total			92.4		%		80-120	28-JUN-12
WG1498288-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	28-JUN-12
WG1498288-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	28-JUN-12
WG1498288-15	MB							
Cyanide, Total			<0.0050		mg/L		0.005	28-JUN-12
WG1498288-21	MB							
Cyanide, Total			<0.0050		mg/L		0.005	28-JUN-12
WG1498288-23	MB							
Cyanide, Total			<0.0050		mg/L		0.005	28-JUN-12
WG1498288-25	MB							
Cyanide, Total			<0.0050		mg/L		0.005	28-JUN-12



Quality Control Report

Workorder: L1165411

Report Date: 29-JUN-12

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Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2390671							
WG1498288-3 MB								
Cyanide, Total			<0.0050		mg/L		0.005	28-JUN-12
WG1498288-7 MB								
Cyanide, Total			<0.0050		mg/L		0.005	28-JUN-12
WG1498288-10 MS		L1166217-17						
Cyanide, Total			117.4		%		70-130	28-JUN-12
WG1498288-14 MS		L1166217-29						
Cyanide, Total			103.4		%		70-130	28-JUN-12
WG1498288-18 MS		L1167546-4						
Cyanide, Total			100.9		%		70-130	28-JUN-12
WG1498288-20 MS		L1164703-23						
Cyanide, Total			85.7		%		70-130	28-JUN-12
WG1498288-6 MS		L1165411-16						
Cyanide, Total			96.4		%		70-130	28-JUN-12
CN-WAD-CFA-VA								
	Water							
Batch	R2390673							
WG1498291-13 DUP		L1166217-29						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498291-17 DUP		L1167546-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498291-19 DUP		L1164703-23						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498291-5 DUP		L1165411-16						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498291-9 DUP		L1166217-17						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	28-JUN-12
WG1498291-12 LCS								
Cyanide, Weak Acid Diss			100.9		%		80-120	28-JUN-12
WG1498291-16 LCS								
Cyanide, Weak Acid Diss			99.7		%		80-120	28-JUN-12
WG1498291-2 LCS								
Cyanide, Weak Acid Diss			100.2		%		80-120	28-JUN-12
WG1498291-22 LCS								
Cyanide, Weak Acid Diss			102.9		%		80-120	28-JUN-12
WG1498291-26 LCS								
Cyanide, Weak Acid Diss			99.6		%		80-120	28-JUN-12
WG1498291-28 LCS								
Cyanide, Weak Acid Diss			98.4		%		80-120	28-JUN-12



Quality Control Report

Workorder: L1165411

Report Date: 29-JUN-12

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Client: AMEC EARTH & ENVIRONMENTAL
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2390673							
WG1498291-4	LCS							
	Cyanide, Weak Acid Diss		101.6		%		80-120	28-JUN-12
WG1498291-8	LCS							
	Cyanide, Weak Acid Diss		101.0		%		80-120	28-JUN-12
WG1498291-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	28-JUN-12
WG1498291-11	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	28-JUN-12
WG1498291-15	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	28-JUN-12
WG1498291-21	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	28-JUN-12
WG1498291-25	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	28-JUN-12
WG1498291-27	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	28-JUN-12
WG1498291-3	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	28-JUN-12
WG1498291-7	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	28-JUN-12
WG1498291-10	MS	L1166217-17						
	Cyanide, Weak Acid Diss		117.6		%		70-130	28-JUN-12
WG1498291-14	MS	L1166217-29						
	Cyanide, Weak Acid Diss		103.6		%		70-130	28-JUN-12
WG1498291-18	MS	L1167546-4						
	Cyanide, Weak Acid Diss		100.4		%		70-130	28-JUN-12
WG1498291-20	MS	L1164703-23						
	Cyanide, Weak Acid Diss		99.2		%		70-130	28-JUN-12
WG1498291-6	MS	L1165411-16						
	Cyanide, Weak Acid Diss		98.7		%		70-130	28-JUN-12

Quality Control Report

Workorder: L1165411

Report Date: 29-JUN-12

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 4 of 4

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Environmental Division

Report to:		Report Format / Distribution			Service Requested:								
Company: AMEC Earth & Environmental, Chemistry Dept.		<input type="checkbox"/> Standard <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Regular Service (Default)								
Contact: Kristine Connor		<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax			<input type="checkbox"/> Rush Service (2-3 Days)								
Address: 5667-70 Street, Edmonton, AB T6B 3P6		Email 1: kristine.connor@amec.com			<input type="checkbox"/> Priority Service (1 Day or ASAP)								
		Email 2: charlene.rollheiser@amec.com			<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS								
Phone: (780) 989-4580 Fax: (780) 377-3600		Analysis Request											
Invoice To: <input checked="" type="checkbox"/> Same as Report		Indicate Bottles: Filtered / Preserved (F/P) -->											
Company: Same		Client / Project Information:			Cyanide Total and WAD						Hazardous?	Highly Contaminated?	Number of Containers
Contact:		Job #:											
Address:		PO/AFE: EC-63411											
Sample		Legal Site Description:											
Phone: Fax:		Quote #:											
Lab Work Order # (lab use only)		ALS Contact: Maureen Olinek											
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	X								
	16 Water samples (Please see attached)	See attached		Water	X								X
Guidelines / Regulations					Special Instructions / Hazardous Details								
Please list both ID's on results													
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.													
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.													
Relinquished By:	Jeffery Connor	Date & Time:	20-Jun-12	Received By:	<i>[Signature]</i>	Date & Time:	15:26	Sample Condition (lab use only)					
Relinquished By:		Date & Time:		Received By:		Date & Time:		Temperature	Samples Received in Good Condition? Y / N (if no provided details)				

Rec'd 20-June-12

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63456
Project Number: VE52095.200.2A
Project Name: New Gold Blackwater
Date Received: 2012/06/28
Date of Report: 2012/07/06
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6885	12-6885-D	12-6886	12-6887
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/06/25 0:00	Lab Duplicate	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/02	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	80	81	78	77
RC	2012/07/02	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.161	0.160	0.152	0.152
RC	2012/06/29	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.09	0.10	0.09
JL	2012/06/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
JL	2012/06/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
JL	2012/06/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.7	2.8	2.1	2.1
EL	2012/07/03	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	128	116	112	108
EL	2012/06/28	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	3	34
JL	2012/07/06	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.2	1.6	12
JL	2012/06/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.6	0.6	0.9	0.7

Water Analysis

Project No. VE52095.200.2A

 Final
 File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6888	12-6889	12-6890	12-6891
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/06/25 0:00	2012/06/25 0:00	2012/06/25 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/02	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	70	71	74	51
RC	2012/07/02	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.143	0.146	0.151	0.104
RC	2012/06/29	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.09	0.09	0.08
JL	2012/06/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	0.011	< 0.005
JL	2012/06/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
JL	2012/06/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.5	3.6	3.6	0.7
EL	2012/07/03	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	124	112	96	100
EL	2012/06/28	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	4	< 2	2
JL	2012/07/06	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.4	0.7	1.0
JL	2012/06/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.7	0.8	0.7	0.8

Water Analysis

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6892	12-6893	12-6894	12-6895
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/02	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	48	28	29	32
RC	2012/07/02	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.098	0.060	0.059	0.069
RC	2012/06/29	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.06	0.05	0.06
JL	2012/06/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
JL	2012/06/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
JL	2012/06/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.7	1.6	1.7	1.9
EL	2012/07/03	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	80	24	48	44
EL	2012/06/28	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	5	< 2	< 2	4
JL	2012/07/06	Turbidity	NTU	APHA 2130-b	0.1	7.3	0.9	1.1	1.2
JL	2012/06/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.9	0.7	0.7	0.7

Water Analysis

Project No. VE52095.200.2A

 Final
 File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6896	12-6897	12-6898	12-6899
					Client ID:	WQ24-Epi	WQ24-Hypo	Field Blank	Trip Blank
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/02	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	22	22	2	1
RC	2012/07/02	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.047	0.049	0.003	< 0.001
RC	2012/06/29	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.05	< 0.02	< 0.02
JL	2012/06/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
JL	2012/06/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
JL	2012/06/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.2	1.2	< 0.5	< 0.5
EL	2012/07/03	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	32	36	4	4
EL	2012/06/28	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
JL	2012/07/06	Turbidity	NTU	APHA 2130-b	0.1	0.6	0.8	< 0.1	0.2
JL	2012/06/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.6	0.7	< 0.1	< 0.1

Water Analysis

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6885	12-6885-D	12-6886	12-6887
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/06/25 0:00	Lab Duplicate	2012/06/25 0:00	2012/06/25 0:00
					MDL				
EL	2012/07/03	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.4	8.1	8.2	8.6
RC	2012/06/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.6	8.4	8.6	8.9
JL	2012/06/28	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/07/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.005	0.005	0.006	0.005
EL	2012/07/03	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.44	0.51	0.55	1.24

Water Analysis

Project No. VE52095.200.2A

 Final
 File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6888	12-6889	12-6890	12-6891
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/06/25 0:00	2012/06/25 0:00	2012/06/25 0:00	2012/06/26 0:00
					MDL				
EL	2012/07/03	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.3	8.4	7.9	14.3
RC	2012/06/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.3	8.4	8.2	14.7
JL	2012/06/28	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/07/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.001	0.003	0.003	0.005
EL	2012/07/03	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.34	0.19	0.21	0.35

Water Analysis

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6892	12-6893	12-6894	12-6895
					Client ID:	WO22-Hypo	WO23-Epi	WO23-Meta	WO23-Hypo
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00
					MDL				
EL	2012/07/03	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.8	4.0	3.2	2.2
RC	2012/06/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	14.4	4.0	3.3	3.1
JL	2012/06/28	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/07/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.005	0.001	0.002	0.003
EL	2012/07/03	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.51	< 0.08	0.18	0.09

Water Analysis

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6896	12-6897	12-6898	12-6899
					Client ID:	WQ24-Epi	WQ24-Hypo	Field Blank	Trip Blank
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/25 0:00	2012/06/25 0:00
					MDL				
EL	2012/07/03	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/06/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.2	5.3	< 0.1	< 0.1
RC	2012/06/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.2	5.3	< 0.1	< 0.1
JL	2012/06/28	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/07/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.002	0.002	< 0.001	< 0.001
EL	2012/07/03	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.10	< 0.08	< 0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6885	12-6885-D	12-6886	12-6887
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/06/25 0:00	Lab Duplicate	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/03	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.004	0.004	0.006	0.235
RC	2012/07/03	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0003	0.0005
RC	2012/07/03	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00846	0.00825	0.00993	0.01340
RC	2012/07/03	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.007	0.005	0.004	0.004
RC	2012/07/03	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/07/03	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/07/03	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00013
RC	2012/07/03	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0015	0.0028
RC	2012/07/03	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0169	0.0168	0.0197	0.4600
RC	2012/07/03	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.01080	0.00110
RC	2012/07/03	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/03	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02170	0.02140	0.02680	0.09320
RC	2012/07/02	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/07/03	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00122	0.00109	0.00096	0.00083
RC	2012/07/03	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00042	0.00041	0.00018	0.00061
RC	2012/07/03	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/07/03	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.103000	0.101000	0.118000	0.106000
RC	2012/07/03	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	0.0006	0.0135
RC	2012/07/03	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00006
RC	2012/07/03	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001	0.0001	0.0001
RC	2012/07/03	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0014	0.0013	0.0053	0.0061

Water Analysis - Total Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6888	12-6889	12-6890	12-6891
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/06/25 0:00	2012/06/25 0:00	2012/06/25 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/03	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.012	0.013	0.019	0.015
RC	2012/07/03	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0004	0.0002
RC	2012/07/03	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00593	0.00599	0.00614	0.00634
RC	2012/07/03	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.003	0.003	0.002	0.003
RC	2012/07/03	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/07/03	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/07/03	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/07/03	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0005	0.0008	0.0004
RC	2012/07/03	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0270	0.0341	0.0314	0.0981
RC	2012/07/03	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00095	< 0.00005
RC	2012/07/03	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/03	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00584	0.00598	0.00698	0.00781
RC	2012/07/02	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/07/03	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00061	0.00056	0.00053	0.00032
RC	2012/07/03	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00025	0.00027	0.00011
RC	2012/07/03	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/07/03	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.095500	0.097300	0.098300	0.066900
RC	2012/07/03	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0003	0.0004	0.0005	0.0002
RC	2012/07/03	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00008	0.00008	< 0.00005
RC	2012/07/03	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	0.0001	0.0001	0.0001
RC	2012/07/03	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0011	0.0014	0.0034	0.0044

Water Analysis - Total Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6892	12-6893	12-6894	12-6895
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/03	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.030	0.018	0.006	0.006
RC	2012/07/03	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0006	0.0005	0.0008
RC	2012/07/03	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00944	0.00257	0.00342	0.00419
RC	2012/07/03	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.003	0.001	< 0.001	< 0.001
RC	2012/07/03	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/07/03	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0004	0.0003	< 0.0003	< 0.0003
RC	2012/07/03	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/07/03	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.4960	0.0146	0.0341	0.1760
RC	2012/07/03	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00048	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/03	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.14500	0.00283	0.00624	0.05260
RC	2012/07/02	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/07/03	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00028	0.00059	0.00068	0.00069
RC	2012/07/03	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/07/03	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.070300	0.040000	0.048300	0.051600
RC	2012/07/03	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0007	< 0.0002	< 0.0002	< 0.0002
RC	2012/07/03	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00015	0.00009	0.00009
RC	2012/07/03	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0028	0.0008	0.0026	0.0020

Water Analysis - Total Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6896	12-6897	12-6898	12-6899
					Client ID:	WQ24-Epi	WQ24-Hypo	Field Blank	Trip Blank
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/03	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.019	0.032	< 0.002	< 0.002
RC	2012/07/03	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	< 0.0001	< 0.0001
RC	2012/07/03	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00291	0.00308	< 0.00005	< 0.00005
RC	2012/07/03	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/03	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/07/03	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0003	0.0003	< 0.0003	< 0.0003
RC	2012/07/03	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/07/03	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0411	0.0586	< 0.0001	< 0.0001
RC	2012/07/03	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/03	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00308	0.00674	< 0.00005	< 0.00005
RC	2012/07/02	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/07/03	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00080	0.00074	< 0.00005	< 0.00005
RC	2012/07/03	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/07/03	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.038700	0.039100	< 0.000005	< 0.000005
RC	2012/07/03	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/03	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0004	0.0003	< 0.0002	< 0.0002
RC	2012/07/03	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00030	0.00030	< 0.00005	< 0.00005
RC	2012/07/03	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/03	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0019	0.0015	0.0006	< 0.0005

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6885	12-6885-D	12-6886	12-6887
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/06/25 0:00	Lab Duplicate	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/02	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	< 0.002	< 0.002
RC	2012/07/02	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0002	0.0003
RC	2012/07/02	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00743	0.00725	0.00747	0.00768
RC	2012/07/02	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.007	0.005	0.004	0.004
RC	2012/07/02	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/07/02	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/07/02	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/07/02	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002
RC	2012/07/02	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0051	0.0052	0.0056	0.0066
RC	2012/07/02	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/02	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00114	0.00112	0.00054	0.00585
RC	2012/07/02	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/07/02	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00122	0.00109	0.00096	0.00083
RC	2012/07/02	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	0.00015	0.00011	0.00015
RC	2012/07/02	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/07/02	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.096700	0.095200	0.096100	0.096600
RC	2012/07/02	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/07/02	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00010	0.00011	0.00014
RC	2012/07/02	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0014	0.0013	0.0013	0.0049
RC	2012/07/02	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	8.12	8.10	8.11	8.11

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6888	12-6889	12-6890	12-6891
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/06/25 0:00	2012/06/25 0:00	2012/06/25 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/02	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.003	0.003	0.003	0.015
RC	2012/07/02	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004	0.0004	0.0002
RC	2012/07/02	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00543	0.00532	0.00540	0.00549
RC	2012/07/02	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.003	0.003	0.002	0.003
RC	2012/07/02	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/07/02	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/07/02	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/07/02	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0136	0.0141	0.0131	0.0748
RC	2012/07/02	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/02	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00081	0.00023	0.00033	0.00167
RC	2012/07/02	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/07/02	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00061	0.00056	0.00052	0.00032
RC	2012/07/02	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00021	0.00019	0.00011
RC	2012/07/02	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/07/02	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.090600	0.089700	0.092700	0.063000
RC	2012/07/02	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002
RC	2012/07/02	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00008	0.00008	< 0.00005
RC	2012/07/02	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	0.00011	0.00011	0.00011
RC	2012/07/02	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0011	0.0011	0.0017	0.0044
RC	2012/07/02	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	8.08	8.07	8.08	7.91

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6892	12-6893	12-6894	12-6895
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/02	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.011	0.013	< 0.002	< 0.002
RC	2012/07/02	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0005	0.0005	0.0004
RC	2012/07/02	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00781	0.00221	0.00304	0.00360
RC	2012/07/02	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.003	0.001	< 0.001	< 0.001
RC	2012/07/02	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/07/02	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0004	0.0003	< 0.0003	< 0.0003
RC	2012/07/02	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/07/02	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.2770	0.0092	0.0119	0.0395
RC	2012/07/02	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/02	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.13000	0.00083	0.00118	0.03080
RC	2012/07/02	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/07/02	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00028	0.00055	0.00065	0.00065
RC	2012/07/02	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/07/02	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.065800	0.037300	0.045900	0.049000
RC	2012/07/02	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/07/02	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00015	0.00009	0.00008
RC	2012/07/02	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0031	0.0008	0.0026	0.0020
RC	2012/07/02	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.82	7.65	7.69	7.74

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6896	12-6897	12-6898	12-6899
					Client ID:	WQ24-Epi	WQ24-Hypo	Field Blank	Trip Blank
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/02	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.014	0.014	< 0.002	< 0.002
RC	2012/07/02	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0003	< 0.0001	< 0.0001
RC	2012/07/02	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00268	0.00264	< 0.00005	< 0.00005
RC	2012/07/02	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/02	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/07/02	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	0.0003	< 0.0003	< 0.0003
RC	2012/07/02	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/07/02	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0263	0.0263	< 0.0001	< 0.0001
RC	2012/07/02	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/07/02	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00079	0.00081	< 0.00005	< 0.00005
RC	2012/07/02	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/07/02	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00072	0.00070	< 0.00005	< 0.00005
RC	2012/07/02	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/07/02	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.037300	0.036200	< 0.000005	< 0.000005
RC	2012/07/02	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/07/02	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/07/02	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00029	0.00028	< 0.00005	< 0.00005
RC	2012/07/02	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/07/02	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0019	0.0015	< 0.0005	< 0.0005
RC	2012/07/02	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.56	7.57	6.29	5.65

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6885	12-6885-D	12-6886	12-6887
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/06/25 0:00	Lab Duplicate	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/02	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.5	18.4	18.4	18.4
RC	2012/07/02	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.98	4.94	5.00	4.90
RC	2012/07/02	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/07/02	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	0.7	0.7	0.7
RC	2012/07/02	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.50	5.57	5.38	5.38
RC	2012/07/02	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.4	3.2	3.2	3.2
RC	2012/07/02	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	66.6	66.2	66.5	66.2

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6888	12-6889	12-6890	12-6891
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/06/25 0:00	2012/06/25 0:00	2012/06/25 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/02	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.0	17.6	18.4	10.5
RC	2012/07/02	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.28	4.26	4.33	2.84
RC	2012/07/02	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/07/02	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	0.7	0.7	0.9
RC	2012/07/02	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.58	3.63	4.31	3.20
RC	2012/07/02	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.4	3.4	3.5	2.9
RC	2012/07/02	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	62.5	61.4	63.7	38.0

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6892	12-6893	12-6894	12-6895
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/02	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	11.1	5.1	6.4	6.8
RC	2012/07/02	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	2.87	0.88	1.26	1.26
RC	2012/07/02	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/07/02	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.9	< 0.5	< 0.5	< 0.5
RC	2012/07/02	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.36	4.03	3.94	4.40
RC	2012/07/02	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.8	2.0	2.8	2.5
RC	2012/07/02	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	39.6	16.4	21.0	22.0

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A

 Final
 File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6896	12-6897	12-6898	12-6899
					Client ID:	WQ24-Epi	WQ24-Hypo	Field Blank	Trip Blank
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/02	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.0	4.9	< 0.5	< 0.5
RC	2012/07/02	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.98	0.97	< 0.50	< 0.50
RC	2012/07/02	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/07/02	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/07/02	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.98	1.77	< 0.01	< 0.01
RC	2012/07/02	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	1.7	< 0.5	< 0.5
RC	2012/07/02	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	16.6	16.2	< 6.0	< 6.0

Water Analysis - Total Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6885	12-6885-D	12-6886	12-6887
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/06/25 0:00	Lab Duplicate	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/03	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	19.5	19.1	22.2	20.0
RC	2012/07/03	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.24	5.21	5.16	5.37
RC	2012/07/03	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	0.10
RC	2012/07/03	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	0.7	0.7	0.8
RC	2012/07/03	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.64	6.01	5.69	6.30
RC	2012/07/03	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.4	3.2	3.2	3.2
RC	2012/07/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	70.3	69.1	76.7	72.0

Water Analysis - Total Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6888	12-6889	12-6890	12-6891
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/06/25 0:00	2012/06/25 0:00	2012/06/25 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/03	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	18.7	19.0	19.1	11.4
RC	2012/07/03	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.48	4.50	4.66	3.00
RC	2012/07/03	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/07/03	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	0.7	0.8	0.9
RC	2012/07/03	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.58	3.82	4.68	3.49
RC	2012/07/03	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.4	3.4	3.5	2.9
RC	2012/07/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	65.2	65.9	66.7	40.9

Water Analysis - Total Metals

Project No. VE52095.200.2A

Final
File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6892	12-6893	12-6894	12-6895
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00	2012/06/26 0:00
					MDL				
RC	2012/07/03	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	12.0	5.5	6.8	7.1
RC	2012/07/03	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.00	0.92	1.26	1.34
RC	2012/07/03	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.02	< 0.02	< 0.02	< 0.02
RC	2012/07/03	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.9	< 0.5	< 0.5	< 0.5
RC	2012/07/03	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.72	4.18	4.20	4.99
RC	2012/07/03	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.9	2.0	2.8	2.5
RC	2012/07/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	42.4	17.5	22.1	23.2

Water Analysis - Total Metals

Project No. VE52095.200.2A

 Final
 File No. EC-63456

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-6896	12-6897	12-6898	12-6899
					Client ID:	WQ24-Epi	WQ24-Hypo	Field Blank	Trip Blank
					Sample Date:	2012/06/26 0:00	2012/06/26 0:00	2012/06/25 0:00	2012/06/25 0:00
					MDL				
RC	2012/07/03	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.3	5.3	< 0.5	< 0.5
RC	2012/07/03	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.01	1.02	< 0.50	< 0.50
RC	2012/07/03	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/07/03	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/07/03	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	2.00	1.79	< 0.01	< 0.01
RC	2012/07/03	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.8	1.8	< 0.5	< 0.5
RC	2012/07/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	17.4	17.4	< 6.0	< 6.0

Quality Control Standard

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Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/07/02	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	63	56-77	65.00	QC-ALK/F-47
RC	2012/07/02	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.88	2.54-2.94	2.79	CC-EC-0.02M-43
RC	2012/06/29	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.51	0.44-0.58	0.50	QC-ALK/F-47
JL	2012/06/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.61	1.44-1.76	1.60	CC-Anion-117B
JL	2012/06/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.632	0.54-0.66	0.60	CC-Anion-117B
JL	2012/06/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	27.1	25.2-30.8	28.00	CC-Anion-117B
EL	2012/07/03	T-Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4636	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/06/28	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	153	134-153	144.00	OCP-E2-SLD02009
JL	2012/07/06	Turbidity	NTU	APHA 2130-b	0.1	16	14.53-19.49	17.01	D2-TURB01052
JL	2012/06/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.1	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/07/03	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.60	0.47-0.74	0.61	NH3SC-001
RC	2012/06/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.9	3.3-4.3	3.80	DMD-TOC-91-Low
RC	2012/06/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	37.7	33.1-42.6	37.90	DMD-TOC-91-Mid
JL	2012/06/28	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.783	0.72-0.88	0.80	CC-Anion-117BL
RC	2012/07/03	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	237	225-275	250.00	MS-CCV-HIGH
EL	2012/07/03	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	13.2	11.5 - 18.6	15.10	QC-Nut-B2-01111

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/07/03	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	51.9	45-55	50.00	MS-CCV-HIGH
RC	2012/07/03	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	102	90.0-110	100.00	MS-CCV-HIGH
RC	2012/07/03	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.00	MS-CCV-HIGH
RC	2012/07/03	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.8	45-55	50.00	MS-CCV-HIGH
RC	2012/07/03	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	53.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/03	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	51.7	45-55	50.00	MS-CCV-HIGH
RC	2012/07/03	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/03	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/03	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	52.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/03	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	51.7	45-55	50.00	MS-CCV-HIGH
RC	2012/07/03	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/07/03	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00	MS-CCV-HIGH
RC	2012/07/03	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.9	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/07/03	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.271000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/07/03	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/03	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/03	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.6	45-55	50.00	MS-CCV-HIGH
RC	2012/07/03	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.7	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/07/03	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	52.1	45-55	50.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63456

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/07/03	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	267	225-275	250.00	MS-CCV-HIGH
RC	2012/07/03	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	248	225-275	250.00	MS-CCV-HIGH
RC	2012/07/03	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/03	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	104	90-110	100.00	MS-CCV-HIGH
RC	2012/07/03	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	51.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/03	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	50.9	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/07/02	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	53.1	45-55	50.00	MS-CCV-HIGH
RC	2012/07/02	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00	MS-CCV-HIGH
RC	2012/07/02	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	100	90.0-110	100.00	MS-CCV-HIGH
RC	2012/07/02	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	48.7	45-55	50.00	MS-CCV-HIGH
RC	2012/07/02	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	52.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	52.0	45-55	50.00	MS-CCV-HIGH
RC	2012/07/02	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	50.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	51.1	45-55	50.00	MS-CCV-HIGH
RC	2012/07/02	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	54.1	45-55	50.00	MS-CCV-HIGH
RC	2012/07/02	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/07/02	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	54.1	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/07/02	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.271000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/07/02	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	51.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	51.4	45-55	50.00	MS-CCV-HIGH
RC	2012/07/02	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.5	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/07/02	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	51.3	45-55	50.00	MS-CCV-HIGH
RC	2012/07/02	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	259	225-275	250.00	MS-CCV-HIGH
RC	2012/07/02	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	244	225-275	250.00	MS-CCV-HIGH
RC	2012/07/02	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90-110	100.00	MS-CCV-HIGH
RC	2012/07/02	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	54.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/07/02	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-4

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/07/02	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/07/02	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25600	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/07/02	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	263	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63456

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/07/02	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25100	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/07/02	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	120	105-129	117.00	MS-CCV-HIGH
RC	2012/07/02	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25700	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/07/03	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25500	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/07/03	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/07/03	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	237	225-275	250.00	MS-CCV-HIGH
RC	2012/07/03	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25200	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/07/03	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
RC	2012/07/03	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095.200.2A

File No. EC-63456

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC EARTH & ENVIRONMENTAL
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 28-JUN-12
Report Date: 10-JUL-12 07:30 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1169894
Project P.O. #: 2220
Job Reference: EC-63456
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1169894-1 WQ20-EPI~(12-6885) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		06-JUL-12 06-JUL-12	R2394704 R2394707
L1169894-2 WQ20-META~(12-6886) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		06-JUL-12 06-JUL-12	R2394704 R2394707
L1169894-3 WQ20-HYPO~(12-6887) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		06-JUL-12 06-JUL-12	R2394704 R2394707
L1169894-4 WQ21-EPI~(12-6888) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		06-JUL-12 06-JUL-12	R2394704 R2394707
L1169894-5 WQ21-META~(12-6889) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		06-JUL-12 06-JUL-12	R2394704 R2394707
L1169894-6 WQ21-HYPO~(12-6890) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		06-JUL-12 06-JUL-12	R2394704 R2394707
L1169894-7 WQ22-EPI~(12-6891) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		06-JUL-12 06-JUL-12	R2394704 R2394707
L1169894-8 WQ22-HYPO~(12-6892) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		06-JUL-12 06-JUL-12	R2394704 R2394707
L1169894-9 WQ23-EPI~(12-6893) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1169894-9 WQ23-EPI~(12-6893) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUL-12	R2394704
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUL-12	R2394707
L1169894-10 WQ23-META~(12-6894) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUL-12	R2394704
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUL-12	R2394707
L1169894-11 WQ23-HYPO~(12-6895) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUL-12	R2394704
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUL-12	R2394707
L1169894-12 WQ23-EPI~(12-6896) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUL-12	R2394704
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUL-12	R2394707
L1169894-13 WQ24-HYPO~(12-6897) Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUL-12	R2394704
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUL-12	R2394707
L1169894-14 FIELD BLANK Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUL-12	R2394704
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUL-12	R2394707
L1169894-15 TRIP BLANK Sampled By: CLIENT on 25-JUN-12 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		06-JUL-12	R2394704
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		06-JUL-12	R2394707

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1169894

Report Date: 10-JUL-12

Page 1 of 5

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2394704							
WG1502845-13	DUP	L1169851-7						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502845-15	DUP	L1169894-7						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502845-23	DUP	L1171007-18						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502845-27	DUP	L1168460-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502845-29	DUP	L1168460-5						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502845-5	DUP	L1167317-9						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502845-12	LCS							
Cyanide, Total			91.5		%		80-120	06-JUL-12
WG1502845-18	LCS							
Cyanide, Total			90.6		%		80-120	06-JUL-12
WG1502845-2	LCS							
Cyanide, Total			92.3		%		80-120	06-JUL-12
WG1502845-22	LCS							
Cyanide, Total			93.7		%		80-120	06-JUL-12
WG1502845-26	LCS							
Cyanide, Total			93.4		%		80-120	06-JUL-12
WG1502845-32	LCS							
Cyanide, Total			93.4		%		80-120	06-JUL-12
WG1502845-4	LCS							
Cyanide, Total			89.9		%		80-120	06-JUL-12
WG1502845-8	LCS							
Cyanide, Total			89.8		%		80-120	06-JUL-12
WG1502845-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-JUL-12
WG1502845-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-JUL-12
WG1502845-17	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-JUL-12
WG1502845-21	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-JUL-12
WG1502845-25	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-JUL-12



Quality Control Report

Workorder: L1169894

Report Date: 10-JUL-12

Page 2 of 5

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2394704							
WG1502845-3 MB								
Cyanide, Total			<0.0050		mg/L		0.005	06-JUL-12
WG1502845-31 MB								
Cyanide, Total			<0.0050		mg/L		0.005	06-JUL-12
WG1502845-7 MB								
Cyanide, Total			<0.0050		mg/L		0.005	06-JUL-12
WG1502845-14 MS		L1169851-7						
Cyanide, Total			100.4		%		70-130	06-JUL-12
WG1502845-16 MS		L1169894-7						
Cyanide, Total			100.1		%		70-130	06-JUL-12
WG1502845-24 MS		L1171007-18						
Cyanide, Total			102.6		%		70-130	06-JUL-12
WG1502845-28 MS		L1168460-1						
Cyanide, Total			100.8		%		70-130	06-JUL-12
WG1502845-30 MS		L1168460-5						
Cyanide, Total			99.0		%		70-130	06-JUL-12
WG1502845-6 MS		L1167317-9						
Cyanide, Total			99.5		%		70-130	06-JUL-12
CN-WAD-CFA-VA								
	Water							
Batch	R2394707							
WG1502854-13 DUP		L1169851-7						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502854-15 DUP		L1169894-7						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502854-19 DUP		L1170703-5						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502854-23 DUP		L1171007-18						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502854-27 DUP		L1168460-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502854-29 DUP		L1168460-5						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502854-5 DUP		L1167317-9						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-JUL-12
WG1502854-12 LCS								
Cyanide, Weak Acid Diss			105.1		%		80-120	06-JUL-12
WG1502854-18 LCS								
Cyanide, Weak Acid Diss			104.7		%		80-120	06-JUL-12



Quality Control Report

Workorder: L1169894

Report Date: 10-JUL-12

Page 3 of 5

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2394707							
WG1502854-2	LCS							
	Cyanide, Weak Acid Diss		103.9		%		80-120	06-JUL-12
WG1502854-22	LCS							
	Cyanide, Weak Acid Diss		106.1		%		80-120	06-JUL-12
WG1502854-26	LCS							
	Cyanide, Weak Acid Diss		105.5		%		80-120	06-JUL-12
WG1502854-32	LCS							
	Cyanide, Weak Acid Diss		104.6		%		80-120	06-JUL-12
WG1502854-4	LCS							
	Cyanide, Weak Acid Diss		106.6		%		80-120	06-JUL-12
WG1502854-8	LCS							
	Cyanide, Weak Acid Diss		106.8		%		80-120	06-JUL-12
WG1502854-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	06-JUL-12
WG1502854-11	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	06-JUL-12
WG1502854-17	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	06-JUL-12
WG1502854-21	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	06-JUL-12
WG1502854-25	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	06-JUL-12
WG1502854-3	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	06-JUL-12
WG1502854-31	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	06-JUL-12
WG1502854-7	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	06-JUL-12
WG1502854-14	MS	L1169851-7						
	Cyanide, Weak Acid Diss		104.5		%		70-130	06-JUL-12
WG1502854-16	MS	L1169894-7						
	Cyanide, Weak Acid Diss		102.0		%		70-130	06-JUL-12
WG1502854-20	MS	L1170703-5						
	Cyanide, Weak Acid Diss		105.4		%		70-130	06-JUL-12
WG1502854-24	MS	L1171007-18						
	Cyanide, Weak Acid Diss		103.8		%		70-130	06-JUL-12
WG1502854-28	MS	L1168460-1						
	Cyanide, Weak Acid Diss		105.1		%		70-130	06-JUL-12
WG1502854-30	MS	L1168460-5						



Quality Control Report

Workorder: L1169894

Report Date: 10-JUL-12

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Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2394707							
WG1502854-30 MS		L1168460-5						
Cyanide, Weak Acid Diss			103.1		%		70-130	06-JUL-12
WG1502854-6 MS		L1167317-9						
Cyanide, Weak Acid Diss			102.6		%		70-130	06-JUL-12

Quality Control Report

Workorder: L1169894

Report Date: 10-JUL-12

Client: AMEC EARTH & ENVIRONMENTAL
5667 - 70 STREET
EDMONTON AB T6B 3P6

Page 5 of 5

Contact: KRISTINE CONNOR

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to: Company: AMEC Earth & Environmental, Chemistry Dept. Contact: Kristine Connor Address: 5667-70 Street, Edmonton, AB T6B 3P6 Phone: (780) 989-4580 Fax: (780) 377-3600			Report Format / Distribution <input type="checkbox"/> Standard <input type="checkbox"/> Other <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax Email 1: kristine.connor@amec.com Email 2: charlene.rollheiser@amec.com			Service Requested: <input checked="" type="checkbox"/> Regular Service (Default) <input type="checkbox"/> Rush Service (2-3 Days) <input type="checkbox"/> Priority Service (1 Day or ASAP) <input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS																																										
Invoice To: <input checked="" type="checkbox"/> Same as Report			Indicate Bottles: Filtered / Preserved (F/P) -->			Analysis Request																																										
Company: Same Contact: Address: Sample Phone: Fax:			Client / Project Information: Job #: PO/AFE: EC-63456 Legal Site Description: Quote #:			<table border="1"> <tr> <td>Cyanide Total</td> <td>Cyanide WAD</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Hazardous?</td> <td>Highly Contaminated?</td> <td>Number of Containers</td> </tr> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>x</td> </tr> </table>			Cyanide Total	Cyanide WAD																Hazardous?	Highly Contaminated?	Number of Containers	X	X																		x
Cyanide Total	Cyanide WAD																			Hazardous?	Highly Contaminated?	Number of Containers																										
X	X																		x																													
Lab Work Order # (lab use only): L169894			ALS Contact: Maureen Olinek			Sampler (Initials):																																										
Sample #	Sample Identification (This description will appear on the report)			Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)		Cyanide Total	Cyanide WAD																																							
	15 Water samples (See attached)			see attached		Water	X	X																																								
Guidelines / Regulations											Special Instructions / Hazardous Details																																					
Please list both ID's on results Please Use H2S04 Method																																																
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.																																																
Relinquished By:	Jeffery Connor		Date & Time:	28-Jun-12		Received By:	<i>Arca</i>		Date & Time:			Sample Condition (lab use only):					Temperature: 19.2°C																															
Relinquished By:			Date & Time:			Received By:			Date & Time:			Samples Received in Good Condition? Y / N (if no provided details)																																				

28-Jun-12 12:36

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-63456	WQ20-Epi	12-6885-	2012/06/25	Water
EC-63456	WQ20-Meta	12-6886-	2012/06/25	Water
EC-63456	WQ20-Hypo	12-6887-	2012/06/25	Water
EC-63456	WQ21-Epi	12-6888-	2012/06/25	Water
EC-63456	WQ21-Meta	12-6889-	2012/06/25	Water
EC-63456	WQ21-Hypo	12-6890-	2012/06/25	Water
EC-63456	WQ22-Epi	12-6891-	2012/06/26	Water
EC-63456	WQ22-Hypo	12-6892-	2012/06/26	Water
EC-63456	WQ23-Epi	12-6893-	2012/06/26	Water
EC-63456	WQ23-Meta	12-6894-	2012/06/26	Water
EC-63456	WQ23-Hypo	12-6895-	2012/06/26	Water
EC-63456	WQ24-Epi	12-6896-	2012/06/26	Water
EC-63456	WQ24-Hypo	12-6897-	2012/06/26	Water
EC-63456	Field Blank	12-6898-	2012/06/25	Water
EC-63456	Trip Blank	12-6899-	2012/06/25	Water



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63753
Project Number: VE52095.2A.3
Project Name: NewGold Blackwater
Date Received: 2012/08/15
Date of Report: 2012/08/23
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.2A.3

 Final
 File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9614	12-9614-D	12-9615	12-9616
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/08/13 0:00	Lab Duplicate	2012/08/14 0:00	2012/08/13 0:00
					MDL				
AFD	2012/08/17	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	13	12	48	25
AFD	2012/08/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.036	0.035	0.096	0.058
AFD	2012/08/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	< 0.02	< 0.02	< 0.02
AFD	2012/08/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
AFD	2012/08/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/08/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	< 0.5	< 0.5	< 0.5
EL	2012/08/21	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	76	64	88	56
EL	2012/08/20	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	5	5	< 2	< 2
JL	2012/08/22	Turbidity	NTU	APHA 2130-b	0.1	10	10	1.2	1.4
AFD	2012/08/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.2	0.1	0.5

Water Analysis

Project No. VE52095.2A.3

 Final
 File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9617	12-9618	12-9619	12-9620
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
AFD	2012/08/17	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	24	21	44	71
AFD	2012/08/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.050	0.045	0.087	0.141
AFD	2012/08/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	< 0.02	< 0.02	< 0.02
AFD	2012/08/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
AFD	2012/08/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/08/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	< 0.5	2.6	4.6
EL	2012/08/21	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	56	44	60	108
EL	2012/08/20	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
JL	2012/08/22	Turbidity	NTU	APHA 2130-b	0.1	0.3	0.7	1.6	1.4
AFD	2012/08/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52095.2A.3

 Final
 File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9621	12-9622	12-9623	12-9624
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/08/13 0:00	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
AFD	2012/08/17	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	67	34	33	27
AFD	2012/08/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.135	0.069	0.068	0.054
AFD	2012/08/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	< 0.02	< 0.02	< 0.02
AFD	2012/08/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
AFD	2012/08/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/08/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.4	2.6	1.7	1.6
EL	2012/08/21	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	92	60	68	44
EL	2012/08/20	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	< 2	< 2	< 2
JL	2012/08/22	Turbidity	NTU	APHA 2130-b	0.1	1.4	0.4	1.0	1.3
AFD	2012/08/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52095.2A.3

 Final
 File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9625	12-9626	12-9627	12-9628
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
AFD	2012/08/17	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	69	98	44	< 1
AFD	2012/08/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.138	0.183	0.088	0.001
AFD	2012/08/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	< 0.02	< 0.02	< 0.02
AFD	2012/08/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
AFD	2012/08/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/08/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.3	2.5	2.6	< 0.5
EL	2012/08/21	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	108	128	76	4
EL	2012/08/20	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	2	< 2
JL	2012/08/22	Turbidity	NTU	APHA 2130-b	0.1	1.1	1.4	1.6	0.2
AFD	2012/08/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9629
					Client ID:	Travel Blank
					Sample Date:	2012/08/13 0:00
					MDL	
AFD	2012/08/17	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	< 1
AFD	2012/08/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001
AFD	2012/08/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02
AFD	2012/08/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005
AFD	2012/08/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
AFD	2012/08/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5
EL	2012/08/21	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	4
EL	2012/08/20	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
JL	2012/08/22	Turbidity	NTU	APHA 2130-b	0.1	0.1
AFD	2012/08/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1

Water Analysis

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Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9614	12-9614-D	12-9615	12-9616
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/08/13 0:00	Lab Duplicate	2012/08/14 0:00	2012/08/13 0:00
					MDL				
EL	2012/08/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/08/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.9	13.0	3.6	7.0
RC	2012/08/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.9	13.0	3.7	7.0
AFD	2012/08/16	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/08/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.060	0.060	0.042	0.007
EL	2012/08/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.99	0.99	0.21	0.11

Water Analysis

Project No. VE52095.2A.3

Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9617	12-9618	12-9619	12-9620
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
EL	2012/08/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/08/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.9	6.8	5.4	8.4
RC	2012/08/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.4	6.8	5.4	8.4
AFD	2012/08/16	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/08/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.004	0.005	0.012	0.012
EL	2012/08/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.09	< 0.08	0.09	0.23

Water Analysis

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9621	12-9622	12-9623	12-9624
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/08/13 0:00	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
EL	2012/08/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/08/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.3	6.2	13.6	7.0
RC	2012/08/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.3	6.2	13.6	7.0
AFD	2012/08/16	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/08/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.014	0.010	0.008	0.010
EL	2012/08/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.20	0.13	0.10	0.10

Water Analysis

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9625	12-9626	12-9627	12-9628
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
EL	2012/08/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/08/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.2	8.9	5.5	< 0.1
RC	2012/08/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.5	8.9	5.7	< 0.1
AFD	2012/08/16	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/08/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.012	0.014	0.011	< 0.001
EL	2012/08/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.17	0.12	0.10	< 0.08

Water Analysis

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 Final
 File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9629
					Client ID:	Travel Blank
					Sample Date:	2012/08/13 0:00
					MDL	
EL	2012/08/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02
RC	2012/08/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.1
RC	2012/08/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.1
AFD	2012/08/16	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
RC	2012/08/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001
EL	2012/08/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9614	12-9614-D	12-9615	12-9616
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/08/13 0:00	Lab Duplicate	2012/08/14 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.708	0.700	0.033	0.125
RC	2012/08/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00013	0.00014	< 0.00005	0.00014
RC	2012/08/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0016	0.0015	0.0011	0.0015
RC	2012/08/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00876	0.00886	0.00500	0.00329
RC	2012/08/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.003	0.003	0.003	0.002
RC	2012/08/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000062	0.000064	< 0.000015	0.000045
RC	2012/08/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0009	0.0010	0.0006	< 0.0003
RC	2012/08/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00010	0.00010	0.00002	0.00004
RC	2012/08/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	< 0.0001	< 0.0001
RC	2012/08/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.8140	0.8170	0.1090	0.0823
RC	2012/08/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00021	0.00021	< 0.00005	0.00012
RC	2012/08/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/08/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02110	0.02140	0.00825	0.03230
RC	2012/08/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/08/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00033	0.00033	0.00067	0.00019
RC	2012/08/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00068	0.00066	0.00010	0.00029
RC	2012/08/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/08/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.034000	0.034300	0.083300	0.049600
RC	2012/08/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0173	0.0172	0.0008	0.0027
RC	2012/08/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	0.00020	0.00016	< 0.00005
RC	2012/08/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0010	0.0011	0.0014	0.0001
RC	2012/08/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0103	0.0104	0.0015	0.0307

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9617	12-9618	12-9619	12-9620
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.057	0.070	0.052	0.012
RC	2012/08/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0007	0.0006	0.0005
RC	2012/08/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00380	0.00597	0.00821	0.00618
RC	2012/08/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.001	0.002	0.002
RC	2012/08/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/08/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/08/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00002	0.00005	0.00003
RC	2012/08/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1040	0.1200	0.1940	0.0323
RC	2012/08/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00024	0.00037	0.00074
RC	2012/08/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/08/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00454	0.00828	0.02250	0.01120
RC	2012/08/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/08/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00047	0.00060	0.00063
RC	2012/08/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00044	0.00077	0.00078
RC	2012/08/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/08/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.043000	0.046800	0.080400	0.104000
RC	2012/08/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0008	0.0012	0.0011	0.0003
RC	2012/08/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00011	0.00012	0.00010
RC	2012/08/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0001	0.0006	0.0003
RC	2012/08/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0030	0.0052	0.0108	0.0070

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9621	12-9622	12-9623	12-9624
					Client ID:	WO9	WO10	WO11	WO12
					Sample Date:	2012/08/13 0:00	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.016	0.078	0.207	0.069
RC	2012/08/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0006	0.0001	0.0003
RC	2012/08/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00706	0.00731	0.00824	0.00772
RC	2012/08/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.001	0.002	< 0.001
RC	2012/08/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/08/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/08/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	0.00003	0.00002
RC	2012/08/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1630	0.1020	0.0966	0.2910
RC	2012/08/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/08/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02730	0.00513	0.00226	0.01310
RC	2012/08/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/08/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00062	0.00053	0.00017	0.00069
RC	2012/08/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00022	0.00020	0.00014
RC	2012/08/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/08/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.103000	0.071000	0.066400	0.064400
RC	2012/08/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0007	0.0012	0.0028	0.0013
RC	2012/08/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00015	0.00013	0.00014
RC	2012/08/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0003	0.0004	0.0003
RC	2012/08/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0009	0.0019	0.0024	0.0042

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9625	12-9626	12-9627	12-9628
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.010	0.013	0.040	< 0.002
RC	2012/08/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0006	0.0005	0.0006	< 0.0001
RC	2012/08/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00752	0.01390	0.00804	< 0.00005
RC	2012/08/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.002	0.001	0.001
RC	2012/08/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/08/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/08/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00002	0.00004	< 0.00002
RC	2012/08/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1710	0.4470	0.1940	< 0.0001
RC	2012/08/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00028	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/08/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.03540	0.01600	0.02190	< 0.00005
RC	2012/08/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/08/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00065	0.00072	0.00094	< 0.00005
RC	2012/08/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00026	0.00023	< 0.00005
RC	2012/08/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/08/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.105000	0.149000	0.080700	< 0.000005
RC	2012/08/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0005	0.0006	0.0011	< 0.0002
RC	2012/08/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00014	0.00012	< 0.00005
RC	2012/08/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0006	< 0.0001
RC	2012/08/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0582	0.0013	< 0.0005	< 0.0005

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9629
					Client ID:	Travel Blank
					Sample Date:	2012/08/13 0:00
					MDL	
RC	2012/08/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002
RC	2012/08/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/08/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/08/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002
RC	2012/08/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015
RC	2012/08/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003
RC	2012/08/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002
RC	2012/08/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/08/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/08/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001
RC	2012/08/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/08/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006
RC	2012/08/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.000015
RC	2012/08/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/08/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002
RC	2012/08/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2012/08/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2012/08/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9614	12-9614-D	12-9615	12-9616
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/08/13 0:00	Lab Duplicate	2012/08/14 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/22	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.390	0.389	0.020	0.069
RC	2012/08/22	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00009	< 0.00005	0.00014
RC	2012/08/22	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0012	0.0012	0.0010	0.0014
RC	2012/08/22	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00503	0.00492	0.00500	0.00302
RC	2012/08/22	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.003	0.003	0.003	0.002
RC	2012/08/22	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	0.000020	< 0.000015	0.000016
RC	2012/08/22	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0005	0.0005	0.0006	< 0.0003
RC	2012/08/22	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00005	0.00006	< 0.00002	0.00002
RC	2012/08/22	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.4340	0.4300	0.0671	0.0419
RC	2012/08/22	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00021	0.00021	< 0.00005	0.00005
RC	2012/08/22	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/08/22	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00941	0.00943	0.00462	0.02810
RC	2012/08/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/08/22	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00033	0.00033	0.00066	0.00019
RC	2012/08/22	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00054	0.00055	0.00010	0.00029
RC	2012/08/22	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/08/22	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.033400	0.033800	0.083300	0.049600
RC	2012/08/22	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0050	0.0052	0.0006	0.0012
RC	2012/08/22	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00014	0.00014	< 0.00005
RC	2012/08/22	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00050	0.00050	0.00144	0.00010
RC	2012/08/22	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0103	0.0102	0.0015	0.0307
AFD	2012/08/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.98	7.06	7.85	7.48

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9617	12-9618	12-9619	12-9620
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/22	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.049	0.054	0.019	< 0.002
RC	2012/08/22	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0007	0.0006	0.0005
RC	2012/08/22	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00380	0.00597	0.00809	0.00567
RC	2012/08/22	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.002	0.001	0.002	0.002
RC	2012/08/22	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/08/22	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/08/22	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00003	< 0.00002
RC	2012/08/22	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0895	0.0899	0.1450	0.0117
RC	2012/08/22	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00024	< 0.00005	< 0.00005
RC	2012/08/22	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/08/22	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00403	0.00598	0.01880	0.00302
RC	2012/08/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/08/22	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00021	0.00040	0.00055	0.00055
RC	2012/08/22	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00020	0.00024	0.00022
RC	2012/08/22	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/08/22	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.043000	0.046800	0.080400	0.104000
RC	2012/08/22	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0009	0.0004	< 0.0002
RC	2012/08/22	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00010	0.00010	0.00008
RC	2012/08/22	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00033	0.00013	0.00057	0.00025
RC	2012/08/22	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0030	0.0036	0.0025	0.0038
AFD	2012/08/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.56	7.50	7.82	8.09

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9621	12-9622	12-9623	12-9624
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/08/13 0:00	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/22	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	0.068	0.160	0.034
RC	2012/08/22	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0006	0.0005	0.0001	0.0003
RC	2012/08/22	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00706	0.00731	0.00790	0.00772
RC	2012/08/22	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.002	0.001	0.002	< 0.001
RC	2012/08/22	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/08/22	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/08/22	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	< 0.00002	0.00003	0.00002
RC	2012/08/22	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0933	0.0894	0.0720	0.2280
RC	2012/08/22	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/08/22	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02100	0.00351	0.00168	0.00999
RC	2012/08/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/08/22	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00058	0.00051	0.00017	0.00062
RC	2012/08/22	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00025	0.00022	0.00020	0.00014
RC	2012/08/22	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/08/22	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.103000	0.071000	0.066400	0.064400
RC	2012/08/22	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	0.0011	0.0017	0.0008
RC	2012/08/22	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00013	0.00011	0.00011
RC	2012/08/22	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00036	0.00031	0.00042	0.00028
RC	2012/08/22	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0009	0.0019	0.0020	0.0042
AFD	2012/08/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.97	7.71	7.68	7.58

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9625	12-9626	12-9627	12-9628
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/22	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	0.013	0.020	< 0.002
RC	2012/08/22	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0006	0.0004	0.0006	< 0.0001
RC	2012/08/22	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00752	0.01390	0.00804	< 0.00005
RC	2012/08/22	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.002	0.002	0.001	< 0.001
RC	2012/08/22	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/08/22	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/08/22	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00002	0.00004	< 0.00002
RC	2012/08/22	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1230	0.3340	0.1480	< 0.0001
RC	2012/08/22	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/08/22	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.03160	0.01100	0.01900	< 0.00005
RC	2012/08/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/08/22	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00059	0.00072	0.00094	< 0.00005
RC	2012/08/22	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00025	0.00026	0.00023	< 0.00005
RC	2012/08/22	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/08/22	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.105000	0.149000	0.080700	< 0.000005
RC	2012/08/22	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/08/22	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/08/22	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	0.0003	0.0004	< 0.0002
RC	2012/08/22	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00014	0.00011	< 0.00005
RC	2012/08/22	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00034	0.00026	0.00058	< 0.00005
RC	2012/08/22	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0012	0.0013	< 0.0005	< 0.0005
AFD	2012/08/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	8.02	8.17	7.86	5.83

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9629
					Client ID:	Travel Blank
					Sample Date:	2012/08/13 0:00
					MDL	
RC	2012/08/22	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002
RC	2012/08/22	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/08/22	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/08/22	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/08/22	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
RC	2012/08/22	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
RC	2012/08/22	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
RC	2012/08/22	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/08/22	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/08/22	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2012/08/22	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2012/08/22	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006
RC	2012/08/22	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005
RC	2012/08/22	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2012/08/22	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
RC	2012/08/22	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2012/08/22	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005
AFD	2012/08/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.61

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9614	12-9614-D	12-9615	12-9616
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/08/13 0:00	Lab Duplicate	2012/08/14 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/22	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.5	3.4	11.8	7.9
RC	2012/08/22	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.74	0.73	2.75	1.25
RC	2012/08/22	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.05	0.05	0.04	< 0.01
RC	2012/08/22	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.6	< 0.5
RC	2012/08/22	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.56	6.84	8.91	6.55
RC	2012/08/22	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.6	3.6	3.7	2.4
RC	2012/08/22	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	11.7	11.6	40.9	24.7

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9617	12-9618	12-9619	12-9620
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/22	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.7	5.6	11.7	21.0
RC	2012/08/22	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.64	0.95	2.58	4.69
RC	2012/08/22	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/08/22	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.6	0.8
RC	2012/08/22	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.56	5.87	6.70	3.18
RC	2012/08/22	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.5	2.2	3.2	3.6
RC	2012/08/22	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	21.0	17.9	39.8	71.8

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9621	12-9622	12-9623	12-9624
					Client ID:	WO9	WO10	WO11	WO12
					Sample Date:	2012/08/13 0:00	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/22	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	20.0	9.3	9.7	7.5
RC	2012/08/22	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.33	1.85	1.89	1.27
RC	2012/08/22	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/08/22	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	< 0.5	0.5	< 0.5
RC	2012/08/22	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.01	6.56	7.54	3.74
RC	2012/08/22	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.5	2.9	2.7	2.1
RC	2012/08/22	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	67.8	31.0	32.0	24.0

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

 Final
 File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9625	12-9626	12-9627	12-9628
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/22	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	20.2	28.6	11.6	< 0.5
RC	2012/08/22	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.45	5.67	2.61	< 0.50
RC	2012/08/22	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/08/22	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	0.6	0.6	< 0.5
RC	2012/08/22	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.17	7.67	6.91	< 0.01
RC	2012/08/22	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.6	4.3	3.2	< 0.5
RC	2012/08/22	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	68.8	94.7	39.7	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

 Final
 File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9629
					Client ID:	Travel Blank
					Sample Date:	2012/08/13 0:00
					MDL	
RC	2012/08/22	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/08/22	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50
RC	2012/08/22	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/08/22	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/08/22	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2012/08/22	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2012/08/22	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9614	12-9614-D	12-9615	12-9616
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/08/13 0:00	Lab Duplicate	2012/08/14 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.5	3.4	11.8	7.9
RC	2012/08/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.82	0.87	2.75	1.25
RC	2012/08/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.05	0.05	0.04	< 0.02
RC	2012/08/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.6	< 0.5
RC	2012/08/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.93	7.03	8.91	6.55
RC	2012/08/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.6	3.6	3.7	2.4
RC	2012/08/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.1	12.1	40.9	24.7

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9617	12-9618	12-9619	12-9620
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.7	5.6	11.7	21.0
RC	2012/08/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.64	0.95	2.58	4.70
RC	2012/08/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/08/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.6	0.8
RC	2012/08/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.56	5.87	6.70	3.18
RC	2012/08/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.5	2.2	3.2	3.6
RC	2012/08/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	21.0	17.9	39.8	71.8

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9621	12-9622	12-9623	12-9624
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/08/13 0:00	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	20.0	9.3	9.7	7.5
RC	2012/08/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.33	1.85	1.89	1.27
RC	2012/08/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/08/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	< 0.5	0.5	< 0.5
RC	2012/08/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.01	6.56	7.54	3.74
RC	2012/08/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.5	2.9	2.7	2.1
RC	2012/08/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	67.8	31.0	32.0	24.0

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9625	12-9626	12-9627	12-9628
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
RC	2012/08/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	20.2	28.6	11.6	< 0.5
RC	2012/08/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.45	5.67	2.61	< 0.50
RC	2012/08/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/08/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	0.6	0.6	< 0.5
RC	2012/08/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.17	7.67	6.91	< 0.01
RC	2012/08/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.6	4.3	3.2	< 0.5
RC	2012/08/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	68.8	94.7	39.7	< 6.0

Water Analysis - Total Metals

Project No. VE52095.2A.3

 Final
 File No. EC-63753

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9629
					Client ID:	Travel Blank
					Sample Date:	2012/08/13 0:00
					MDL	
RC	2012/08/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/08/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50
RC	2012/08/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02
RC	2012/08/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/08/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01
RC	2012/08/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2012/08/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Quality Control Standard

Project No.

File No. EC-63753

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2012/08/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	65	56-77	65.00	QC-ALK/F-48
AFD	2012/08/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.86	2.54-2.94	2.79	CC-EC-0.02M-43
AFD	2012/08/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.51	0.44-0.58	0.50	QC-ALK/F-48
AFD	2012/08/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.57	1.44-1.76	1.60	CC-Anion-117B
AFD	2012/08/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.656	0.54-0.66	0.60	CC-Anion-117B
AFD	2012/08/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.0	25.2-30.8	28.00	CC-Anion-117B
EL	2012/08/21	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4648	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/08/20	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	145	134-153	144.00	OCP-E2-SLD02009
JL	2012/08/22	Turbidity	NTU	APHA 2130-b	0.1	16	14.53-19.49	17.01	D2-TURB01052
AFD	2012/08/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.9	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/08/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.59	0.47-0.74	0.61	NH3SC-001
RC	2012/08/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	4.0	3.3-4.3	3.80	DMD-TOC-92-Low
RC	2012/08/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.4	33.1-42.6	37.90	DMD-TOC-92-Mid
AFD	2012/08/16	Phosphorus-Ortho-DLL	mg/L (ppm)	APHA 4110	0.030	8.18	7.2-8.8	8.00	CC-Anion-117B
RC	2012/08/17	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	244	225-275	250.00	MS-CCV-HIGH
EL	2012/08/21	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	15.4	11.5 - 18.6	15.10	QC-Nut-B2-01111

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/08/17	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	46.4	45-55	50.00	MS-CCV-HIGH
RC	2012/08/17	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	99.8	90.0-110	100.00	MS-CCV-HIGH
RC	2012/08/17	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	100	90.0-110	100.00	MS-CCV-HIGH
RC	2012/08/17	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	47.7	45-55	50.00	MS-CCV-HIGH
RC	2012/08/17	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	48.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/17	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	45.7	45-55	50.00	MS-CCV-HIGH
RC	2012/08/17	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/17	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	48.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/17	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	49.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/17	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	49.0	45-55	50.00	MS-CCV-HIGH
RC	2012/08/17	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	48.8	45-55	50.00	MS-CCV-HIGH
RC	2012/08/17	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	96.6	90.0-110	100.00	MS-CCV-HIGH
RC	2012/08/17	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	47.6	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/08/17	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	49.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/21	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.264000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/08/17	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	48.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/17	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/17	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	48.6	45-55	50.00	MS-CCV-HIGH
RC	2012/08/17	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.0	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/08/17	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.0	45-55	50.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63753

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/08/17	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	239	225-275	250.00	MS-CCV-HIGH
RC	2012/08/17	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	249	225-275	250.00	MS-CCV-HIGH
RC	2012/08/17	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/17	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	99.3	90-110	100.00	MS-CCV-HIGH
RC	2012/08/17	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/17	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.2	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/08/22	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	46.5	45-55	50.00	MS-CCV-HIGH
RC	2012/08/22	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	108	90.0-110	100.00	MS-CCV-HIGH
RC	2012/08/22	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	96.5	90.0-110	100.00	MS-CCV-HIGH
RC	2012/08/22	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	48.2	45-55	50.00	MS-CCV-HIGH
RC	2012/08/22	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	47.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/22	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	45.6	45-55	50.00	MS-CCV-HIGH
RC	2012/08/22	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	48.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/22	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/22	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	49.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/22	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.1	45-55	50.00	MS-CCV-HIGH
RC	2012/08/22	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.1	45-55	50.00	MS-CCV-HIGH
RC	2012/08/22	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	94.3	90.0-110	100.00	MS-CCV-HIGH
RC	2012/08/22	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.7	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/08/22	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	48.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/21	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.264000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/08/22	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	47.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/22	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	49.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/22	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	49.3	45-55	50.00	MS-CCV-HIGH
RC	2012/08/22	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.0	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/08/22	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.9	45-55	50.00	MS-CCV-HIGH
RC	2012/08/22	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	235	225-275	250.00	MS-CCV-HIGH
RC	2012/08/22	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	247	225-275	250.00	MS-CCV-HIGH
RC	2012/08/22	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/22	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	94.0	90-110	100.00	MS-CCV-HIGH
RC	2012/08/22	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/08/22	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	47.3	45.0-55.0	50.00	MS-CCV-HIGH
AFD	2012/08/17	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-4

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/08/22	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24400	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/08/22	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/08/22	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	248	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63753

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/08/22	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25200	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/08/22	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
RC	2012/08/22	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25200	22545-27555	25,050.00	MS-CCV-HIGH

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/08/17	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	23300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/08/17	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/08/17	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	244	225-275	250.00	MS-CCV-HIGH
RC	2012/08/17	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	23900	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/08/17	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	118	105-129	117.00	MS-CCV-HIGH
RC	2012/08/17	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25400	22545-27555	25,050.00	MS-CCV-HIGH

Analytical Comments

Project No. VE52095.2A.3

File No. EC-63753

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-03753
71

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater

Project Manager: Bruce Ott

Project Number: VE52095

Phase: 200

Sampler: 604-294-3811

Phone No.:

Task: 2A

Client Sample ID

AMEC E & E Lab Sample ID

Date Collected

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

Total and dissolved metals (Ultra ICP/MS)

Ammonia and TKN

Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)

100% RUSH (Please Notify Lab Prior To Submission)

Receiver's Comments

Quote #: QN-521

Temperature Received: 7.6°C

YES NO

Please attach a copy of the quote

RELINQUISHED BY: RECEIVED BY: Signature: Signature:

Printed Name: Printed Name:

Firm: Firm:

Date/Time: Date/Time:

Signature: Signature:

Printed Name: Printed Name:

Firm: Firm:

Date/Time: Date/Time:

Date/Time: 8/14/2012 15:00

Date/Time: 8/15/12 8:35

Comments:
1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)
2) Please use Low Level Nitrate and Nitrite
3) Please analyze CN- and CN-WAD using H2SO4 method.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 15-AUG-12
Report Date: 24-AUG-12 14:36 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1194631
Project P.O. #: 2220
Job Reference: EC-63753
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1194631-1 12-9614~WQ1 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-AUG-12 20-AUG-12	R2420743 R2420754
L1194631-2 12-9615~WQ3 Sampled By: CLIENT on 14-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-AUG-12 22-AUG-12	R2422735 R2422736
L1194631-3 12-9616~WQ4 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-AUG-12 22-AUG-12	R2422735 R2422736
L1194631-4 12-9617~WQ5 Sampled By: CLIENT on 14-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-AUG-12 22-AUG-12	R2422735 R2422736
L1194631-5 12-9618~WQ6 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-AUG-12 22-AUG-12	R2422735 R2422736
L1194631-6 12-9619~WQ7 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-AUG-12 22-AUG-12	R2422735 R2422736
L1194631-7 12-9620~WQ8 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-AUG-12 22-AUG-12	R2422735 R2422736
L1194631-8 12-9621~WQ9 Sampled By: CLIENT on 14-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315
L1194631-9 12-9622~WQ10 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1194631-9 12-9622~WQ10 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315
L1194631-10 12-9623~WQ11 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315
L1194631-11 12-9624~WQ12 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315
L1194631-12 12-9625~WQ13 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315
L1194631-13 12-9626~WQ14 Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315
L1194631-14 12-9627~WQ DUPLICATE Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315
L1194631-15 12-9628~ FIELD BLANK Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315
L1194631-16 12-9629~TRAVEL BLANK Sampled By: CLIENT on 13-AUG-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-AUG-12 23-AUG-12	R2423313 R2423315

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BC, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1194631

Report Date: 24-AUG-12

Page 1 of 7

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2420743							
WG1530422-9	DUP	L1191851-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-AUG-12
WG1530422-11	LCS							
Cyanide, Total			92.8		%		80-120	20-AUG-12
WG1530422-2	LCS							
Cyanide, Total			90.9		%		80-120	20-AUG-12
WG1530422-6	LCS							
Cyanide, Total			92.0		%		80-120	20-AUG-12
WG1530422-8	LCS							
Cyanide, Total			92.7		%		80-120	20-AUG-12
WG1530422-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-AUG-12
WG1530422-12	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-AUG-12
WG1530422-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-AUG-12
WG1530422-7	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-AUG-12
WG1530422-10	MS	L1191851-1						
Cyanide, Total			100.2		%		70-130	20-AUG-12
Batch	R2422735							
WG1531961-11	DUP	L1194314-12						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531961-15	DUP	L1195304-10						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531961-17	DUP	L1196026-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531961-23	DUP	L1194631-7						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531961-3	DUP	L1191851-11						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531961-10	LCS							
Cyanide, Total			92.1		%		80-120	22-AUG-12
WG1531961-14	LCS							
Cyanide, Total			94.3		%		80-120	22-AUG-12
WG1531961-2	LCS							
Cyanide, Total			91.2		%		80-120	22-AUG-12
WG1531961-20	LCS							



Quality Control Report

Workorder: L1194631

Report Date: 24-AUG-12

Page 2 of 7

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2422735							
WG1531961-20	LCS							
Cyanide, Total			93.4		%		80-120	22-AUG-12
WG1531961-26	LCS							
Cyanide, Total			94.8		%		80-120	22-AUG-12
WG1531961-6	LCS							
Cyanide, Total			93.6		%		80-120	22-AUG-12
WG1531961-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-AUG-12
WG1531961-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-AUG-12
WG1531961-19	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-AUG-12
WG1531961-25	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-AUG-12
WG1531961-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-AUG-12
WG1531961-9	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-AUG-12
WG1531961-12	MS	L1194314-12						
Cyanide, Total			100.1		%		70-130	22-AUG-12
WG1531961-16	MS	L1195304-10						
Cyanide, Total			101.6		%		70-130	22-AUG-12
WG1531961-18	MS	L1196026-1						
Cyanide, Total			96.8		%		70-130	22-AUG-12
WG1531961-24	MS	L1194631-7						
Cyanide, Total			101.0		%		70-130	22-AUG-12
WG1531961-4	MS	L1191851-11						
Cyanide, Total			100.8		%		70-130	22-AUG-12
Batch	R2423313							
WG1532794-15	DUP	L1196641-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-AUG-12
WG1532794-16	DUP	L1197355-6						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-AUG-12
WG1532794-20	DUP	L1195397-16						
Cyanide, Total		327	326		mg/L	0.2	20	23-AUG-12
WG1532794-5	DUP	L1194631-13						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-AUG-12
WG1532794-9	DUP	L1195109-11						



Quality Control Report

Workorder: L1194631

Report Date: 24-AUG-12

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2423313							
WG1532794-9	DUP	L1195109-11						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-AUG-12
WG1532794-12	LCS							
Cyanide, Total			93.7		%		80-120	23-AUG-12
WG1532794-19	LCS							
Cyanide, Total			94.1		%		80-120	23-AUG-12
WG1532794-2	LCS							
Cyanide, Total			93.3		%		80-120	23-AUG-12
WG1532794-22	LCS							
Cyanide, Total			92.8		%		80-120	23-AUG-12
WG1532794-4	LCS							
Cyanide, Total			94.0		%		80-120	23-AUG-12
WG1532794-8	LCS							
Cyanide, Total			94.1		%		80-120	23-AUG-12
WG1532794-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-AUG-12
WG1532794-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-AUG-12
WG1532794-18	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-AUG-12
WG1532794-21	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-AUG-12
WG1532794-3	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-AUG-12
WG1532794-7	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-AUG-12
WG1532794-10	MS	L1195109-11						
Cyanide, Total			97.0		%		70-130	23-AUG-12
WG1532794-17	MS	L1197355-6						
Cyanide, Total			101.3		%		70-130	23-AUG-12
WG1532794-6	MS	L1194631-13						
Cyanide, Total			100.3		%		70-130	23-AUG-12
CN-WAD-CFA-VA								
	Water							
Batch	R2420754							
WG1530427-9	DUP	L1191851-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-AUG-12
WG1530427-11	LCS							
Cyanide, Weak Acid Diss			110.4		%		80-120	20-AUG-12



Quality Control Report

Workorder: L1194631

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2420754							
WG1530427-2	LCS							
	Cyanide, Weak Acid Diss		106.7		%		80-120	20-AUG-12
WG1530427-6	LCS							
	Cyanide, Weak Acid Diss		108.5		%		80-120	20-AUG-12
WG1530427-8	LCS							
	Cyanide, Weak Acid Diss		106.9		%		80-120	20-AUG-12
WG1530427-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-AUG-12
WG1530427-12	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-AUG-12
WG1530427-5	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-AUG-12
WG1530427-7	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-AUG-12
WG1530427-10	MS	L1191851-1						
	Cyanide, Weak Acid Diss		101.2		%		70-130	20-AUG-12
Batch	R2422736							
WG1531983-11	DUP	L1194314-12						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531983-15	DUP	L1195304-10						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531983-17	DUP	L1196026-1						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531983-23	DUP	L1194631-7						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531983-3	DUP	L1191851-11						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-AUG-12
WG1531983-10	LCS							
	Cyanide, Weak Acid Diss		107.3		%		80-120	22-AUG-12
WG1531983-14	LCS							
	Cyanide, Weak Acid Diss		108.7		%		80-120	22-AUG-12
WG1531983-2	LCS							
	Cyanide, Weak Acid Diss		108.7		%		80-120	22-AUG-12
WG1531983-20	LCS							
	Cyanide, Weak Acid Diss		108.5		%		80-120	22-AUG-12
WG1531983-26	LCS							
	Cyanide, Weak Acid Diss		109.1		%		80-120	22-AUG-12
WG1531983-6	LCS							



Quality Control Report

Workorder: L1194631

Report Date: 24-AUG-12

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2422736							
WG1531983-6	LCS							
Cyanide, Weak Acid Diss			108.9		%		80-120	22-AUG-12
WG1531983-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	22-AUG-12
WG1531983-13	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	22-AUG-12
WG1531983-19	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	22-AUG-12
WG1531983-25	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	22-AUG-12
WG1531983-5	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	22-AUG-12
WG1531983-9	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	22-AUG-12
WG1531983-12	MS	L1194314-12						
Cyanide, Weak Acid Diss			102.0		%		70-130	22-AUG-12
WG1531983-16	MS	L1195304-10						
Cyanide, Weak Acid Diss			103.7		%		70-130	22-AUG-12
WG1531983-18	MS	L1196026-1						
Cyanide, Weak Acid Diss			97.8		%		70-130	22-AUG-12
WG1531983-24	MS	L1194631-7						
Cyanide, Weak Acid Diss			100.0		%		70-130	22-AUG-12
WG1531983-4	MS	L1191851-11						
Cyanide, Weak Acid Diss			105.6		%		70-130	22-AUG-12
Batch	R2423315							
WG1532797-15	DUP	L1196641-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-AUG-12
WG1532797-16	DUP	L1197355-6						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-AUG-12
WG1532797-20	DUP	L1195397-16						
Cyanide, Weak Acid Diss		113	114		mg/L	0.8	20	23-AUG-12
WG1532797-5	DUP	L1194631-13						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-AUG-12
WG1532797-9	DUP	L1195109-11						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-AUG-12
WG1532797-12	LCS							
Cyanide, Weak Acid Diss			108.2		%		80-120	23-AUG-12
WG1532797-19	LCS							



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Report Date: 24-AUG-12

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2423315							
WG1532797-19	LCS							
Cyanide, Weak Acid Diss			107.2		%		80-120	23-AUG-12
WG1532797-2	LCS							
Cyanide, Weak Acid Diss			108.2		%		80-120	23-AUG-12
WG1532797-22	LCS							
Cyanide, Weak Acid Diss			110.2		%		80-120	23-AUG-12
WG1532797-4	LCS							
Cyanide, Weak Acid Diss			109.6		%		80-120	23-AUG-12
WG1532797-8	LCS							
Cyanide, Weak Acid Diss			108.5		%		80-120	23-AUG-12
WG1532797-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-AUG-12
WG1532797-11	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-AUG-12
WG1532797-18	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-AUG-12
WG1532797-21	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-AUG-12
WG1532797-3	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-AUG-12
WG1532797-7	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-AUG-12
WG1532797-10	MS	L1195109-11						
Cyanide, Weak Acid Diss			109.8		%		70-130	23-AUG-12
WG1532797-17	MS	L1197355-6						
Cyanide, Weak Acid Diss			100.4		%		70-130	23-AUG-12
WG1532797-6	MS	L1194631-13						
Cyanide, Weak Acid Diss			102.1		%		70-130	23-AUG-12

Quality Control Report

Workorder: L1194631

Report Date: 24-AUG-12

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

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Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63959
Project Number: VE52095.200.2A.3
Project Name: NewGold Blackwater
Date Received: 2012/09/19
Date of Report: 2012/09/26
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11611	12-11611-D	12-11612	12-11613
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/09/17 0:00	Lab Duplicate	2012/09/18 0:00	2012/09/17 0:00
					MDL				
AFD	2012/09/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	11	11	51	5
AFD	2012/09/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.035	0.032	0.098	0.061
AFD	2012/09/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.05	0.07	0.06
AFD	2012/09/19	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	0.013	< 0.005
AFD	2012/09/19	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.0	2.0	1.9	3.7
EL	2012/09/20	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	64	56	68	32
EL	2012/09/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	1.4	1.7	2.0	1.4
AFD	2012/09/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	< 0.1	< 0.1	0.5

Water Analysis

Project No. VE52095.200.2A.3

 Final
 File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11614	12-11615	12-11616	12-11617
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/09/18 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
AFD	2012/09/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	30	6	61	77
AFD	2012/09/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.061	0.053	0.108	0.141
AFD	2012/09/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.05	0.06	0.08
AFD	2012/09/19	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	0.007	< 0.005	< 0.005
AFD	2012/09/19	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.1	1.9	2.6	4.1
EL	2012/09/20	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	64	40	92	140
EL	2012/09/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	7
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.2	1.3	2.8
AFD	2012/09/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	0.2	0.2	0.2

Water Analysis

Project No. VE52095.200.2A.3

 Final
 File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11618	12-11619	12-11620	12-11621
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/09/17 0:00	2012/09/18 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
AFD	2012/09/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	74	52	59	39
AFD	2012/09/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.138	0.094	0.108	0.061
AFD	2012/09/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.06	0.05	0.05
AFD	2012/09/19	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
AFD	2012/09/19	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.9	2.8	1.9	1.2
EL	2012/09/20	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	92	52	84	48
EL	2012/09/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	1.2	0.7	0.7	1.1
AFD	2012/09/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	< 0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11622	12-11623	12-11624	12-11625
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
AFD	2012/09/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	69	100	34	10
AFD	2012/09/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.140	0.188	0.070	< 0.001
AFD	2012/09/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.08	0.05	< 0.02
AFD	2012/09/19	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	0.014	< 0.005
AFD	2012/09/19	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.9	3.0	2.5	< 0.5
EL	2012/09/20	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	60	176	56	< 4
EL	2012/09/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	1.3	1.4	0.6	0.4
AFD	2012/09/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.3	< 0.1	< 0.1

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11626	12-11627	12-11628	12-11629
					Client ID:	Travel Blank	BW101	BW161	BW177
					Sample Date:	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
AFD	2012/09/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	9	5	37	70
AFD	2012/09/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001	0.101	0.099	0.156
AFD	2012/09/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	0.17	0.12	0.10
AFD	2012/09/19	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
AFD	2012/09/19	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	25.8	11.3	17.5
EL	2012/09/20	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	< 4	92	52	124
EL	2012/09/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	9	6	4
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	0.5	21	19	2.2
AFD	2012/09/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	0.1	0.2	0.1

Water Analysis

Project No. VE52095.200.2A.3

 Final
 File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11630	12-11631	12-11632
					Client ID:	WQ17	WQ18	WQ19
					Sample Date:	2012/09/17 0:00	2012/09/18 0:00	2012/09/17 0:00
					MDL			
AFD	2012/09/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	34	70	95
AFD	2012/09/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.070	0.140	0.206
AFD	2012/09/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.12	0.06
AFD	2012/09/19	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.012	< 0.005	0.130
AFD	2012/09/19	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.4	1.5	3.0
EL	2012/09/20	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	48	88	148
EL	2012/09/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	0.7	1.2	0.8
AFD	2012/09/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	1.2

Water Analysis

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Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11611	12-11611-D	12-11612	12-11613
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/09/17 0:00	Lab Duplicate	2012/09/18 0:00	2012/09/17 0:00
					MDL				
EL	2012/09/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/20	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.5	10.5	10.4	9.7
RC	2012/09/20	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.9	10.7	10.4	9.7
AFD	2012/09/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	0.047	< 0.003
RC	2012/09/20	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.007	0.007	0.039	0.001
EL	2012/09/20	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.17	0.16	< 0.08	< 0.08

Water Analysis

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 Final
 File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11614	12-11615	12-11616	12-11617
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/09/18 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
EL	2012/09/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/20	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.0	8.7	11.9	19.8
RC	2012/09/20	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.0	10.1	14.1	20.6
AFD	2012/09/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/20	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.002	0.002	0.004	0.011
EL	2012/09/20	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.08	< 0.08	< 0.08	0.38

Water Analysis

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Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11618	12-11619	12-11620	12-11621
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/09/17 0:00	2012/09/18 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
EL	2012/09/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/20	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	20.0	11.1	15.4	11.6
RC	2012/09/20	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	22.9	11.4	15.4	14.0
AFD	2012/09/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/20	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.005	0.007	< 0.001	0.005
EL	2012/09/20	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.20	< 0.08	< 0.08	0.13

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11622	12-11623	12-11624	12-11625
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
EL	2012/09/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/20	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	23.9	24.3	10.9	0.4
RC	2012/09/20	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	23.9	24.3	10.9	0.4
AFD	2012/09/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	0.039	< 0.003	< 0.003
RC	2012/09/20	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.006	0.002	0.001	< 0.001
EL	2012/09/20	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.16	0.11	< 0.08	< 0.08

Water Analysis

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Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11626	12-11627	12-11628	12-11629
					Client ID:	Travel Blank	BW101	BW161	BW177
					Sample Date:	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
EL	2012/09/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/20	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.1	7.0	8.9	8.2
RC	2012/09/20	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.1	8.2	11.1	12.3
AFD	2012/09/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/20	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.145	0.068	0.001
EL	2012/09/20	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	< 0.08	< 0.08

Water Analysis

Project No. VE52095.200.2A.3

 Final
 File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11630	12-11631	12-11632
					Client ID:	WQ17	WQ18	WQ19
					Sample Date:	2012/09/17 0:00	2012/09/18 0:00	2012/09/17 0:00
					MDL			
EL	2012/09/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/20	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.7	18.1	17.3
RC	2012/09/20	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.0	18.1	19.3
AFD	2012/09/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/20	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.001	0.029	0.002
EL	2012/09/20	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.12	0.36	< 0.08

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11611	12-11611-D	12-11612	12-11613
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/09/17 0:00	Lab Duplicate	2012/09/18 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.131	0.131	0.049	0.053
RC	2012/09/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00008	< 0.00005	0.00014
RC	2012/09/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0008	0.0007	0.0011	0.0012
RC	2012/09/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00305	0.00313	0.00502	0.00232
RC	2012/09/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000016	0.000016	< 0.000015	0.000019
RC	2012/09/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	2.9	13.0	8.0
RC	2012/09/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0009	< 0.0003
RC	2012/09/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00004	0.00003	0.00003
RC	2012/09/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	< 0.0001	0.0002
RC	2012/09/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2020	0.2040	0.1160	0.0469
RC	2012/09/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.65	0.64	2.93	1.27
RC	2012/09/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01380	0.01380	0.00870	0.04000
RC	2012/09/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00024	0.00024	0.00082	0.00020
RC	2012/09/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00033	0.00033	0.00014	0.00024
RC	2012/09/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	0.05	< 0.02
RC	2012/09/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.6	< 0.5
RC	2012/09/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.66	6.27	8.54	5.73
RC	2012/09/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.4	2.4	3.6	2.2
RC	2012/09/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.027100	0.026900	0.081300	0.045600
RC	2012/09/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0017	0.0017	0.0014	0.0008
RC	2012/09/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00008	0.00020	< 0.00005
RC	2012/09/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0017	< 0.0001
RC	2012/09/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0042	0.0043	< 0.0005	0.0253
RC	2012/09/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	10.1	10.0	44.4	25.1

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11614	12-11615	12-11616	12-11617
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/09/18 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.052	0.044	0.025	0.058
RC	2012/09/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0005	0.0005	0.0004
RC	2012/09/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00426	0.00564	0.00825	0.00677
RC	2012/09/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.001
RC	2012/09/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.2	6.4	15.1	20.7
RC	2012/09/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00002	0.00004	0.00004
RC	2012/09/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001	0.0001	0.0002
RC	2012/09/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1260	0.1060	0.1750	0.1220
RC	2012/09/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	2.06	1.12	3.22	4.66
RC	2012/09/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00525	0.00766	0.02460	0.02180
RC	2012/09/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00037	0.00053	0.00073	0.00062
RC	2012/09/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00017	0.00020	0.00035
RC	2012/09/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	0.03
RC	2012/09/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.5	0.9
RC	2012/09/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.98	5.90	6.40	3.16
RC	2012/09/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.7	2.3	3.3	3.4
RC	2012/09/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.047800	0.048800	0.090800	0.095700
RC	2012/09/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0009	0.0009	0.0007	0.0025
RC	2012/09/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	0.00009	0.00016	0.00010
RC	2012/09/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	< 0.0001	0.0003	0.0005
RC	2012/09/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0016	0.0007	< 0.0005	< 0.0005
RC	2012/09/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	26.5	20.6	51.0	70.9

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11618	12-11619	12-11620	12-11621
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/09/17 0:00	2012/09/18 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.019	0.029	0.074	0.061
RC	2012/09/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	< 0.0001	0.0002
RC	2012/09/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00726	0.00786	0.00987	0.00827
RC	2012/09/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	20.8	13.3	15.9	8.4
RC	2012/09/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	< 0.00002	0.00003
RC	2012/09/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	0.0002	0.0001	< 0.0001
RC	2012/09/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1540	0.0734	0.0258	0.3520
RC	2012/09/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00013	< 0.00005	< 0.00005
RC	2012/09/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.43	2.46	3.08	1.44
RC	2012/09/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01810	0.00481	0.00086	0.02000
RC	2012/09/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00065	0.00074	0.00026	0.00051
RC	2012/09/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00048	0.00012	0.00015	0.00015
RC	2012/09/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	< 0.5	0.6	< 0.5
RC	2012/09/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.17	6.64	6.97	3.99
RC	2012/09/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.4	3.1	3.2	2.2
RC	2012/09/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.101000	0.085900	0.092700	0.064500
RC	2012/09/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0010	0.0004	0.0008	0.0016
RC	2012/09/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00020	0.00014	0.00010
RC	2012/09/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0002	0.0002	0.0002
RC	2012/09/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
RC	2012/09/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	70.2	43.4	52.3	26.8

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11622	12-11623	12-11624	12-11625
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.031	0.012	0.029	< 0.002
RC	2012/09/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0002	0.0004	< 0.0001
RC	2012/09/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00747	0.01210	0.00692	< 0.00005
RC	2012/09/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.002
RC	2012/09/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	20.8	28.6	8.0	< 0.5
RC	2012/09/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	< 0.00002	0.00006	< 0.00002
RC	2012/09/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	< 0.0001	0.0011	< 0.0001
RC	2012/09/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2050	0.2290	0.0934	< 0.0001
RC	2012/09/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.51	6.05	2.28	< 0.50
RC	2012/09/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.03120	0.00834	0.01390	< 0.00005
RC	2012/09/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00063	0.00055	0.00170	< 0.00005
RC	2012/09/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00033	0.00020	0.00023	< 0.00005
RC	2012/09/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	0.6	< 0.5	< 0.5
RC	2012/09/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.09	6.97	6.43	< 0.01
RC	2012/09/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.4	4.4	3.0	< 0.5
RC	2012/09/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.099600	0.135000	0.051000	< 0.000005
RC	2012/09/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0015	0.0004	0.0004	< 0.0002
RC	2012/09/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00013	0.00007	< 0.00005
RC	2012/09/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	< 0.0001	0.0002	< 0.0001
RC	2012/09/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	< 0.0005	0.0026	< 0.0005
RC	2012/09/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	70.5	96.3	29.4	< 6.0

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11626	12-11627	12-11628	12-11629
					Client ID:	Travel Blank	BW101	BW161	BW177
					Sample Date:	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	0.014	0.018	0.264
RC	2012/09/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00016
RC	2012/09/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0149	0.0065	0.0283
RC	2012/09/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00838	0.01150	0.00274
RC	2012/09/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.001	0.001	< 0.001
RC	2012/09/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	0.000024	< 0.000015	0.000023
RC	2012/09/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	9.0	11.8	23.3
RC	2012/09/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00011
RC	2012/09/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0020
RC	2012/09/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	9.22	3.92	0.2810
RC	2012/09/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00005	0.00011	0.00034
RC	2012/09/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	0.007	0.006	0.008
RC	2012/09/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	1.77	1.50	< 0.50
RC	2012/09/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	1.08	0.44100	0.03940
RC	2012/09/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00056	0.00066	0.00751
RC	2012/09/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00031
RC	2012/09/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	0.15	0.08	0.02
RC	2012/09/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	2.1	2.2	0.6
RC	2012/09/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	9.79	7.38	6.44
RC	2012/09/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	2.0	4.4	8.9
RC	2012/09/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005	0.040500	0.045000	0.196000
RC	2012/09/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	0.0003	< 0.0002	0.0090
RC	2012/09/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00015
RC	2012/09/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002
RC	2012/09/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0247	< 0.0005	0.0046
RC	2012/09/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	29.9	35.5	59.2

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11630	12-11631	12-11632
					Client ID:	WQ17	WQ18	WQ19
					Sample Date:	2012/09/17 0:00	2012/09/18 0:00	2012/09/17 0:00
					MDL			
RC	2012/09/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.031	0.015	0.009
RC	2012/09/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0005	0.0005
RC	2012/09/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00631	0.00467	0.00911
RC	2012/09/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	0.001	0.002
RC	2012/09/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	8.1	13.4	34.6
RC	2012/09/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00006	0.00005	< 0.00002
RC	2012/09/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0001	0.0001
RC	2012/09/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0962	0.1460	0.0240
RC	2012/09/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	0.001	< 0.001
RC	2012/09/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	2.26	7.77	4.47
RC	2012/09/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01370	0.00852	0.00224
RC	2012/09/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00191	0.00079	0.00075
RC	2012/09/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00045	< 0.00005
RC	2012/09/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	0.05	< 0.02
RC	2012/09/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	2.1	0.7
RC	2012/09/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.15	10.4	6.53
RC	2012/09/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	5.2	2.8
RC	2012/09/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.052400	0.059900	0.124000
RC	2012/09/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0004	0.0009	0.0004
RC	2012/09/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00011	0.00350
RC	2012/09/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0015	0.0008
RC	2012/09/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0010	0.0006	0.0006
RC	2012/09/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	29.4	65.4	105

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11611	12-11611-D	12-11612	12-11613
					Client ID:	WQ1	WQ1	WQ3	WQ4
					Sample Date:	2012/09/17 0:00	Lab Duplicate	2012/09/18 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.116	0.114	0.016	0.038
RC	2012/09/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00008	< 0.00005	0.00014
RC	2012/09/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0008	0.0007	0.0011	0.0012
RC	2012/09/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00305	0.00297	0.00480	0.00229
RC	2012/09/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.0	2.9	12.8	8.0
RC	2012/09/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	0.0005	< 0.0003
RC	2012/09/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	< 0.0001	0.0002
RC	2012/09/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1640	0.1650	0.0498	0.0353
RC	2012/09/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.64	0.63	2.90	1.25
RC	2012/09/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01310	0.01290	0.00466	0.03920
RC	2012/09/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00023	0.00022	0.00074	0.00020
RC	2012/09/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00033	0.00032	0.00010	0.00020
RC	2012/09/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.04	< 0.01
RC	2012/09/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.5	< 0.5
RC	2012/09/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.66	6.09	8.54	5.73
RC	2012/09/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.4	2.3	3.6	2.2
RC	2012/09/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.027100	0.026500	0.081200	0.045600
RC	2012/09/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0015	0.0015	0.0004	0.0004
RC	2012/09/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00007	0.00017	< 0.00005
RC	2012/09/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00021	0.00021	0.00164	< 0.00005
RC	2012/09/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0042	0.0043	< 0.0005	0.0253
AFD	2012/09/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.12	7.15	7.78	7.41
RC	2012/09/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	10.0	9.8	44.0	25.0

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11614	12-11615	12-11616	12-11617
					Client ID:	WQ5	WQ6	WQ7	WQ8
					Sample Date:	2012/09/18 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.043	0.032	0.010	0.002
RC	2012/09/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0005	0.0005	0.0004
RC	2012/09/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00426	0.00564	0.00825	0.00628
RC	2012/09/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.1	6.4	15.1	20.7
RC	2012/09/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	< 0.0001	< 0.0001	0.0001
RC	2012/09/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1020	0.0784	0.1360	0.0544
RC	2012/09/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	2.06	1.10	3.19	4.61
RC	2012/09/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00483	0.00672	0.02380	0.01810
RC	2012/09/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00037	0.00053	0.00073	0.00062
RC	2012/09/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00016	0.00020	0.00022
RC	2012/09/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	0.01
RC	2012/09/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.5	0.9
RC	2012/09/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.98	5.90	6.40	3.16
RC	2012/09/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.7	2.3	3.3	3.4
RC	2012/09/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.047800	0.048800	0.090800	0.095700
RC	2012/09/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0008	0.0006	0.0003	0.0003
RC	2012/09/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00008	0.00016	0.00010
RC	2012/09/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00027	< 0.00005	0.00034	0.00043
RC	2012/09/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0016	0.0007	< 0.0005	< 0.0005
AFD	2012/09/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.56	7.40	7.83	7.97
RC	2012/09/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	26.2	20.5	50.8	70.7

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11618	12-11619	12-11620	12-11621
					Client ID:	WQ9	WQ10	WQ11	WQ12
					Sample Date:	2012/09/17 0:00	2012/09/18 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.005	0.024	0.074	0.038
RC	2012/09/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	< 0.0001	0.0002
RC	2012/09/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00726	0.00786	0.00973	0.00827
RC	2012/09/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	20.8	13.3	15.6	8.4
RC	2012/09/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	< 0.0001	0.0001	< 0.0001
RC	2012/09/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1060	0.0598	0.0199	0.2850
RC	2012/09/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00013	< 0.00005	< 0.00005
RC	2012/09/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.43	2.46	3.08	1.44
RC	2012/09/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01620	0.00309	0.00028	0.01480
RC	2012/09/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00065	0.00074	0.00026	0.00051
RC	2012/09/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00011	0.00012	0.00012
RC	2012/09/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/09/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	< 0.5	0.6	< 0.5
RC	2012/09/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.17	6.64	6.97	3.99
RC	2012/09/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.4	3.1	3.2	2.2
RC	2012/09/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.101000	0.085900	0.092600	0.064500
RC	2012/09/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	0.0002	0.0007	0.0007
RC	2012/09/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00020	0.00013	0.00008
RC	2012/09/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00023	0.00023	0.00019
RC	2012/09/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AFD	2012/09/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.91	7.81	7.82	7.54
RC	2012/09/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	70.2	43.4	51.8	26.8

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11622	12-11623	12-11624	12-11625
					Client ID:	WQ13	WQ14	WQ Duplicate	Field Blank
					Sample Date:	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.003	0.004	0.029	< 0.002
RC	2012/09/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0002	0.0004	< 0.0001
RC	2012/09/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00747	0.01210	0.00650	< 0.00005
RC	2012/09/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	20.8	28.6	8.0	< 0.5
RC	2012/09/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00003	< 0.00002
RC	2012/09/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	< 0.0001	0.0005	< 0.0001
RC	2012/09/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1430	0.1480	0.0808	< 0.0001
RC	2012/09/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.51	6.05	2.28	< 0.50
RC	2012/09/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02850	0.00542	0.01390	< 0.00005
RC	2012/09/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00061	0.00055	0.00165	< 0.00005
RC	2012/09/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00020	0.00023	< 0.00005
RC	2012/09/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/09/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	0.6	< 0.5	< 0.5
RC	2012/09/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.09	6.97	6.43	< 0.01
RC	2012/09/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.4	4.4	3.0	< 0.5
RC	2012/09/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.099600	0.135000	0.051000	< 0.000005
RC	2012/09/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	< 0.0002	0.0003	< 0.0002
RC	2012/09/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00013	0.00007	< 0.00005
RC	2012/09/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00007	0.00018	< 0.00005
RC	2012/09/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	0.0026	< 0.0005
AFD	2012/09/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.88	7.99	7.55	5.94
RC	2012/09/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	70.5	96.3	29.4	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11626	12-11627	12-11628	12-11629
					Client ID:	Travel Blank	BW101	BW161	BW177
					Sample Date:	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00	2012/09/17 0:00
					MDL				
RC	2012/09/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	0.014	0.004	0.010
RC	2012/09/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00008
RC	2012/09/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0149	0.0065	0.0283
RC	2012/09/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00838	0.01150	0.00113
RC	2012/09/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	9.0	11.8	23.2
RC	2012/09/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	9.22	3.92	0.0281
RC	2012/09/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	0.007	0.006	0.008
RC	2012/09/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	1.77	1.50	< 0.50
RC	2012/09/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	1.08	0.44100	0.02130
RC	2012/09/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00056	0.00062	0.00728
RC	2012/09/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00009
RC	2012/09/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.15	0.08	< 0.01
RC	2012/09/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	2.1	2.2	< 0.5
RC	2012/09/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	9.79	7.38	6.44
RC	2012/09/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	2.0	4.4	8.9
RC	2012/09/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005	0.040500	0.045000	0.196000
RC	2012/09/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/09/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00013
RC	2012/09/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	0.0138	< 0.0005	0.0012
AFD	2012/09/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.76	6.67	7.28	8.04
RC	2012/09/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	29.9	35.5	58.7

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-63959

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11630	12-11631	12-11632
					Client ID:	WQ17	WQ18	WQ19
					Sample Date:	2012/09/17 0:00	2012/09/18 0:00	2012/09/17 0:00
					MDL			
RC	2012/09/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.026	0.004	0.002
RC	2012/09/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0005	0.0005
RC	2012/09/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00664	0.00473	0.00956
RC	2012/09/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	0.001
RC	2012/09/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	8.1	13.4	34.6
RC	2012/09/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	< 0.00002	< 0.00002
RC	2012/09/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001	< 0.0001
RC	2012/09/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0809	0.1030	0.0114
RC	2012/09/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	0.001	< 0.001
RC	2012/09/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	2.26	7.77	4.47
RC	2012/09/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01370	0.00296	0.00157
RC	2012/09/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00191	0.00079	0.00075
RC	2012/09/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00040	< 0.00005
RC	2012/09/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.03	< 0.01
RC	2012/09/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	2.1	0.7
RC	2012/09/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.15	10.4	6.53
RC	2012/09/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.0	5.2	2.8
RC	2012/09/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.052400	0.059900	0.124000
RC	2012/09/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0004	< 0.0002
RC	2012/09/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00011	0.00035
RC	2012/09/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00018	0.00146	0.00084
RC	2012/09/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0010	0.0006	0.0006
AFD	2012/09/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.56	8.08	7.96
RC	2012/09/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	29.4	65.4	105

Quality Control Standard

Project No.

File No. EC-63959

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2012/09/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	77	56-77	65.00	QC-ALK/F-51
AFD	2012/09/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.75	2.54-2.94	2.79	CC-EC-0.02M-43
AFD	2012/09/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-ALK/F-51
AFD	2012/09/19	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.64	1.44-1.76	1.60	CC-Anion-118B
AFD	2012/09/19	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.641	0.54-0.66	0.60	CC-Anion-118B
AFD	2012/09/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.4	25.2-30.8	28.00	CC-Anion-118B
EL	2012/09/20	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4680	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/09/25	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	152	134-153	144.00	OCP-E2-SLD02009
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	10	8.5-11.5	10.00	QC-Turb-5
AFD	2012/09/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.9	3.6-4.4	4.00	CC-Anion-118B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/09/25	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.57	0.47-0.74	0.61	NH3SC-001
RC	2012/09/20	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.8	3.3-4.3	3.80	DMD-TOC-94-Low
RC	2012/09/20	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.7	33.1-42.6	37.90	DMD-TOC-94-Mid
AFD	2012/09/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.743	0.72-0.88	0.80	CC-Anion-118BL
RC	2012/09/20	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	248	225-275	250.00	MS-CCV-HIGH
EL	2012/09/20	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	10.8	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/20	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	49.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/20	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	99.1	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/20	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	97.1	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/20	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.9	45-55	50.00	MS-CCV-HIGH
RC	2012/09/20	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	48.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/20	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	52.3	45-55	50.00	MS-CCV-HIGH
RC	2012/09/20	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/20	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/20	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	48.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/20	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/20	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45-55	50.00	MS-CCV-HIGH
RC	2012/09/20	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	49.1	45-55	50.00	MS-CCV-HIGH
RC	2012/09/20	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	98.6	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/20	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.3	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/09/20	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24600	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/20	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	48.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/24	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.295000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/09/20	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/20	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/20	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	248	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63959

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/20	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25100	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/09/20	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	54.3	45-55	50.00	MS-CCV-HIGH
RC	2012/09/20	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	124	105-129	117.00	MS-CCV-HIGH
RC	2012/09/20	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.4	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/09/20	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/20	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	49.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/20	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	246	225-275	250.00	MS-CCV-HIGH
RC	2012/09/20	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	249	225-275	250.00	MS-CCV-HIGH
RC	2012/09/20	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/20	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	97.8	90-110	100.00	MS-CCV-HIGH
RC	2012/09/20	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/20	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.6	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/21	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	48.7	45-55	50.00	MS-CCV-HIGH
RC	2012/09/21	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	106	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/21	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	99.7	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/21	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.1	45-55	50.00	MS-CCV-HIGH
RC	2012/09/21	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	49.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/21	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	47.5	45-55	50.00	MS-CCV-HIGH
RC	2012/09/21	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	52.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/21	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25500	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/21	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/21	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/21	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/21	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/21	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/21	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	50.4	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/09/21	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.0	24700	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/21	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	49.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/24	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.295000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/09/21	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/21	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/21	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	244	225-275	250.00	MS-CCV-HIGH
RC	2012/09/21	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/09/21	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	50.9	45-55	50.00	MS-CCV-HIGH
RC	2012/09/21	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	120	105-129	117.00	MS-CCV-HIGH
RC	2012/09/21	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.5	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/09/21	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24700	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/21	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	51.0	45-55	50.00	MS-CCV-HIGH
RC	2012/09/21	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	252	225-275	250.00	MS-CCV-HIGH
RC	2012/09/21	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	249	225-275	250.00	MS-CCV-HIGH
RC	2012/09/21	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/21	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	100	90-110	100.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63959

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/21	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/21	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
AFD	2012/09/20	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-4

Analytical Comments

Project No. VE52095.200.2A.3

File No. EC-63959

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64032
Project Number: VE52095.200.2A.3
Project Name: NewGold Blackwater
Date Received: 2012/09/26
Date of Report: 2012/10/03
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-64032

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-12599	12-12600
					Client ID:	WQ15	WQ16
					Sample Date:	2012/09/24 0:00	2012/09/24 0:00
					MDL		
AFD	2012/09/27	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	26	23
AFD	2012/09/27	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.054	0.047
AFD	2012/09/27	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04
AFD	2012/09/26	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.025	0.011
AFD	2012/09/26	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
AFD	2012/09/26	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.9	1.0
EL	2012/10/02	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	40	36
EL	2012/09/26	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	4
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	2.6	3.6
AFD	2012/09/26	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.6	0.3

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-64032

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-12599	12-12600
					Client ID:	WQ15	WQ16
					Sample Date:	2012/09/24 0:00	2012/09/24 0:00
					MDL		
EL	2012/10/02	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02
RC	2012/10/01	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.5	10.4
RC	2012/10/01	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	16.0	11.0
AFD	2012/09/26	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
RC	2012/09/28	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.010	0.007
EL	2012/10/01	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.25	0.31

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64032

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-12599	12-12600
					Client ID:	WQ15	WQ16
					Sample Date:	2012/09/24 0:00	2012/09/24 0:00
					MDL		
RC	2012/09/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.072	0.048
RC	2012/09/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0004
RC	2012/09/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01060	0.00492
RC	2012/09/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
RC	2012/09/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015
RC	2012/09/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	8.0	5.8
RC	2012/09/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003
RC	2012/09/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00005
RC	2012/09/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1830	0.1190
RC	2012/09/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
RC	2012/09/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.14	1.16
RC	2012/09/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.04050	0.02670
RC	2012/10/02	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2012/09/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00057	0.00063
RC	2012/09/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00015	0.00014
RC	2012/09/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	0.02
RC	2012/09/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5
RC	2012/09/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006
RC	2012/09/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.96	1.09
RC	2012/09/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.9	2.0
RC	2012/09/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.077300	0.040400
RC	2012/09/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0010	0.0010
RC	2012/09/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00020
RC	2012/09/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0019	0.0040
RC	2012/09/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	24.6	19.3

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64032

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-12599	12-12600
					Client ID:	WQ15	WQ16
					Sample Date:	2012/09/24 0:00	2012/09/24 0:00
					MDL		
RC	2012/09/27	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.042	0.020
RC	2012/09/27	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0004
RC	2012/09/27	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00986	0.00411
RC	2012/09/27	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/27	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2012/09/27	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015
RC	2012/09/27	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.7	5.6
RC	2012/09/27	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003
RC	2012/09/27	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003
RC	2012/09/27	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/27	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1160	0.0622
RC	2012/09/27	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2012/09/27	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.10	1.13
RC	2012/09/27	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02790	0.01870
RC	2012/10/02	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2012/09/27	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00050	0.00056
RC	2012/09/27	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00006
RC	2012/09/27	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01
RC	2012/09/27	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5
RC	2012/09/27	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006
RC	2012/09/27	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	0.90	1.04
RC	2012/09/27	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	2.0
RC	2012/09/27	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.074300	0.038500
RC	2012/09/27	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/27	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0005
RC	2012/09/27	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00015
RC	2012/09/27	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0019	0.0040
AFD	2012/09/27	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.43	7.30
RC	2012/09/27	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	23.7	18.7

Quality Control Standard

Project No.

File No. EC-64032

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2012/09/27	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	63	56-77	65.00	QC-ALK/F-51
AFD	2012/09/27	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.75	2.54-2.94	2.79	CC-EC-0.02M-43
AFD	2012/09/27	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-ALK/F-51
AFD	2012/09/26	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.63	1.44-1.76	1.60	CC-Anion-118B
		Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.623	0.54-0.66	0.60	CC-Anion-118B
AFD	2012/09/26	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	27.6	25.2-30.8	28.00	CC-Anion-118B
EL	2012/10/02	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4800	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/09/26	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	152	134-153	144.00	OCP-E2-SLD02009
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	11	8.5-11.5	10.00	QC-Turb-6
AFD	2012/09/26	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.4	3.6-4.4	4.00	CC-Anion-118B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/10/02	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.62	0.47-0.74	0.61	NH3SC-001
RC	2012/10/01	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	4.1	3.3-4.3	3.80	DMD-TOC-94-Low
RC	2012/10/01	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	40.5	33.1-42.6	37.90	DMD-TOC-94-Mid
AFD	2012/09/26	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.776	0.72-0.88	0.80	CC-Anion-118BL
RC	2012/09/28	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	249	225-275	250.00	MS-CCV-HIGH
EL	2012/10/01	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	8.14	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/28	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	45.1	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/28	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	98.3	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/28	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	48.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/28	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	98.2	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/28	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	48.8	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/09/28	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/28	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/02	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.259000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/09/28	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	249	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

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Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/28	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25500	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/09/28	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
RC	2012/09/28	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.3	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/09/28	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/28	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.9	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	244	225-275	250.00	MS-CCV-HIGH
RC	2012/09/28	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.00	MS-CCV-HIGH
RC	2012/09/28	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	97.1	90-110	100.00	MS-CCV-HIGH
RC	2012/09/28	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	49.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	53.2	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/27	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	49.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/27	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/27	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.9	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	47.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/27	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	49.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.7	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	99.5	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/27	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.5	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/09/27	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/27	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	48.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/02	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.259000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/09/27	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	252	225-275	250.00	MS-CCV-HIGH
RC	2012/09/27	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/09/27	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	49.1	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	124	105-129	117.00	MS-CCV-HIGH
RC	2012/09/27	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.6	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/09/27	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/27	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.6	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	251	225-275	250.00	MS-CCV-HIGH
RC	2012/09/27	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	246	225-275	250.00	MS-CCV-HIGH
RC	2012/09/27	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	49.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	99.7	90-110	100.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-64032

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/27	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	52.8	45.0-55.0	50.00	MS-CCV-HIGH
AFD	2012/09/27	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-4

Analytical Comments

Project No. VE52095.200.2A.3

File No. EC-64032

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64032
Project Number: VE52095.200.2A.3
Project Name: NewGold Blackwater
Date Received: 2012/09/26
Date of Report: 2012/10/03
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-64032

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-12599	12-12600
					Client ID:	WQ15	WQ16
					Sample Date:	2012/09/24 0:00	2012/09/24 0:00
					MDL		
AFD	2012/09/27	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	26	23
AFD	2012/09/27	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.054	0.047
AFD	2012/09/27	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04
AFD	2012/09/26	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.025	0.011
AFD	2012/09/26	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
AFD	2012/09/26	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.9	1.0
EL	2012/10/02	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	40	36
EL	2012/09/26	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	4
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	2.6	3.6
AFD	2012/09/26	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.6	0.3

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-64032

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-12599	12-12600
					Client ID:	WQ15	WQ16
					Sample Date:	2012/09/24 0:00	2012/09/24 0:00
					MDL		
EL	2012/10/02	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02
RC	2012/10/01	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.5	10.4
RC	2012/10/01	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	16.0	11.0
AFD	2012/09/26	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
RC	2012/09/28	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.010	0.007
EL	2012/10/01	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.25	0.31

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

 Final
 File No. EC-64032

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-12599	12-12600
					Client ID:	WQ15	WQ16
					Sample Date:	2012/09/24 0:00	2012/09/24 0:00
					MDL		
RC	2012/09/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.072	0.048
RC	2012/09/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0004
RC	2012/09/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01060	0.00492
RC	2012/09/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
RC	2012/09/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015
RC	2012/09/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	8.0	5.8
RC	2012/09/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003
RC	2012/09/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00005
RC	2012/09/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1830	0.1190
RC	2012/09/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
RC	2012/09/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.14	1.16
RC	2012/09/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.04050	0.02670
RC	2012/10/02	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2012/09/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00057	0.00063
RC	2012/09/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00015	0.00014
RC	2012/09/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	0.02
RC	2012/09/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5
RC	2012/09/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006
RC	2012/09/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.96	1.09
RC	2012/09/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.9	2.0
RC	2012/09/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.077300	0.040400
RC	2012/09/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0010	0.0010
RC	2012/09/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00020
RC	2012/09/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0019	0.0040
RC	2012/09/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	24.6	19.3

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64032

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-12599	12-12600
					Client ID:	WQ15	WQ16
					Sample Date:	2012/09/24 0:00	2012/09/24 0:00
					MDL		
RC	2012/09/27	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.042	0.020
RC	2012/09/27	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0004
RC	2012/09/27	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00986	0.00411
RC	2012/09/27	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/27	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2012/09/27	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015
RC	2012/09/27	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.7	5.6
RC	2012/09/27	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003
RC	2012/09/27	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003
RC	2012/09/27	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/27	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1160	0.0622
RC	2012/09/27	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2012/09/27	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.10	1.13
RC	2012/09/27	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02790	0.01870
RC	2012/10/02	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2012/09/27	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00050	0.00056
RC	2012/09/27	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00006
RC	2012/09/27	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01
RC	2012/09/27	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5
RC	2012/09/27	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006
RC	2012/09/27	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	0.90	1.04
RC	2012/09/27	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	2.0
RC	2012/09/27	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.074300	0.038500
RC	2012/09/27	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2012/09/27	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0005
RC	2012/09/27	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00015
RC	2012/09/27	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2012/09/27	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0019	0.0040
AFD	2012/09/27	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.43	7.30
RC	2012/09/27	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	23.7	18.7

Quality Control Standard

Project No.

File No. EC-64032

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2012/09/27	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	63	56-77	65.00	QC-ALK/F-51
AFD	2012/09/27	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.75	2.54-2.94	2.79	CC-EC-0.02M-43
AFD	2012/09/27	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-ALK/F-51
AFD	2012/09/26	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.63	1.44-1.76	1.60	CC-Anion-118B
		Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.623	0.54-0.66	0.60	CC-Anion-118B
AFD	2012/09/26	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	27.6	25.2-30.8	28.00	CC-Anion-118B
EL	2012/10/02	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4800	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/09/26	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	152	134-153	144.00	OCP-E2-SLD02009
AFD	2012/09/25	Turbidity	NTU	APHA 2130-b	0.1	11	8.5-11.5	10.00	QC-Turb-6
AFD	2012/09/26	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.4	3.6-4.4	4.00	CC-Anion-118B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/10/02	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.62	0.47-0.74	0.61	NH3SC-001
RC	2012/10/01	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	4.1	3.3-4.3	3.80	DMD-TOC-94-Low
RC	2012/10/01	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	40.5	33.1-42.6	37.90	DMD-TOC-94-Mid
AFD	2012/09/26	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.776	0.72-0.88	0.80	CC-Anion-118BL
RC	2012/09/28	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	249	225-275	250.00	MS-CCV-HIGH
EL	2012/10/01	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	8.14	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/28	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	45.1	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/28	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	98.3	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/28	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	48.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/28	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	98.2	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/28	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	48.8	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/09/28	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/28	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/02	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.259000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/09/28	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	249	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-64032

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/28	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25500	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/09/28	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
RC	2012/09/28	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.3	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/09/28	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25200	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/28	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.9	45-55	50.00	MS-CCV-HIGH
RC	2012/09/28	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	244	225-275	250.00	MS-CCV-HIGH
RC	2012/09/28	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.00	MS-CCV-HIGH
RC	2012/09/28	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	97.1	90-110	100.00	MS-CCV-HIGH
RC	2012/09/28	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	49.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/28	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	53.2	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/27	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	49.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/27	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/27	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.9	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	47.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/27	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	49.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.7	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	99.5	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/27	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.5	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/09/27	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/27	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	48.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/02	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.259000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/09/27	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	252	225-275	250.00	MS-CCV-HIGH
RC	2012/09/27	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/09/27	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	49.1	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	124	105-129	117.00	MS-CCV-HIGH
RC	2012/09/27	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.6	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/09/27	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/27	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.6	45-55	50.00	MS-CCV-HIGH
RC	2012/09/27	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	251	225-275	250.00	MS-CCV-HIGH
RC	2012/09/27	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	246	225-275	250.00	MS-CCV-HIGH
RC	2012/09/27	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	49.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	99.7	90-110	100.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-64032

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/27	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/27	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	52.8	45.0-55.0	50.00	MS-CCV-HIGH
AFD	2012/09/27	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-4

Analytical Comments

Project No. VE52095.200.2A.3

File No. EC-64032

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 19-SEP-12
Report Date: 28-SEP-12 14:02 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1211510
Project P.O. #: 2220
Job Reference: EC-63959
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1211510-1 WQ1~12-11611 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-2 WQ3~12-11612 Sampled By: CLIENT on 18-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-3 WQ4~12-11613 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-4 WQ5~12-11614 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-5 WQ6~12-11615 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-6 WQ7~12-11616 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-7 WQ8~12-11617 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-8 WQ9~12-11618 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-9 WQ10~12-11619 Sampled By: CLIENT on 18-SEP-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1211510-9 WQ10~12-11619 Sampled By: CLIENT on 18-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-10 WQ11~12-11620 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-11 WQ12~12-11621 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-12 WQ13~12-11622 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-13 WQ14~12-11623 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-14 WQ DUPLICATE~12-11624 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-15 FIELD BLANK~12-11625 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-16 TRAVEL BLANK~12-11626 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		27-SEP-12 27-SEP-12	R2445318 R2445319
L1211510-17 BW101~12-11627 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1211510-17 BW101~12-11627 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		27-SEP-12	R2445318
	<0.0050		0.0050	mg/L		27-SEP-12	R2445319
L1211510-18 BW161~12-11628 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		27-SEP-12	R2445318
	<0.0050		0.0050	mg/L		27-SEP-12	R2445319
L1211510-19 BW177~12-11629 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		27-SEP-12	R2445318
	<0.0050		0.0050	mg/L		27-SEP-12	R2445319
L1211510-20 WQ17~12-11630 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		27-SEP-12	R2445318
	<0.0050		0.0050	mg/L		27-SEP-12	R2445319
L1211510-21 WQ18~12-11631 Sampled By: CLIENT on 18-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		27-SEP-12	R2445318
	<0.0050		0.0050	mg/L		27-SEP-12	R2445319
L1211510-22 WQ19~12-11632 Sampled By: CLIENT on 17-SEP-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		27-SEP-12	R2445318
	<0.0050		0.0050	mg/L		27-SEP-12	R2445319

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1211510

Report Date: 28-SEP-12

Page 1 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2445318							
WG1555432-21	DUP	L1211486-7						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	27-SEP-12
WG1555432-25	DUP	L1210345-10						
Cyanide, Total		0.0780	0.0820		mg/L	5.0	20	27-SEP-12
WG1555432-29	DUP	L1210931-3						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	27-SEP-12
WG1555432-3	DUP	L1211510-7						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	27-SEP-12
WG1555432-10	LCS							
Cyanide, Total			89.3		%		80-120	27-SEP-12
WG1555432-14	LCS							
Cyanide, Total			89.8		%		80-120	27-SEP-12
WG1555432-2	LCS							
Cyanide, Total			88.0		%		80-120	27-SEP-12
WG1555432-20	LCS							
Cyanide, Total			89.8		%		80-120	27-SEP-12
WG1555432-24	LCS							
Cyanide, Total			91.6		%		80-120	27-SEP-12
WG1555432-28	LCS							
Cyanide, Total			88.3		%		80-120	27-SEP-12
WG1555432-32	LCS							
Cyanide, Total			86.2		%		80-120	27-SEP-12
WG1555432-6	LCS							
Cyanide, Total			89.1		%		80-120	27-SEP-12
WG1555432-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	27-SEP-12
WG1555432-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	27-SEP-12
WG1555432-19	MB							
Cyanide, Total			<0.0050		mg/L		0.005	27-SEP-12
WG1555432-23	MB							
Cyanide, Total			<0.0050		mg/L		0.005	27-SEP-12
WG1555432-27	MB							
Cyanide, Total			<0.0050		mg/L		0.005	27-SEP-12
WG1555432-31	MB							
Cyanide, Total			<0.0050		mg/L		0.005	27-SEP-12
WG1555432-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	27-SEP-12



Quality Control Report

Workorder: L1211510

Report Date: 28-SEP-12

Page 2 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2445318							
WG1555432-9	MB							
Cyanide, Total			<0.0050		mg/L		0.005	27-SEP-12
WG1555432-22	MS	L1211486-7						
Cyanide, Total			99.1		%		70-130	27-SEP-12
WG1555432-26	MS	L1210345-10						
Cyanide, Total			98.1		%		70-130	27-SEP-12
WG1555432-30	MS	L1210931-3						
Cyanide, Total			94.6		%		70-130	27-SEP-12
WG1555432-4	MS	L1211510-7						
Cyanide, Total			98.4		%		70-130	27-SEP-12
CN-WAD-CFA-VA								
	Water							
Batch	R2445319							
WG1555448-19	DUP	L1211486-7						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	27-SEP-12
WG1555448-23	DUP	L1210345-10						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	27-SEP-12
WG1555448-27	DUP	L1210931-3						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	27-SEP-12
WG1555448-3	DUP	L1211510-7						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	27-SEP-12
WG1555448-10	LCS							
Cyanide, Weak Acid Diss			105.3		%		80-120	27-SEP-12
WG1555448-14	LCS							
Cyanide, Weak Acid Diss			102.7		%		80-120	27-SEP-12
WG1555448-18	LCS							
Cyanide, Weak Acid Diss			105.8		%		80-120	27-SEP-12
WG1555448-2	LCS							
Cyanide, Weak Acid Diss			105.8		%		80-120	27-SEP-12
WG1555448-22	LCS							
Cyanide, Weak Acid Diss			105.4		%		80-120	27-SEP-12
WG1555448-26	LCS							
Cyanide, Weak Acid Diss			104.4		%		80-120	27-SEP-12
WG1555448-30	LCS							
Cyanide, Weak Acid Diss			105.0		%		80-120	27-SEP-12
WG1555448-6	LCS							
Cyanide, Weak Acid Diss			104.8		%		80-120	27-SEP-12
WG1555448-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	27-SEP-12



Quality Control Report

Workorder: L1211510

Report Date: 28-SEP-12

Page 3 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2445319							
WG1555448-13 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	27-SEP-12
WG1555448-17 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	27-SEP-12
WG1555448-21 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	27-SEP-12
WG1555448-25 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	27-SEP-12
WG1555448-29 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	27-SEP-12
WG1555448-5 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	27-SEP-12
WG1555448-9 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	27-SEP-12
WG1555448-20 MS		L1211486-7						
Cyanide, Weak Acid Diss			99.7		%		70-130	27-SEP-12
WG1555448-24 MS		L1210345-10						
Cyanide, Weak Acid Diss			99.7		%		70-130	27-SEP-12
WG1555448-28 MS		L1210931-3						
Cyanide, Weak Acid Diss			97.0		%		70-130	27-SEP-12
WG1555448-4 MS		L1211510-7						
Cyanide, Weak Acid Diss			98.7		%		70-130	27-SEP-12

Quality Control Report

Workorder: L1211510

Report Date: 28-SEP-12

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 4 of 4

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to: Company: AMEC Earth & Environmental, Chemistry Dept. Contact: Kristine Connor Address: 5667-70 Street, Edmonton, AB T6B 3P6 Phone: (780) 989-4580 Fax: (780) 377-3600	Report Format / Distribution <input type="checkbox"/> Standard <input type="checkbox"/> Other <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax Email 1: kristine.connor@amec.com Email 2: charlene.rollheiser@amec.com	Service Requested: <input checked="" type="checkbox"/> Regular Service (Default) <input type="checkbox"/> Rush Service (2-3 Days) <input type="checkbox"/> Priority Service (1 Day or ASAP) <input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS
Invoice To: <input checked="" type="checkbox"/> Same as Report		Indicate Bottles: Filled / Preserved (F/P) →→

Company: Same		Client / Project Information:			CN-T-CFA-VA CN-WAD-MID-COL-VA Hazardous? Highly Contaminated? Number of Containers
Contact:		Job #: EC-63959			
Address:		PO/AFE:			
Sample		Legal Site Description:			
Phone: Fax: <u>L1211510</u>		Quote #:			
Lab Work Order # (lab use only)	ALS Contact: Maureen Olinek	Sampler (Initials):			
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	
	22 Water Samples (See attached)	see attached		Water	x x



L1211510-COFC

Guidelines / Regulations	Special Instructions
	Please list both ID's on results.

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Relinquished By: jeffery connor	Date & Time: 19-Sep-12	Received By:	Date & Time: 19-Sep-12	Sample Condition (lab use only) Temperature: 8.3°C Samples Received in Good Condition? Y / N (if no provided details)
Relinquished By:	Date & Time:	Received By:	Date & Time: 13:31	



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 26-SEP-12
Report Date: 09-OCT-12 16:00 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1215119
Project P.O. #: 2220
Job Reference: EC-64032
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1215119-1 WQ15~12-12599 Sampled By: CLIENT on 24-SEP-12 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 06-OCT-12 06-OCT-12	 R2451672 R2451673
L1215119-2 WQ16~12-12600 Sampled By: CLIENT on 24-SEP-12 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 06-OCT-12 06-OCT-12	 R2451672 R2451673

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1215119

Report Date: 09-OCT-12

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2451672							
WG1561656-3	DUP	L1215122-9						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-OCT-12
WG1561656-9	DUP	L1216675-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-OCT-12
WG1561656-12	LCS							
Cyanide, Total			86.6		%		80-120	06-OCT-12
WG1561656-2	LCS							
Cyanide, Total			91.6		%		80-120	06-OCT-12
WG1561656-6	LCS							
Cyanide, Total			91.0		%		80-120	06-OCT-12
WG1561656-8	LCS							
Cyanide, Total			92.2		%		80-120	06-OCT-12
WG1561656-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-OCT-12
WG1561656-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-OCT-12
WG1561656-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-OCT-12
WG1561656-7	MB							
Cyanide, Total			<0.0050		mg/L		0.005	06-OCT-12
WG1561656-10	MS	L1216675-4						
Cyanide, Total			93.2		%		70-130	06-OCT-12
WG1561656-4	MS	L1215122-9						
Cyanide, Total			95.1		%		70-130	06-OCT-12
CN-WAD-CFA-VA								
	Water							
Batch	R2451673							
WG1561658-3	DUP	L1215122-9						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-OCT-12
WG1561658-9	DUP	L1216675-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	06-OCT-12
WG1561658-12	LCS							
Cyanide, Weak Acid Diss			108.2		%		80-120	06-OCT-12
WG1561658-2	LCS							
Cyanide, Weak Acid Diss			106.5		%		80-120	06-OCT-12
WG1561658-6	LCS							
Cyanide, Weak Acid Diss			106.6		%		80-120	06-OCT-12
WG1561658-8	LCS							
Cyanide, Weak Acid Diss			105.0		%		80-120	06-OCT-12



Quality Control Report

Workorder: L1215119

Report Date: 09-OCT-12

Page 2 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2451673							
WG1561658-1 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	06-OCT-12
WG1561658-11 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	06-OCT-12
WG1561658-5 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	06-OCT-12
WG1561658-7 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	06-OCT-12
WG1561658-10 MS		L1216675-4						
Cyanide, Weak Acid Diss			92.2		%		70-130	06-OCT-12
WG1561658-4 MS		L1215122-9						
Cyanide, Weak Acid Diss			97.9		%		70-130	06-OCT-12

Quality Control Report

Workorder: L1215119

Report Date: 09-OCT-12

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 3 of 3

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to: Company: AMEC Earth & Environmental, Chemistry Dept.
Contact: Kristine Connor
Address: 5667-70 Street, Edmonton, AB T6B 3P6
Phone: (780) 989-4580 Fax: (780) 377-3600
Invoice To: Same as Report
Company: Same
Contact: Job #: EC-64032
Address: PO/AFE:
Sample: Legal Site Description:
Phone: Fax:
Lab Work Order # (lab use only) 112-15119
ALS Client / Project Information: Maureen Olinek (Initials):
Job #: EC-64032
PO/AFE:
Legal Site Description:
Quote #:
ALS Contact: MAUREEN OLINKE
Sampler (Initials):
Date: dd-mm-yy 24-Sep-12
Time: hh:mm
Sample Type (Selected from drop-down list) Water
Sample # (This description will appear on the report) 2 Water samples (Please See attached)

Sample #	Date	Time	Sample Type	CN-T-CFA-VA	CN-WAD-MID-COL-VA	Hazardous?	Highly Contaminated?	Number of Containers

Guidelines / Regulations: Sp
Please list both ID's on results.

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Temperature: 15:04
Samples Received in Good Condition? Y / N (if no provided details)

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63925
Project Number: VE52095.200.LAKES
Project Name: NewGold Blackwater
Date Received: 2012/09/13
Date of Report: 2012/09/20
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11268	12-11268-D	12-11269	12-11270
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/09/12 0:00	Lab Duplicate	2012/09/12 0:00	2012/09/12 0:00
					MDL				
AFD	2012/09/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	70	80	76	97
AFD	2012/09/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.155	0.154	0.150	0.150
AFD	2012/09/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.09	0.09	0.09	0.09
AFD	2012/09/12	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	0.012
AFD	2012/09/12	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/12	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.4	1.4	1.6	1.6
EL	2012/09/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	88	100	92	92
EL	2012/09/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	3	2	3
AFD	2012/09/17	Turbidity	NTU	APHA 2130-b	0.1	2.0	1.7	1.3	2.1
AFD	2012/09/12	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11271	12-11272	12-11273	12-11274
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
AFD	2012/09/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	86	81	63	47
AFD	2012/09/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.142	0.142	0.145	0.092
AFD	2012/09/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.08	0.08	0.08
AFD	2012/09/12	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.007	< 0.005	0.097	0.006
AFD	2012/09/12	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/12	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.1	3.1	3.2	< 0.5
EL	2012/09/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	76	68	76	64
EL	2012/09/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	4	3	3	3
AFD	2012/09/17	Turbidity	NTU	APHA 2130-b	0.1	1.4	1.5	1.3	1.4
AFD	2012/09/12	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	0.2	0.2

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11275	12-11276	12-11277	12-11278
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
AFD	2012/09/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	51	< 1	< 1	< 1
AFD	2012/09/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.092	0.050	0.059	0.063
AFD	2012/09/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.05	0.05	0.05
AFD	2012/09/12	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
AFD	2012/09/12	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/12	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	1.0	1.3	1.1
EL	2012/09/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	48	4	4	8
EL	2012/09/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	3	3	3
AFD	2012/09/17	Turbidity	NTU	APHA 2130-b	0.1	1.4	1.3	1.5	2.5
AFD	2012/09/12	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11279	12-11280	12-11281	12-11282
					Client ID:	WQ24-Epi	WQ24-Hypo	WQ25-Epi	WQ25-Hypo
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
AFD	2012/09/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	< 1	< 1	< 1	34
AFD	2012/09/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.046	0.046	0.049	0.048
AFD	2012/09/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.04	0.05
AFD	2012/09/12	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005	< 0.005
AFD	2012/09/12	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/12	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.6	0.6	< 0.5	< 0.5
EL	2012/09/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	< 4	< 4	8	20
EL	2012/09/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	2
AFD	2012/09/17	Turbidity	NTU	APHA 2130-b	0.1	1.5	1.3	1.5	1.7
AFD	2012/09/12	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11283	12-11284	12-11285
					Client ID:	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL			
AFD	2012/09/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	55	10	8
AFD	2012/09/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.092	< 0.001	0.001
AFD	2012/09/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	< 0.02	< 0.02
AFD	2012/09/12	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005	< 0.005
AFD	2012/09/12	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
AFD	2012/09/12	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	< 0.5	< 0.5
EL	2012/09/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	80	< 4	< 4
EL	2012/09/19	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2
AFD	2012/09/17	Turbidity	NTU	APHA 2130-b	0.1	1.3	0.7	0.9
AFD	2012/09/12	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11268	12-11268-D	12-11269	12-11270
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/09/12 0:00	Lab Duplicate	2012/09/12 0:00	2012/09/12 0:00
					MDL				
EL	2012/09/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.03	0.03	0.02	0.02
RC	2012/09/14	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	19.1	19.3	19.6	22.5
RC	2012/09/14	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	21.6	20.9	22.1	22.5
AFD	2012/09/12	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.019	0.019	0.018	0.019
EL	2012/09/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.39	0.41	0.37	0.38

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11271	12-11272	12-11273	12-11274
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
EL	2012/09/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/14	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	17.8	18.2	18.5	23.6
RC	2012/09/14	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	19.1	18.2	19.2	23.6
AFD	2012/09/12	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.003	0.003	0.022	0.008
EL	2012/09/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.28	0.27	0.20	0.45

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11275	12-11276	12-11277	12-11278
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
EL	2012/09/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/14	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	24.1	7.8	8.2	9.2
RC	2012/09/14	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	24.1	7.8	8.4	12.5
AFD	2012/09/12	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.008	0.003	0.002	0.006
EL	2012/09/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.45	0.14	0.15	0.17

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11279	12-11280	12-11281	12-11282
					Client ID:	WQ24-Epi	WQ24-Hypo	WQ25-Epi	WQ25-Hypo
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
EL	2012/09/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/14	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.6	7.7	12.1	11.5
RC	2012/09/14	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.2	8.1	12.2	12.3
AFD	2012/09/12	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.001	0.002	0.003
EL	2012/09/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.15	< 0.08	0.19	0.19

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11283	12-11284	12-11285
					Client ID:	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL			
EL	2012/09/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/14	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	22.4	0.2	0.1
RC	2012/09/14	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	23.8	0.3	0.1
AFD	2012/09/12	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
RC	2012/09/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.008	< 0.001	< 0.001
EL	2012/09/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.43	< 0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11268	12-11268-D	12-11269	12-11270
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/09/12 0:00	Lab Duplicate	2012/09/12 0:00	2012/09/12 0:00
					MDL				
RC	2012/09/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.002	0.002	< 0.002	0.007
RC	2012/09/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0003	0.0004
RC	2012/09/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00951	0.00987	0.00941	0.00992
RC	2012/09/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000023	0.000032	0.000017	0.000042
RC	2012/09/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	20.7	21.5	20.5	21.9
RC	2012/09/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0004	0.0004	0.0003	< 0.0003
RC	2012/09/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0005	0.0005
RC	2012/09/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0598	0.0609	0.0570	0.0606
RC	2012/09/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00009	0.00028	0.00054
RC	2012/09/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.61	5.71	5.48	5.61
RC	2012/09/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.10200	0.10400	0.09980	0.10300
RC	2012/09/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00070	0.00069	0.00066	0.00071
RC	2012/09/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	0.00014	0.00013	0.00012
RC	2012/09/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.03	0.03	0.03	0.03
RC	2012/09/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.0	1.0	0.9	1.0
RC	2012/09/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	7.80	7.46	7.74	7.89
RC	2012/09/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.3	3.3	3.1	3.2
RC	2012/09/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.108000	0.111000	0.107000	0.114000
RC	2012/09/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/09/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	0.0001	0.0002	0.0002
RC	2012/09/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0036	0.0035	0.0046	0.0112
AFD	2012/09/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	74.8	77.2	73.7	77.9

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11271	12-11272	12-11273	12-11274
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
RC	2012/09/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.004	0.003	0.004	0.007
RC	2012/09/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0004	0.0003
RC	2012/09/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00614	0.00641	0.00600	0.00772
RC	2012/09/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000028	0.000025	0.000023	0.000031
RC	2012/09/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	20.8	21.6	20.5	12.7
RC	2012/09/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0003	0.0003	0.0004	< 0.0003
RC	2012/09/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00002
RC	2012/09/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0005	0.0004	0.0001
RC	2012/09/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0160	0.0179	0.0403	0.1640
RC	2012/09/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00030	0.00031	0.00012
RC	2012/09/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.75	4.63	4.69	3.27
RC	2012/09/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00340	0.00483	0.06160	0.03370
RC	2012/09/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00054	0.00060	0.00051	0.00031
RC	2012/09/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00021	0.00021	0.00012
RC	2012/09/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	0.03	< 0.02
RC	2012/09/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	0.8	0.9	1.1
RC	2012/09/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.25	4.10	5.97	5.11
RC	2012/09/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.4	3.3	3.4	3.0
RC	2012/09/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.103000	0.108000	0.102000	0.072500
RC	2012/09/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/09/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00010	0.00008	< 0.00005
RC	2012/09/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	0.0001	< 0.0001	0.0001
RC	2012/09/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0034	0.0033	0.0047	0.0056
AFD	2012/09/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	71.5	73.0	70.5	45.2

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11275	12-11276	12-11277	12-11278
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
RC	2012/09/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.015	0.014	0.007	0.005
RC	2012/09/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00007	0.00006	0.00007
RC	2012/09/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0008	0.0004	0.0008
RC	2012/09/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00773	0.00223	0.00392	0.00493
RC	2012/09/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000026	0.000028	0.000022	0.000025
RC	2012/09/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	12.8	6.1	7.6	7.7
RC	2012/09/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	0.0004	0.0003	0.0003
RC	2012/09/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00004	< 0.00002	0.00003
RC	2012/09/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	< 0.0001	0.0002	0.0001
RC	2012/09/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1840	0.0170	0.0435	0.2330
RC	2012/09/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	< 0.00005	0.00007	0.00011
RC	2012/09/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.28	1.12	1.38	1.41
RC	2012/09/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.03560	0.00374	0.00986	0.13100
RC	2012/09/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	0.000007
RC	2012/09/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00031	0.00075	0.00075	0.00084
RC	2012/09/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	0.00125	< 0.00005	< 0.00005
RC	2012/09/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	0.02
RC	2012/09/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.1	< 0.5	< 0.5	< 0.5
RC	2012/09/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.14	4.07	4.45	5.31
RC	2012/09/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	2.0	2.3	2.3
RC	2012/09/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.073400	0.044000	0.053300	0.055400
RC	2012/09/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0003	0.0002	0.0003	< 0.0002
RC	2012/09/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00014	0.00008	0.00009
RC	2012/09/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0050	0.0028	0.0044	0.0049
AFD	2012/09/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	45.6	19.8	24.6	25.1

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11279	12-11280	12-11281	12-11282
					Client ID:	WQ24-Epi	WQ24-Hypo	WQ25-Epi	WQ25-Hypo
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
RC	2012/09/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.013	0.012	0.029	0.026
RC	2012/09/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00007	< 0.00005	< 0.00005
RC	2012/09/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0001	0.0002
RC	2012/09/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00282	0.00278	0.00833	0.00808
RC	2012/09/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000079	0.000022	0.000052	0.000082
RC	2012/09/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.7	5.7	7.0	7.0
RC	2012/09/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	0.0003	< 0.0003	< 0.0003
RC	2012/09/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0002	0.0002
RC	2012/09/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0213	0.0210	0.0829	0.0822
RC	2012/09/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00010	< 0.00005	0.00008
RC	2012/09/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.17	1.16	1.04	1.04
RC	2012/09/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00518	0.00595	0.01020	0.01020
RC	2012/09/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	0.000007	< 0.000005	0.000005
RC	2012/09/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00089	0.00089	0.00071	0.00072
RC	2012/09/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00007	0.00006
RC	2012/09/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/09/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.83	1.72	2.52	2.47
RC	2012/09/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.7	1.6	1.6
RC	2012/09/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.042100	0.042100	0.075500	0.075800
RC	2012/09/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	0.0003	< 0.0002
RC	2012/09/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00030	0.00029	0.00014	0.00013
RC	2012/09/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0029	0.0046	0.0034	0.0057
AFD	2012/09/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	19.0	19.0	21.7	21.7

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11283	12-11284	12-11285
					Client ID:	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL			
RC	2012/09/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.008	< 0.002	< 0.002
RC	2012/09/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	< 0.0001	< 0.0001
RC	2012/09/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00768	< 0.00005	< 0.00005
RC	2012/09/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000022	< 0.000015	< 0.000015
RC	2012/09/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	12.9	< 0.5	< 0.5
RC	2012/09/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	< 0.0001	< 0.0001
RC	2012/09/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1660	0.0002	< 0.0001
RC	2012/09/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005
RC	2012/09/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.31	< 0.50	< 0.50
RC	2012/09/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.03410	< 0.00005	< 0.00005
RC	2012/09/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00032	< 0.00005	< 0.00005
RC	2012/09/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	< 0.00005	< 0.00005
RC	2012/09/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02
RC	2012/09/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.1	< 0.5	< 0.5
RC	2012/09/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.19	< 0.01	< 0.01
RC	2012/09/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	< 0.5	< 0.5
RC	2012/09/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.073100	< 0.000005	< 0.000005
RC	2012/09/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0002	< 0.0002	< 0.0002
RC	2012/09/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001	< 0.0001
RC	2012/09/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0009	< 0.0005	< 0.0005
AFD	2012/09/12	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	45.9	< 6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11268	12-11268-D	12-11269	12-11270
					Client ID:	WQ20-Epi	WQ20-Epi	WQ20-Meta	WQ20-Hypo
					Sample Date:	2012/09/12 0:00	Lab Duplicate	2012/09/12 0:00	2012/09/12 0:00
					MDL				
RC	2012/09/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	< 0.002	< 0.002
RC	2012/09/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0003	0.0004
RC	2012/09/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00867	0.00857	0.00845	0.00853
RC	2012/09/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	19.5	19.5	19.0	19.1
RC	2012/09/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0004	0.0004	0.0003	< 0.0003
RC	2012/09/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001
RC	2012/09/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0268	0.0271	0.0259	0.0262
RC	2012/09/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00025	0.00045
RC	2012/09/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.27	5.22	5.31	5.27
RC	2012/09/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.06920	0.06900	0.06960	0.06960
RC	2012/09/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00067	0.00069	0.00061	0.00065
RC	2012/09/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00014	0.00013	0.00012
RC	2012/09/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	0.02	0.02	0.02
RC	2012/09/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.9	0.9	0.9	0.9
RC	2012/09/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	7.67	7.46	7.74	7.60
RC	2012/09/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.1	3.1	3.1	3.1
RC	2012/09/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.101000	0.101000	0.099500	0.099300
RC	2012/09/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/09/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	0.00015	0.00016	0.00015
RC	2012/09/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0036	0.0035	0.0046	0.0112
AFD	2012/09/14	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.98	8.00	8.02	8.02
AFD	2012/09/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	70.5	70.1	69.3	69.4

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11271	12-11272	12-11273	12-11274
					Client ID:	WQ21-Epi	WQ21-Meta	WQ21-Hypo	WQ22-Epi
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
RC	2012/09/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	< 0.002	0.005
RC	2012/09/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004	0.0004	0.0003
RC	2012/09/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00552	0.00641	0.00509	0.00706
RC	2012/09/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.3	21.6	18.6	11.7
RC	2012/09/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	0.0003	0.0004	< 0.0003
RC	2012/09/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00002
RC	2012/09/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0066	0.0082	0.0147	0.1150
RC	2012/09/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00030	0.00016	< 0.00005
RC	2012/09/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.38	4.51	4.46	3.05
RC	2012/09/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00042	0.00044	0.00162	0.02980
RC	2012/09/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00052	0.00060	0.00051	0.00031
RC	2012/09/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00022	0.00021	0.00021	0.00012
RC	2012/09/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.02	< 0.01
RC	2012/09/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	0.8	0.8	1.0
RC	2012/09/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.25	4.10	5.75	4.92
RC	2012/09/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.2	3.3	3.3	2.9
RC	2012/09/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.091300	0.108000	0.093300	0.066600
RC	2012/09/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/09/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00010	0.00008	< 0.00005
RC	2012/09/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	0.00013	0.00007	0.00013
RC	2012/09/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0034	0.0033	0.0047	0.0056
AFD	2012/09/14	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	8.08	7.86	7.79	7.72
AFD	2012/09/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	63.8	72.4	64.9	41.8

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11275	12-11276	12-11277	12-11278
					Client ID:	WQ22-Hypo	WQ23-Epi	WQ23-Meta	WQ23-Hypo
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
RC	2012/09/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.015	0.006	0.002	0.002
RC	2012/09/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00007	0.00006	0.00007
RC	2012/09/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0008	0.0004	0.0007
RC	2012/09/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00713	0.00210	0.00392	0.00476
RC	2012/09/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	11.6	5.5	7.6	7.6
RC	2012/09/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	0.0004	0.0003	0.0003
RC	2012/09/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00003
RC	2012/09/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1290	0.0075	0.0107	0.0756
RC	2012/09/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00018	< 0.00005	0.00007	0.00008
RC	2012/09/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.07	1.05	1.29	1.36
RC	2012/09/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.03140	0.00104	0.00546	0.12100
RC	2012/09/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00031	0.00070	0.00075	0.00084
RC	2012/09/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/09/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.0	< 0.5	< 0.5	< 0.5
RC	2012/09/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.14	4.07	4.21	5.31
RC	2012/09/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	2.0	2.2	2.3
RC	2012/09/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.066300	0.039500	0.053300	0.053800
RC	2012/09/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/09/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00014	0.00008	0.00009
RC	2012/09/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0050	0.0028	0.0044	0.0049
AFD	2012/09/14	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.70	7.64	7.44	7.32
AFD	2012/09/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	41.6	18.0	24.2	24.6

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11279	12-11280	12-11281	12-11282
					Client ID:	WQ24-Epi	WQ24-Hypo	WQ25-Epi	WQ25-Hypo
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL				
RC	2012/09/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.008	0.008	0.018	0.018
RC	2012/09/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00007	< 0.00005	< 0.00005
RC	2012/09/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004	0.0001	0.0002
RC	2012/09/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00244	0.00245	0.00723	0.00701
RC	2012/09/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	0.000018	< 0.000015	0.000017
RC	2012/09/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.1	5.1	6.3	6.2
RC	2012/09/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0069	0.0079	0.0443	0.0447
RC	2012/09/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00008	< 0.00005	0.00007
RC	2012/09/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.10	1.09	0.96	0.97
RC	2012/09/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00133	0.00154	0.00189	0.00193
RC	2012/09/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	0.000005
RC	2012/09/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00076	0.00088	0.00071	0.00069
RC	2012/09/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00007	0.00006
RC	2012/09/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/09/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/09/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.83	1.71	2.44	2.47
RC	2012/09/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	1.7	1.5	1.5
RC	2012/09/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.037000	0.037100	0.067500	0.066000
RC	2012/09/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/09/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00027	0.00014	0.00013
RC	2012/09/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0029	0.0046	0.0034	0.0057
AFD	2012/09/14	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.58	7.59	7.58	7.60
AFD	2012/09/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	17.2	17.2	19.7	19.5

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-63925

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-11283	12-11284	12-11285
					Client ID:	WQ Duplicate	Field Blank	Trip Blank
					Sample Date:	2012/09/12 0:00	2012/09/12 0:00	2012/09/12 0:00
					MDL			
RC	2012/09/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.005	< 0.002	< 0.002
RC	2012/09/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	< 0.0001	< 0.0001
RC	2012/09/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00712	< 0.00005	< 0.00005
RC	2012/09/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/09/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	11.7	< 0.5	< 0.5
RC	2012/09/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/09/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/09/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1190	< 0.0001	< 0.0001
RC	2012/09/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	< 0.00005	< 0.00005
RC	2012/09/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/09/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.05	< 0.50	< 0.50
RC	2012/09/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02990	< 0.00005	< 0.00005
RC	2012/09/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/09/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00032	< 0.00005	< 0.00005
RC	2012/09/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	< 0.00005	< 0.00005
RC	2012/09/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01
RC	2012/09/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.0	< 0.5	< 0.5
RC	2012/09/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/09/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.88	< 0.01	< 0.01
RC	2012/09/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	< 0.5	< 0.5
RC	2012/09/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.066900	< 0.000005	< 0.000005
RC	2012/09/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/09/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	< 0.0002	< 0.0002
RC	2012/09/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/09/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	< 0.00005	< 0.00005
RC	2012/09/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0009	< 0.0005	< 0.0005
AFD	2012/09/14	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.73	6.00	6.28
AFD	2012/09/12	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	41.7	< 6.0	< 6.0

Quality Control Standard

Project No.

File No. EC-63925

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2012/09/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	64	56-77	65.00	QC-ALK/F-48
AFD	2012/09/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.76	2.54-2.94	2.79	CC-EC-0.02M-43
AFD	2012/09/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.54	0.44-0.58	0.50	QC-ALK/F-48
AFD	2012/09/12	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.63	1.44-1.76	1.60	CC-Anion-117B
AFD	2012/09/12	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.648	0.54-0.66	0.60	CC-Anion-117B
AFD	2012/09/12	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	27.9	25.2-30.8	28.00	CC-Anion-118B
EL	2012/09/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4596	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/09/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	147	134-153	144.00	OCP-E2-SLD02009
AFD	2012/09/17	Turbidity	NTU	APHA 2130-b	0.1	11	8.5-11.5	10.00	QC-Turb-5
AFD	2012/09/12	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.00	CC-Anion-117B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/09/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.60	0.47-0.74	0.61	NH3SC-001
RC	2012/09/14	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.4	3.3-4.3	3.80	DMD-TOC-93-Low
RC	2012/09/14	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	33.5	33.1-42.6	37.90	DMD-TOC-93-Mid
AFD	2012/09/12	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.818	0.72-0.88	0.80	CC-Anion-117BL
RC	2012/09/13	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	254	225-275	250.00	MS-CCV-HIGH
EL	2012/09/17	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	10.1	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/13	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	46.8	45-55	50.00	MS-CCV-HIGH
RC	2012/09/13	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/13	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/13	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	50.7	45-55	50.00	MS-CCV-HIGH
RC	2012/09/13	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/13	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	45.7	45-55	50.00	MS-CCV-HIGH
RC	2012/09/13	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/13	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	24700	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/13	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/13	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/13	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	51.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/13	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	53.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/13	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/13	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.4	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/09/13	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25600	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/13	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	50.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/19	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.271000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/09/13	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	52.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/13	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	52.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/13	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	254	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63925

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/13	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/09/13	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.9	45-55	50.00	MS-CCV-HIGH
RC	2012/09/13	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	121	105-129	117.00	MS-CCV-HIGH
RC	2012/09/13	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.6	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/09/13	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25400	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/13	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/09/13	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	256	225-275	250.00	MS-CCV-HIGH
RC	2012/09/13	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	255	225-275	250.00	MS-CCV-HIGH
RC	2012/09/13	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/13	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90-110	100.00	MS-CCV-HIGH
RC	2012/09/13	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	51.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/13	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.8	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/17	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	47.5	45-55	50.00	MS-CCV-HIGH
RC	2012/09/17	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	108	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/17	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/17	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.3	45-55	50.00	MS-CCV-HIGH
RC	2012/09/17	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/17	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/09/17	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/17	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/17	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/17	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	49.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/17	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	51.0	45-55	50.00	MS-CCV-HIGH
RC	2012/09/17	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.5	45-55	50.00	MS-CCV-HIGH
RC	2012/09/17	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	95.9	90.0-110	100.00	MS-CCV-HIGH
RC	2012/09/17	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.4	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/09/17	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.0	25300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/17	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/19	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.271000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/09/17	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/17	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/17	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	248	225-275	250.00	MS-CCV-HIGH
RC	2012/09/17	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/09/17	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	48.4	45-55	50.00	MS-CCV-HIGH
RC	2012/09/17	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	124	105-129	117.00	MS-CCV-HIGH
RC	2012/09/17	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.1	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/09/17	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25300	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/09/17	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	49.6	45-55	50.00	MS-CCV-HIGH
RC	2012/09/17	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	238	225-275	250.00	MS-CCV-HIGH
RC	2012/09/17	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	252	225-275	250.00	MS-CCV-HIGH
RC	2012/09/17	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	49.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/17	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	95.9	90-110	100.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-63925

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/09/17	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/09/17	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	54.6	45.0-55.0	50.00	MS-CCV-HIGH
AFD	2012/09/14	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.02	5.92-6.08	6.00	QC-pH-4

Analytical Comments

Project No. VE52095.200.LAKES

File No. EC-63925

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-63925
11

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater

Sampler: Phone No.:

604-294-3811

Project Manager: Bruce Ott

Task: LAKES

Project Number: VE52095

Phase: 200

Quote #: QN-521

Client Sample ID

AMEC E & E Lab Sample ID

Date Collected

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

Total and dissolved metals (Ultra ICP/MS)

Ammonia and TKN

Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)

100% RUSH (Please Notify Lab Prior To Submission)

Receiver's Comments: 53

Temperature Received:

NO

YES

53

Comments:

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	Receiver's Comments	
WQ20-Epi	17-17268	9/10/2012	water								X	X	X	X	X	X	X				
WQ20-Meta	69	9/10/2012	water								X	X	X	X	X	X	X				
WQ20-Hypo	70	9/10/2012	water								X	X	X	X	X	X	X				
WQ21-Epi	71	9/10/2012	water								X	X	X	X	X	X	X				
WQ21-Meta	72	9/10/2012	water								X	X	X	X	X	X	X				
WQ21-Hypo	73	9/10/2012	water								X	X	X	X	X	X	X				
WQ22-Epi	74	9/10/2012	water								X	X	X	X	X	X	X				
WQ22-Hypo	75	9/10/2012	water								X	X	X	X	X	X	X				
WQ23-Epi	76	9/10/2012	water								X	X	X	X	X	X	X				
WQ23-Meta	77	9/10/2012	water								X	X	X	X	X	X	X				
WQ23-Hypo	78	9/10/2012	water								X	X	X	X	X	X	X				
WQ24-Epi	79	9/10/2012	water								X	X	X	X	X	X	X				
WQ24-Hypo	80	9/10/2012	water								X	X	X	X	X	X	X				
WQ25-Epi	81	9/10/2012	water								X	X	X	X	X	X	X				
WQ25-Hypo	82	9/10/2012	water								X	X	X	X	X	X	X				
WQ Duplicate	83	9/10/2012	water								X	X	X	X	X	X	X				
Field Blank	84	9/10/2012	water								X	X	X	X	X	X	X				
Trip Blank	85	9/10/2012	water								X	X	X	X	X	X	X				

RELINQUISHED BY: Signature: RECEIVED BY: Signature:

RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Comments: 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneer Lai (raneer.lai@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN-1 and CN-WAD using H2SO4 method.

Printed Name: L. Nordin
Firm: Avision Management Services
Date/Time: 9/11/2012 17:00:00 PM

Printed Name: L. Nordin
Firm: Avision Management Services
Date/Time: 9/11/2012 7:55

Printed Name: L. Nordin
Firm: Avision Management Services
Date/Time: 9/11/2012 7:55

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64183
Project Number: VE52095..2A.3
Project Name: NewGold Blackwater
Date Received: 2012/10/16
Date of Report: 2012/10/23
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14634	12-14634-D	12-14635	12-14636
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/10/15 0:00	Lab Duplicate	2012/10/15 0:00	2012/10/15 0:00
					MDL				
AFD	2012/10/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	55	53	38	200
AFD	2012/10/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.101	0.102	0.075	0.146
AFD	2012/10/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.07	0.05	0.07
AFD	2012/10/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.014	0.010	0.038	0.038
AFD	2012/10/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/10/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.8	1.8	1.5	4.2
EL	2012/10/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	36	40	52	80
EL	2012/10/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	10
AFD	2012/10/18	Turbidity	NTU	APHA 2130-b	0.1	1.5	1.3	0.6	8.8
AFD	2012/10/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1	0.4	0.2

Water Analysis

Project No. VE52095..2A.3

 Final
 File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14637	12-14638	12-14639	12-14640
					Client ID:	WQ10	WQ11	WQ12	WQ13
					Sample Date:	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00
					MDL				
AFD	2012/10/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	50	71	34	75
AFD	2012/10/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.099	0.133	0.066	0.145
AFD	2012/10/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.05	0.04	0.07
AFD	2012/10/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.047	< 0.005	0.074	0.077
AFD	2012/10/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	0.003	0.005
AFD	2012/10/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.0	2.5	1.3	3.9
EL	2012/10/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	56	64	40	8
EL	2012/10/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2012/10/18	Turbidity	NTU	APHA 2130-b	0.1	0.4	0.4	1.1	1.2
AFD	2012/10/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.5	0.3	0.3

Water Analysis

Project No. VE52095..2A.3

 Final
 File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14641	12-14642	12-14643	12-14761
					Client ID:	WQ15	WQ16	Travel Blank	WQ1
					Sample Date:	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00	2012/10/16 0:00
					MDL				
AFD	2012/10/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	27	23	< 1	11
AFD	2012/10/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.057	0.046	0.001	0.033
AFD	2012/10/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	< 0.02	0.04
AFD	2012/10/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.079	0.043	< 0.005	< 0.005
AFD	2012/10/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	< 0.003	< 0.003	< 0.003
AFD	2012/10/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.5	1.4	< 0.5	2.2
EL	2012/10/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	36	< 4	< 4	24
EL	2012/10/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	13	< 2	< 2
AFD	2012/10/18	Turbidity	NTU	APHA 2130-b	0.1	2.0	2.9	0.2	1.2
AFD	2012/10/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.1	< 0.1	0.3

Water Analysis

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14762	12-14763	12-14764	12-14765
					Client ID:	WQ4	WQ6	WQ7	WQ9
					Sample Date:	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00
					MDL				
AFD	2012/10/20	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	21	25	61	72
AFD	2012/10/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.077	0.052	0.116	0.140
AFD	2012/10/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.04	0.06	0.07
AFD	2012/10/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.035	0.020	< 0.005	0.006
AFD	2012/10/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	0.004
AFD	2012/10/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	12.1	2.2	3.0	4.2
EL	2012/10/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	48	56	52	40
EL	2012/10/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	17	< 2	< 2	4
AFD	2012/10/18	Turbidity	NTU	APHA 2130-b	0.1	22	1.2	0.9	2.2
AFD	2012/10/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	2.0	0.2	0.3	0.3

Water Analysis

Project No. VE52095..2A.3

 Final
 File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14766	12-14767	12-14768
					Client ID:	WQ14	Duplicate	Field Blank
					Sample Date:	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00
					MDL			
AFD	2012/10/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	99	100	< 1
AFD	2012/10/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.185	0.185	< 0.001
AFD	2012/10/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.07	< 0.02
AFD	2012/10/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.011	0.009	< 0.005
AFD	2012/10/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
AFD	2012/10/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.3	4.3	< 0.5
EL	2012/10/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	96	96	< 4
EL	2012/10/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2
AFD	2012/10/18	Turbidity	NTU	APHA 2130-b	0.1	1.0	1.1	0.2
AFD	2012/10/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.7	< 0.1

Water Analysis

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14634	12-14634-D	12-14635	12-14636
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/10/15 0:00	Lab Duplicate	2012/10/15 0:00	2012/10/15 0:00
					MDL				
EL	2012/10/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/10/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.3	10.8	8.1	15.0
RC	2012/10/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.3	10.8	13.2	22.0
AFD	2012/10/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.032	0.026	< 0.003	< 0.003
RC	2012/10/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.044	0.045	0.005	0.009
EL	2012/10/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	---	< 0.08	0.23

Water Analysis

Project No. VE52095..2A.3

 Final
 File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14637	12-14638	12-14639	12-14640
					Client ID:	WQ10	WQ11	WQ12	WQ13
					Sample Date:	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00
					MDL				
EL	2012/10/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/10/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.1	16.8	9.1	14.7
RC	2012/10/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.1	16.8	9.5	15.1
AFD	2012/10/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	0.003	< 0.003	< 0.003
RC	2012/10/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.008	0.003	0.011	0.008
EL	2012/10/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.08	< 0.08	< 0.08	< 0.08

Water Analysis

Project No. VE52095..2A.3

 Final
 File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14641	12-14642	12-14643	12-14761
					Client ID:	WQ15	WQ16	Travel Blank	WQ1
					Sample Date:	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00	2012/10/16 0:00
					MDL				
EL	2012/10/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/10/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.9	9.1	< 0.1	10.6
RC	2012/10/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.3	9.1	< 0.1	10.6
AFD	2012/10/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	0.024	< 0.003	0.039
RC	2012/10/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.010	0.007	< 0.001	0.011
EL	2012/10/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	< 0.08	0.22

Water Analysis

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14762	12-14763	12-14764	12-14765
					Client ID:	WQ4	WQ6	WQ7	WQ9
					Sample Date:	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00
					MDL				
EL	2012/10/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/10/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	17.8	6.3	9.2	14.9
RC	2012/10/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	18.5	7.7	10.6	16.4
AFD	2012/10/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/10/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.010	0.008	0.006	0.007
EL	2012/10/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	1.90	< 0.08	< 0.08	0.29

Water Analysis

Project No. VE52095..2A.3

 Final
 File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14766	12-14767	12-14768
					Client ID:	WQ14	Duplicate	Field Blank
					Sample Date:	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00
					MDL			
EL	2012/10/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02
RC	2012/10/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	15.7	16.5	0.1
RC	2012/10/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	16.3	16.5	0.1
AFD	2012/10/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	0.011
RC	2012/10/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.006	0.007	< 0.001
EL	2012/10/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.14	< 0.08

Water Analysis - Total Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14634	12-14634-D	12-14635	12-14636
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/10/15 0:00	Lab Duplicate	2012/10/15 0:00	2012/10/15 0:00
					MDL				
RC	2012/10/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.031	0.032	0.038	0.011
RC	2012/10/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0011	0.0011	0.0003	0.0004
RC	2012/10/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00481	0.00485	0.00506	0.00644
RC	2012/10/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	12.8	13.0	8.9	22.0
RC	2012/10/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0009	0.0009	< 0.0003	< 0.0003
RC	2012/10/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00002	0.00003	< 0.00002
RC	2012/10/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0003
RC	2012/10/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0889	0.0916	0.1220	0.0320
RC	2012/10/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.02	3.02	2.55	4.83
RC	2012/10/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00697	0.00716	0.00519	0.00748
RC	2012/10/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/10/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00081	0.00081	0.00027	0.00059
RC	2012/10/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00010	0.00013
RC	2012/10/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.04	0.04	< 0.02	0.03
RC	2012/10/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	0.6	< 0.5	0.9
RC	2012/10/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	8.28	8.05	5.89	2.89
RC	2012/10/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.2	3.9	3.3	3.8
RC	2012/10/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.083700	0.084700	0.058400	0.102000
RC	2012/10/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0012	0.0010	0.0008	0.0005
RC	2012/10/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00019	0.00019	< 0.00005	0.00010
RC	2012/10/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0016	0.0016	0.0002	0.0002
RC	2012/10/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0027	0.0026	0.0025	0.0028
AFD	2012/10/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	44.4	44.9	32.7	74.9

Water Analysis - Total Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14637	12-14638	12-14639	12-14640
					Client ID:	WQ10	WQ11	WQ12	WQ13
					Sample Date:	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00
					MDL				
RC	2012/10/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.022	0.042	0.048	0.013
RC	2012/10/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	< 0.0001	0.0002	0.0005
RC	2012/10/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00767	0.01180	0.00894	0.00842
RC	2012/10/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	13.4	20.3	9.0	22.0
RC	2012/10/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0004	< 0.0003	< 0.0003	< 0.0003
RC	2012/10/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	0.00003	0.00003
RC	2012/10/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001
RC	2012/10/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0791	0.0094	0.5340	0.2280
RC	2012/10/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	2.61	3.91	1.57	4.62
RC	2012/10/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00298	< 0.00005	0.01000	0.03660
RC	2012/10/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/10/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00078	0.00038	0.00053	0.00066
RC	2012/10/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00005	0.00014
RC	2012/10/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/10/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.6	< 0.5	0.8
RC	2012/10/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.07	6.06	6.95	4.24
RC	2012/10/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.6	3.9	2.6	3.9
RC	2012/10/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.089400	0.119000	0.069600	0.107000
RC	2012/10/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0004	0.0005	0.0012	0.0006
RC	2012/10/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00026	0.00009	0.00011
RC	2012/10/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0002	0.0002
RC	2012/10/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0025	0.0021	0.0024	0.0027
AFD	2012/10/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	44.3	66.9	29.1	73.8

Water Analysis - Total Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14641	12-14642	12-14643	12-14761
					Client ID:	WQ15	WQ16	Travel Blank	WQ1
					Sample Date:	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00	2012/10/16 0:00
					MDL				
RC	2012/10/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.062	0.025	< 0.002	0.166
RC	2012/10/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0003	< 0.0001	0.0008
RC	2012/10/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01000	0.00365	< 0.00005	0.00373
RC	2012/10/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000023
RC	2012/10/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	8.0	5.6	< 0.5	3.3
RC	2012/10/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	0.0003
RC	2012/10/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00003	< 0.00002	0.00006
RC	2012/10/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0011	< 0.0001	< 0.0001	0.0002
RC	2012/10/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1220	0.0743	< 0.0001	0.2800
RC	2012/10/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.16	1.14	< 0.50	0.66
RC	2012/10/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02170	0.01100	< 0.00005	0.01770
RC	2012/10/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/10/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00050	0.00052	< 0.00005	0.00025
RC	2012/10/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00022
RC	2012/10/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/10/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/10/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.08	0.86	< 0.01	5.84
RC	2012/10/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.1	2.3	< 0.5	2.5
RC	2012/10/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.077000	0.038700	< 0.000005	0.030200
RC	2012/10/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0009	0.0004	< 0.0002	0.0029
RC	2012/10/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00015	0.00020	< 0.00005	0.00011
RC	2012/10/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002
RC	2012/10/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0041	0.0028	< 0.0005	0.0057
AFD	2012/10/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	24.8	18.7	< 6.0	11.0

Water Analysis - Total Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14762	12-14763	12-14764	12-14765
					Client ID:	WQ4	WQ6	WQ7	WQ9
					Sample Date:	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00
					MDL				
RC	2012/10/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	1.19	0.050	0.017	0.021
RC	2012/10/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00041	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0069	0.0005	0.0005	0.0005
RC	2012/10/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01380	0.00575	0.00895	0.00801
RC	2012/10/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000247	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	11.1	6.6	16.7	21.0
RC	2012/10/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0008	0.0005	< 0.0003	< 0.0003
RC	2012/10/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00019	0.00003	0.00004	0.00003
RC	2012/10/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0015	< 0.0001	< 0.0001	0.0002
RC	2012/10/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.8990	0.1180	0.1720	0.1810
RC	2012/10/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00341	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.81	1.17	3.56	4.51
RC	2012/10/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.10700	0.00731	0.02670	0.02220
RC	2012/10/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	0.000014	0.000005	< 0.000005	< 0.000005
RC	2012/10/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00045	0.00075	0.00067
RC	2012/10/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00051	0.00008	0.00009	0.00014
RC	2012/10/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.05	< 0.02	< 0.02	0.02
RC	2012/10/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	< 0.5	0.6	0.8
RC	2012/10/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	7.61	5.53	6.30	4.19
RC	2012/10/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.2	2.6	3.8	3.7
RC	2012/10/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.063700	0.051100	0.099800	0.103000
RC	2012/10/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0289	0.0011	0.0006	0.0009
RC	2012/10/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	0.00009	0.00019	0.00011
RC	2012/10/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001	0.0003	0.0002
RC	2012/10/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0746	0.0024	0.0022	0.0025
AFD	2012/10/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	35.1	21.2	56.3	71.1

Water Analysis - Total Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14766	12-14767	12-14768
					Client ID:	WQ14	Duplicate	Field Blank
					Sample Date:	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00
					MDL			
RC	2012/10/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.016	0.019	< 0.002
RC	2012/10/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	< 0.0001
RC	2012/10/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01180	0.01180	< 0.00005
RC	2012/10/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	28.7	28.3	< 0.5
RC	2012/10/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/10/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00003	< 0.00002
RC	2012/10/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0001	< 0.0001
RC	2012/10/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2060	0.2240	< 0.0001
RC	2012/10/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.80	6.29	< 0.50
RC	2012/10/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01200	0.01470	< 0.00005
RC	2012/10/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/10/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00052	0.00052	< 0.00005
RC	2012/10/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00007	< 0.00005
RC	2012/10/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02
RC	2012/10/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.1	1.2	< 0.5
RC	2012/10/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.41	6.52	< 0.01
RC	2012/10/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.7	4.8	< 0.5
RC	2012/10/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.133000	0.131000	< 0.000005
RC	2012/10/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0006	0.0006	< 0.0002
RC	2012/10/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00013	0.00014	< 0.00005
RC	2012/10/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0022	< 0.0005	< 0.0005
AFD	2012/10/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	95.6	96.6	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14634	12-14634-D	12-14635	12-14636
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2012/10/15 0:00	Lab Duplicate	2012/10/15 0:00	2012/10/15 0:00
					MDL				
RC	2012/10/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.014	0.013	0.031	< 0.002
RC	2012/10/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0011	0.0011	0.0003	0.0004
RC	2012/10/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00438	0.00430	0.00481	0.00595
RC	2012/10/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	12.3	12.1	8.6	21.0
RC	2012/10/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0009	0.0009	< 0.0003	< 0.0003
RC	2012/10/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/10/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0473	0.0449	0.1050	0.0110
RC	2012/10/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.02	3.00	2.55	4.83
RC	2012/10/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00440	0.00438	0.00434	0.00402
RC	2012/10/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/10/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00069	0.00069	0.00026	0.00052
RC	2012/10/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00010	0.00013
RC	2012/10/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.04	0.04	< 0.01	< 0.01
RC	2012/10/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.6	< 0.5	0.8
RC	2012/10/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	8.06	8.05	5.81	2.73
RC	2012/10/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.2	3.9	3.3	3.8
RC	2012/10/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.079700	0.078500	0.055600	0.095900
RC	2012/10/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0004	0.0007	< 0.0002
RC	2012/10/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	0.00017	< 0.00005	0.00009
RC	2012/10/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00161	0.00150	0.00023	0.00020
RC	2012/10/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0027	0.0026	0.0025	0.0028
AFD	2012/10/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.87	7.84	7.02	7.91
AFD	2012/10/20	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	43.2	42.6	31.9	72.2

Water Analysis - Dissolved Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14637	12-14638	12-14639	12-14640
					Client ID:	WQ10	WQ11	WQ12	WQ13
					Sample Date:	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00
					MDL				
RC	2012/10/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.016	0.036	0.026	0.003
RC	2012/10/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001	0.0002	0.0005
RC	2012/10/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00717	0.01140	0.00837	0.00777
RC	2012/10/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	12.8	19.4	8.6	20.4
RC	2012/10/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0004	< 0.0003	< 0.0003	< 0.0003
RC	2012/10/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/10/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0676	0.0072	0.4370	0.1720
RC	2012/10/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	2.61	3.91	1.54	4.56
RC	2012/10/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00245	< 0.00005	0.00600	0.03120
RC	2012/10/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/10/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00070	0.00038	0.00050	0.00062
RC	2012/10/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00005	0.00014
RC	2012/10/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/10/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.6	< 0.5	0.8
RC	2012/10/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.96	5.88	3.73	3.80
RC	2012/10/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.6	3.9	2.6	3.9
RC	2012/10/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.084200	0.113000	0.066100	0.099800
RC	2012/10/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	0.0004	0.0007	0.0002
RC	2012/10/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00025	0.00008	0.00011
RC	2012/10/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00022	0.00019	0.00017	0.00019
RC	2012/10/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0025	0.0021	0.0024	0.0027
AFD	2012/10/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.80	7.92	7.58	7.90
AFD	2012/10/20	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	42.6	64.6	27.9	69.8

Water Analysis - Dissolved Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14641	12-14642	12-14643	12-14761
					Client ID:	WQ15	WQ16	Travel Blank	WQ1
					Sample Date:	2012/10/15 0:00	2012/10/15 0:00	2012/10/15 0:00	2012/10/16 0:00
					MDL				
RC	2012/10/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.035	0.010	< 0.002	0.120
RC	2012/10/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0003	< 0.0001	0.0007
RC	2012/10/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00894	0.00326	< 0.00005	0.00285
RC	2012/10/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.5	5.3	< 0.5	2.9
RC	2012/10/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	0.0003
RC	2012/10/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003	< 0.00002	0.00003
RC	2012/10/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0011	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0767	0.0454	< 0.0001	0.2160
RC	2012/10/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.14	1.10	< 0.50	0.65
RC	2012/10/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01500	0.00653	< 0.00005	0.01390
RC	2012/10/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/10/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00046	0.00049	< 0.00005	0.00024
RC	2012/10/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00022
RC	2012/10/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/10/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2012/10/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	0.92	0.74	< 0.01	5.50
RC	2012/10/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.1	2.3	< 0.5	2.5
RC	2012/10/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.071200	0.035900	< 0.000005	0.026000
RC	2012/10/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0002	< 0.0002	0.0021
RC	2012/10/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	0.00015	< 0.00005	0.00009
RC	2012/10/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00021
RC	2012/10/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0041	0.0028	< 0.0005	0.0057
AFD	2012/10/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.39	7.38	5.90	7.04
AFD	2012/10/20	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	23.3	17.6	< 6.0	10.0

Water Analysis - Dissolved Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14762	12-14763	12-14764	12-14765
					Client ID:	WQ4	WQ6	WQ7	WQ9
					Sample Date:	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00
					MDL				
RC	2012/10/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.237	0.030	0.007	0.003
RC	2012/10/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0026	0.0005	0.0004	0.0005
RC	2012/10/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00375	0.00532	0.00813	0.00734
RC	2012/10/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000247	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	9.8	6.4	15.9	20.0
RC	2012/10/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/10/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00002	< 0.00002
RC	2012/10/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.2370	0.0815	0.1260	0.1190
RC	2012/10/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00043	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.71	1.16	3.56	4.44
RC	2012/10/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02870	0.00592	0.02220	0.01760
RC	2012/10/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	0.000005	< 0.000005	< 0.000005
RC	2012/10/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00043	0.00065	0.00061
RC	2012/10/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00040	0.00008	0.00009	0.00014
RC	2012/10/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/10/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.6	0.8
RC	2012/10/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.84	5.30	5.75	3.94
RC	2012/10/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.2	2.6	3.8	3.7
RC	2012/10/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.052600	0.048400	0.093900	0.097100
RC	2012/10/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0045	0.0007	< 0.0002	0.0002
RC	2012/10/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00008	0.00018	0.00011
RC	2012/10/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	< 0.00005	0.00022	0.00021
RC	2012/10/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0511	0.0024	0.0022	0.0025
AFD	2012/10/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.32	7.48	7.86	7.87
AFD	2012/10/20	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	31.6	20.8	54.3	68.2

Water Analysis - Dissolved Metals

Project No. VE52095..2A.3

Final
File No. EC-64183

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-14766	12-14767	12-14768
					Client ID:	WQ14	Duplicate	Field Blank
					Sample Date:	2012/10/16 0:00	2012/10/16 0:00	2012/10/16 0:00
					MDL			
RC	2012/10/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.002	0.003	< 0.002
RC	2012/10/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	< 0.0001
RC	2012/10/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01090	0.01100	< 0.00005
RC	2012/10/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/10/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	27.1	27.0	< 0.5
RC	2012/10/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/10/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/10/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1050	0.1140	< 0.0001
RC	2012/10/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/10/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.80	5.84	< 0.50
RC	2012/10/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00557	0.00556	< 0.00005
RC	2012/10/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/10/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00048	0.00049	< 0.00005
RC	2012/10/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00007	< 0.00005
RC	2012/10/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01
RC	2012/10/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.0	1.0	< 0.5
RC	2012/10/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/10/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.27	6.30	< 0.01
RC	2012/10/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.7	4.8	< 0.5
RC	2012/10/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.124000	0.125000	< 0.000005
RC	2012/10/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/10/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/10/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00013	< 0.00005
RC	2012/10/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/10/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0022	< 0.0005	< 0.0005
AFD	2012/10/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	8.10	8.00	5.75
AFD	2012/10/20	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	91.4	91.4	< 6.0

Quality Control Standard

Project No.

File No. EC-64183

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2012/10/20	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	65	56-77	65.00	QC-ALK/F-52
AFD	2012/10/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.74	2.54-2.94	2.79	CC-EC-0.02M-45
AFD	2012/10/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.51	0.44-0.58	0.50	QC-ALK/F-52
AFD	2012/10/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.57	1.44-1.76	1.60	CC-Anion-119B
AFD	2012/10/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.621	0.54-0.66	0.60	CC-Anion-119B
AFD	2012/10/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	25.9	25.2-30.8	28.00	CC-Anion-119B
EL	2012/10/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540-d	4	4628	3809-6227	5,018.00	OCP-E2-SLD02008
EL	2012/10/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	142	134-153	144.00	OCP-E2-SLD02009
AFD	2012/10/18	Turbidity	NTU	APHA 2130-b	0.1	9.4	8.5-11.5	10.00	QC-Turb-6
AFD	2012/10/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.00	CC-Anion-119B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/10/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.58	0.47-0.74	0.61	NH3SC-001
RC	2012/10/19	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	4.1	3.3-4.3	3.80	DMD-TOC-95-Low
RC	2012/10/19	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	37.6	33.1-42.6	37.90	DMD-TOC-95-Mid
AFD	2012/10/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.784	0.72-0.88	0.80	CC-Anion-119BL
RC	2012/10/18	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	243	225-275	250.00	MS-CCV-HIGH
EL	2012/10/18	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	9.55	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/10/18	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	51.6	45-55	50.00	MS-CCV-HIGH
RC	2012/10/18	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	107	90.0-110	100.00	MS-CCV-HIGH
RC	2012/10/18	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/10/18	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	50.3	45-55	50.00	MS-CCV-HIGH
RC	2012/10/18	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	48.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/18	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/10/18	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	52.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/18	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/10/18	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/18	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/18	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.7	45-55	50.00	MS-CCV-HIGH
RC	2012/10/18	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	46.9	45-55	50.00	MS-CCV-HIGH
RC	2012/10/18	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00	MS-CCV-HIGH
RC	2012/10/18	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	49.5	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/10/18	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24800	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/10/18	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/19	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.276000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/10/18	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	51.3	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/18	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/18	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	243	225-275	250.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-64183

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/10/18	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25400	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/10/18	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/10/18	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	128	105-129	117.00	MS-CCV-HIGH
RC	2012/10/18	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.9	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/10/18	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/10/18	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	51.6	45-55	50.00	MS-CCV-HIGH
RC	2012/10/18	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	248	225-275	250.00	MS-CCV-HIGH
RC	2012/10/18	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	259	225-275	250.00	MS-CCV-HIGH
RC	2012/10/18	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/18	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90-110	100.00	MS-CCV-HIGH
RC	2012/10/18	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	52.1	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/18	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.7	45.0-55.0	50.00	MS-CCV-HIGH

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/10/17	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	51.0	45-55	50.00	MS-CCV-HIGH
RC	2012/10/17	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00	MS-CCV-HIGH
RC	2012/10/17	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.00	MS-CCV-HIGH
RC	2012/10/17	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45-55	50.00	MS-CCV-HIGH
RC	2012/10/17	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	51.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/17	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	48.2	45-55	50.00	MS-CCV-HIGH
RC	2012/10/17	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	49.2	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/17	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	26000	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/10/17	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/17	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	50.9	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/17	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	51.1	45-55	50.00	MS-CCV-HIGH
RC	2012/10/17	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	49.0	45-55	50.00	MS-CCV-HIGH
RC	2012/10/17	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	98.8	90.0-110	100.00	MS-CCV-HIGH
RC	2012/10/17	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	54.8	45.0-55.5	50.00	MS-CCV-HIGH
RC	2012/10/17	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.0	26500	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/10/17	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/19	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.276000	0.212-0.340	0.28	C2-QCPHG009
RC	2012/10/17	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	51.0	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/17	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	52.6	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/17	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	256	225-275	250.00	MS-CCV-HIGH
RC	2012/10/17	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25400	22725-27775	25,250.00	MS-CCV-HIGH
RC	2012/10/17	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	49.0	45-55	50.00	MS-CCV-HIGH
RC	2012/10/17	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	127	105-129	117.00	MS-CCV-HIGH
RC	2012/10/17	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.6	11.25-13.75	12.50	MS-CCV-HIGH
RC	2012/10/17	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	26900	22545-27555	25,050.00	MS-CCV-HIGH
RC	2012/10/17	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	51.2	45-55	50.00	MS-CCV-HIGH
RC	2012/10/17	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	246	225-275	250.00	MS-CCV-HIGH
RC	2012/10/17	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	251	225-275	250.00	MS-CCV-HIGH
RC	2012/10/17	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/17	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	101	90-110	100.00	MS-CCV-HIGH

Quality Control Standard

Project No.

File No. EC-64183

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/10/17	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	51.4	45.0-55.0	50.00	MS-CCV-HIGH
RC	2012/10/17	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	55.0	45.0-55.0	50.00	MS-CCV-HIGH
AFD	2012/10/17	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-5

Analytical Comments

Project No. VE52095..2A.3

File No. EC-64183

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC Environment & Infrastructure
ATTN: BRUCE OTT
6000 4445 LOUGHEED HWY
BURNABY BC V5C 0E4

Date Received: 16-OCT-12
Report Date: 25-OCT-12 15:19 (MT)
Version: FINAL

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1224122
Project P.O. #: NOT SUBMITTED
Job Reference: VE52095
C of C Numbers:
Legal Site Desc:

Selam Worku
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	Description	Sampled Date	Sampled Time	Client ID	L1224122-1	L1224122-2	L1224122-3	L1224122-4	L1224122-5
	Water	15-OCT-12			WQ3	WQ5	WQ8	WQ10	WQ11
Grouping	Analyte								
WATER									
Cyanides	Cyanate (mg/L)				<0.20	<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)				<0.50	<0.50	<0.50	<0.50	<0.50

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1224122-6	L1224122-7	L1224122-8	L1224122-9
		Description	Water	Water	Water	Water
		Sampled Date	15-OCT-12	15-OCT-12	15-OCT-12	15-OCT-12
		Sampled Time				
		Client ID	WQ12	WQ13	WQ15	WQ16
Grouping	Analyte					
WATER						
Cyanides	Cyanate (mg/L)		<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)		<0.50	<0.50	<0.50	<0.50

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1224122

Report Date: 25-OCT-12

Page 1 of 2

Client: AMEC Environment & Infrastructure
 # 6000 4445 LOUGHEED HWY
 BURNABY BC V5C 0E4

Contact: BRUCE OTT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT		Water						
Batch	R2457805							
WG1568965-1	LCS							
Cyanate			103.2		%		85-115	18-OCT-12
WG1568965-2	MB							
Cyanate			<0.20		mg/L		0.2	18-OCT-12
CN-SCN-VA		Water						
Batch	R2458900							
WG1569908-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			100.2		%		85-115	19-OCT-12
WG1569908-6	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			96.1		%		85-115	19-OCT-12
WG1569908-1	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	19-OCT-12
WG1569908-5	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	19-OCT-12
WG1569908-9	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	19-OCT-12
WG1569908-10	MS	L1225180-21						
Thiocyanate (SCN)			98.3		%		75-125	19-OCT-12
WG1569908-3	MS	L1224389-7						
Thiocyanate (SCN)			100.5		%		75-125	19-OCT-12
WG1569908-7	MS	L1224796-8						
Thiocyanate (SCN)			102.2		%		75-125	19-OCT-12

Quality Control Report

Workorder: L1224122

Report Date: 25-OCT-12

Page 2 of 2

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report To		at / Distribution		Service Requested (Rush for routine analysis subject to availability)	
Company: AMEC		<input type="checkbox"/> Other		<input checked="" type="radio"/> Regular (Default)	
Contact: Bruce Ott		<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax		<input type="radio"/> Priority (Specify Date Required → →) Surcharges apply	
Address: Suite 600, 4445 Lougheed Highway, Burnaby, B.C. V5C 0E4		Email 1: bruce.ott@amec.com		<input type="radio"/> Emergency (1 Business Day) - 100% Surcharge	
Phone: (604)295-4758 Fax: (604)294-4664		Email 2:		<input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS	

Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Client / Project Information		Analysis Request	
Company:		Job #: VE52095		Please indicate below Filtered, Preserved or both (F, P, F/P)	
Contact:		PO / AFE:		P	
Address:		LSD:		Cyanate Thiocyanate	
Phone: Fax:		Quote #: Q28456		Number of Containers	

Lab Work Order # (lab use only)	ALS Contact:	Sampler:
L1224122		

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Cyanate	Thiocyanate													
WQ3		15_Oct-12		Water	X	X													2
WQ5		15_Oct-12		Water	X	X													2
WQ8		15_Oct-12		Water	X	X													2
WQ10		15_Oct-12		Water	X	X													2
WQ11		15_Oct-12		Water	X	X													2
WQ12		15_Oct-12		Water	X	X													2
WQ13		15_Oct-12		Water	X	X													2
WQ15		15_Oct-12		Water	X	X													2
WQ16		15_Oct-12		Water	X	X													2

Special Instructions / Regulations / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.
Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)			SHIPMENT VERIFICATION (lab use only)			Observations: Yes / No? If Yes add SIF	
Released by: L. Nordin	Date (dd-mmm-yy): 15-Oct-12	Time (hh-mm): 15:00	Received by: Brittany	Date: Oct. 16	Time: 8:45	Temperature: 6.0 °C	Verified by:	Date:	Time:	



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 17-OCT-12
Report Date: 29-OCT-12 10:00 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1224463
Project P.O. #: 2220
Job Reference: EC-64183
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1224463-1 WQ3~12-14634 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-2 WQ5~12-14635 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-3 WQ8~12-14636 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-4 WQ10~12-14637 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-5 WQ11~12-14638 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-6 WQ12~12-14639 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-7 WQ13~12-14640 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-8 WQ15~12-14641 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-9 WQ16~12-14642 Sampled By: CLIENT Matrix: water							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1224463-9 WQ16~12-14642 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-10 TRIP BLANK~12-14643 Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-OCT-12 23-OCT-12	R2461622 R2461623
L1224463-11 WQ1~(12-14761) Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-OCT-12 25-OCT-12	R2463477 R2463478
L1224463-12 WQ4~(12-14762) Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-OCT-12 25-OCT-12	R2463477 R2463478
L1224463-13 WQ6~(12-14763) Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-OCT-12 25-OCT-12	R2463477 R2463478
L1224463-14 WQ7~(12-14764) Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-OCT-12 25-OCT-12	R2463477 R2463478
L1224463-15 WQ9~(12-14765) Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-OCT-12 25-OCT-12	R2463477 R2463478
L1224463-16 WQ14~(12-14766) Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-OCT-12 25-OCT-12	R2463477 R2463478
L1224463-17 DUPLICATE Sampled By: CLIENT Matrix: water							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1224463-17 DUPLICATE Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 25-OCT-12 25-OCT-12	 R2463477 R2463478
L1224463-18 FIELD BLANK Sampled By: CLIENT Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 25-OCT-12 25-OCT-12	 R2463477 R2463478

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:
GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1224463

Report Date: 29-OCT-12

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2461622							
WG1572074-12	DUP	L1224463-6						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572074-14	DUP	L1222966-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572074-18	DUP	L1224483-3						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572074-5	DUP	L1224438-10						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572074-9	DUP	L1223667-5						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572074-11	LCS							
Cyanide, Total			90.0		%		80-120	23-OCT-12
WG1572074-17	LCS							
Cyanide, Total			89.4		%		80-120	23-OCT-12
WG1572074-2	LCS							
Cyanide, Total			87.8		%		80-120	23-OCT-12
WG1572074-20	LCS							
Cyanide, Total			90.4		%		80-120	23-OCT-12
WG1572074-24	LCS							
Cyanide, Total			86.6		%		80-120	23-OCT-12
WG1572074-4	LCS							
Cyanide, Total			91.2		%		80-120	23-OCT-12
WG1572074-8	LCS							
Cyanide, Total			90.5		%		80-120	23-OCT-12
WG1572074-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-OCT-12
WG1572074-10	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-OCT-12
WG1572074-16	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-OCT-12
WG1572074-19	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-OCT-12
WG1572074-23	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-OCT-12
WG1572074-3	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-OCT-12
WG1572074-7	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-OCT-12



Quality Control Report

Workorder: L1224463

Report Date: 29-OCT-12

Page 2 of 6

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
Water								
Batch	R2461622							
WG1572074-13	MS	L1224463-6						
Cyanide, Total			97.4		%		70-130	23-OCT-12
WG1572074-15	MS	L1222966-2						
Cyanide, Total			82.7		%		70-130	23-OCT-12
WG1572074-6	MS	L1224438-10						
Cyanide, Total			95.5		%		70-130	23-OCT-12
Batch	R2463477							
WG1573792-10	DUP	L1223406-3						
Cyanide, Total		<0.020	<0.020	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573792-11	DUP	L1226511-22						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573792-15	DUP	L1223355-3						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573792-5	DUP	L1224961-3						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573792-6	DUP	L1224463-16						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573792-14	LCS							
Cyanide, Total			91.6		%		80-120	25-OCT-12
WG1573792-18	LCS							
Cyanide, Total			91.4		%		80-120	25-OCT-12
WG1573792-2	LCS							
Cyanide, Total			90.3		%		80-120	25-OCT-12
WG1573792-22	LCS							
Cyanide, Total			91.8		%		80-120	25-OCT-12
WG1573792-24	LCS							
Cyanide, Total			90.1		%		80-120	25-OCT-12
WG1573792-4	LCS							
Cyanide, Total			89.0		%		80-120	25-OCT-12
WG1573792-9	LCS							
Cyanide, Total			91.9		%		80-120	25-OCT-12
WG1573792-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	25-OCT-12
WG1573792-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	25-OCT-12
WG1573792-17	MB							
Cyanide, Total			<0.0050		mg/L		0.005	25-OCT-12
WG1573792-21	MB							



Quality Control Report

Workorder: L1224463

Report Date: 29-OCT-12

Page 3 of 6

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2463477							
WG1573792-21 MB								
Cyanide, Total			<0.0050		mg/L		0.005	25-OCT-12
WG1573792-23 MB								
Cyanide, Total			<0.0050		mg/L		0.005	25-OCT-12
WG1573792-3 MB								
Cyanide, Total			<0.0050		mg/L		0.005	25-OCT-12
WG1573792-8 MB								
Cyanide, Total			<0.0050		mg/L		0.005	25-OCT-12
WG1573792-12 MS		L1226511-22						
Cyanide, Total			101.3		%		70-130	25-OCT-12
WG1573792-16 MS		L1223355-3						
Cyanide, Total			93.7		%		70-130	25-OCT-12
WG1573792-7 MS		L1224463-16						
Cyanide, Total			99.9		%		70-130	25-OCT-12
CN-WAD-CFA-VA		Water						
Batch	R2461623							
WG1572081-12 DUP		L1224463-6						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572081-14 DUP		L1222966-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572081-18 DUP		L1224483-3						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572081-5 DUP		L1224438-10						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572081-9 DUP		L1223667-5						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-OCT-12
WG1572081-11 LCS								
Cyanide, Weak Acid Diss			103.3		%		80-120	23-OCT-12
WG1572081-17 LCS								
Cyanide, Weak Acid Diss			105.0		%		80-120	23-OCT-12
WG1572081-2 LCS								
Cyanide, Weak Acid Diss			104.8		%		80-120	23-OCT-12
WG1572081-20 LCS								
Cyanide, Weak Acid Diss			104.6		%		80-120	23-OCT-12
WG1572081-24 LCS								
Cyanide, Weak Acid Diss			109.4		%		80-120	23-OCT-12
WG1572081-4 LCS								
Cyanide, Weak Acid Diss			103.8		%		80-120	23-OCT-12



Quality Control Report

Workorder: L1224463

Report Date: 29-OCT-12

Page 4 of 6

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2461623							
WG1572081-8	LCS							
	Cyanide, Weak Acid Diss		106.1		%		80-120	23-OCT-12
WG1572081-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	23-OCT-12
WG1572081-10	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	23-OCT-12
WG1572081-16	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	23-OCT-12
WG1572081-19	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	23-OCT-12
WG1572081-23	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	23-OCT-12
WG1572081-3	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	23-OCT-12
WG1572081-7	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	23-OCT-12
WG1572081-13	MS	L1224463-6						
	Cyanide, Weak Acid Diss		101.6		%		70-130	23-OCT-12
WG1572081-15	MS	L1222966-2						
	Cyanide, Weak Acid Diss		84.0		%		70-130	23-OCT-12
WG1572081-6	MS	L1224438-10						
	Cyanide, Weak Acid Diss		94.3		%		70-130	23-OCT-12
Batch	R2463478							
WG1573796-10	DUP	L1223406-3						
	Cyanide, Weak Acid Diss	<0.020	<0.020	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573796-13	DUP	L1223355-3						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573796-5	DUP	L1224961-3						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573796-6	DUP	L1224463-16						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-OCT-12
WG1573796-12	LCS							
	Cyanide, Weak Acid Diss		104.8		%		80-120	25-OCT-12
WG1573796-16	LCS							
	Cyanide, Weak Acid Diss		106.0		%		80-120	25-OCT-12
WG1573796-18	LCS							
	Cyanide, Weak Acid Diss		106.2		%		80-120	25-OCT-12
WG1573796-2	LCS							



Quality Control Report

Workorder: L1224463

Report Date: 29-OCT-12

Page 5 of 6

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2463478							
WG1573796-2	LCS							
	Cyanide, Weak Acid Diss		105.7		%		80-120	25-OCT-12
WG1573796-20	LCS							
	Cyanide, Weak Acid Diss		106.3		%		80-120	25-OCT-12
WG1573796-4	LCS							
	Cyanide, Weak Acid Diss		104.8		%		80-120	25-OCT-12
WG1573796-9	LCS							
	Cyanide, Weak Acid Diss		105.4		%		80-120	25-OCT-12
WG1573796-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	25-OCT-12
WG1573796-11	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	25-OCT-12
WG1573796-15	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	25-OCT-12
WG1573796-17	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	25-OCT-12
WG1573796-19	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	25-OCT-12
WG1573796-3	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	25-OCT-12
WG1573796-8	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	25-OCT-12
WG1573796-14	MS	L1223355-3						
	Cyanide, Weak Acid Diss		100.0		%		70-130	25-OCT-12
WG1573796-7	MS	L1224463-16						
	Cyanide, Weak Acid Diss		100.6		%		70-130	25-OCT-12

Quality Control Report

Workorder: L1224463

Report Date: 29-OCT-12

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Page 6 of 6

Contact: KRISTINE CONNOR

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
DLM	Detection Limit Adjusted For Sample Matrix Effects
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to: Company: AMEC Earth & Environmental, Chemistry Dept Contact: Kristine Connor Address: 5667-70 Street, Edmonton, AB T6B 3P6 Phone: (780) 989-4580 Fax: (780) 377-3600	Report Format / Distribution <input type="checkbox"/> Standard <input type="checkbox"/> Other <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax Email 1: kristine.connor@amec.com Email 2: charlene.rollheiser@amec.com	Service Requested: <input checked="" type="checkbox"/> Regular Service (Default) <input type="checkbox"/> Rush Service (2-3 Days) <input type="checkbox"/> Priority Service (1 Day or ASAP) <input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS
		Analysis Request

Invoice To: Same as Report Indicate Bottles: Filtered / Preserved (F/P) →→

Company: Same Contact: Address: Sample Phone: Fax:	Client / Project Information: Job #: EC-64183 PO/AFE: Legal Site Description: Quote #:	CN-T-CFA-VA CN-WAD-MID-COL-VA Hazardous? Highly Contaminated? Number of Containers
----------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------

Lab Work Order # (lab use only) L1224463			ALS Contact: Maureen Olinek	Sampler (Initials):																	
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	CN-T-CFA-VA		CN-WAD-MID-COL-VA										Hazardous?	Highly Contaminated?	Number of Containers		
	10 Water Samples See attached			Water	X	X														x	

Guidelines / Regulations	Special Instructions / Hazardous Details
	Please list both ID's on results.

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Relinquished By: jeffery connor	Date & Time: 16-Oct-12	Received By: <i>[Signature]</i>	Date & Time: 16/10/12	Temperature: <i>[Symbol]</i>	Sample Condition (lab use only)
Relinquished By:	Date & Time:	Received By:	Date & Time:		Samples Received in Good Condition? Y / N (if no provided details)



L1224463-COFC

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-64183	WQ3	12-14634-		Water
EC-64183	WQ5	12-14635-		Water
EC-64183	WQ8	12-14636-		Water
EC-64183	WQ10	12-14637-		Water
EC-64183	WQ11	12-14638-		Water
EC-64183	WQ12	12-14639-		Water
EC-64183	WQ13	12-14640-		Water
EC-64183	WQ15	12-14641-		Water
EC-64183	WQ16	12-14642-		Water
EC-64183	Trip Blank	12-14643-		Water





AMEC Environment & Infrastructure
ATTN: BRUCE OTT
6000 4445 LOUGHEED HWY
BURNABY BC V5C 0E4

Date Received: 17-OCT-12
Report Date: 26-OCT-12 16:35 (MT)
Version: FINAL

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1224796
Project P.O. #: NOT SUBMITTED
Job Reference: VE52095
C of C Numbers:
Legal Site Desc:

Selam Worku
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID Description Sampled Date Sampled Time Client ID	L1224796-1 WATER 16-OCT-12 WQ1	L1224796-2 WATER 16-OCT-12 WQ4	L1224796-3 WATER 16-OCT-12 WQ6	L1224796-4 WATER 16-OCT-12 WQ7	L1224796-5 WATER 16-OCT-12 WQ9
Grouping	Analyte					
WATER						
Cyanides	Cyanate (ug/L)	<200	<200	<200	<200	<200
	Thiocyanate (SCN) (ug/L)	<500	<500	<500	<500	<500

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID Description Sampled Date Sampled Time Client ID	L1224796-6 WATER 16-OCT-12 WQ14	L1224796-7 WATER 16-OCT-12 WQ DUPLICATE	L1224796-8 WATER 16-OCT-12 FIELD BLANK		
Grouping	Analyte					
WATER						
Cyanides	Cyanate (ug/L)	<200	<200	<200		
	Thiocyanate (SCN) (ug/L)	<500	<500	<500		

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1224796

Report Date: 26-OCT-12

Page 1 of 2

Client: AMEC Environment & Infrastructure
 # 6000 4445 LOUGHEED HWY
 BURNABY BC V5C 0E4

Contact: BRUCE OTT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT		Water						
Batch	R2462376							
WG1573716-1	LCS							
Cyanate			96.0		%		85-115	25-OCT-12
WG1573716-2	MB							
Cyanate			<0.20		mg/L		0.2	25-OCT-12
CN-SCN-VA		Water						
Batch	R2458900							
WG1569908-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			100.2		%		85-115	19-OCT-12
WG1569908-6	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			96.1		%		85-115	19-OCT-12
WG1569908-4	DUP	L1224796-2						
Thiocyanate (SCN)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	19-OCT-12
WG1569908-1	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	19-OCT-12
WG1569908-5	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	19-OCT-12
WG1569908-9	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	19-OCT-12
WG1569908-10	MS	L1225180-21						
Thiocyanate (SCN)			98.3		%		75-125	19-OCT-12
WG1569908-3	MS	L1224389-7						
Thiocyanate (SCN)			100.5		%		75-125	19-OCT-12
WG1569908-7	MS	L1224796-8						
Thiocyanate (SCN)			102.2		%		75-125	19-OCT-12

Quality Control Report

Workorder: L1224796

Report Date: 26-OCT-12

Page 2 of 2

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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Report To		Report Format / Distribution		Service Requested (Rush for routine analysis subject to availability)												
Company: AMEC		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other		<input checked="" type="radio"/> Regular (Default)												
Contact: Bruce Ott		<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax		<input type="radio"/> Priority (Specify Date Required -- --) Surcharges apply												
Address: Suite 600, 4445 Lougheed Highway, Burnaby, B.C. V5C 0E4		Email 1: bruce.ott@amec.com		<input type="radio"/> Emergency (1 Business Day) - 100% Surcharge												
Phone: (604)295-4758 Fax: (604)294-4664		Email 2:		<input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS												
Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Client / Project Information		Analysis Request												
Company:		Job #: VE52095		Please indicate below Filtered, Preserved or both (F, P, F/P)												
Contact:		PO / AFE:		P			P									
Address:		LSD:														
Phone: Fax:		Quote #: Q28456														
Lab Work Order # L1224796 (lab use only)		ALS Contact:		Sampler:		Cyanate	Thiocyanate									Number of Containers
Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Cyanate	Thiocyanate										
WQ1		16_Oct-12		Water	X	X										
WQ4		16_Oct-12		Water	X	X										
WQ6		16_Oct-12		Water	X	X										
WQ7		16_Oct-12		Water	X	X										
WQ9		16_Oct-12		Water	X	X										
WQ14		16_Oct-12		Water	X	X										
WQ Duplicate		16_Oct-12		Water	X	X										
Field Blank		16_Oct-12		Water	X	X										
WQ12																
WQ12																
Special instructions / Regulations / Hazardous Details																
<p>Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.</p> <p>By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.</p> <p>Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.</p>																
SHIPMENT RELEASE (client use only)				SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)								
Released by: <i>L. Jordan</i>	Date (dd-mmm-yy) 16-Oct-12	Time (hh-mm) 15:00	Received by: B. Ott	Date: Oct. 17	Time: 9:35	Temperature: 2.9 °C	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF						

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64399
Project Number: VE52095.200.2A.3
Project Name: NewGold Blackwater
Date Received: 2012/11/15
Date of Report: 2012/11/22
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16741	12-16741-D	12-16742	12-16743
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/11/12 0:00	Lab Duplicate	2012/11/12 0:00	2012/11/12 0:00
					MDL				
AFD	2012/11/20	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	10	10	24	27
AFD	2012/11/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.032	0.032	0.098	0.051
AFD	2012/11/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.04	0.03
AFD	2012/11/15	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.031	0.015	< 0.005	0.008
AFD	2012/11/15	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/11/15	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.7	2.7	20.3	1.4
EL	2012/11/19	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	44	40	84	40
EL	2012/11/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2012/11/15	Turbidity	NTU	APHA 2130-b	0.1	1.7	---	1.5	1.0
AFD	2012/11/15	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.4	0.9	0.2

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16744	12-16745	12-16746	12-16747
					Client ID:	WQ7	WQ9	WQ13	WQ14
					Sample Date:	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00
					MDL				
AFD	2012/11/20	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	61	73	75	109
AFD	2012/11/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.111	0.139	0.142	0.198
AFD	2012/11/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.06	0.06	0.07
AFD	2012/11/15	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	0.031	0.029	< 0.005
AFD	2012/11/15	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/11/15	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.5	3.8	3.6	4.5
EL	2012/11/19	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	72	64	88	112
EL	2012/11/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	3	< 2	< 2
AFD	2012/11/15	Turbidity	NTU	APHA 2130-b	0.1	0.9	1.7	1.9	1.1
AFD	2012/11/15	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.4	0.6

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16748	12-16749	12-16750	12-16751
					Client ID:	WQ Duplicate	Field Blank	Travel Blank	WQ3
					Sample Date:	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00	2012/11/13 0:00
					MDL				
AFD	2012/11/20	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	60	< 1	< 1	53
AFD	2012/11/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.113	0.001	0.001	0.098
AFD	2012/11/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	< 0.02	< 0.02	0.06
AFD	2012/11/15	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.009	< 0.005	< 0.005	0.030
AFD	2012/11/15	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/11/15	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.5	< 0.5	< 0.5	1.3
EL	2012/11/19	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	112	< 4	4	104
EL	2012/11/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2012/11/15	Turbidity	NTU	APHA 2130-b	0.1	0.9	0.5	0.5	1.0
AFD	2012/11/15	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	< 0.1	< 0.1	0.2

Water Analysis

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16752	12-16753	12-16754	12-16755
					Client ID:	WQ5	WQ8	WQ10	WQ11
					Sample Date:	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00
					MDL				
AFD	2012/11/20	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	31	76	47	57
AFD	2012/11/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.061	0.146	0.090	0.108
AFD	2012/11/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.08	0.04	0.06
AFD	2012/11/15	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.028	0.081	0.014	0.057
AFD	2012/11/15	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2012/11/15	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.3	4.2	2.4	2.3
EL	2012/11/19	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	48	92	52	68
EL	2012/11/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	24	< 2	< 2
AFD	2012/11/15	Turbidity	NTU	APHA 2130-b	0.1	0.7	8.8	0.8	0.9
AFD	2012/11/15	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.4	0.3	0.5

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16756	12-16757	12-16758
					Client ID:	WQ12	WQ15	WQ16
					Sample Date:	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00
					MDL			
AFD	2012/11/20	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	28	27	25
AFD	2012/11/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.053	0.052	0.048
AFD	2012/11/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.03	0.03
AFD	2012/11/15	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.006	0.013	< 0.005
AFD	2012/11/15	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
AFD	2012/11/15	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.8	0.8	1.0
EL	2012/11/19	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	8	108	40
EL	2012/11/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2
AFD	2012/11/15	Turbidity	NTU	APHA 2130-b	0.1	0.8	1.0	0.8
AFD	2012/11/15	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.3	0.2

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16741	12-16741-D	12-16742	12-16743
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/11/12 0:00	Lab Duplicate	2012/11/12 0:00	2012/11/12 0:00
					MDL				
EL	2012/11/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	0.06	0.03
RC	2012/11/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.1	6.0	4.9	3.5
RC	2012/11/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.1	6.0	6.7	3.6
AFD	2012/11/15	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	0.007
RC	2012/11/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.004	0.003	0.004	0.001
EL	2012/11/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.12	0.14	0.77	0.21

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16744	12-16745	12-16746	12-16747
					Client ID:	WQ7	WQ9	WQ13	WQ14
					Sample Date:	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00
					MDL				
EL	2012/11/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/11/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.7	6.9	6.2	4.1
RC	2012/11/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.8	6.9	6.6	4.4
AFD	2012/11/15	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	0.003
RC	2012/11/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.002	0.009	0.007	0.007
EL	2012/11/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.46	0.49	0.57	0.38

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16748	12-16749	12-16750	12-16751
					Client ID:	WQ Duplicate	Field Blank	Travel Blank	WQ3
					Sample Date:	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00	2012/11/13 0:00
					MDL				
EL	2012/11/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	0.03
RC	2012/11/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.8	0.9	< 0.1	2.6
RC	2012/11/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.8	0.9	< 0.1	2.6
AFD	2012/11/15	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	0.003	< 0.003	0.010
RC	2012/11/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.006	< 0.001	< 0.001	0.041
EL	2012/11/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.40	< 0.08	< 0.08	0.11

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16752	12-16753	12-16754	12-16755
					Client ID:	WQ5	WQ8	WQ10	WQ11
					Sample Date:	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00
					MDL				
EL	2012/11/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/11/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.7	7.5	3.4	6.6
RC	2012/11/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.7	7.9	3.4	6.6
AFD	2012/11/15	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.014	< 0.003	< 0.003	< 0.003
RC	2012/11/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.005	0.015	0.009	0.008
EL	2012/11/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.31	0.50	0.10	0.09

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16756	12-16757	12-16758
					Client ID:	WQ12	WQ15	WQ16
					Sample Date:	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00
					MDL			
EL	2012/11/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02
RC	2012/11/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.1	7.9	4.8
RC	2012/11/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.1	7.9	4.8
AFD	2012/11/15	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.018	0.010	0.005
RC	2012/11/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.003	0.008	0.003
EL	2012/11/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.18	0.64	0.20

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16741	12-16741-D	12-16742	12-16743
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/11/12 0:00	Lab Duplicate	2012/11/12 0:00	2012/11/12 0:00
					MDL				
RC	2012/11/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.120	0.119	0.094	0.052
RC	2012/11/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00013	0.00012	0.00025	< 0.00005
RC	2012/11/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0011	0.0004
RC	2012/11/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00323	0.00320	0.00384	0.00643
RC	2012/11/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000106	< 0.000015
RC	2012/11/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.9	2.8	11.4	6.7
RC	2012/11/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0003	0.0003	0.0003	0.0004
RC	2012/11/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00003	0.00003	0.00002
RC	2012/11/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1810	0.1810	0.1280	0.0924
RC	2012/11/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00012	< 0.00005
RC	2012/11/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.67	0.66	2.05	1.20
RC	2012/11/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01160	0.01150	0.02070	0.00661
RC	2012/11/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	0.00012	0.00009	0.00039
RC	2012/11/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00021	0.00019	0.00043	0.00011
RC	2012/11/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/11/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.6	< 0.5
RC	2012/11/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.75	6.25	6.01	6.10
RC	2012/11/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.3	2.3	4.9	2.5
RC	2012/11/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.024700	0.024600	0.059700	0.050100
RC	2012/11/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0014	0.0015	0.0016	0.0009
RC	2012/11/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00008	< 0.00005	0.00009
RC	2012/11/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0039	0.0038	0.0411	0.0014
RC	2012/11/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	10.0	9.8	36.8	21.6

Water Analysis - Total Metals

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Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16744	12-16745	12-16746	12-16747
					Client ID:	WQ7	WQ9	WQ13	WQ14
					Sample Date:	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00
					MDL				
RC	2012/11/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.030	0.019	0.022	0.006
RC	2012/11/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0005	0.0004	< 0.0001
RC	2012/11/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00873	0.00823	0.00853	0.01310
RC	2012/11/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/11/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	14.7	19.4	19.7	29.1
RC	2012/11/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0003	< 0.0003	0.0003	< 0.0003
RC	2012/11/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00004	0.00004	0.00002
RC	2012/11/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1140	0.1800	0.2210	0.2000
RC	2012/11/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.64	4.71	4.72	6.52
RC	2012/11/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02340	0.03600	0.04550	0.02370
RC	2012/11/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00058	0.00055	0.00053	0.00043
RC	2012/11/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00026	0.00026	0.00018
RC	2012/11/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/11/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.5	0.8	0.8	1.0
RC	2012/11/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.43	5.39	5.94	8.66
RC	2012/11/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.6	3.6	3.5	4.7
RC	2012/11/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.088900	0.096900	0.098600	0.132000
RC	2012/11/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0008	0.0011	0.0011	0.0004
RC	2012/11/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00011	0.00011	0.00015
RC	2012/11/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0180	0.0014	0.0011	0.0011
RC	2012/11/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	51.7	67.9	68.6	99.4

Water Analysis - Total Metals

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Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16748	12-16749	12-16750	12-16751
					Client ID:	WQ Duplicate	Field Blank	Travel Blank	WQ3
					Sample Date:	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00	2012/11/13 0:00
					MDL				
RC	2012/11/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.021	< 0.002	< 0.002	0.031
RC	2012/11/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	< 0.0001	< 0.0001	0.0012
RC	2012/11/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00887	< 0.00005	< 0.00005	0.00505
RC	2012/11/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/11/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	14.9	< 0.5	< 0.5	12.2
RC	2012/11/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	0.0010
RC	2012/11/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	< 0.00002	< 0.00002	0.00002
RC	2012/11/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1130	< 0.0001	< 0.0001	0.0854
RC	2012/11/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00007
RC	2012/11/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.71	< 0.50	< 0.50	3.18
RC	2012/11/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02330	< 0.00005	< 0.00005	0.00653
RC	2012/11/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00060	< 0.00005	< 0.00005	0.00071
RC	2012/11/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	0.05
RC	2012/11/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.5	< 0.5	< 0.5	0.5
RC	2012/11/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.77	< 0.01	< 0.01	8.93
RC	2012/11/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.7	< 0.5	< 0.5	3.8
RC	2012/11/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.091000	< 0.000005	< 0.000005	0.079800
RC	2012/11/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0006	< 0.0002	< 0.0002	0.0010
RC	2012/11/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	< 0.00005	< 0.00005	0.00018
RC	2012/11/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0010
RC	2012/11/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	0.0030
RC	2012/11/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	52.6	< 6.0	< 6.0	43.6

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16752	12-16753	12-16754	12-16755
					Client ID:	WQ5	WQ8	WQ10	WQ11
					Sample Date:	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00
					MDL				
RC	2012/11/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.068	0.116	0.031	0.090
RC	2012/11/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0005	0.0004	< 0.0001
RC	2012/11/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00433	0.00887	0.00727	0.00993
RC	2012/11/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000025	< 0.000015	< 0.000015	< 0.000015
RC	2012/11/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.5	20.5	11.9	15.1
RC	2012/11/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0003	< 0.0003	0.0004	0.0004
RC	2012/11/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00007	< 0.00002	0.00003
RC	2012/11/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1430	0.1970	0.0594	0.0502
RC	2012/11/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00009	0.00019	< 0.00005
RC	2012/11/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	2.27	5.01	2.61	3.25
RC	2012/11/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.29600	0.09820	0.00265	0.00134
RC	2012/11/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00053	0.00066	0.00026
RC	2012/11/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00031	0.00042	0.00011	0.00016
RC	2012/11/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	0.05	< 0.02	< 0.02
RC	2012/11/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.8	< 0.5	0.5
RC	2012/11/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.59	4.64	6.71	6.30
RC	2012/11/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.7	3.6	3.2	3.2
RC	2012/11/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.046000	0.096800	0.078800	0.088000
RC	2012/11/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0012	0.0063	0.0006	0.0019
RC	2012/11/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00012	0.00020	0.00015
RC	2012/11/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0018	0.0006	0.0023	0.0009
RC	2012/11/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	28.1	71.8	40.6	51.2

Water Analysis - Total Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16756	12-16757	12-16758
					Client ID:	WQ12	WQ15	WQ16
					Sample Date:	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00
					MDL			
RC	2012/11/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.043	0.022	0.006
RC	2012/11/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00005
RC	2012/11/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	0.0001	0.0003
RC	2012/11/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00630	0.00837	0.00366
RC	2012/11/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/11/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.3	7.8	6.2
RC	2012/11/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/11/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	< 0.00002
RC	2012/11/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2020	0.0691	0.0141
RC	2012/11/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00040
RC	2012/11/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.29	1.15	1.24
RC	2012/11/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01300	0.03350	0.00525
RC	2012/11/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00045	0.00060	0.00073
RC	2012/11/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00013	0.00009	< 0.00005
RC	2012/11/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02
RC	2012/11/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5
RC	2012/11/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.82	2.22	1.52
RC	2012/11/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.2	1.9	2.0
RC	2012/11/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.054600	0.072700	0.041300
RC	2012/11/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0010	0.0004	< 0.0002
RC	2012/11/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00014	0.00022
RC	2012/11/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0012	0.0010	0.0017
RC	2012/11/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	23.6	24.2	20.6

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16741	12-16741-D	12-16742	12-16743
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/11/12 0:00	Lab Duplicate	2012/11/12 0:00	2012/11/12 0:00
					MDL				
RC	2012/11/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.118	0.116	0.068	0.047
RC	2012/11/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00012	0.00025	< 0.00005
RC	2012/11/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0010	0.0004
RC	2012/11/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00306	0.00306	0.00336	0.00584
RC	2012/11/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000088	< 0.000015
RC	2012/11/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	2.8	2.8	10.9	6.4
RC	2012/11/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	0.0003	0.0003	0.0004
RC	2012/11/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00004	0.00003	0.00003	0.00002
RC	2012/11/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1450	0.1470	0.0952	0.0682
RC	2012/11/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00006	< 0.00005
RC	2012/11/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.67	0.66	2.05	1.20
RC	2012/11/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01090	0.01080	0.02020	0.00631
RC	2012/11/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00012	0.00009	0.00037
RC	2012/11/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00013	0.00030	< 0.00005
RC	2012/11/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/11/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.6	< 0.5
RC	2012/11/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.75	6.25	6.01	6.10
RC	2012/11/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.3	2.3	4.9	2.5
RC	2012/11/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.023500	0.023800	0.056300	0.047100
RC	2012/11/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0010	0.0011	0.0008	0.0009
RC	2012/11/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00008	< 0.00005	0.00008
RC	2012/11/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0039	0.0038	0.0411	0.0014
AFD	2012/11/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.98	7.02	7.37	7.48
RC	2012/11/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	9.7	9.7	35.6	21.0

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16744	12-16745	12-16746	12-16747
					Client ID:	WQ7	WQ9	WQ13	WQ14
					Sample Date:	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00
					MDL				
RC	2012/11/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.011	0.003	0.003	0.002
RC	2012/11/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0005	0.0004	< 0.0001
RC	2012/11/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00841	0.00782	0.00778	0.01230
RC	2012/11/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/11/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.4	19.1	19.0	27.5
RC	2012/11/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	< 0.0003	0.0003	< 0.0003
RC	2012/11/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00004	0.00003	0.00003	0.00002
RC	2012/11/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0756	0.0899	0.1250	0.1180
RC	2012/11/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.64	4.71	4.59	6.50
RC	2012/11/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02180	0.02600	0.03660	0.01990
RC	2012/11/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00057	0.00054	0.00053	0.00043
RC	2012/11/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00014	0.00010	0.00008
RC	2012/11/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/11/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.5	0.8	0.8	1.0
RC	2012/11/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.43	5.39	5.87	8.66
RC	2012/11/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.6	3.6	3.4	4.7
RC	2012/11/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.084100	0.095800	0.093400	0.122000
RC	2012/11/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0002	0.0002	0.0002
RC	2012/11/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00011	0.00010	0.00014
RC	2012/11/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0012	0.0014	0.0011	0.0011
AFD	2012/11/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.87	7.84	7.83	8.02
RC	2012/11/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	50.8	67.1	66.4	95.4

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16748	12-16749	12-16750	12-16751
					Client ID:	WQ Duplicate	Field Blank	Travel Blank	WQ3
					Sample Date:	2012/11/12 0:00	2012/11/12 0:00	2012/11/12 0:00	2012/11/13 0:00
					MDL				
RC	2012/11/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.011	< 0.002	< 0.002	0.018
RC	2012/11/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	< 0.0001	< 0.0001	0.0012
RC	2012/11/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00850	< 0.00005	< 0.00005	0.00448
RC	2012/11/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/11/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.6	< 0.5	< 0.5	11.9
RC	2012/11/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	0.0010
RC	2012/11/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00004	< 0.00002	< 0.00002	< 0.00002
RC	2012/11/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0793	< 0.0001	< 0.0001	0.0458
RC	2012/11/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00007
RC	2012/11/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.71	< 0.50	< 0.50	3.18
RC	2012/11/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02200	< 0.00005	< 0.00005	0.00403
RC	2012/11/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00056	< 0.00005	< 0.00005	0.00066
RC	2012/11/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	0.04
RC	2012/11/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.5	< 0.5	< 0.5	0.5
RC	2012/11/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.77	< 0.01	< 0.01	8.93
RC	2012/11/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.7	< 0.5	< 0.5	3.8
RC	2012/11/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.086500	< 0.000005	< 0.000005	0.075500
RC	2012/11/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	< 0.0002	< 0.0002	0.0005
RC	2012/11/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	< 0.00005	< 0.00005	0.00017
RC	2012/11/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00099
RC	2012/11/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	0.0024
AFD	2012/11/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.77	5.67	5.55	7.81
RC	2012/11/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	51.8	< 6.0	< 6.0	42.7

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16752	12-16753	12-16754	12-16755
					Client ID:	WQ5	WQ8	WQ10	WQ11
					Sample Date:	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00
					MDL				
RC	2012/11/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.062	< 0.002	0.024	0.076
RC	2012/11/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0004	0.0004	< 0.0001
RC	2012/11/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00400	0.00555	0.00701	0.00928
RC	2012/11/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000021	< 0.000015	< 0.000015	< 0.000015
RC	2012/11/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.2	20.1	11.7	14.5
RC	2012/11/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	< 0.0003	0.0004	0.0004
RC	2012/11/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	< 0.00002	< 0.00002	0.00002
RC	2012/11/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1000	0.0121	0.0501	0.0380
RC	2012/11/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00006	0.00019	< 0.00005
RC	2012/11/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	2.27	5.01	2.61	3.25
RC	2012/11/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00488	0.00278	0.00264	0.00101
RC	2012/11/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00053	0.00066	0.00026
RC	2012/11/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00016	0.00008	< 0.00005
RC	2012/11/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2012/11/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.8	< 0.5	0.5
RC	2012/11/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.59	4.64	6.71	6.30
RC	2012/11/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.7	3.6	3.2	3.2
RC	2012/11/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.043500	0.089500	0.076100	0.082500
RC	2012/11/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0009	< 0.0002	0.0004	0.0015
RC	2012/11/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00009	0.00019	0.00014
RC	2012/11/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0018	0.0006	0.0023	0.0009
AFD	2012/11/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.56	7.95	7.71	7.80
RC	2012/11/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	27.3	70.9	40.0	49.6

Water Analysis - Dissolved Metals

Project No. VE52095.200.2A.3

Final
File No. EC-64399

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-16756	12-16757	12-16758
					Client ID:	WQ12	WQ15	WQ16
					Sample Date:	2012/11/13 0:00	2012/11/13 0:00	2012/11/13 0:00
					MDL			
RC	2012/11/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.039	0.021	0.006
RC	2012/11/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00005
RC	2012/11/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	0.0001	0.0003
RC	2012/11/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00625	0.00826	0.00340
RC	2012/11/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/11/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.3	7.8	6.2
RC	2012/11/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/11/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	< 0.00002	< 0.00002
RC	2012/11/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1640	0.0557	0.0132
RC	2012/11/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00040
RC	2012/11/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/11/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.29	1.15	1.24
RC	2012/11/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01040	0.00662	0.00525
RC	2012/11/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/11/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00045	0.00060	0.00073
RC	2012/11/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01
RC	2012/11/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5
RC	2012/11/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/11/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.82	2.22	1.52
RC	2012/11/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.2	1.9	2.0
RC	2012/11/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.053800	0.071400	0.040000
RC	2012/11/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/11/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0002	< 0.0002
RC	2012/11/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	0.00014	0.00021
RC	2012/11/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/11/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0012	0.0010	0.0017
AFD	2012/11/20	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.44	7.44	7.46
RC	2012/11/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	23.6	24.2	20.6

Quality Control Standard

Project No. VE52095.200.2A.3

File No. EC-64399

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2012/11/20	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	66	56-77	65	QC-ALK/F-53
AFD	2012/11/20	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.77	2.54-2.94	2.790	CC-EC-0.02M-46
AFD	2012/11/20	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-AIK/F-53
AFD	2012/11/15	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.57	1.44-1.76	1.600	CC-Anion-119B
AFD	2012/11/15	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.593	0.54-0.66	0.600	CC-Anion-119B
AFD	2012/11/15	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.8	25.2-30.8	28.0	CC-Anion-119B
EL	2012/11/19	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4700	3809-6227	5018	QCP-E2-SLD02008
EL	2012/11/16	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	142	134-153	144	QCP-E2-SLD02009
AFD	2012/11/15	Turbidity	NTU	APHA 2130-b	0.1	9.4	8.5-11.5	10.0	QC-Turb-7
AFD	2012/11/15	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.1	3.6-4.4	4.0	CC-Anion-119B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/11/21	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.63	0.47-0.74	0.61	NH ₃ SC-001
RC	2012/11/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	3.9	3.3-4.3	3.8	DMD-TOC-95-Low
RC	2012/11/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.0	33.1-42.6	37.9	DMD-TOC-95-Mid
AFD	2012/11/15	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.752	0.72-0.88	0.800	CC-Anion-119BL
RC	2012/11/19	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	261	225-275	250.000	MS-CCV-HIGH
EL	2012/11/19	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	8.65	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Quality Control Standard

Project No. VE52095.200.2A.3

File No. EC-64399

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/11/19	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	49.3	45-55	50.000	MS-CCV-HIGH
RC	2012/11/19	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00000	MS-CCV-HIGH
RC	2012/11/19	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2012/11/19	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	52.9	45-55	50.00000	MS-CCV-HIGH
RC	2012/11/19	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	54.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/11/19	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	48.9	45-55	50.000	MS-CCV-HIGH
RC	2012/11/19	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.8	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2012/11/19	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25400	22545-27555	25050.0	MS-CCV-HIGH
RC	2012/11/19	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	51.1	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/11/19	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/19	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	48.7	45-55	50.0000	MS-CCV-HIGH
RC	2012/11/19	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	52.2	45-55	50.0000	MS-CCV-HIGH
RC	2012/11/19	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00000	MS-CCV-HIGH
RC	2012/11/19	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	52.4	45.0-55.5	50.000	MS-CCV-HIGH
RC	2012/11/19	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26500	22545-27555	25050.00	MS-CCV-HIGH
RC	2012/11/19	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	48.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/21	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.240000	0.212-0.340	0.276000	C2-QCPHG009
RC	2012/11/19	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	51.5	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/19	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	53.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/19	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	261	225-275	250.00	MS-CCV-HIGH
RC	2012/11/19	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	26100	22725-27775	25250.0	MS-CCV-HIGH
RC	2012/11/19	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.5	45-55	50.0000	MS-CCV-HIGH
RC	2012/11/19	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	126	105-129	117.00	MS-CCV-HIGH
RC	2012/11/19	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	13.1	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2012/11/19	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25050.0	MS-CCV-HIGH
RC	2012/11/19	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.9	45-55	50.000000	MS-CCV-HIGH
RC	2012/11/19	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	251	225-275	250.00000	MS-CCV-HIGH
RC	2012/11/19	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	257	225-275	250.0000	MS-CCV-HIGH
RC	2012/11/19	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/11/19	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90-110	100.00000	MS-CCV-HIGH
RC	2012/11/19	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	51.2	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/11/19	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	52.9	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52095.200.2A.3

File No. EC-64399

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/11/15	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	49.9	45-55	50.000	MS-CCV-HIGH
RC	2012/11/15	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00000	MS-CCV-HIGH
RC	2012/11/15	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2012/11/15	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	51.6	45-55	50.00000	MS-CCV-HIGH
RC	2012/11/15	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	52.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/11/15	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	47.2	45-55	50.000	MS-CCV-HIGH
RC	2012/11/15	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.2	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2012/11/15	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25400	22545-27555	25050.0	MS-CCV-HIGH
RC	2012/11/15	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.2	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/11/15	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	50.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/15	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	52.9	45-55	50.0000	MS-CCV-HIGH
RC	2012/11/15	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	53.9	45-55	50.0000	MS-CCV-HIGH
RC	2012/11/15	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	99.2	90.0-110	100.00000	MS-CCV-HIGH
RC	2012/11/15	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	50.3	45.0-55.5	50.000	MS-CCV-HIGH
RC	2012/11/15	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25500	22545-27555	25050.00	MS-CCV-HIGH
RC	2012/11/15	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	47.4	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/21	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.240000	0.212-0.340	0.276000	C2-QCPHG009
RC	2012/11/15	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	50.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/15	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	52.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/15	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	258	225-275	250.00	MS-CCV-HIGH
RC	2012/11/15	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25250.0	MS-CCV-HIGH
RC	2012/11/15	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	51.1	45-55	50.0000	MS-CCV-HIGH
RC	2012/11/15	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	124	105-129	117.00	MS-CCV-HIGH
RC	2012/11/15	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.7	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2012/11/15	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25000	22545-27555	25050.0	MS-CCV-HIGH
RC	2012/11/15	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	49.5	45-55	50.000000	MS-CCV-HIGH
RC	2012/11/15	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	243	225-275	250.00000	MS-CCV-HIGH
RC	2012/11/15	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.0000	MS-CCV-HIGH
RC	2012/11/15	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	47.5	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/11/15	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	99.9	90-110	100.00000	MS-CCV-HIGH
RC	2012/11/15	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	48.5	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/11/15	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	54.6	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2012/11/20	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-5

Analytical Comments

Project No. VE52095.200.2A.3

File No. EC-64399

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit



Edmonton Chemistry Lab

EC-0439A
18

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater
Project Manager: Bruce Ott
Project Number: VE52095

Sampler: Phone No.: 604-294-3811
Phase: 200
Task: 2A.3

Client Sample ID
AMEC E & E Lab Sample ID

Date Collected
Matrix
1L Bottle
250 mL Jar
40 mL Vial
1L Polyethylene
100 mL Amber
250 mL Polyethylene
125 mL Polyethylene

FOR LAB USE ONLY
yyyy/mm/dd

WQ1
WQ4
WQ6
WQ7
WQ9
WQ13
WQ14
WQ Duplicate
Field Blank
Travel Blank

12-16-2012
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11/12/2012
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11/12/2012
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Water potability
Total and ortho- Phosphorus
Cyanide (total and WAD)
TSS
Total and dissolved metals (Ultra ICP/MS)
Ammonia and TKN
Organic carbon (TOC, DOC)
50% RUSH (Please Notify Lab Prior To Submission)
100% RUSH (Please Notify Lab Prior To Submission)

YES
 NO
Please attach a copy of the quote

Quote #: QN-521

Temperature Received:

Receiver's Comments: 4.20c

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: B. Pitman
Printed Name: B. Pitman
Printed Name: B. Pitman
Printed Name: B. Pitman

Firm: Avision Management Services
Firm: AMEC
Firm: AMEC
Firm: AMEC

Date/Time: 11/13/2012 15:00
Date/Time: 15 Nov 12 8:30
Date/Time: 15 Nov 12 8:30
Date/Time: 15 Nov 12 8:30

Comments:
1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN-1 and CN-WAD using H2SO4 method.



Edmonton Chemistry Lab

Chain of Custody Record/Analysis Request

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

ISSUING OFFICE: Burnaby, BC

Project Name: NewGold Blackwater
 Project Manager: Bruce Ott
 Project Number: VES20995

Sampler: Phone No.: 604-294-3811
 Phase: 200
 Task: 2A.3

Client Sample ID
 AMEC E & E Lab Sample ID

Date Collected
 Matrix

FOR LAB USE ONLY
 yyyymm/dd

WQ3	11/13/2012	water	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	Receiver's Comments
WQ5	11/13/2012	water																	
WQ8	11/13/2012	water																	
WQ10	11/13/2012	water																	
WQ11	11/13/2012	water																	
WQ12	11/13/2012	water																	
WQ15	11/13/2012	water																	
WQ16	11/13/2012	water																	

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: B. Pittman
 Firm: Avison Management Services
 Date/Time: 10/30/2012 15:00

Comments:
 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneer Lai (raneer.lai@amec.com)
 2) Please use Low Level nitrate and nitrite
 3) Please analyze CN-1 and CN-WAD using H2SO4 method.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 15-NOV-12
Report Date: 22-NOV-12 14:31 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1238081
Project P.O. #: 2220
Job Reference: EC-64399
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1238081-1 WQ4~12-16742 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-2 WQ6~12-16743 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-3 WQ7~12-16744 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-4 WQ9~12-16745 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-5 WQ13~12-16746 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-6 WQ14~12-16747 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-7 WQ DUPLICATE~12-16748 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-8 FIELD BLANK~12-16749 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-9 TRAVEL BLANK~12-16750 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1238081-9 TRAVEL BLANK~12-16750 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-10 WQ3~12-16751 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-11 WQ5~12-16752 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-12 WQ8~12-16753 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-13 WQ10~12-16754 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-14 WQ11~12-12-16755 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-15 WQ12~12-16756 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-16 WQ15~12-16757 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		21-NOV-12 21-NOV-12	R2481225 R2481226
L1238081-17 WQ16~12-16758 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1238081-17 WQ16~12-16758 Sampled By: CLIENT on 13-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 21-NOV-12 21-NOV-12	 R2481225 R2481226
L1238081-18 WQ1~12-16741 Sampled By: CLIENT on 12-NOV-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 21-NOV-12 21-NOV-12	 R2481225 R2481226

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1238081

Report Date: 22-NOV-12

Page 2 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2481225							
WG1589735-6	MS	L1236236-5						
Cyanide, Total			104.8		%		70-130	21-NOV-12
CN-WAD-CFA-VA								
	Water							
Batch	R2481226							
WG1589743-16	DUP	L1238098-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	21-NOV-12
WG1589743-20	DUP	L1237296-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	21-NOV-12
WG1589743-5	DUP	L1236236-5						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	21-NOV-12
WG1589743-9	DUP	L1238081-11						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	21-NOV-12
WG1589743-12	LCS							
Cyanide, Weak Acid Diss			108.3		%		80-120	21-NOV-12
WG1589743-15	LCS							
Cyanide, Weak Acid Diss			107.0		%		80-120	21-NOV-12
WG1589743-19	LCS							
Cyanide, Weak Acid Diss			108.3		%		80-120	21-NOV-12
WG1589743-2	LCS							
Cyanide, Weak Acid Diss			107.2		%		80-120	21-NOV-12
WG1589743-23	LCS							
Cyanide, Weak Acid Diss			107.4		%		80-120	21-NOV-12
WG1589743-8	LCS							
Cyanide, Weak Acid Diss			106.2		%		80-120	21-NOV-12
WG1589743-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	21-NOV-12
WG1589743-11	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	21-NOV-12
WG1589743-14	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	21-NOV-12
WG1589743-18	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	21-NOV-12
WG1589743-22	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	21-NOV-12
WG1589743-7	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	21-NOV-12
WG1589743-10	MS	L1238081-11						



Quality Control Report

Workorder: L1238081

Report Date: 22-NOV-12

Page 3 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2481226							
WG1589743-10 MS		L1238081-11						
Cyanide, Weak Acid Diss			104.4		%		70-130	21-NOV-12
WG1589743-17 MS		L1238098-1						
Cyanide, Weak Acid Diss			87.0		%		70-130	21-NOV-12
WG1589743-21 MS		L1237296-1						
Cyanide, Weak Acid Diss			105.9		%		70-130	21-NOV-12
WG1589743-6 MS		L1236236-5						
Cyanide, Weak Acid Diss			107.7		%		70-130	21-NOV-12

Quality Control Report

Workorder: L1238081

Report Date: 22-NOV-12

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Page 4 of 4

Contact: KRISTINE CONNOR

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to:			Report Format / Distribution			Service Requested:																																																																																														
Company: AMEC Earth & Environmental, Chemistry Dept.			<input type="checkbox"/> Standard <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Regular Service (Default)																																																																																														
Contact: Kristine Connor			<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax			<input type="checkbox"/> Rush Service (2-3 Days)																																																																																														
Address: 5667-70 Street, Edmonton, AB T6B 3P6			Email 1: kristine.connor@amec.com			<input type="checkbox"/> Priority Service (1 Day or ASAP)																																																																																														
			Email 2: charlene.rollheiser@amec.com			<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS																																																																																														
Phone: (780) 989-4580 Fax: (780) 377-3600						Analysis Request																																																																																														
Invoice To: <input checked="" type="checkbox"/> Same as Report						Indicate Bottles: Filtered / Preserved (F/P) →																																																																																														
Company: Same			Client / Project Information:			<table border="1" style="width: 100%; text-align: center;"> <tr> <td colspan="2" rowspan="2">CN-T-CFA-VA</td> <td colspan="2" rowspan="2">CN-WAD-MID-COL-VA</td> <td colspan="11"></td> <td rowspan="2">Hazardous?</td> <td rowspan="2">Highly Contaminated?</td> <td rowspan="2">Number of Containers</td> </tr> <tr> <td colspan="11"></td> </tr> <tr> <td colspan="2">CN-T-CFA-VA</td> <td colspan="2">CN-WAD-MID-COL-VA</td> <td colspan="11"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td colspan="11"></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td colspan="11"></td> <td></td> <td></td> <td></td> </tr> </table>												CN-T-CFA-VA		CN-WAD-MID-COL-VA													Hazardous?	Highly Contaminated?	Number of Containers												CN-T-CFA-VA		CN-WAD-MID-COL-VA																																																			
CN-T-CFA-VA		CN-WAD-MID-COL-VA																				Hazardous?	Highly Contaminated?	Number of Containers																																																																												
CN-T-CFA-VA		CN-WAD-MID-COL-VA																																																																																																		
Contact:			Job #: EC-64399																																																																																																	
Address:			PO/AFE:																																																																																																	
Sample			Legal Site Description:																																																																																																	
Phone: Fax:			Quote #:																																																																																																	
Lab Work Order # (lab use only) L1238081			ALS Contact: Maureen Olinek		Sampler (Initials):																																																																																															
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	CN-T-CFA-VA	CN-WAD-MID-COL-VA													Hazardous?	Highly Contaminated?	Number of Containers																																																																															
	18 Water Samples (See attached)	See attached		Water	x	x															x																																																																															
Guidelines / Regulations										Special Instructions / Hazardous Details																																																																																										
										Please list both ID's on results. Please use H2SO4 Method																																																																																										

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjac

Relinquished By:	jeffery connor	Date & Time:	15-Nov-12	Received By:	<i>(Signature)</i>	Date & Time:	12/11/12 303	Temperat
Relinquished By:		Date & Time:		Received By:	<i>(Signature)</i>	Date & Time:		



L1238081-COFC

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-64399	WQ4	12-16742-	2012/11/12	Water
EC-64399	WQ6	12-16743-	2012/11/12	Water
EC-64399	WQ7	12-16744-	2012/11/12	Water
EC-64399	WQ9	12-16745-	2012/11/12	Water
EC-64399	WQ13	12-16746-	2012/11/12	Water
EC-64399	WQ14	12-16747-	2012/11/12	Water
EC-64399	WQ Duplicate	12-16748-	2012/11/12	Water
EC-64399	Field Blank	12-16749-	2012/11/12	Water
EC-64399	Travel Blank	12-16750-	2012/11/12	Water
EC-64399	WQ3	12-16751-	2012/11/13	Water
EC-64399	WQ5	12-16752-	2012/11/13	Water
EC-64399	WQ8	12-16753-	2012/11/13	Water
EC-64399	WQ10	12-16754-	2012/11/13	Water
EC-64399	WQ11	12-16755-	2012/11/13	Water
EC-64399	WQ12	12-16756-	2012/11/13	Water
EC-64399	WQ15	12-16757-	2012/11/13	Water
EC-64399	WQ16	12-16758-	2012/11/13	Water
EC-64399	WQ1	12-16741-	2012/11/12	Water



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64543
Project Number: VE52095.2A.3
Project Name: NewGold Blackwater
Date Received: 2012/12/13
Date of Report: 2012/12/20
Sublet Data: Attached

Report reviewed by:



Jesse Dang, B.Sc.
Manager
Laboratory Services



Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18149	12-18149-D	12-18150	12-18151
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/12/10 0:00	Lab Duplicate	2012/12/10 0:00	2012/12/10 0:00
					MDL				
AFD	2012/12/14	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	11	11	29	29
AFD	2012/12/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.033	0.033	0.131	0.058
AFD	2012/12/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.07	0.04
AFD	2012/12/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.011	0.010	0.039	0.038
AFD	2012/12/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.015	0.016	0.016	0.014
AFD	2012/12/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.9	3.8	39.3	2.8
EL	2012/12/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	32	36	104	44
EL	2012/12/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	22	< 2
AFD	2012/12/14	Turbidity	NTU	APHA 2130-b	0.1	1.0	1.0	3.1	1.1
AFD	2012/12/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.6	1.1	0.6

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18152	12-18153	12-18154	12-18155
					Client ID:	WQ7	WQ9	WQ14	WQ19
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL				
AFD	2012/12/14	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	65	77	115	109
AFD	2012/12/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.124	0.148	0.212	0.201
AFD	2012/12/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.07	0.08	0.06
AFD	2012/12/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.076	0.113	0.067	0.319
AFD	2012/12/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.011	0.014	0.013	0.008
AFD	2012/12/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.0	5.5	6.4	3.9
EL	2012/12/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	88	92	124	116
EL	2012/12/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	3	< 2
AFD	2012/12/14	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.3	1.9	0.7
AFD	2012/12/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.7	1.0	1.6

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18157	12-18158	12-18159	12-18160
					Client ID:	WQ Duplicate	Field Blank	Travel Blank	BW101
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL				
AFD	2012/12/14	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	77	< 1	< 1	40
AFD	2012/12/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.148	0.001	< 0.001	0.100
AFD	2012/12/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	< 0.02	< 0.02	0.11
AFD	2012/12/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.103	< 0.005	< 0.005	0.015
AFD	2012/12/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.020	0.004	< 0.003	0.013
AFD	2012/12/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	5.6	< 0.5	< 0.5	11.9
EL	2012/12/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	80	< 4	< 4	56
EL	2012/12/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	7
AFD	2012/12/14	Turbidity	NTU	APHA 2130-b	0.1	1.1	0.4	0.4	23
AFD	2012/12/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.7	0.1	< 0.1	0.4

Water Analysis

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18167	12-18168	12-18201
					Client ID:	BW161	BW177	WQ3
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL			
AFD	2012/12/14	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	16	64	77
AFD	2012/12/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.100	0.155	0.149
AFD	2012/12/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.16	0.09	0.07
AFD	2012/12/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.144	0.036	0.108
AFD	2012/12/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.023	0.006	0.022
AFD	2012/12/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	31.7	21.2	5.6
EL	2012/12/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	80	88	104
EL	2012/12/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	8	< 2	< 2
AFD	2012/12/14	Turbidity	NTU	APHA 2130-b	0.1	100	0.7	1.3
AFD	2012/12/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.5	0.5

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18149	12-18149-D	12-18150	12-18151
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/12/10 0:00	Lab Duplicate	2012/12/10 0:00	2012/12/10 0:00
					MDL				
EL	2012/12/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/12/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.9	5.0	7.5	2.9
RC	2012/12/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.9	5.0	8.4	2.9
AFD	2012/12/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	0.007	< 0.003
RC	2012/12/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.004	0.006	0.008	0.005
EL	2012/12/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	0.43	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18152	12-18153	12-18154	12-18155
					Client ID:	WQ7	WQ9	WQ14	WQ19
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL				
EL	2012/12/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/12/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.8	6.6	4.9	1.5
RC	2012/12/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.8	6.6	4.9	1.5
AFD	2012/12/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.005	< 0.003	< 0.003	< 0.003
RC	2012/12/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.003	0.014	0.020	0.001
EL	2012/12/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.20	0.12	< 0.08

Water Analysis

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18157	12-18158	12-18159	12-18160
					Client ID:	WQ Duplicate	Field Blank	Travel Blank	BW101
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL				
EL	2012/12/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2012/12/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.8	< 0.1	< 0.1	2.2
RC	2012/12/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.8	< 0.1	< 0.1	2.2
AFD	2012/12/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2012/12/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.013	< 0.001	< 0.001	0.073
EL	2012/12/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.25	< 0.08	< 0.08	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18167	12-18168	12-18201
					Client ID:	BW161	BW177	WQ3
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL			
EL	2012/12/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02
RC	2012/12/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.8	0.7	6.5
RC	2012/12/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.8	0.7	6.5
AFD	2012/12/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	0.004
RC	2012/12/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.152	< 0.001	0.009
EL	2012/12/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	0.30

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18149	12-18149-D	12-18150	12-18151
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/12/10 0:00	Lab Duplicate	2012/12/10 0:00	2012/12/10 0:00
					MDL				
RC	2012/12/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.121	0.120	0.416	0.044
RC	2012/12/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00027	< 0.00005
RC	2012/12/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0006	0.0006	0.0042	0.0005
RC	2012/12/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00304	0.00288	0.00856	0.00564
RC	2012/12/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.001280	< 0.000015
RC	2012/12/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	3.1	17.0	7.6
RC	2012/12/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/12/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00005	0.00025	0.00003
RC	2012/12/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0003	< 0.0001
RC	2012/12/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2260	0.2280	0.5600	0.1580
RC	2012/12/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00099	< 0.00005
RC	2012/12/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.76	0.77	2.95	1.40
RC	2012/12/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02050	0.02040	0.18200	0.01470
RC	2012/12/14	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/12/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	0.00018	0.00021	0.00049
RC	2012/12/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00019	0.00018	0.00060	0.00010
RC	2012/12/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	0.03	< 0.02
RC	2012/12/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.7	< 0.5
RC	2012/12/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/12/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.47	6.29	5.22	6.00
RC	2012/12/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00006	< 0.00005
RC	2012/12/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.4	2.4	5.6	2.8
RC	2012/12/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.026800	0.026700	0.083600	0.052300
RC	2012/12/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0013	0.0013	0.0066	0.0006
RC	2012/12/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00008	0.00017	0.00009
RC	2012/12/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0007	< 0.0001
RC	2012/12/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0050	0.0048	0.0882	0.0021
RC	2012/12/13	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	10.6	10.8	54.5	24.8

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18152	12-18153	12-18154	12-18155
					Client ID:	WQ7	WQ9	WQ14	WQ19
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL				
RC	2012/12/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.013	0.009	0.030	< 0.002
RC	2012/12/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00005
RC	2012/12/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0005	0.0003	0.0004
RC	2012/12/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00852	0.00719	0.02100	0.00875
RC	2012/12/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	0.002	0.001
RC	2012/12/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000082	< 0.000015
RC	2012/12/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	17.3	22.2	33.6	35.0
RC	2012/12/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0008	< 0.0003
RC	2012/12/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00003	0.00005	< 0.00002
RC	2012/12/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1170	0.1340	0.3530	0.0189
RC	2012/12/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.98	5.06	8.47	4.87
RC	2012/12/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02250	0.02580	0.05160	0.00109
RC	2012/12/14	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/12/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00070	0.00059	0.00071	0.00063
RC	2012/12/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00019	0.00100	0.00007
RC	2012/12/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	0.02	0.03	< 0.02
RC	2012/12/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.5	0.9	1.7	0.7
RC	2012/12/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/12/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.48	5.02	8.16	6.87
RC	2012/12/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.9	3.8	6.1	3.0
RC	2012/12/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.097500	0.103000	0.153000	0.120000
RC	2012/12/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0006	0.0004	0.0012	< 0.0002
RC	2012/12/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00012	0.00027	0.00030
RC	2012/12/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0003
RC	2012/12/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0017	0.0008	0.0416	0.0021
RC	2012/12/13	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	59.5	76.4	119	107

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18157	12-18158	12-18159	12-18160
					Client ID:	WQ Duplicate	Field Blank	Travel Blank	BW101
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL				
RC	2012/12/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.016	< 0.002	< 0.002	< 0.002
RC	2012/12/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	< 0.0001	< 0.0001	0.0049
RC	2012/12/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00737	< 0.00005	< 0.00005	0.01150
RC	2012/12/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/12/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	22.6	< 0.5	< 0.5	12.8
RC	2012/12/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/12/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	< 0.00002	< 0.00002
RC	2012/12/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1330	< 0.0001	< 0.0001	3.82
RC	2012/12/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.006
RC	2012/12/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.19	< 0.50	< 0.50	1.61
RC	2012/12/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02640	< 0.00005	< 0.00005	0.43300
RC	2012/12/14	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/12/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00060	< 0.00005	< 0.00005	0.00053
RC	2012/12/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	0.08
RC	2012/12/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.9	< 0.5	< 0.5	2.3
RC	2012/12/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/12/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.22	< 0.01	< 0.01	7.02
RC	2012/12/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.8	< 0.5	< 0.5	4.7
RC	2012/12/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.104000	< 0.000005	< 0.000005	0.045300
RC	2012/12/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0005	< 0.0002	< 0.0002	< 0.0002
RC	2012/12/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0007	< 0.0005	< 0.0005	0.0009
RC	2012/12/13	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	77.7	< 6.0	< 6.0	38.5

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18167	12-18168	12-18201
					Client ID:	BW161	BW177	WQ3
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL			
RC	2012/12/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	0.020	0.019
RC	2012/12/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00008	< 0.00005
RC	2012/12/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0233	0.0294	0.0005
RC	2012/12/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00846	0.00075	0.00736
RC	2012/12/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/12/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	10.0	24.4	22.4
RC	2012/12/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/12/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	0.00004
RC	2012/12/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	9.31	0.0208	0.1910
RC	2012/12/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.006	0.008	< 0.001
RC	2012/12/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.94	< 0.50	5.11
RC	2012/12/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	1.05	0.02130	0.03730
RC	2012/12/14	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/12/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00053	0.00752	0.00076
RC	2012/12/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00021
RC	2012/12/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.17	< 0.02	0.02
RC	2012/12/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.2	< 0.5	0.9
RC	2012/12/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/12/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	8.15	5.90	5.16
RC	2012/12/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.1	9.4	3.7
RC	2012/12/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.041800	0.200000	0.103000
RC	2012/12/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	0.0005	0.0007
RC	2012/12/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00016	0.00012
RC	2012/12/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0200	0.0010	0.0011
RC	2012/12/13	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	32.9	61.8	76.9

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18149	12-18149-D	12-18150	12-18151
					Client ID:	WQ1	WQ1	WQ4	WQ6
					Sample Date:	2012/12/10 0:00	Lab Duplicate	2012/12/10 0:00	2012/12/10 0:00
					MDL				
RC	2012/12/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.096	0.098	0.043	0.019
RC	2012/12/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00030	< 0.00005
RC	2012/12/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0014	0.0004
RC	2012/12/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00304	0.00288	0.00433	0.00564
RC	2012/12/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000824	< 0.000015
RC	2012/12/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.0	3.1	16.7	7.6
RC	2012/12/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/12/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00003	< 0.00002	< 0.00002
RC	2012/12/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0003	< 0.0001
RC	2012/12/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1420	0.1460	0.0987	0.0516
RC	2012/12/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.74	0.77	2.87	1.40
RC	2012/12/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01540	0.01590	0.01010	0.00589
RC	2012/12/14	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/12/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00014	0.00016	0.00041
RC	2012/12/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00013	0.00032	< 0.00005
RC	2012/12/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.01	< 0.01
RC	2012/12/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.7	< 0.5
RC	2012/12/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/12/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.45	6.29	5.22	6.00
RC	2012/12/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00006	< 0.00005
RC	2012/12/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.3	2.4	5.5	2.8
RC	2012/12/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.026100	0.026100	0.083600	0.051900
RC	2012/12/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0009	0.0009	0.0006	0.0004
RC	2012/12/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00006	< 0.00005	0.00006
RC	2012/12/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0050	0.0048	0.0370	0.0021
AFD	2012/12/13	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.89	7.01	7.50	7.45
RC	2012/12/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	10.5	10.8	53.5	24.8

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18152	12-18153	12-18154	12-18155
					Client ID:	WQ7	WQ9	WQ14	WQ19
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL				
RC	2012/12/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.007	0.003	0.003	< 0.002
RC	2012/12/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00005
RC	2012/12/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0005	0.0002	0.0004
RC	2012/12/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00852	0.00719	0.01420	0.00875
RC	2012/12/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	0.002	0.001
RC	2012/12/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/12/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	17.3	22.2	33.6	35.0
RC	2012/12/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/12/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	< 0.00002	0.00003	< 0.00002
RC	2012/12/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0709	0.0838	0.1500	0.0162
RC	2012/12/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.98	5.06	8.47	4.87
RC	2012/12/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02230	0.02360	0.03630	0.0066
RC	2012/12/14	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/12/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00062	0.00051	0.00058	0.00063
RC	2012/12/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00014	0.00030	< 0.00005
RC	2012/12/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.02	0.02	< 0.01
RC	2012/12/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.5	0.9	1.7	0.7
RC	2012/12/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/12/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.48	5.02	8.16	6.87
RC	2012/12/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.9	3.8	6.1	3.0
RC	2012/12/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.097500	0.101000	0.151000	0.118000
RC	2012/12/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	0.0002	< 0.0002
RC	2012/12/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00010	0.00022	0.00025
RC	2012/12/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00031
RC	2012/12/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0017	< 0.0005	0.0186	0.0021
AFD	2012/12/13	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.82	7.84	7.79	7.93
RC	2012/12/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	59.5	76.4	119	107

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18157	12-18158	12-18159	12-18160
					Client ID:	WQ Duplicate	Field Blank	Travel Blank	BW101
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL				
RC	2012/12/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.003	< 0.002	< 0.002	< 0.002
RC	2012/12/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	< 0.0001	< 0.0001	0.0049
RC	2012/12/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00737	< 0.00005	< 0.00005	0.01150
RC	2012/12/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/12/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	22.6	< 0.5	< 0.5	12.8
RC	2012/12/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/12/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/12/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0820	< 0.0001	< 0.0001	3.77
RC	2012/12/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	0.006
RC	2012/12/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.19	< 0.50	< 0.50	1.61
RC	2012/12/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02380	< 0.00005	< 0.00005	0.43300
RC	2012/12/14	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/12/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00059	< 0.00005	< 0.00005	0.00053
RC	2012/12/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.01	< 0.01	< 0.01	0.08
RC	2012/12/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.9	< 0.5	< 0.5	2.2
RC	2012/12/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/12/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.22	< 0.01	< 0.01	6.73
RC	2012/12/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.8	< 0.5	< 0.5	4.7
RC	2012/12/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.104000	< 0.000005	< 0.000005	0.045300
RC	2012/12/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/12/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0007	< 0.0005	< 0.0005	0.0009
AFD	2012/12/13	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.80	5.73	5.60	7.42
RC	2012/12/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	77.7	< 6.0	< 6.0	38.5

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64543

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-18167	12-18168	12-18201
					Client ID:	BW161	BW177	WQ3
					Sample Date:	2012/12/10 0:00	2012/12/10 0:00	2012/12/10 0:00
					MDL			
RC	2012/12/17	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	0.020	0.003
RC	2012/12/17	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00008	< 0.00005
RC	2012/12/17	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0233	0.0294	0.0005
RC	2012/12/17	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00846	0.00075	0.00736
RC	2012/12/17	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2012/12/17	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2012/12/17	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	10.0	24.4	22.4
RC	2012/12/17	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2012/12/17	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2012/12/17	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	9.29	0.0208	0.1200
RC	2012/12/17	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	0.006	0.008	< 0.001
RC	2012/12/17	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.93	< 0.50	5.11
RC	2012/12/17	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	1.04	0.02130	0.03380
RC	2012/12/14	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2012/12/17	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00050	0.00679	0.00076
RC	2012/12/17	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00014
RC	2012/12/17	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.17	< 0.01	0.01
RC	2012/12/17	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	2.2	< 0.5	0.8
RC	2012/12/17	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2012/12/17	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	8.09	5.90	5.16
RC	2012/12/17	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.1	9.4	3.7
RC	2012/12/17	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.041800	0.200000	0.102000
RC	2012/12/17	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2012/12/17	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2012/12/17	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00014	0.00010
RC	2012/12/17	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2012/12/17	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0200	0.0010	0.0011
AFD	2012/12/13	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.83	7.89	7.86
RC	2012/12/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	32.9	61.8	76.9

Quality Control Standard

Project No. VE52095.2A.3

File No. EC-64543

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2012/12/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	65	56-77	65	QC-ALK/F-53
AFD	2012/12/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.76	2.54-2.94	2.790	CC-EC-0.02M-46
AFD	2012/12/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-ALK/F-53
AFD	2012/12/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.63	1.44-1.76	1.600	CC-Anion-119B
AFD	2012/12/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.636	0.54-0.66	0.600	CC-Anion-119B
AFD	2012/12/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	27.3	25.2-30.8	28.0	CC-Anion-119B
EL	2012/12/17	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4780	3809-6227	5018	QCP-E2-SLD02008
EL	2012/12/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	152	134-153	144	QCP-E2-SLD02009
AFD	2012/12/14	Turbidity	NTU	APHA 2130-b	0.1	9.8	8.5-11.5	10.0	QC-Turb-7
AFD	2012/12/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.0	CC-Anion-119B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2012/12/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.62	0.47-0.74	0.61	NH ₃ SC-001
RC	2012/12/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	37.9	33.1-42.6	37.9	DMD-TOC-97-Mid
RC	2012/12/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	37.9	132.6-170.5	151.5	DMD-TOC-97-High
AFD	2012/12/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.791	0.72-0.88	0.800	CC-Anion-119BL
RC	2012/12/13	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	253	225-275	250.000	MS-CCV-HIGH
EL	2012/12/17	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	7.63	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Quality Control Standard

Project No. VE52095.2A.3

File No. EC-64543

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/12/13	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	51.7	45-55	50.000	MS-CCV-HIGH
RC	2012/12/13	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00000	MS-CCV-HIGH
RC	2012/12/13	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	101	90.0-110	100.0000	MS-CCV-HIGH
RC	2012/12/13	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.5	45-55	50.00000	MS-CCV-HIGH
RC	2012/12/13	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	51.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/12/13	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	46.6	45-55	50.000	MS-CCV-HIGH
RC	2012/12/13	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.3	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2012/12/13	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	26400	22545-27555	25050.0	MS-CCV-HIGH
RC	2012/12/13	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	49.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/12/13	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/13	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.1	45-55	50.0000	MS-CCV-HIGH
RC	2012/12/13	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	49.9	45-55	50.0000	MS-CCV-HIGH
RC	2012/12/13	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00000	MS-CCV-HIGH
RC	2012/12/13	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.8	45.0-55.5	50.000	MS-CCV-HIGH
RC	2012/12/13	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26500	22545-27555	25050.00	MS-CCV-HIGH
RC	2012/12/13	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/14	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.253000	0.212-0.340	0.276000	C2-QCPHG009
RC	2012/12/13	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	49.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/13	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/13	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	253	225-275	250.00	MS-CCV-HIGH
RC	2012/12/13	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	26300	22725-27775	25250.0	MS-CCV-HIGH
RC	2012/12/13	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	49.5	45-55	50.0000	MS-CCV-HIGH
RC	2012/12/13	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	121	105-129	117.00	MS-CCV-HIGH
RC	2012/12/13	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	13.0	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2012/12/13	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25800	22545-27555	25050.0	MS-CCV-HIGH
RC	2012/12/13	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.3	45-55	50.000000	MS-CCV-HIGH
RC	2012/12/13	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	250	225-275	250.00000	MS-CCV-HIGH
RC	2012/12/13	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	249	225-275	250.0000	MS-CCV-HIGH
RC	2012/12/13	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.3	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/12/13	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90-110	100.00000	MS-CCV-HIGH
RC	2012/12/13	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	50.1	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/12/13	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.3	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52095.2A.3

File No. EC-64543

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2012/12/17	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	49.1	45-55	50.000	MS-CCV-HIGH
RC	2012/12/17	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	106	90.0-110	100.00000	MS-CCV-HIGH
RC	2012/12/17	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.0000	MS-CCV-HIGH
RC	2012/12/17	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.3	45-55	50.00000	MS-CCV-HIGH
RC	2012/12/17	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	48.1	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/12/17	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	52.2	45-55	50.000	MS-CCV-HIGH
RC	2012/12/17	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	52.5	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2012/12/17	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25050.0	MS-CCV-HIGH
RC	2012/12/17	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	46.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/12/17	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	48.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/17	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	50.2	45-55	50.0000	MS-CCV-HIGH
RC	2012/12/17	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	53.6	45-55	50.0000	MS-CCV-HIGH
RC	2012/12/17	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	107	90.0-110	100.00000	MS-CCV-HIGH
RC	2012/12/17	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.1	45.0-55.5	50.000	MS-CCV-HIGH
RC	2012/12/17	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25100	22545-27555	25050.00	MS-CCV-HIGH
RC	2012/12/17	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	47.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/14	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.253000	0.212-0.340	0.276000	C2-QCPHG009
RC	2012/12/17	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/17	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	47.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/17	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	248	225-275	250.00	MS-CCV-HIGH
RC	2012/12/17	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24400	22725-27775	25250.0	MS-CCV-HIGH
RC	2012/12/17	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	52.7	45-55	50.0000	MS-CCV-HIGH
RC	2012/12/17	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	112	105-129	117.00	MS-CCV-HIGH
RC	2012/12/17	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.5	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2012/12/17	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24600	22545-27555	25050.0	MS-CCV-HIGH
RC	2012/12/17	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	49.9	45-55	50.000000	MS-CCV-HIGH
RC	2012/12/17	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	266	225-275	250.00000	MS-CCV-HIGH
RC	2012/12/17	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	252	225-275	250.0000	MS-CCV-HIGH
RC	2012/12/17	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	47.0	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2012/12/17	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	102	90-110	100.00000	MS-CCV-HIGH
RC	2012/12/17	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	46.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2012/12/17	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	49.4	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2012/12/17	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.02	5.92-6.08	6.00	QC-pH-6

Analytical Comments

Project No. VE52095.2A.3

File No. EC-64543

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit



Edmonton Chemistry Lab

EC-64543
36

Chain of Custody Record/Analysis Request

Tracking #: _____

ISSUING OFFICE:

Burnaby, BC

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater
Project Manager: Bruce Ott
Project Number: VE52095

Phase: _____
Sampler: _____
Phone No.: 200
Task: 2A.3
604-294-3811

Client Sample ID _____ AMEC E & E Lab Sample ID _____ Date Collected _____ Matrix _____

FOR LAB USE ONLY
YYYY/mm/dd
1L Bottle
250 mL Jar
40 mL Vial
1L Polyethylene
100 mL Amber
250 mL Polyethylene
125 mL Polyethylene

Water potability
Total and ortho- Phosphorus
Cyanide (total and WAD)
TSS
Total and dissolved metals (Ultra ICP/MS)
Ammonia and TKN
Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)
100% RUSH (Please Notify Lab Prior To Submission)

Quote #: QN-521
Temperature Received: 3.9°C
Receiver's Comments

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)
WQ1		12/10/2012	water								X	X	X	X	X	X	X		
WQ4		12/10/2012	water								X	X	X	X	X	X	X		
WQ6		12/10/2012	water								X	X	X	X	X	X	X		
WQ7		12/10/2012	water								X	X	X	X	X	X	X		
WQ9		12/10/2012	water								X	X	X	X	X	X	X		
WQ14		12/10/2012	water								X	X	X	X	X	X	X		
WQ19		12/10/2012	water								X	X	X	X	X	X	X		
WQ Duplicate		12/10/2012	water								X	X	X	X	X	X	X		
Field Blank		12/10/2012	water								X	X	X	X	X	X	X		
Travel Blank		12/10/2012	water								X	X	X	X	X	X	X		
BW101		12/10/2012	water								X	X	X	X	X	X	X		
BW161		12/10/2012	water								X	X	X	X	X	X	X		
BW177		12/10/2012	water								X	X	X	X	X	X	X		

RELINQUISHED BY: _____

RECEIVED BY: _____

RELINQUISHED BY: _____

RECEIVED BY: _____

Signature: _____
Printed Name: L. Nordin

Signature: _____
Printed Name: _____

Signature: _____
Printed Name: _____

Signature: _____
Printed Name: _____

Firm: Avison Management Services
Date/Time: 12/11/2012 15:00

Firm: AMEC
Date/Time: 13 Dec 08:30

Firm: _____
Date/Time: _____

Firm: _____
Date/Time: _____

Comments:
1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneel Lai (raneel.lai@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN- and CN-WAD using H2SO4 method.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 13-DEC-12
Report Date: 20-DEC-12 14:58 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1249297
Project P.O. #: 2220
Job Reference: EC-64543
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1249297-1 WQ1~12-18149 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-DEC-12 18-DEC-12	R2500923 R2500924
L1249297-2 WQ4~12-18150 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-DEC-12 18-DEC-12	R2500923 R2500924
L1249297-3 WQ6~12-18151 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-DEC-12 18-DEC-12	R2500923 R2500924
L1249297-4 WQ7~12-18152 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-DEC-12 18-DEC-12	R2500923 R2500924
L1249297-5 WQ9~12-18153 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-DEC-12 18-DEC-12	R2500923 R2500924
L1249297-6 WQ14~12-18154 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-DEC-12 18-DEC-12	R2500923 R2500924
L1249297-7 WQ19~12-18155 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-DEC-12 18-DEC-12	R2500923 R2500924
L1249297-8 BW161~12-18167 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-DEC-12 18-DEC-12	R2500923 R2500924
L1249297-9 WQ DUPLICATE--12-18157 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1249297-9 WQ DUPLICATE--12-18157 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		18-DEC-12	R2500923
L1249297-10 FIELD BLANK~12-18158 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		18-DEC-12	R2500923
L1249297-11 TRAVEL BLANK~12-18159 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		18-DEC-12	R2500923
L1249297-12 BW101~12-18160 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		18-DEC-12	R2500923
L1249297-13 BW177~12-18168 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		18-DEC-12	R2500923
L1249297-14 WQ13~12-18201 Sampled By: CLIENT on 10-DEC-12 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		18-DEC-12	R2500923

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1249297

Report Date: 20-DEC-12

Page 1 of 2

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2500923							
WG1603955-3	DUP	L1249297-8						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	18-DEC-12
WG1603955-2	LCS							
Cyanide, Total			89.6		%		80-120	18-DEC-12
WG1603955-6	LCS							
Cyanide, Total			92.2		%		80-120	18-DEC-12
WG1603955-8	LCS							
Cyanide, Total			92.0		%		80-120	18-DEC-12
WG1603955-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	18-DEC-12
WG1603955-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	18-DEC-12
WG1603955-7	MB							
Cyanide, Total			<0.0050		mg/L		0.005	18-DEC-12
WG1603955-4	MS	L1249297-8						
Cyanide, Total			86.1		%		70-130	18-DEC-12
CN-WAD-CFA-VA								
	Water							
Batch	R2500924							
WG1603960-3	DUP	L1249297-8						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	18-DEC-12
WG1603960-2	LCS							
Cyanide, Weak Acid Diss			105.8		%		80-120	18-DEC-12
WG1603960-6	LCS							
Cyanide, Weak Acid Diss			105.4		%		80-120	18-DEC-12
WG1603960-8	LCS							
Cyanide, Weak Acid Diss			107.5		%		80-120	18-DEC-12
WG1603960-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	18-DEC-12
WG1603960-5	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	18-DEC-12
WG1603960-7	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	18-DEC-12
WG1603960-4	MS	L1249297-8						
Cyanide, Weak Acid Diss			104.4		%		70-130	18-DEC-12

Quality Control Report

Workorder: L1249297

Report Date: 20-DEC-12

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 2 of 2

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to:	Report Format / Distribution	Service Requested:
Company: AMEC Earth & Environmental, Chemistry Dept.	<input type="checkbox"/> Standard <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Regular Service (Default)
Contact: Kristine Connor	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax	<input type="checkbox"/> Rush Service (2-3 Days)
Address: 5667-70 Street, Edmonton, AB T6B 3P6	Email 1: kristine.connor@amec.com	<input type="checkbox"/> Priority Service (1 Day or ASAP)
	Email 2: charlene.rollheiser@amec.com	<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS

Phone: (780) 989-4580 Fax: (780) 377-3600

Invoice To: Same as Report Indicate Bottles: Filtered / Preserved (F/P) →

Company: Same	Client / Project Information:	
Contact:	Job #: EC-64543	
Address:	PO/AFE:	
Sample	Legal Site Description:	
Phone:	Quote #:	

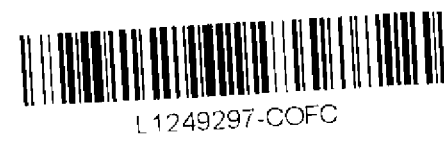
Lab Work Order # (lab use only) L249297 ALS Contact: Maureen Olinek Sampler (Initials):

Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	CN-T-CFA-VA	CN-WAD-MID-COL-VA													Hazardous?	Highly Contaminated?	Number of Containers
	13 Water Samples (See attached)	see attached		Water	x	x															x

Guidelines / Regulations	Special Instructions / Hazardous Details
	Please list both ID's on results.

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Relinquished By: jeffery connor	Date & Time: 13-Dec-12	Received By: <i>[Signature]</i>	Date & Time: Dec 13 12	Sample Condition (lab use only) Temperature: 14.3
Relinquished By:	Date & Time:	Received By:	Date & Time: 15.10	



FileNbr	SampleName	LabNbr	DateSampled	Description
EC-64543	WQ1	12-18149-	2012/12/10	Water
EC-64543	WQ4	12-18150-	2012/12/10	Water
EC-64543	WQ6	12-18151-	2012/12/10	Water
EC-64543	WQ7	12-18152-	2012/12/10	Water
EC-64543	WQ9	12-18153-	2012/12/10	Water
EC-64543	WQ14	12-18154-	2012/12/10	Water
EC-64543	WQ19	12-18155-	2012/12/10	Water
EC-64543	BW161	12-18167-	2012/12/10	Water
EC-64543	WQ Duplicate	12-18157-	2012/12/10	Water
EC-64543	Field Blank	12-18158-	2012/12/10	Water
EC-64543	Travel Blank	12-18159-	2012/12/10	Water
EC-64543	BW101	12-18160-	2012/12/10	Water
EC-64543	BW177	12-18168-	2012/12/10	Water



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64706
Project Number: VE52095.2A.3
Project Name: NewGold Blackwater
Date Received: 2013/01/16
Date of Report: 2013/01/24
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1292	13-1292-D	13-1293	13-1294
					Client ID:	WQ17	WQ17	WQ26	WQ11
					Sample Date:	2013/01/13 0:00	Lab Duplicate	2013/01/13 0:00	2013/01/13 0:00
					MDL				
AFD	2013/01/16	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	45	44	68	86
AFD	2013/01/16	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.092	0.091	0.131	0.155
AFD	2013/01/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.06	0.07	0.06
AFD	2013/01/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.094	0.095	0.047	0.029
AFD	2013/01/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/01/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.2	4.2	3.8	3.4
EL	2013/01/23	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	52	48	76	80
EL	2013/01/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/01/16	Turbidity	NTU	APHA 2130-b	0.1	1.0	1.0	0.7	0.8
AFD	2013/01/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	0.3	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1295	13-1296	13-1297	13-1298
					Client ID:	WQ10	WQ3	WQ5	WQ15
					Sample Date:	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00
					MDL				
AFD	2013/01/16	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	59	55	50	28
AFD	2013/01/16	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.115	0.103	0.098	0.060
AFD	2013/01/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.07	0.06	0.05
AFD	2013/01/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.049	0.055	0.120	0.018
AFD	2013/01/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/01/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.1	2.1	2.0	1.9
EL	2013/01/23	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	60	84	96	68
EL	2013/01/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	4	< 2
AFD	2013/01/16	Turbidity	NTU	APHA 2130-b	0.1	0.5	1.0	3.3	1.1
AFD	2013/01/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	0.4	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1299	13-1300	13-1301	13-1302
					Client ID:	WQ16	WQ12	WQ8	Trip Blank
					Sample Date:	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00
					MDL				
AFD	2013/01/16	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	24	26	83	< 1
AFD	2013/01/16	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.052	0.052	0.162	< 0.001
AFD	2013/01/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.04	0.07	< 0.02
AFD	2013/01/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.015	0.014	0.036	0.010
AFD	2013/01/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/01/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.1	1.9	4.9	< 0.5
EL	2013/01/23	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	56	68	124	< 4
EL	2013/01/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	< 2	7	< 2
AFD	2013/01/16	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.1	2.9	0.4
AFD	2013/01/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	0.4	< 0.1

Water Analysis

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Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1307	13-1307-D	13-1308	13-1309
					Client ID:	WQ6	WQ6	WQ7	WQ9
					Sample Date:	2013/01/15 0:00	Lab Duplicate	2013/01/15 0:00	2013/01/15 0:00
					MDL				
AFD	2013/01/16	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	26	27	68	79
AFD	2013/01/16	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.056	0.055	0.131	0.153
AFD	2013/01/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.06	0.07
AFD	2013/01/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.025	0.024	0.086	0.084
AFD	2013/01/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/01/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.2	2.3	3.6	4.6
EL	2013/01/23	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	56	---	84	128
EL	2013/01/22	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	< 2	---	5	< 2
AFD	2013/01/16	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.0	3.8	1.1
AFD	2013/01/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.2	0.5	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1310	13-1311	13-1312	13-1337
					Client ID:	WQ13	WQ Duplicate	Field Blank	WQ18
					Sample Date:	2013/01/15 0:00	2013/01/15 0:00	2013/01/15 0:00	2013/01/16 0:00
					MDL				
AFD	2013/01/16	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	81	69	< 1	88
AFD	2013/01/16	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.157	0.131	< 0.001	0.171
AFD	2013/01/16	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.06	< 0.02	0.14
AFD	2013/01/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.075	0.060	< 0.005	0.153
AFD	2013/01/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/01/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.6	3.6	< 0.5	2.4
EL	2013/01/23	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	116	88	4	136
EL	2013/01/22	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	7	2	< 2	74
AFD	2013/01/16	Turbidity	NTU	APHA 2130-b	0.1	5.8	1.6	0.3	44
AFD	2013/01/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.7	0.3	< 0.1	2.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1292	13-1292-D	13-1293	13-1294
					Client ID:	WQ17	WQ17	WQ26	WQ11
					Sample Date:	2013/01/13 0:00	Lab Duplicate	2013/01/13 0:00	2013/01/13 0:00
					MDL				
EL	2013/01/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/01/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.5	3.5	2.4	4.3
RC	2013/01/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.5	3.5	2.4	4.3
AFD	2013/01/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/01/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	0.008	0.006
EL	2013/01/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	< 0.08	< 0.08

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1295	13-1296	13-1297	13-1298
					Client ID:	WQ10	WQ3	WQ5	WQ15
					Sample Date:	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00
					MDL				
EL	2013/01/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/01/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.3	1.7	6.9	7.9
RC	2013/01/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.3	1.8	7.0	7.9
AFD	2013/01/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/01/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.006	0.045	0.006	0.003
EL	2013/01/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	0.17	0.19

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1299	13-1300	13-1301	13-1302
					Client ID:	WQ16	WQ12	WQ8	Trip Blank
					Sample Date:	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00
					MDL				
EL	2013/01/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/01/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.8	5.8	8.2	< 0.1
RC	2013/01/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.8	5.8	8.2	< 0.1
AFD	2013/01/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/01/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.004	0.005	0.013	< 0.001
EL	2013/01/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.24	0.51	0.27	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1307	13-1307-D	13-1308	13-1309
					Client ID:	WQ6	WQ6	WQ7	WQ9
					Sample Date:	2013/01/15 0:00	Lab Duplicate	2013/01/15 0:00	2013/01/15 0:00
					MDL				
EL	2013/01/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	---	< 0.02	< 0.02
RC	2013/01/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.3	---	2.9	6.9
RC	2013/01/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.3	---	2.9	6.9
AFD	2013/01/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/01/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.002	---	0.012	0.012
EL	2013/01/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	< 0.08	0.13

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1310	13-1311	13-1312	13-1337
					Client ID:	WQ13	WQ Duplicate	Field Blank	WQ18
					Sample Date:	2013/01/15 0:00	2013/01/15 0:00	2013/01/15 0:00	2013/01/16 0:00
					MDL				
EL	2013/01/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	0.10
RC	2013/01/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.5	3.0	< 0.1	7.4
RC	2013/01/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.5	3.2	< 0.1	8.2
AFD	2013/01/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/01/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.020	0.019	< 0.001	0.053
EL	2013/01/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.17	< 0.08	< 0.08	1.68

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1292	13-1292-D	13-1293	13-1294
					Client ID:	WQ17	WQ17	WQ26	WQ11
					Sample Date:	2013/01/13 0:00	Lab Duplicate	2013/01/13 0:00	2013/01/13 0:00
					MDL				
RC	2013/01/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.021	0.018	0.009	0.030
RC	2013/01/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0004	< 0.0001
RC	2013/01/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00771	0.00766	0.00868	0.01290
RC	2013/01/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/01/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	10.8	10.8	18.6	23.5
RC	2013/01/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/01/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00005	< 0.00002	< 0.00002
RC	2013/01/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0006	0.0002	0.0015
RC	2013/01/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0762	0.0770	0.0193	0.0112
RC	2013/01/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.15	3.15	4.07	4.82
RC	2013/01/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01100	0.01110	0.00594	0.00127
RC	2013/01/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/01/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00243	0.00246	0.00081	0.00031
RC	2013/01/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00008	< 0.00005	< 0.00005
RC	2013/01/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/01/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.6	0.7
RC	2013/01/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.19	6.33	7.14	6.73
RC	2013/01/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.8	3.8	4.0	4.0
RC	2013/01/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.064500	0.064300	0.106000	0.127000
RC	2013/01/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0004	0.0004	0.0002	0.0007
RC	2013/01/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00009	0.00027	0.00028
RC	2013/01/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0024	0.0025	0.0021	0.0023
AFD	2013/01/16	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.21	7.37	7.70	7.70
AFD	2013/01/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	40.0	40.0	63.3	78.4

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1295	13-1296	13-1297	13-1298
					Client ID:	WQ10	WQ3	WQ5	WQ15
					Sample Date:	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00
					MDL				
RC	2013/01/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.012	0.022	0.057	0.026
RC	2013/01/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00005	< 0.00005
RC	2013/01/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0012	0.0003	0.0002
RC	2013/01/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00779	0.00462	0.00691	0.00905
RC	2013/01/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000105	< 0.000015
RC	2013/01/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	16.4	13.5	12.1	9.2
RC	2013/01/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	0.0008	< 0.0003	< 0.0003
RC	2013/01/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	0.00006	< 0.00002
RC	2013/01/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001	0.0005	0.0003
RC	2013/01/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0333	0.0684	0.3740	0.1090
RC	2013/01/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00035	< 0.00005
RC	2013/01/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.25	3.26	3.42	1.32
RC	2013/01/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00248	0.00555	0.02090	0.02400
RC	2013/01/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/01/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00085	0.00080	0.00019	0.00068
RC	2013/01/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00021	< 0.00005
RC	2013/01/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	0.05	< 0.02	< 0.02
RC	2013/01/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.5	0.6	< 0.5	< 0.5
RC	2013/01/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.90	8.79	7.87	2.64
RC	2013/01/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.6	3.9	3.5	2.1
RC	2013/01/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.098900	0.083500	0.068900	0.081800
RC	2013/01/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0003	0.0008	0.0019	0.0004
RC	2013/01/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00032	0.00021	0.00005	0.00017
RC	2013/01/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0015	0.0002	< 0.0001
RC	2013/01/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0022	0.0023	0.0281	0.0035
AFD	2013/01/16	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.71	7.68	7.38	7.26
AFD	2013/01/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	54.2	47.2	44.2	28.5

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1299	13-1300	13-1301	13-1302
					Client ID:	WQ16	WQ12	WQ8	Trip Blank
					Sample Date:	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00
					MDL				
RC	2013/01/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.028	0.048	0.010	< 0.002
RC	2013/01/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0002	0.0005	< 0.0001
RC	2013/01/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00419	0.00640	0.00680	< 0.00005
RC	2013/01/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/01/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.8	7.3	24.0	< 0.5
RC	2013/01/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/01/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00003	< 0.00002	< 0.00002
RC	2013/01/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0007	0.0003	< 0.0001
RC	2013/01/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1040	0.3430	0.0384	< 0.0001
RC	2013/01/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.34	1.26	5.54	< 0.50
RC	2013/01/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.03780	0.01100	0.01300	< 0.00005
RC	2013/01/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/01/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00083	0.00042	0.00054	< 0.00005
RC	2013/01/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00010	0.00016	< 0.00005
RC	2013/01/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	0.02	< 0.02
RC	2013/01/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	1.0	< 0.5
RC	2013/01/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.71	3.99	5.28	< 0.01
RC	2013/01/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.0	2.2	4.0	< 0.5
RC	2013/01/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.044300	0.050900	0.108000	< 0.000005
RC	2013/01/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0010	0.0010	0.0011	< 0.0002
RC	2013/01/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00029	0.00013	0.00010	< 0.00005
RC	2013/01/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0090	0.0027	0.0015	< 0.0005
AFD	2013/01/16	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.25	7.07	7.77	5.69
AFD	2013/01/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	22.5	23.4	82.7	< 6.0

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1307	13-1307-D	13-1308	13-1309
					Client ID:	WQ6	WQ6	WQ7	WQ9
					Sample Date:	2013/01/15 0:00	Lab Duplicate	2013/01/15 0:00	2013/01/15 0:00
					MDL				
RC	2013/01/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.035	---	0.065	0.005
RC	2013/01/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	---	< 0.00005	< 0.00005
RC	2013/01/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	---	0.0004	0.0005
RC	2013/01/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00615	---	0.01210	0.00774
RC	2013/01/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	---	< 0.0001	< 0.0001
RC	2013/01/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	---	< 0.001	< 0.001
RC	2013/01/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	---	0.000018	< 0.000015
RC	2013/01/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.0	---	19.0	22.8
RC	2013/01/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	---	< 0.0003	< 0.0003
RC	2013/01/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	---	0.00008	0.00003
RC	2013/01/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	---	0.0003	0.0003
RC	2013/01/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0946	---	0.2280	0.1200
RC	2013/01/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	---	< 0.00005	< 0.00005
RC	2013/01/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	---	< 0.001	< 0.001
RC	2013/01/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.29	---	4.24	5.28
RC	2013/01/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00759	---	0.07520	0.02230
RC	2013/01/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	---	< 0.000005	< 0.000005
RC	2013/01/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00050	---	0.00078	0.00061
RC	2013/01/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	---	0.00013	0.00016
RC	2013/01/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	---	0.02	< 0.02
RC	2013/01/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	---	0.7	0.9
RC	2013/01/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	---	< 0.0006	< 0.0006
RC	2013/01/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.26	---	6.38	5.83
RC	2013/01/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	---	< 0.00005	< 0.00005
RC	2013/01/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.7	---	4.1	3.9
RC	2013/01/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.051100	---	0.107000	0.108000
RC	2013/01/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	---	< 0.00005	< 0.00005
RC	2013/01/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	---	< 0.0001	< 0.0001
RC	2013/01/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0008	---	0.0034	0.0010
RC	2013/01/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	---	0.00027	0.00012
RC	2013/01/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	---	0.0002	< 0.0001
RC	2013/01/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0030	---	0.0197	0.0019
AFD	2013/01/16	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.20	7.22	7.66	7.63
AFD	2013/01/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	22.7	---	65.0	78.6

Water Analysis - Total Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1310	13-1311	13-1312	13-1337
					Client ID:	WQ13	WQ Duplicate	Field Blank	WQ18
					Sample Date:	2013/01/15 0:00	2013/01/15 0:00	2013/01/15 0:00	2013/01/16 0:00
					MDL				
RC	2013/01/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.106	0.026	< 0.002	1.00
RC	2013/01/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005	0.00015
RC	2013/01/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0004	< 0.0001	0.0014
RC	2013/01/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01140	0.01140	< 0.00005	0.04190
RC	2013/01/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000025	< 0.000015	< 0.000015	0.000655
RC	2013/01/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	23.2	18.6	< 0.5	16.0
RC	2013/01/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	0.0068
RC	2013/01/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00012	0.00005	< 0.00002	0.00171
RC	2013/01/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0014	0.0003	< 0.0001	0.0054
RC	2013/01/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.9450	0.1470	< 0.0001	3.70
RC	2013/01/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00036
RC	2013/01/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.001
RC	2013/01/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.34	4.22	< 0.50	9.69
RC	2013/01/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.05630	0.02870	< 0.00005	0.37000
RC	2013/01/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	0.000009
RC	2013/01/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00069	0.00075	< 0.00005	0.00077
RC	2013/01/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00034	0.00013	< 0.00005	0.00570
RC	2013/01/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.04	0.02	< 0.02	0.29
RC	2013/01/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.1	0.6	< 0.5	3.8
RC	2013/01/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.41	6.68	< 0.01	16.2
RC	2013/01/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.2	4.0	< 0.5	7.7
RC	2013/01/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.110000	0.107000	< 0.000005	0.074700
RC	2013/01/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0071	0.0018	< 0.0002	0.0766
RC	2013/01/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	0.00026	< 0.00005	0.00022
RC	2013/01/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	< 0.0001	< 0.0001	0.0069
RC	2013/01/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0128	0.0074	< 0.0005	0.1460
AFD	2013/01/16	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.68	7.64	5.67	7.74
AFD	2013/01/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	80.0	63.7	< 6.0	79.9

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1292	13-1292-D	13-1293	13-1294
					Client ID:	WQ17	WQ17	WQ26	WQ11
					Sample Date:	2013/01/13 0:00	Lab Duplicate	2013/01/13 0:00	2013/01/13 0:00
					MDL				
RC	2013/01/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.021	0.018	0.009	0.030
RC	2013/01/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0004	< 0.0001
RC	2013/01/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00749	0.00761	0.00868	0.01290
RC	2013/01/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/01/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	10.8	10.8	18.2	22.9
RC	2013/01/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/01/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00004	0.00005	< 0.00002	< 0.00002
RC	2013/01/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0006	0.0002	0.0003
RC	2013/01/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0502	0.0509	0.0193	0.0112
RC	2013/01/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.15	3.15	4.07	4.82
RC	2013/01/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00940	0.00938	0.00409	< 0.00005
RC	2013/01/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/01/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00212	0.00221	0.00081	0.00031
RC	2013/01/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00008	< 0.00005	< 0.00005
RC	2013/01/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2013/01/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.6	0.7
RC	2013/01/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.19	6.33	7.14	6.73
RC	2013/01/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.8	3.8	4.0	4.0
RC	2013/01/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.062900	0.063800	0.106000	0.127000
RC	2013/01/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	0.0002	< 0.0002	0.0004
RC	2013/01/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00009	0.00027	0.00028
RC	2013/01/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0024	0.0025	0.0021	0.0023
AFD	2013/01/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	39.9	40.0	62.2	77.0

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1295	13-1296	13-1297	13-1298
					Client ID:	WQ10	WQ3	WQ5	WQ15
					Sample Date:	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00
					MDL				
RC	2013/01/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.012	0.012	0.047	0.026
RC	2013/01/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0012	0.0002	0.0002
RC	2013/01/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00771	0.00439	0.00614	0.00890
RC	2013/01/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000057	< 0.000015
RC	2013/01/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	16.1	13.5	11.7	9.2
RC	2013/01/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	0.0008	< 0.0003	< 0.0003
RC	2013/01/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00005	< 0.00002
RC	2013/01/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	< 0.0001	0.0005	0.0003
RC	2013/01/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0322	0.0271	0.1790	0.0928
RC	2013/01/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.25	3.26	3.41	1.32
RC	2013/01/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00081	0.00223	0.01830	0.01590
RC	2013/01/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/01/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00080	0.00075	0.00019	0.00065
RC	2013/01/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00021	< 0.00005
RC	2013/01/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.05	< 0.01	< 0.01
RC	2013/01/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.5	0.6	< 0.5	< 0.5
RC	2013/01/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.90	8.79	7.87	2.64
RC	2013/01/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.6	3.9	3.5	2.1
RC	2013/01/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.098100	0.083000	0.067100	0.081800
RC	2013/01/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	0.0003	0.0012	0.0002
RC	2013/01/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00032	0.00021	0.00005	0.00017
RC	2013/01/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00147	0.00009	< 0.00005
RC	2013/01/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0022	0.0023	0.0126	0.0035
AFD	2013/01/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	53.5	47.2	43.3	28.5

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1299	13-1300	13-1301	13-1302
					Client ID:	WQ16	WQ12	WQ8	Trip Blank
					Sample Date:	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00	2013/01/13 0:00
					MDL				
RC	2013/01/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.005	0.048	< 0.002	< 0.002
RC	2013/01/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0002	0.0005	< 0.0001
RC	2013/01/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00354	0.00628	0.00617	< 0.00005
RC	2013/01/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/01/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	6.7	7.3	23.3	< 0.5
RC	2013/01/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/01/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003	< 0.00002	< 0.00002
RC	2013/01/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0003	0.0003	< 0.0001
RC	2013/01/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0331	0.2720	0.0137	< 0.0001
RC	2013/01/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.34	1.26	5.54	< 0.50
RC	2013/01/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02390	0.00912	0.00555	< 0.00005
RC	2013/01/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/01/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00075	0.00042	0.00051	< 0.00005
RC	2013/01/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00010	0.00016	< 0.00005
RC	2013/01/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.01	< 0.01
RC	2013/01/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	1.0	< 0.5
RC	2013/01/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.71	3.99	5.28	< 0.01
RC	2013/01/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.0	2.2	4.0	< 0.5
RC	2013/01/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.042400	0.050900	0.106000	< 0.000005
RC	2013/01/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	0.0009	< 0.0002	< 0.0002
RC	2013/01/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00023	0.00013	0.00010	< 0.00005
RC	2013/01/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0022	0.0027	0.0015	< 0.0005
AFD	2013/01/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	22.3	23.4	81.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1307	13-1308	13-1309	13-1310
					Client ID:	WQ6	WQ7	WQ9	WQ13
					Sample Date:	2013/01/15 0:00	2013/01/15 0:00	2013/01/15 0:00	2013/01/15 0:00
					MDL				
RC	2013/01/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.035	0.008	< 0.002	0.011
RC	2013/01/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	< 0.00005	< 0.00005	0.00006
RC	2013/01/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0003	0.0005	0.0005
RC	2013/01/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00584	0.00959	0.00742	0.01140
RC	2013/01/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	0.000018	< 0.000015	0.000025
RC	2013/01/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.0	18.3	22.7	23.1
RC	2013/01/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/01/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	0.00004	0.00002	0.00004
RC	2013/01/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0003	0.0003	0.0010
RC	2013/01/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0738	0.0644	0.0703	0.1180
RC	2013/01/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.29	4.21	5.28	5.34
RC	2013/01/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00622	0.02550	0.02230	0.03040
RC	2013/01/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/01/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00050	0.00076	0.00061	0.00062
RC	2013/01/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00013	0.00016	0.00034
RC	2013/01/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.01	0.01	0.02
RC	2013/01/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.6	0.9	1.1
RC	2013/01/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.26	6.05	5.83	5.41
RC	2013/01/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.7	4.0	3.9	4.2
RC	2013/01/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.049800	0.106000	0.106000	0.110000
RC	2013/01/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0002	< 0.0002	0.0004
RC	2013/01/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00027	0.00012	0.00012
RC	2013/01/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0030	0.0131	0.0019	0.0103
AFD	2013/01/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	22.7	63.0	78.3	79.7

Water Analysis - Dissolved Metals

Project No. VE52095.2A.3

Final
File No. EC-64706

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1311	13-1312	13-1337
					Client ID:	WQ Duplicate	Field Blank	WQ18
					Sample Date:	2013/01/15 0:00	2013/01/15 0:00	2013/01/16 0:00
					MDL			
RC	2013/01/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.008	< 0.002	0.013
RC	2013/01/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00008
RC	2013/01/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	< 0.0001	0.0004
RC	2013/01/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00944	< 0.00005	0.00738
RC	2013/01/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000015	< 0.000015	0.000481
RC	2013/01/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.6	< 0.5	14.1
RC	2013/01/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	0.0005
RC	2013/01/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	< 0.00002	0.00007
RC	2013/01/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	< 0.0001	0.0036
RC	2013/01/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0627	< 0.0001	0.1260
RC	2013/01/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/01/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.22	< 0.50	9.21
RC	2013/01/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02450	< 0.00005	0.00801
RC	2013/01/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/01/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00073	< 0.00005	0.00061
RC	2013/01/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	< 0.00005	0.00118
RC	2013/01/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	< 0.01	0.05
RC	2013/01/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	< 0.5	3.7
RC	2013/01/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/01/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.68	< 0.01	11.9
RC	2013/01/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.0	< 0.5	7.7
RC	2013/01/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.107000	< 0.000005	0.064000
RC	2013/01/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/01/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/01/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	< 0.0002	0.0009
RC	2013/01/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	< 0.00005	0.00013
RC	2013/01/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00103
RC	2013/01/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0071	< 0.0005	0.1190
AFD	2013/01/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	63.7	< 6.0	73.2

Quality Control Standard

Project No. VE52095.2A.3

File No. EC-64706

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/01/17	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	66	56-77	65	QC-ALK/F-53
AFD	2013/01/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.76	2.54-2.94	2.790	CC-EC-0.02M-47
AFD	2013/01/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.47	0.44-0.58	0.50	QC-AIK/F-53
AFD	2013/01/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.63	1.44-1.76	1.600	CC-Anion-120B
AFD	2013/01/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.617	0.54-0.66	0.600	CC-Anion-120B
AFD	2013/01/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.1	25.2-30.8	28.0	CC-Anion-120B
EL	2013/01/23	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4752	3809-6227	5018	QCP-E2-SLD02009
EL	2013/01/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	150	134-153	144	QCP-E2-SLD02009
AFD	2013/01/17	Turbidity	NTU	APHA 2130-b	0.1	9.5	8.5-11.5	10.0	QC-Turb-7
AFD	2013/01/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.0	CC-Anion-120B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/01/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.55	0.394-0.610	0.50	F2NUT01116
RC	2013/01/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.4	33.1-42.6	37.9	DMD-TOC-97-Mid
RC	2013/01/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	155	132.6-170.5	151.5	DMD-TOC-97-High
AFD	2013/01/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.822	0.72-0.88	0.800	CC-Anion-120BL
RC	2013/01/22	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	243	225-275	250.000	MS-CCV-HIGH
EL	2013/01/22	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	7.08	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Quality Control Standard

Project No. VE52095.2A.3

File No. EC-64706

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/01/22	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	46.5	45-55	50.000	MS-CCV-HIGH
RC	2013/01/22	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	96.8	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/01/22	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	96.5	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/01/22	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.8	45-55	50.00000	MS-CCV-HIGH
RC	2013/01/22	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	47.1	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/01/22	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	51.2	45-55	50.000	MS-CCV-HIGH
RC	2013/01/22	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	48.4	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/01/22	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25700	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/01/22	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	47.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/01/22	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	52.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/22	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.2	45-55	50.0000	MS-CCV-HIGH
RC	2013/01/22	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	47.4	45-55	50.0000	MS-CCV-HIGH
RC	2013/01/22	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	104	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/01/22	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	49.2	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/01/22	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/01/22	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/23	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.259000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/01/22	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	49.5	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/22	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/22	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	243	225-275	250.00	MS-CCV-HIGH
RC	2013/01/22	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	26500	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/01/22	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	48.9	45-55	50.0000	MS-CCV-HIGH
RC	2013/01/22	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	127	105-129	117.00	MS-CCV-HIGH
RC	2013/01/22	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.7	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/01/22	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/01/22	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.3	45-55	50.000000	MS-CCV-HIGH
RC	2013/01/22	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	247	225-275	250.00000	MS-CCV-HIGH
RC	2013/01/22	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.0000	MS-CCV-HIGH
RC	2013/01/22	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	49.4	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/01/22	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	99.4	90-110	100.00000	MS-CCV-HIGH
RC	2013/01/22	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	49.0	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/01/22	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	52.2	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/01/16	pH @ 25°C BC-T	pH Units	APHA 4500H	0.01	6.01	5.92-6.08	6.00	QC-pH-6

Quality Control Standard

Project No. VE52095.2A.3

File No. EC-64706

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/01/21	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	52.8	45-55	50.000	MS-CCV-HIGH
RC	2013/01/21	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/01/21	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/01/21	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45-55	50.00000	MS-CCV-HIGH
RC	2013/01/21	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	48.2	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/01/21	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	54.4	45-55	50.000	MS-CCV-HIGH
RC	2013/01/21	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	52.9	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/01/21	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/01/21	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.0	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/01/21	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/21	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	51.3	45-55	50.0000	MS-CCV-HIGH
RC	2013/01/21	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.8	45-55	50.0000	MS-CCV-HIGH
RC	2013/01/21	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	107	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/01/21	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.7	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/01/21	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25700	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/01/21	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/23	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.259000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/01/21	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/21	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/21	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	253	225-275	250.00	MS-CCV-HIGH
RC	2013/01/21	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/01/21	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	52.9	45-55	50.0000	MS-CCV-HIGH
RC	2013/01/21	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	126	105-129	117.00	MS-CCV-HIGH
RC	2013/01/21	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	13.3	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/01/21	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/01/21	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.9	45-55	50.000000	MS-CCV-HIGH
RC	2013/01/21	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	253	225-275	250.00000	MS-CCV-HIGH
RC	2013/01/21	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	255	225-275	250.0000	MS-CCV-HIGH
RC	2013/01/21	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	48.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/01/21	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	102	90-110	100.00000	MS-CCV-HIGH
RC	2013/01/21	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/01/21	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	54.9	45.0-55.0	50.0000	MS-CCV-HIGH

Analytical Comments

Project No. VE52095.2A.3

File No. EC-64706

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-604760
606

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC		Tracking #:	
Project Name: NewGold Blackwater	Sampler:	Phone No.: 604-294-3811	
Project Manager: Bruce Ott	Phase:	Task:	2A.3
Project Number: VE52095	Date Collected: yyyy/mm/dd	Matrix:	Task:
Client Sample ID	AMEC E & E Lab Sample ID	Matrix	Task:
	FOR LAB USE ONLY		
WQ17	1292	water	1L Bottle
WQ26	93	water	250 mL Jar
WQ11	94	water	40 mL Vial
WQ10	95	water	1L Polyethylene
WQ3	96	water	100 mL Amber
WQ5	97	water	250 mL Polyethylene
WQ15	98	water	125 mL Polyethylene
WQ16	99	water	
WQ12	300	water	
WQ 8	301	water	

ANALYSIS REQUIRED (Note preferred method)		QUOTED PRICE	
<input checked="" type="checkbox"/> YES	Please attach a copy of the quote	<input checked="" type="checkbox"/> YES	
<input type="checkbox"/> NO		<input type="checkbox"/> NO	
Quote #:		QN-521	
Temperature Received:		5.1°C	
Receiver's Comments:			
100% RUSH (Please Notify Lab Prior To Submission)			
50% RUSH (Please Notify Lab Prior To Submission)			
Organic carbon (TOC, DOC)			
Ammonia and TKN			
Total and dissolved metals (Ultra ICP/MS)			
TSS			
Cyanide (total and WAD)			
Total and ortho-Phosphorus			
Water potability			

RECEIVED BY:	RELINQUISHED BY:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Printed Name: <i>[Name]</i>	Printed Name: <i>[Name]</i>
Firm: <i>[Firm]</i>	Firm: <i>[Firm]</i>
Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>

Comments:

- 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)
- 2) Please use Low Level nitrate and nitrite
- 3) Please analyze CNT and CN-WAD using H2SO4 method.



Edmonton Chemistry Lab

EC-604706
67

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC		Tracking #: _____															
Project Name: NewGold Blackwater		Sampler: Bruce Ott															
Project Manager: VE52095		Phone No.: 604-294-3811															
Phase: AMEC E & E Lab		Task: 2A.3															
Date Collected yy/mm/ddd		Matrix															
Client Sample ID	AMEC E & E Lab Sample ID	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water polarity	Total and ortho-Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	QUOTED PRICE
	FOR LAB USE ONLY	1L Bottle															<input checked="checked" type="checkbox"/> YES Please attach a copy of the quote <input type="checkbox"/> NO
																	Quote #: QN-521
																	Temperature Received: 17.2 °C
																	Receiver's Comments:
WQ6		15-1507	1/15/2012	water	2	1	1	2	X	X	X	X	X	X			
WQ7		08	1/15/2012	water	2	1	1	2	X	X	X	X	X	X			
WQ8		09	1/15/2012	water	2	1	1	2	X	X	X	X	X	X			
WQ13		10	1/15/2012	water	2	1	1	2	X	X	X	X	X	X			
				water	2	1	1	2	X	X	X	X	X	X			
				water	2	1	1	2	X	X	X	X	X	X			
WQ Duplicate			1/15/2012	water	2	1	1	2	X	X	X	X	X	X			
Field Blank			1/15/2012	water	2	1	1	2	X	X	X	X	X	X			
			1/15/2012	water	2	1	1	2	X	X	X	X	X	X			

RECEIVED BY: Signature: _____	RELINQUISHED BY: Signature: _____	RECEIVED BY: Signature: _____	Comments: 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com) 2) Please use Low Level nitrate and nitrite 3) Please analyze CN-t and CN-WAD using H2SO4 method.
Printed Name: _____	Printed Name: _____	Printed Name: _____	
Firm: _____	Firm: _____	Firm: _____	
Date/Time: 1/15/2012 15:00	Date/Time: _____	Date/Time: _____	



Edmonton Chemistry Lab

EC-04766

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC			Tracking #:		
Project Name: NewGold Blackwater		Sampler:			
Project Manager: Bruce Ott		Phone No.: 604-294-3811			
Project Number: VE52095		Phase: 200		Task: 2A.3	
Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	
				FOR LAB USE ONLY	Matrix
WC18	B-138	1/16/2012	water	1L Bottle	
				250 mL Jar	
				40 mL Vial	
				1L Polyethylene	
				100 mL Amber	
				250 mL Polyethylene	
				125 mL Polyethylene	

ANALYSIS REQUIRED (Note preferred method)	50% RUSH (Please Notify Lab Prior To Submission)		100% RUSH (Please Notify Lab Prior To Submission)		QUOTED PRICE
	YES	NO	YES	NO	
	Please attach a copy of the quote.				
Cyanide (total and WAD)	X				Quote #: QN-521 Temperature Received: 5.7°C
Total and ortho- Phosphorus	X				
Water potability	X				
TSS	X				
Total and dissolved metals (Ultra ICP/MS)	X				Receiver's Comments:
Ammonia and TKN	X				
Organic carbon (TOC, DOC)	X				

RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	COMMENTS:
Signature: <i>Joy Woodbeck</i>	Signature:	Signature:	1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com) 2) Please use Low Level nitrate and nitrite 3) Please analyze CN-I and CN-WAD using H2SO4 method .
Printed Name: Joy Woodbeck	Printed Name:	Printed Name:	
Firm: Amec	Firm:	Firm:	
Date/Time: Jan 17/13 8:40	Date/Time:	Date/Time:	



AMEC Environment & Infrastructure
ATTN: Bruce Ott
6000 4445 LOUGHEED HWY
BURNABY BC V5C 0E4

Date Received: 16-JAN-13
Report Date: 25-JAN-13 15:31 (MT)
Version: FINAL

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1258762
Project P.O. #: NOT SUBMITTED
Job Reference: VE52095
C of C Numbers:
Legal Site Desc:

Comments: Note that sample WQ17 was not received.

The correct preservative was not received for Thiocyanate analysis for samples WQ12. Samples will be re-submitted.

Selam Worku
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	Description	Sampled Date	Sampled Time	Client ID	L1258762-2	L1258762-3	L1258762-4	L1258762-5	L1258762-6
					water	water	water	water	water
		14-JAN-12			14-JAN-12	14-JAN-12	14-JAN-12	14-JAN-12	14-JAN-12
					WQ26	WQ11	WQ10	WQ3	WQ5
Grouping	Analyte								
WATER									
Cyanides	Cyanate (ug/L)	<200	<200	<200	<200	<200	<200	<200	<200
	Thiocyanate (SCN) (ug/L)	<500	<500	<500	<500	<500	<500	<500	<500

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	Description	Sampled Date	Sampled Time	Client ID
	L1258762-7	water	14-JAN-12		WQ15
	L1258762-8	water	14-JAN-12		WQ16
	L1258762-10	water	14-JAN-12		WQ8
Grouping	Analyte				
WATER					
Cyanides	Cyanate (ug/L)				
	<200	<200	<200		
	Thiocyanate (SCN) (ug/L)				
	<500	<500	<500		

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
NR:NR	No Result: Sample Not Received At Laboratory - sample # WQ17 - not received

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1258762

Report Date: 25-JAN-13

Page 1 of 3

Client: AMEC Environment & Infrastructure
 # 6000 4445 LOUGHEED HWY
 BURNABY BC V5C 0E4

Contact: Bruce Ott

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT								
	Water							
Batch	R2512726							
WG1616682-1	LCS							
Cyanate			106.6		%		85-115	22-JAN-13
WG1616682-2	MB							
Cyanate			<0.20		mg/L		0.2	22-JAN-13
CN-SCN-VA								
	Water							
Batch	R2511415							
WG1615291-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			101.0		%		85-115	18-JAN-13
WG1615291-3	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			95.6		%		85-115	18-JAN-13
WG1615291-1	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	18-JAN-13
WG1615291-4	MS	L1259237-7						
Thiocyanate (SCN)			111.9		%		75-125	18-JAN-13

Quality Control Report

Workorder: L1258762

Report Date: 25-JAN-13

Page 2 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1258762

Report Date: 25-JAN-13

Page 3 of 3

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Cyanides							
Cyanate	2	14-JAN-12	22-JAN-13 14:50	14	374	days	EHTR
	3	14-JAN-12	22-JAN-13 14:50	14	374	days	EHTR
	4	14-JAN-12	22-JAN-13 14:50	14	374	days	EHTR
	5	14-JAN-12	22-JAN-13 14:50	14	374	days	EHTR
	6	14-JAN-12	22-JAN-13 14:50	14	374	days	EHTR
	7	14-JAN-12	22-JAN-13 14:50	14	374	days	EHTR
	8	14-JAN-12	22-JAN-13 14:50	14	374	days	EHTR
	10	14-JAN-12	22-JAN-13 14:50	14	374	days	EHTR
Thiocyanate by Colour							
	2	14-JAN-12	18-JAN-13 11:12	14	370	days	EHTR
	3	14-JAN-12	18-JAN-13 11:03	14	370	days	EHTR
	4	14-JAN-12	18-JAN-13 11:03	14	370	days	EHTR
	5	14-JAN-12	18-JAN-13 11:03	14	370	days	EHTR
	6	14-JAN-12	18-JAN-13 11:08	14	370	days	EHTR
	7	14-JAN-12	18-JAN-13 11:08	14	370	days	EHTR
	8	14-JAN-12	18-JAN-13 11:08	14	370	days	EHTR
	10	14-JAN-12	18-JAN-13 11:08	14	370	days	EHTR

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1258762 were received on 16-JAN-13 08:40.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report To	Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company: AMEC	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other	<input checked="" type="radio"/> Regular (Default)
Contact: Bruce Ott	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax	<input type="radio"/> Priority (Specify Date Required → →) Surcharges apply
Address: Suite 600, 4445 Lougheed Highway, Burnaby, B.C. V5C 0E4	Email 1: bruce.ott@amec.com	<input type="radio"/> Emergency (1 Business Day) - 100% Surcharge
Phone: (604)295-4758 Fax: (604)294-4664	Email 2:	<input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS

Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Client / Project Information	Analysis Request																			
Company:	Job #: VE52095	Please indicate below Filtered, Preserved or both (F, P, F/P)																			
Contact:	PO / AFE:	P																			
Address:	LSD:																				
Phone: Fax:	Quote #: Q28456																				

Lab Work Order # (lab use only)	ALS Contact:	Sampler:
---------------------------------	--------------	----------

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Cyanate	Thiocyanate																Number of Containers	
	WQ17	14_Jan-13		Water	X	X																	2
	WQ26	14_Jan-13		Water	X	X																	2
	WQ11	14_Jan-13		Water	X	X																	2
	WQ10	14_Jan-13		Water	X	X																	2
	WQ3	14_Jan-13		Water	X	X																	2
	WQ5	14_Jan-13		Water	X	X																	2
	WQ15	14_Jan-13		Water	X	X																	2
	WQ16	14_Jan-13		Water	X	X																	2
	WQ12	14_Jan-13		Water	X	X																	2
	WQ8	14_Jan-13		Water	X	X																	2



Regulations / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.

Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)			SHIPMENT VERIFICATION (lab use only)			Observations: Yes / No ? If Yes add SIF
Released by: <i>Bruce Ott</i>	Date (dd-mm-yy): 14-Jan-13	Time (hh-mm): 17:00	Received by: <i>Brett</i>	Date: Jan. 16	Time: 8:40	Temperature: 5.6 °C	Verified by:	Date:	



AMEC Environment & Infrastructure
ATTN: Bruce Ott
6000 4445 LOUGHEED HWY
BURNABY BC V5C 0E4

Date Received: 17-JAN-13
Report Date: 28-JAN-13 12:28 (MT)
Version: FINAL

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1259237
Project P.O. #: NOT SUBMITTED
Job Reference: VE52095
C of C Numbers:
Legal Site Desc:

Selam Worku
Account Manager

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ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	Description	Sampled Date	Sampled Time	Client ID
	L1259237-1	water	15-JAN-13		WQ13
	L1259237-2	water	15-JAN-13		WQ9
	L1259237-3	water	15-JAN-13		WQ7
	L1259237-4	water	15-JAN-13		WQ6
	L1259237-5	water	15-JAN-13		WQ DUPLICATE
Grouping	Analyte				
WATER					
Cyanides	Cyanate (ug/L)				
	<200	<200	<200	<200	<200
	Thiocyanate (SCN) (ug/L)				
	<500	<500	<500	<500	<500

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID Description Sampled Date Sampled Time Client ID	L1259237-6 water 15-JAN-13 FIELD BLANK	L1259237-7 water 15-JAN-13 TRAVEL BLANK		
Grouping	Analyte				
WATER					
Cyanides	Cyanate (ug/L)	<200	<200		
	Thiocyanate (SCN) (ug/L)	<500	<500		

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1259237

Report Date: 28-JAN-13

Page 1 of 2

Client: AMEC Environment & Infrastructure
 # 6000 4445 LOUGHEED HWY
 BURNABY BC V5C 0E4

Contact: Bruce Ott

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT		Water						
Batch	R2512726							
WG1616682-1	LCS							
Cyanate			106.6		%		85-115	22-JAN-13
WG1616682-2	MB							
Cyanate			<0.20		mg/L		0.2	22-JAN-13
CN-SCN-VA		Water						
Batch	R2511415							
WG1615291-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			101.0		%		85-115	18-JAN-13
WG1615291-3	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			95.6		%		85-115	18-JAN-13
WG1615291-5	DUP	L1259237-7						
Thiocyanate (SCN)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	18-JAN-13
WG1615291-1	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	18-JAN-13
WG1615291-4	MS	L1259237-7						
Thiocyanate (SCN)			111.9		%		75-125	18-JAN-13

Quality Control Report

Workorder: L1259237

Report Date: 28-JAN-13

Page 2 of 2

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report To		Report Format / Distribution			Service Requested (Rush for routine analysis subject to availability)																	
Company: AMEC		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other			<input checked="" type="radio"/> Regular (Default)																	
Contact: Bruce Ott		<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax			<input type="radio"/> Priority (Specify Date Required → →) Surcharges apply																	
Address: Suite 600, 4445 Lougheed Highway, Burnaby, B.C. V5C 0E4		Email 1: bruce.ott@amec.com			<input type="radio"/> Emergency (1 Business Day) - 100% Surcharge																	
Phone: (604)295-4758 Fax: (604)294-4664		Email 2:			<input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS																	
Invoice To Same as Report ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Client / Project Information			Analysis Request																	
Company: _____		Job #: VE52095			Please indicate below Filtered, Preserved or both (F, P, F/P)																	
Contact: _____		PO / AFE: _____			P	P															Number of Containers	
Address: _____		LSD: _____																				
Phone: _____ Fax: _____		Quote #: Q28456																				
Lab Work Order # _____ (lab use only)		ALS Contact: _____		Sampler: _____																		
Sample #	Sample Identification (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Cyanate	Thiocyanate																
	WQ13	15_Jan-13		Water	X	X																2
	WQ9	15_Jan-13		Water	X	X																2
	WQ7	15_Jan-13		Water	X	X																2
	WQ5	15_Jan-13		Water	X	X																2
	WQ6	15_Jan-13		Water	X	X																2
	WQ1	15_Jan-13		Water	X	X																2
	WQ2	15_Jan-13		Water	X	X																2
	WQ Duplicate	15_Jan-13		Water	X	X																2
	Field Blank	15_Jan-13		Water	X	X																2
	Travel Blank	15_Jan-13		Water	X	X																2
 L1259237-COFC																						
Special Instructions / Regulations																						
<p>Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.</p> <p>By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.</p> <p>Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.</p>																						
SHIPMENT RELEASE (client use)					SHIPMENT RECEPTION (lab use only)					SHIPMENT VERIFICATION (lab use only)												
Released by: B. Pittman	Date (dd-mm-yy): 16 16-Jan-13	Time (hh-mm): 0500	Received by: BP	Date: Jan. 17	Time: 9:05	Temperature: 3.6 °C	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF												



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 17-JAN-13
Report Date: 24-JAN-13 10:04 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1259298
Project P.O. #: 2220
Job Reference: EC-64706
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1259298-1 WQ17~13-1292 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-2 WQ26~13-1293 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-3 WQ11~13-1294 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-4 WQ10~13-1295 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-5 WQ3~13-1296 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-6 WQ5~13-1297 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-7 WQ15~13-1298 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-8 WQ16~13-1299 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-9 WQ12~13-1300 Sampled By: CLIENT on 15-JAN-13 Matrix: water							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1259298-9 WQ12~13-1300 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-10 WQ8~13-1301 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-11 TRIP BLANK~13-1302 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-12 WQ6~13-1307 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-13 WQ7~13-1308 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-14 WQ9~13-1309 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-15 WQ13~13-1310 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-16 WQ DUPLCATE~13-1311 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		22-JAN-13 22-JAN-13	R2513645 R2513646
L1259298-17 FIELD BLANK~13-1312 Sampled By: CLIENT on 15-JAN-13 Matrix: water							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1259298-17 FIELD BLANK~13-1312 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 22-JAN-13 22-JAN-13	 R2513645 R2513646
L1259298-18 WQ18~13-1337 Sampled By: CLIENT on 15-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 22-JAN-13 22-JAN-13	 R2513645 R2513646

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1259298

Report Date: 24-JAN-13

Page 1 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2513645							
WG1616703-11	DUP	L1259713-29						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616703-13	DUP	L1259298-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616703-19	DUP	L1259606-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616703-21	DUP	L1259611-7						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616703-25	DUP	L1259744-5						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616703-3	DUP	L1259302-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616703-7	DUP	L1259713-13						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616703-10	LCS							
Cyanide, Total			93.3		%		80-120	22-JAN-13
WG1616703-16	LCS							
Cyanide, Total			93.9		%		80-120	22-JAN-13
WG1616703-18	LCS							
Cyanide, Total			93.9		%		80-120	22-JAN-13
WG1616703-2	LCS							
Cyanide, Total			92.6		%		80-120	22-JAN-13
WG1616703-24	LCS							
Cyanide, Total			92.8		%		80-120	22-JAN-13
WG1616703-28	LCS							
Cyanide, Total			93.6		%		80-120	22-JAN-13
WG1616703-6	LCS							
Cyanide, Total			94.1		%		80-120	22-JAN-13
WG1616703-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-JAN-13
WG1616703-15	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-JAN-13
WG1616703-17	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-JAN-13
WG1616703-23	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-JAN-13
WG1616703-27	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-JAN-13



Quality Control Report

Workorder: L1259298

Report Date: 24-JAN-13

Page 2 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2513645							
WG1616703-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-JAN-13
WG1616703-9	MB							
Cyanide, Total			<0.0050		mg/L		0.005	22-JAN-13
WG1616703-12	MS	L1259713-29						
Cyanide, Total			108.6		%		70-130	22-JAN-13
WG1616703-14	MS	L1259298-4						
Cyanide, Total			99.3		%		70-130	22-JAN-13
WG1616703-20	MS	L1259606-2						
Cyanide, Total			98.5		%		70-130	22-JAN-13
WG1616703-22	MS	L1259611-7						
Cyanide, Total			97.5		%		70-130	22-JAN-13
WG1616703-26	MS	L1259744-5						
Cyanide, Total			97.7		%		70-130	22-JAN-13
WG1616703-4	MS	L1259302-4						
Cyanide, Total			101.5		%		70-130	22-JAN-13
WG1616703-8	MS	L1259713-13						
Cyanide, Total			103.1		%		70-130	22-JAN-13
CN-WAD-CFA-VA		Water						
Batch	R2513646							
WG1616708-11	DUP	L1259713-29						
Cyanide, Weak Acid Diss			<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616708-13	DUP	L1259298-4						
Cyanide, Weak Acid Diss			<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616708-19	DUP	L1259606-2						
Cyanide, Weak Acid Diss			<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616708-21	DUP	L1259611-7						
Cyanide, Weak Acid Diss			<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616708-25	DUP	L1259744-5						
Cyanide, Weak Acid Diss			<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616708-3	DUP	L1259302-4						
Cyanide, Weak Acid Diss			<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616708-7	DUP	L1259713-13						
Cyanide, Weak Acid Diss			<0.0050	RPD-NA	mg/L	N/A	20	22-JAN-13
WG1616708-10	LCS							
Cyanide, Weak Acid Diss			106.7		%		80-120	22-JAN-13
WG1616708-16	LCS							
Cyanide, Weak Acid Diss			107.2		%		80-120	22-JAN-13



Quality Control Report

Workorder: L1259298

Report Date: 24-JAN-13

Page 3 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2513646							
WG1616708-18	LCS							
	Cyanide, Weak Acid Diss		106.3		%		80-120	22-JAN-13
WG1616708-2	LCS							
	Cyanide, Weak Acid Diss		106.1		%		80-120	22-JAN-13
WG1616708-24	LCS							
	Cyanide, Weak Acid Diss		109.0		%		80-120	22-JAN-13
WG1616708-28	LCS							
	Cyanide, Weak Acid Diss		108.4		%		80-120	22-JAN-13
WG1616708-6	LCS							
	Cyanide, Weak Acid Diss		107.7		%		80-120	22-JAN-13
WG1616708-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	22-JAN-13
WG1616708-15	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	22-JAN-13
WG1616708-17	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	22-JAN-13
WG1616708-23	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	22-JAN-13
WG1616708-27	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	22-JAN-13
WG1616708-5	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	22-JAN-13
WG1616708-9	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	22-JAN-13
WG1616708-12	MS	L1259713-29						
	Cyanide, Weak Acid Diss		111.8		%		70-130	22-JAN-13
WG1616708-14	MS	L1259298-4						
	Cyanide, Weak Acid Diss		103.8		%		70-130	22-JAN-13
WG1616708-20	MS	L1259606-2						
	Cyanide, Weak Acid Diss		102.3		%		70-130	22-JAN-13
WG1616708-22	MS	L1259611-7						
	Cyanide, Weak Acid Diss		101.2		%		70-130	22-JAN-13
WG1616708-26	MS	L1259744-5						
	Cyanide, Weak Acid Diss		100.4		%		70-130	22-JAN-13
WG1616708-4	MS	L1259302-4						
	Cyanide, Weak Acid Diss		104.6		%		70-130	22-JAN-13
WG1616708-8	MS	L1259713-13						
	Cyanide, Weak Acid Diss		106.5		%		70-130	22-JAN-13

Quality Control Report

Workorder: L1259298

Report Date: 24-JAN-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 4 of 4

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to:		Report Format / Distribution				Service Requested:							
Company: AMEC Earth & Environmental, Chemistry Dept.		<input type="checkbox"/> Standard <input type="checkbox"/> Other				<input checked="" type="checkbox"/> Regular Service (Default)							
Contact: Kristine Connor		<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax				<input type="checkbox"/> Rush Service (2-3 Days)							
Address: 5667-70 Street, Edmonton, AB T6B 3P6		Email 1: kristine.connor@amec.com				<input type="checkbox"/> Priority Service (1 Day or ASAP)							
		Email 2: charlene.rollheiser@amec.com				<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS							
Phone: (780) 989-4580 Fax: (780) 377-3600						Analysis Request							
Invoice To: <input checked="" type="checkbox"/> Same as Report		Indicate Bottles: Filtered / Preserved (F/P) ---											
Company: Same		Client / Project Information:				CN-T-CFA-VA CN-WAD-MID-COL-VA Hazardous? <input type="checkbox"/> Highly Contaminated? <input type="checkbox"/> Number of Containers							
Contact:		Job #: EC-64706											
Address:		PO/AFE:											
Sample		Legal Site Description:											
Phone: Fax:		Quote #:											
Lab Work Order # (lab use only)		ALS Contact: Maureen Olinek		Sampler (Initials):									
Sample #	Sample Identification (This description will appear on the report)			Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)					Hazardous?	Highly Contaminated?	Number of Containers
	18 Water Samples (See attached)			See attached		Water		x	x				x
Guidelines / Regulations				Special Instr				L1259298-COFC 					
Please list both ID's on results.													
Failure to complete all portions of this form may delay analysis. Please fill in th.													
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.													
Relinquished By:	jeffery connor	Date & Time:	17-Jan-13	Received By:		Date & Time:		Sample Condition (lab use only)					
Relinquished By:		Date & Time:		Received By:		Date & Time:	17 JAN 13	Temperature	Samples Received in Good Condition? Y / N (if no provided details)				
								62					

15:10

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-64706	WQ6	13-1307-	2013/01/15	Water
EC-64706	WQ17	13-1292-	2013/01/13	Water
EC-64706	WQ7	13-1308-	2013/01/15	Water
EC-64706	WQ9	13-1309-	2013/01/15	Water
EC-64706	WQ13	13-1310-	2013/01/15	Water
EC-64706	WQ Duplicate	13-1311-	2013/01/15	Water
EC-64706	Field Blank	13-1312-	2013/01/15	Water
EC-64706	WQ26	13-1293-	2013/01/13	Water
EC-64706	WQ11	13-1294-	2013/01/13	Water
EC-64706	WQ10	13-1295-	2013/01/13	Water
EC-64706	WQ3	13-1296-	2013/01/13	Water
EC-64706	WQ5	13-1297-	2013/01/13	Water
EC-64706	WQ15	13-1298-	2013/01/13	Water
EC-64706	WQ16	13-1299-	2013/01/13	Water
EC-64706	WQ12	13-1300-	2013/01/13	Water
EC-64706	WQ8	13-1301-	2013/01/13	Water
EC-64706	Trip Blank	13-1302-	2013/01/13	Water
EC-64706	WQ18	13-1337-	2013/01/16	Water

↑
Please Set numerically ie 13-1293
Sort 13-1294
Report 13-1295 etc



L1259298-COFC



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: JESSE DANG
5667 70 Street NW
EDMONTON AB T6B 3P6

Date Received: 23-JAN-13
Report Date: 01-FEB-13 14:32 (MT)
Version: FINAL

Client Phone: 780-940-4147

Certificate of Analysis

Lab Work Order #: L1261022
Project P.O. #: 2220
Job Reference: EC-64733
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1261022-1 CP01~13-1406 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-2 CP02~13-1407 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-3 CP03~13-1408 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-4 CP06~13-1409 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-5 CP07~13-1410 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-6 CP08~13-1411 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-7 CP15~13-1412 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-8 CP DUP~13-1413 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-9 FIELD BLANK~13-1414 Sampled By: CLIENT on 21-JAN-13 Matrix: Water							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1261022-9 FIELD BLANK~13-1414 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552
L1261022-10 TRIP BLANK~13-1415 Sampled By: CLIENT on 21-JAN-13 Matrix: Water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		31-JAN-13 31-JAN-13	R2518551 R2518552

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
EXTEMP10	Samples Received with temperature >10 Degrees C

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
<p>This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.</p>			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
<p>This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.</p>			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:
GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1261022

Report Date: 01-FEB-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2518551							
WG1621320-5	DUP	L1261871-2						
Cyanide, Total		0.0604	0.0607		mg/L	0.5	20	31-JAN-13
WG1621320-7	DUP	L1261022-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-JAN-13
WG1621320-9	DUP	L1261451-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-JAN-13
WG1621320-12	LCS							
Cyanide, Total			87.8		%		80-120	31-JAN-13
WG1621320-2	LCS							
Cyanide, Total			87.3		%		80-120	31-JAN-13
WG1621320-4	LCS							
Cyanide, Total			86.0		%		80-120	31-JAN-13
WG1621320-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	31-JAN-13
WG1621320-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	31-JAN-13
WG1621320-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	31-JAN-13
WG1621320-3	MB							
Cyanide, Total			<0.0050		mg/L		0.005	31-JAN-13
WG1621320-10	MS	L1261451-1						
Cyanide, Total			98.0		%		70-130	31-JAN-13
WG1621320-6	MS	L1261871-2						
Cyanide, Total			91.8		%		70-130	31-JAN-13
WG1621320-8	MS	L1261022-2						
Cyanide, Total			98.1		%		70-130	31-JAN-13
CN-WAD-CFA-VA		Water						
Batch	R2518552							
WG1621321-5	DUP	L1261871-2						
Cyanide, Weak Acid Diss		0.0060	0.0060		mg/L	0.7	20	31-JAN-13
WG1621321-7	DUP	L1261022-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-JAN-13
WG1621321-9	DUP	L1261451-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	31-JAN-13
WG1621321-12	LCS							
Cyanide, Weak Acid Diss			105.0		%		80-120	31-JAN-13
WG1621321-14	LCS							
Cyanide, Weak Acid Diss			101.5		%		80-120	31-JAN-13



Quality Control Report

Workorder: L1261022

Report Date: 01-FEB-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2518552							
WG1621321-2	LCS							
Cyanide, Weak Acid Diss			104.9		%		80-120	31-JAN-13
WG1621321-4	LCS							
Cyanide, Weak Acid Diss			105.2		%		80-120	31-JAN-13
WG1621321-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	31-JAN-13
WG1621321-11	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	31-JAN-13
WG1621321-13	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	31-JAN-13
WG1621321-3	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	31-JAN-13
WG1621321-10	MS	L1261451-1						
Cyanide, Weak Acid Diss			101.4		%		70-130	31-JAN-13
WG1621321-6	MS	L1261871-2						
Cyanide, Weak Acid Diss			97.8		%		70-130	31-JAN-13
WG1621321-8	MS	L1261022-2						
Cyanide, Weak Acid Diss			100.8		%		70-130	31-JAN-13

Quality Control Report

Workorder: L1261022

Report Date: 01-FEB-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 70 Street NW
EDMONTON AB T6B 3P6
Contact: JESSE DANG

Page 3 of 3

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to:			Report Format / Distribution				Service Requested:				
Company: AMEC Earth & Environmental, Chemistry Dept.			<input type="checkbox"/> Standard <input type="checkbox"/> Other				<input checked="" type="checkbox"/> Regular Service (Default)				
Contact: Kristine Connor			<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax				<input type="checkbox"/> Rush Service (2-3 Days)				
Address: 5667-70 Street, Edmonton, AB T6B 3P6			Email 1: kristine.connor@amec.com				<input type="checkbox"/> Priority Service (1 Day or ASAP)				
			Email 2: charlene.rollheiser@amec.com				<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS				
Phone: (780) 989-4580 Fax: (780) 377-3600			Analysis Request								
Invoice To: <input checked="" type="checkbox"/> Same as Report			Indicate Bottles: Filtered / Preserved (F/P) →→								
Company: Same			Client / Project Information:				CN-T-CFA-VA CN-WAD-MID-COL-VA	 L1261022-COFC			
Contact:			Job #: EC-64733								
Address:			PO/AFE:								
Sample			Legal Site Description:								
Phone: Fax:			Quote #:								
Lab Work Order # (lab use only) <u>L1261022</u>			ALS Contact: Maureen Olinek		Sampler (Initials):						
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)				Hazardous?	Highly Contaminated?	Number of Containers	
	10 Water Samples (See attached)	see attached		Water	x	x				x	
Guidelines / Regulations					Special Instructions / Hazardous Details						
					Please list both ID's on results.						
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.											
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.											
Relinquished By:	jeffery connor	Date & Time:	23-Jan-13	Received By:	<i>[Signature]</i>	Date & Time:	23-Jan-13	Sample Condition (lab use only)			
Relinquished By:		Date & Time:		Received By:		Date & Time:	12:35	Temperature	15.7°C	Samples Received in Good Condition? Y / N (if no provided details)	

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-64733	CP01	13-1406-	2013/01/21	Water
EC-64733	CP02	13-1407-	2013/01/21	Water
EC-64733	CP03	13-1408-	2013/01/21	Water
EC-64733	CP06	13-1409-	2013/01/21	Water
EC-64733	CP07	13-1410-	2013/01/21	Water
EC-64733	CP08	13-1411-	2013/01/21	Water
EC-64733	CP15	13-1412-	2013/01/21	Water
EC-64733	CP DUP	13-1413-	2013/01/21	Water
EC-64733	Field Blank	13-1414-	2013/01/21	Water
EC-64733	Trip Blank	13-1415-	2013/01/21	Water



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64761
Project Number: VE52095.200.LAKES
Project Name: NewGold Blackwater
Date Received: 2013/01/30
Date of Report: 2013/02/06
Sublet Data: Attached

Report reviewed by:



Jesse Dang, B.Sc.
Manager
Laboratory Services



Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-64761

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1478	13-1478-D	13-1479	13-1480
					Client ID:	WQ21-Epi	WQ21-Epi	WQ21-Meta	WQ21-Hypo
					Sample Date:	2013/01/28 0:00	Lab Duplicate	2013/01/28 0:00	2013/01/28 0:00
					MDL				
AFD	2013/01/30	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	85	85	76	76
AFD	2013/01/30	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.164	0.162	0.145	0.146
AFD	2013/01/30	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.09	0.09	0.07	0.07
AFD	2013/01/30	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.081	0.084	0.115	0.100
AFD	2013/01/30	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/01/30	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.9	5.0	4.2	4.2
EL	2013/01/30	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	104	92	124	140
EL	2013/02/01	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/01/31	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.0	0.9	0.9
AFD	2013/01/30	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.3	0.4	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1481	13-1482
					Client ID:	WQ Duplicate	Trip Blank
					Sample Date:	2013/01/28 0:00	2013/01/28 0:00
					MDL		
AFD	2013/01/30	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	82	< 1
AFD	2013/01/30	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.157	0.001
AFD	2013/01/30	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	< 0.02
AFD	2013/01/30	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.130	< 0.005
AFD	2013/01/30	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
AFD	2013/01/30	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.5	< 0.5
EL	2013/01/30	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	132	< 4
EL	2013/02/01	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2
AFD	2013/01/31	Turbidity	NTU	APHA 2130-b	0.1	1.0	0.7
AFD	2013/01/30	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	< 0.1

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1478	13-1478-D	13-1479	13-1480
					Client ID:	WQ21-Epi	WQ21-Epi	WQ21-Meta	WQ21-Hypo
					Sample Date:	2013/01/28 0:00	Lab Duplicate	2013/01/28 0:00	2013/01/28 0:00
					MDL				
EL	2013/02/01	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/01/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.3	7.5	7.8	8.2
RC	2013/01/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.6	7.6	7.9	8.5
AFD	2013/01/30	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/02/05	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.019	0.020	0.016	0.017
EL	2013/01/30	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.12	0.13	0.12	0.17

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-64761

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1481	13-1482
					Client ID:	WQ Duplicate	Trip Blank
					Sample Date:	2013/01/28 0:00	2013/01/28 0:00
					MDL		
EL	2013/02/01	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02
RC	2013/01/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.4	< 0.1
RC	2013/01/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.7	< 0.1
AFD	2013/01/30	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
RC	2013/02/05	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.022	< 0.001
EL	2013/01/30	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.12	< 0.08

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-64761

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1478	13-1478-D	13-1479	13-1480
					Client ID:	WQ21-Epi	WQ21-Epi	WQ21-Meta	WQ21-Hypo
					Sample Date:	2013/01/28 0:00	Lab Duplicate	2013/01/28 0:00	2013/01/28 0:00
					MDL				
RC	2013/02/05	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.006	0.003	0.003	0.027
RC	2013/02/05	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00006	0.00007
RC	2013/02/05	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0004	0.0004
RC	2013/02/05	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00620	0.00611	0.00562	0.00573
RC	2013/02/05	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/05	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.004	0.003	0.003	0.003
RC	2013/02/05	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000122
RC	2013/02/05	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	24.8	24.9	22.4	22.9
RC	2013/02/05	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/05	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/02/05	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0008	0.0008	0.0007	0.0012
RC	2013/02/05	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0083	0.0087	0.0104	0.0183
RC	2013/02/05	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00075	0.00073	0.00141	0.00312
RC	2013/02/05	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/05	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.57	5.66	4.98	5.02
RC	2013/02/05	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00326	0.00331	0.00503	0.00630
RC	2013/02/05	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/05	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00063	0.00056	0.00051	0.00055
RC	2013/02/05	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00024	0.00022	0.00041
RC	2013/02/05	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.02	0.02	< 0.02	0.02
RC	2013/02/05	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.0	1.0	0.9	0.9
RC	2013/02/05	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/05	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.92	5.47	4.94	5.22
RC	2013/02/05	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/05	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.1	4.2	3.8	3.8
RC	2013/02/05	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.108000	0.106000	0.099400	0.099200
RC	2013/02/05	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/05	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002
RC	2013/02/05	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0002	0.0002	< 0.0002	< 0.0002
RC	2013/02/05	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00009	0.00008	0.00008
RC	2013/02/05	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/05	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0027	0.0026	0.0119	0.0203
AFD	2013/01/30	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.76	7.79	7.75	7.71
RC	2013/02/05	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	84.8	85.4	76.3	77.9

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-64761

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1481	13-1482
					Client ID:	WQ Duplicate	Trip Blank
					Sample Date:	2013/01/28 0:00	2013/01/28 0:00
					MDL		
RC	2013/02/05	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.009	< 0.002
RC	2013/02/05	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2013/02/05	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	< 0.0001
RC	2013/02/05	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00627	< 0.00005
RC	2013/02/05	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2013/02/05	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.004	< 0.001
RC	2013/02/05	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015
RC	2013/02/05	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	24.2	< 0.5
RC	2013/02/05	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003
RC	2013/02/05	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002
RC	2013/02/05	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	< 0.0001
RC	2013/02/05	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0112	< 0.0001
RC	2013/02/05	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00053	< 0.00005
RC	2013/02/05	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
RC	2013/02/05	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.56	< 0.50
RC	2013/02/05	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00174	< 0.00005
RC	2013/02/05	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2013/02/05	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00056	< 0.00005
RC	2013/02/05	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	< 0.00005
RC	2013/02/05	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.02	< 0.02
RC	2013/02/05	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.0	< 0.5
RC	2013/02/05	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006
RC	2013/02/05	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.18	< 0.01
RC	2013/02/05	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2013/02/05	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.1	< 0.5
RC	2013/02/05	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.106000	< 0.000005
RC	2013/02/05	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
RC	2013/02/05	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2013/02/05	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0002	< 0.0002
RC	2013/02/05	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	< 0.00005
RC	2013/02/05	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
RC	2013/02/05	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0040	< 0.0005
AFD	2013/01/30	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.80	5.75
RC	2013/02/05	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	83.2	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-64761

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1478	13-1478-D	13-1479	13-1480
					Client ID:	WQ21-Epi	WQ21-Epi	WQ21-Meta	WQ21-Hypo
					Sample Date:	2013/01/28 0:00	Lab Duplicate	2013/01/28 0:00	2013/01/28 0:00
					MDL				
RC	2013/02/06	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	< 0.002	< 0.002
RC	2013/02/06	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00006	< 0.00005
RC	2013/02/06	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0004	0.0004
RC	2013/02/06	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00571	0.00588	0.00561	0.00542
RC	2013/02/06	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/06	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.004	0.003	0.003	0.003
RC	2013/02/06	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000015
RC	2013/02/06	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	24.8	21.7	21.9	20.6
RC	2013/02/06	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/06	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/02/06	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0008	0.0008	0.0004	0.0005
RC	2013/02/06	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0072	0.0073	0.0087	0.0075
RC	2013/02/06	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00048	0.00038	0.00083	0.00077
RC	2013/02/06	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/06	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.57	5.66	4.98	5.02
RC	2013/02/06	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00041	0.00043	0.00032	0.00034
RC	2013/02/05	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/06	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00063	0.00051	0.00050	0.00047
RC	2013/02/06	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	0.00012	0.00010	0.00009
RC	2013/02/06	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	0.02	0.02	0.02
RC	2013/02/06	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.0	1.0	0.9	0.9
RC	2013/02/06	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/06	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.92	5.47	4.94	5.22
RC	2013/02/06	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/06	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	4.2	3.8	3.8
RC	2013/02/06	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.107000	0.105000	0.099400	0.097500
RC	2013/02/06	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/06	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/06	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002
RC	2013/02/06	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	0.00009	0.00008	0.00008
RC	2013/02/06	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/06	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0025	0.0025	0.0119	0.0158
RC	2013/02/06	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	84.8	77.4	75.2	72.0

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-64761

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1481	13-1482
					Client ID:	WQ Duplicate	Trip Blank
					Sample Date:	2013/01/28 0:00	2013/01/28 0:00
					MDL		
RC	2013/02/06	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.004	< 0.002
RC	2013/02/06	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2013/02/06	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001
RC	2013/02/06	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00627	< 0.00005
RC	2013/02/06	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2013/02/06	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.004	< 0.001
RC	2013/02/06	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015
RC	2013/02/06	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	21.7	< 0.5
RC	2013/02/06	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003
RC	2013/02/06	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002
RC	2013/02/06	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001
RC	2013/02/06	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0112	< 0.0001
RC	2013/02/06	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00043	< 0.00005
RC	2013/02/06	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
RC	2013/02/06	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.56	< 0.50
RC	2013/02/06	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00064	< 0.00005
RC	2013/02/05	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
RC	2013/02/06	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00052	< 0.00005
RC	2013/02/06	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	< 0.00005
RC	2013/02/06	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	< 0.01
RC	2013/02/06	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.0	< 0.5
RC	2013/02/06	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006
RC	2013/02/06	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.18	< 0.01
RC	2013/02/06	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2013/02/06	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	< 0.5
RC	2013/02/06	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.106000	< 0.000005
RC	2013/02/06	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2013/02/06	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
RC	2013/02/06	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	< 0.0002
RC	2013/02/06	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005
RC	2013/02/06	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
RC	2013/02/06	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0040	< 0.0005
RC	2013/02/06	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	77.1	< 6.0

Quality Control Standard

Project No. VE52095.200.LAKES

File No. EC-64761

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/01/30	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	68	56-77	65	QC-ALK/F-55
AFD	2013/01/30	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.74	2.54-2.94	2.790	CC-EC-0.02M-47
AFD	2013/01/30	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.56	0.44-0.58	0.50	QC-AIK/F-55
AFD	2013/01/30	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.67	1.44-1.76	1.600	CC-Anion-120B
AFD	2013/01/30	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.658	0.54-0.66	0.600	CC-Anion-120B
AFD	2013/01/30	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	27.1	25.2-30.8	28.0	CC-Anion-120B
EL	2013/01/30	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4780	3809-6227	5018	QCP-E2-SLD02009
EL	2013/02/01	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	150	134-153	144	QCP-E2-SLD02009
AFD	2013/01/31	Turbidity	NTU	APHA 2130-b	0.1	10	8.5-11.5	10.0	QC-Turb-8
AFD	2013/01/30	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.2	3.6-4.4	4.0	CC-Anion-120B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/02/01	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.53	0.394-0.610	0.50	F2NUT01116
RC	2013/01/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.1	33.1-42.6	37.9	DMD-TOC-98-Mid
RC	2013/01/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	154	132.6-170.5	151.5	DMD-TOC-98-High
AFD	2013/01/30	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.766	0.72-0.88	0.800	CC-Anion-120BL
RC	2013/02/05	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	256	225-275	250.000	MS-CCV-HIGH
EL	2013/01/30	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	8.13	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Quality Control Standard

Project No. VE52095.200.LAKES

File No. EC-64761

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/02/05	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	53.4	45-55	50.000	MS-CCV-HIGH
RC	2013/02/05	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	108	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/05	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	100	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/02/05	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	50.8	45-55	50.00000	MS-CCV-HIGH
RC	2013/02/05	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	48.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/05	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	47.7	45-55	50.000	MS-CCV-HIGH
RC	2013/02/05	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.0	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/02/05	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/05	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.1	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/05	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/05	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.0	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/05	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	46.6	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/05	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	99.4	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/05	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.2	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/02/05	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/02/05	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	51.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/05	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.294000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/02/05	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/05	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/05	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	256	225-275	250.00	MS-CCV-HIGH
RC	2013/02/05	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	26400	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/02/05	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	49.3	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/05	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	127	105-129	117.00	MS-CCV-HIGH
RC	2013/02/05	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.9	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/02/05	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/05	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	52.1	45-55	50.000000	MS-CCV-HIGH
RC	2013/02/05	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	262	225-275	250.00000	MS-CCV-HIGH
RC	2013/02/05	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	257	225-275	250.0000	MS-CCV-HIGH
RC	2013/02/05	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/05	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90-110	100.00000	MS-CCV-HIGH
RC	2013/02/05	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	49.7	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/05	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.8	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/01/30	pH @ 25°C BC-T	pH Units	APHA 4500H	0.01	6.02	5.92-6.08	6.00	QC-pH-6

Quality Control Standard

Project No. VE52095.200.LAKES

File No. EC-64761

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/02/06	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	50.6	45-55	50.000	MS-CCV-HIGH
RC	2013/02/06	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	110	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/06	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/02/06	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45-55	50.00000	MS-CCV-HIGH
RC	2013/02/06	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	45.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/06	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	46.8	45-55	50.000	MS-CCV-HIGH
RC	2013/02/06	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	49.3	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/02/06	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/06	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	47.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/06	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	47.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/06	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	47.2	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/06	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.8	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/06	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	97.2	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/06	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	47.8	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/02/06	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/02/06	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	51.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/05	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.294000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/02/06	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/06	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	47.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/06	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	261	225-275	250.00	MS-CCV-HIGH
RC	2013/02/06	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25500	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/02/06	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	51.1	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/06	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	123	105-129	117.00	MS-CCV-HIGH
RC	2013/02/06	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.4	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/02/06	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25000	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/06	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	51.4	45-55	50.000000	MS-CCV-HIGH
RC	2013/02/06	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	246	225-275	250.00000	MS-CCV-HIGH
RC	2013/02/06	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	254	225-275	250.0000	MS-CCV-HIGH
RC	2013/02/06	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	48.2	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/06	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	97.1	90-110	100.00000	MS-CCV-HIGH
RC	2013/02/06	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	47.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/06	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	54.2	45.0-55.0	50.0000	MS-CCV-HIGH

Analytical Comments

Project No. VE52095.200.LAKES

File No. EC-64761

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit



Edmonton Chemistry Lab

EL-64761

82

Chain of Custody Record/Analysis Request

ISSUING OFFICE:

Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater

Project Manager: Bruce Ott

Project Number: VE52095

Sampler: Phone No.: 604-294-3811

Phase: 200

Task: LAKES

Client Sample ID

Quote #: QN-521

AMEC E & E Lab Sample ID

Date Collected: yyyymm/dd

Temperature Received: 6.301

FOR LAB USE ONLY

Matrix

Receiver's Comments

1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)
-----------	------------	------------	-----------------	--------------	---------------------	---------------------	------------------	-----------------------------	-------------------------	-----	-------------------------------------------	-----------------	---------------------------	--------------------------------------------------	---------------------------------------------------

WO21-Epi	1/28/2013	water	2	1	1	1	2	X	X	X	X	X	X		
WO21-Meta	13-1-79	water	2	1 <td>1 <td>1 <td>2</td> <td>X <td>X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td></td></td></td></td>	1 <td>1 <td>2</td> <td>X <td>X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td></td></td></td>	1 <td>2</td> <td>X <td>X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td></td></td>	2	X <td>X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td></td>	X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td>	X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td>	X <td>X <td>X</td> <td></td> <td></td> </td>	X <td>X</td> <td></td> <td></td>	X		
WO21-Hypo	90	water	2	1 <td>1 <td>1 <td>2</td> <td>X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td></td></td></td>	1 <td>1 <td>2</td> <td>X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td></td></td>	1 <td>2</td> <td>X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td></td>	2	X <td>X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td></td>	X <td>X <td>X <td>X</td> <td></td> <td></td> </td></td>	X <td>X <td>X</td> <td></td> <td></td> </td>	X <td>X</td> <td></td> <td></td>	X			
WO Duplicate	1	water	2	1 <td>1 <td>1 <td>2</td> <td>X <td>X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td></td></td></td></td>	1 <td>1 <td>2</td> <td>X <td>X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td></td></td></td>	1 <td>2</td> <td>X <td>X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td></td></td>	2	X <td>X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td></td>	X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td>	X <td>X</td> <td>X</td> <td></td> <td></td>	X	X			
Trip Blank	2	water	2	1 <td>1 <td>1 <td>2</td> <td>X <td>X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td></td></td></td></td>	1 <td>1 <td>2</td> <td>X <td>X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td></td></td></td>	1 <td>2</td> <td>X <td>X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td></td></td>	2	X <td>X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td></td>	X <td>X <td>X</td> <td>X</td> <td></td> <td></td> </td>	X <td>X</td> <td>X</td> <td></td> <td></td>	X	X			

RELINQUISHED BY:

Signature:

RELINQUISHED BY:

Signature:

RECEIVED BY:

Signature:

Printed Name:

Printed Name:

Printed Name:

Printed Name:

Comments:

L.Nordin

Printed Name:

Printed Name:

Printed Name:

1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneer Lai (raneer.lai@amec.com)

Firm:

Firm:

Firm:

Firm:

2) Please use Low Level nitrate and nitrite

Avision Management Services

Firm:

Firm:

Firm:

3) Please analyze CN-4 and CN-WAD using H2SO4 method.

Date/Time:

Date/Time:

Date/Time:

Date/Time:

1/28/2013 17:00:00 PM



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: JESSE DANG
5667 70 Street NW
EDMONTON AB T6B 3P6

Date Received: 30-JAN-13
Report Date: 07-FEB-13 14:08 (MT)
Version: FINAL

Client Phone: 780-940-4147

Certificate of Analysis

Lab Work Order #: L1263408
Project P.O. #: 2220
Job Reference: EC-64761
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1263408-1 WQ21-EPI (13-1478) Sampled By: CLIENT on 28-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-FEB-13 05-FEB-13	R2522795 R2522800
L1263408-2 WQ21-META (13-1479) Sampled By: CLIENT on 28-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-FEB-13 05-FEB-13	R2522795 R2522800
L1263408-3 WQ21-HYPO (13-1480) Sampled By: CLIENT on 28-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-FEB-13 05-FEB-13	R2522795 R2522800
L1263408-4 WQ DUPLICATE (13-1481) Sampled By: CLIENT on 28-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-FEB-13 05-FEB-13	R2522795 R2522800
L1263408-5 TRIP BLANK (13-1482) Sampled By: CLIENT on 28-JAN-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-FEB-13 05-FEB-13	R2522795 R2522800

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:
GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1263408

Report Date: 07-FEB-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2522795							
WG1623245-5	DUP	L1263468-7						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-FEB-13
WG1623245-12	LCS							
Cyanide, Total			90.6		%		80-120	05-FEB-13
WG1623245-16	LCS							
Cyanide, Total			88.4		%		80-120	05-FEB-13
WG1623245-2	LCS							
Cyanide, Total			89.7		%		80-120	05-FEB-13
WG1623245-8	LCS							
Cyanide, Total			91.5		%		80-120	05-FEB-13
WG1623245-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-FEB-13
WG1623245-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-FEB-13
WG1623245-15	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-FEB-13
WG1623245-7	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-FEB-13
WG1623245-6	MS	L1263468-7						
Cyanide, Total			100.8		%		70-130	05-FEB-13
CN-WAD-CFA-VA								
	Water							
Batch	R2522800							
WG1623246-5	DUP	L1263468-7						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-FEB-13
WG1623246-12	LCS							
Cyanide, Weak Acid Diss			105.4		%		80-120	05-FEB-13
WG1623246-16	LCS							
Cyanide, Weak Acid Diss			104.6		%		80-120	05-FEB-13
WG1623246-2	LCS							
Cyanide, Weak Acid Diss			106.6		%		80-120	05-FEB-13
WG1623246-8	LCS							
Cyanide, Weak Acid Diss			106.5		%		80-120	05-FEB-13
WG1623246-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-FEB-13
WG1623246-11	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-FEB-13
WG1623246-15	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-FEB-13



Quality Control Report

Workorder: L1263408

Report Date: 07-FEB-13

Page 2 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2522800							
WG1623246-7 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-FEB-13
WG1623246-6 MS		L1263468-7						
Cyanide, Weak Acid Diss			102.9		%		70-130	05-FEB-13

Quality Control Report

Workorder: L1263408

Report Date: 07-FEB-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE

5667 70 Street NW

EDMONTON AB T6B 3P6

Page 3 of 3

Contact: JESSE DANG

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

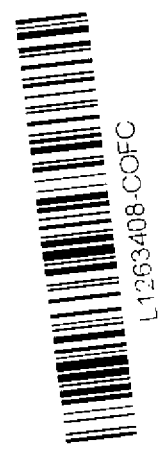
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to:		Report Format / Distribution		Service Requested:	
Company: AMEC Earth & Environmental, Chemistry Dept.		<input type="checkbox"/> Standard <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Regular Service (Default)	
Contact: Kristine Connor		<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax		<input type="checkbox"/> Rush Service (2-3 Days)	
Address: 5667-70 Street, Edmonton, AB T6B 3P6		Email 1: kristine.connor@amec.com		<input type="checkbox"/> Priority Service (1 Day or ASAP)	
		Email 2: charlene.schermers@amec.com		<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS	
Phone: (780) 989-4580 Fax: (780) 377-3600		Analysis Request			
Invoice To: <input checked="" type="checkbox"/> Same as Report		Indicate Bottles: Filtered / Preserved (F/P) ---- P			
Company: Same		Client / Project Information:		CN-T-CFA-VA CN-WAD-MID-COL-VA	Hazardous? Highly Contaminated? Number of Containers
Contact:		Job #:			
Address:		PO/AFE: EC-64761			
Sample:		Legal Site Description:			
Phone: Fax:		Quote #:			
Lab Work Order # (lab use only): 4263408		ALS Contact: Maureen Olinek	Sampler (Initials):		
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	
	WQ21-Epi (13-1478)	28-Jan-13		Water	X X
	WQ21-Meta (13-1479)	28-Jan-13		Water	X X
	WQ21-Hypo (13-1480)	28-Jan-13		Water	X X
	WQ Duplicate(13-1481)	28-Jan-13		Water	X X
	Trip Blank (13-1482)	28-Jan-13		Water	X X
Guidelines / Regulations		Special Instructions / Hazardous Details			
Please list both ID's on results					
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.					
Relinquished By:	Colin Castor	Date & Time:	30-Jan-13	Received By:	<i>[Signature]</i>
Relinquished By:		Date & Time:		Received By:	<i>[Signature]</i>
		Date & Time:		Date & Time:	<i>14:58</i>
				Temperature:	<i>8.3</i>
Sample Condition (lab use only) Samples Received in Good Condition? Y / N (if no provided details)					



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64814
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/02/13
Date of Report: 2013/02/21
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-64814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1759	13-1759-D	13-1760	13-1761
					Client ID:	WQ26	WQ26	WQ11	WQ10
					Sample Date:	2013/02/12 0:00	Lab Duplicate	2013/02/12 0:00	2013/02/12 0:00
					MDL				
AFD	2013/02/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	66	66	86	55
AFD	2013/02/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.127	0.125	0.159	0.108
AFD	2013/02/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.08	0.06	0.07
AFD	2013/02/14	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.029	0.031	0.061	0.040
AFD	2013/02/14	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	< 0.003	< 0.003	< 0.003
AFD	2013/02/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.4	3.4	3.1	3.6
EL	2013/02/19	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	64	56	84	48
EL	2013/02/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/02/13	Turbidity	NTU	APHA 2130-b	0.1	0.5	0.5	0.6	0.5
AFD	2013/02/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.4	0.5	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1762	13-1763	13-1764	13-1765
					Client ID:	WQ3	WQ15	WQ16	WQ12
					Sample Date:	2013/02/12 0:00	2013/02/12 0:00	2013/02/12 0:00	2013/02/12 0:00
					MDL				
AFD	2013/02/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	56	27	25	26
AFD	2013/02/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.103	0.057	0.052	0.053
AFD	2013/02/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.04	0.04	0.04
AFD	2013/02/14	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.051	0.026	0.049	0.036
AFD	2013/02/14	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	0.004	0.004	0.003
AFD	2013/02/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.9	1.6	1.9	1.7
EL	2013/02/19	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	52	44	16	36
EL	2013/02/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	2	< 2	< 2
AFD	2013/02/13	Turbidity	NTU	APHA 2130-b	0.1	1.0	1.3	1.2	0.9
AFD	2013/02/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.4	0.4	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1766	13-1779	13-1779-D	13-1780
					Client ID:	WQ8	WQ6	WQ6	WQ7
					Sample Date:	2013/02/12 0:00	2013/02/13 0:00	Lab Duplicate	2013/02/13 0:00
					MDL				
AFD	2013/02/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	81	28	29	66
AFD	2013/02/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.156	0.059	0.059	0.128
AFD	2013/02/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.05	0.05	0.07
AFD	2013/02/14	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.078	0.031	0.032	0.040
AFD	2013/02/14	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.006	< 0.003	< 0.003	< 0.003
AFD	2013/02/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.3	2.2	2.2	3.4
EL	2013/02/19	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	80	8	---	68
EL	2013/02/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	---	3
AFD	2013/02/13	Turbidity	NTU	APHA 2130-b	0.1	0.4			
	2013/02/19	Turbidity	NTU	APHA 2130-b	0.1		0.7	0.7	0.7
AFD	2013/02/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.3	0.3	0.5

Water Analysis

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1781	13-1782	13-1783	13-1784
					Client ID:	WO9	WO Duplicate	Field Blank	Travel Blank
					Sample Date:	2013/02/13 0:00	2013/02/13 0:00	2013/02/13 0:00	2013/02/13 0:00
					MDL				
AFD	2013/02/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	79	66	< 1	< 1
AFD	2013/02/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.154	0.127	< 0.001	0.001
AFD	2013/02/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.07	< 0.02	< 0.02
AFD	2013/02/14	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.073	0.043	< 0.005	< 0.005
AFD	2013/02/14	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/02/19	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.7	3.3	< 0.5	< 0.5
EL	2013/02/19	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	104	76	4	< 4
EL	2013/02/19	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/02/19	Turbidity	NTU	APHA 2130-b	0.1	0.7	0.6	0.4	0.3
AFD	2013/02/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.4	0.2	0.2

Water Analysis

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1759	13-1759-D	13-1760	13-1761
					Client ID:	WQ26	WQ26	WQ11	WQ10
					Sample Date:	2013/02/12 0:00	Lab Duplicate	2013/02/12 0:00	2013/02/12 0:00
					MDL				
EL	2013/02/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/02/13	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.2	2.2	3.9	2.3
RC	2013/02/13	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.2	2.2	3.9	2.3
AFD	2013/02/14	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/02/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.006	0.005	0.005	0.005
EL	2013/02/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	< 0.08	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1762	13-1763	13-1764	13-1765
					Client ID:	WQ3	WQ15	WQ16	WQ12
					Sample Date:	2013/02/12 0:00	2013/02/12 0:00	2013/02/12 0:00	2013/02/12 0:00
					MDL				
EL	2013/02/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	0.02	< 0.02
RC	2013/02/13	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	1.7	7.7	4.6	4.8
RC	2013/02/13	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	1.7	7.7	4.6	4.8
AFD	2013/02/14	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/02/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.041	0.004	< 0.001	0.004
EL	2013/02/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.11	< 0.08	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1766	13-1779	13-1779-D	13-1780
					Client ID:	WQ8	WQ6	WQ6	WQ7
					Sample Date:	2013/02/12 0:00	2013/02/13 0:00	Lab Duplicate	2013/02/13 0:00
					MDL				
EL	2013/02/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	---	< 0.02
RC	2013/02/13	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.6	2.6	---	3.1
RC	2013/02/13	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.6	2.6	---	3.1
AFD	2013/02/14	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/02/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.014	< 0.001	---	0.007
EL	2013/02/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.10	< 0.08	---	0.16

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1781	13-1782	13-1783	13-1784
					Client ID:	WO9	WO Duplicate	Field Blank	Travel Blank
					Sample Date:	2013/02/13 0:00	2013/02/13 0:00	2013/02/13 0:00	2013/02/13 0:00
					MDL				
EL	2013/02/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/02/13	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.6	3.4	< 0.1	< 0.1
RC	2013/02/13	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.6	3.4	< 0.1	< 0.1
AFD	2013/02/14	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/02/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.009	0.002	< 0.001	< 0.001
EL	2013/02/19	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.10	< 0.08	< 0.08	< 0.08

Water Analysis - Total Metals

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1759	13-1759-D	13-1760	13-1761
					Client ID:	WQ26	WQ26	WQ11	WQ10
					Sample Date:	2013/02/12 0:00	Lab Duplicate	2013/02/12 0:00	2013/02/12 0:00
					MDL				
RC	2013/02/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.007	0.007	0.051	0.011
RC	2013/02/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0004	< 0.0001	0.0004
RC	2013/02/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00811	0.00795	0.01240	0.00704
RC	2013/02/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/02/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	17.9	17.9	25.1	14.9
RC	2013/02/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	0.00002	< 0.00002
RC	2013/02/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0248	0.0236	0.0278	0.0367
RC	2013/02/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.91	3.85	5.27	3.06
RC	2013/02/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00376	0.00369	0.00129	0.00179
RC	2013/02/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00082	0.00084	0.00036	0.00082
RC	2013/02/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/02/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	0.6	0.7	0.5
RC	2013/02/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.52	7.57	6.73	6.47
RC	2013/02/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.0	3.9	4.4	3.7
RC	2013/02/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.102000	0.101000	0.129000	0.091000
RC	2013/02/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0002	0.0002	0.0008	0.0002
RC	2013/02/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00022	0.00036	0.00023
RC	2013/02/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0040	0.0039	0.0033	0.0119
AFD	2013/02/14	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.80	7.82	7.83	7.70
AFD	2013/02/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	60.9	60.6	84.3	49.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-64814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1762	13-1763	13-1764	13-1765
					Client ID:	WQ3	WQ15	WQ16	WQ12
					Sample Date:	2013/02/12 0:00	2013/02/12 0:00	2013/02/12 0:00	2013/02/12 0:00
					MDL				
RC	2013/02/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.029	0.033	0.011	0.028
RC	2013/02/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0011	0.0001	0.0003	0.0001
RC	2013/02/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00440	0.00869	0.00374	0.00556
RC	2013/02/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/02/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	13.1	8.4	7.5	7.1
RC	2013/02/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0009	< 0.0003	< 0.0003	0.0247
RC	2013/02/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00002	< 0.00002	0.00006
RC	2013/02/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0006
RC	2013/02/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0758	0.1470	0.1030	0.5110
RC	2013/02/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.32	1.25	1.46	1.29
RC	2013/02/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00637	0.03600	0.03840	0.01290
RC	2013/02/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00080	0.00069	0.00082	0.00061
RC	2013/02/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00045
RC	2013/02/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	0.05	< 0.02	< 0.02	< 0.02
RC	2013/02/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	< 0.5	< 0.5	< 0.5
RC	2013/02/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	9.51	2.23	1.64	3.24
RC	2013/02/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.1	2.0	2.3	2.2
RC	2013/02/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.082700	0.076200	0.044800	0.051200
RC	2013/02/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0008	0.0006	0.0003	0.0007
RC	2013/02/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00015	0.00022	0.00009
RC	2013/02/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0012	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0044	0.0042	0.0033	0.0027
AFD	2013/02/14	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.80	7.33	7.28	7.24
AFD	2013/02/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	46.5	26.0	24.8	23.0

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-64814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1766	13-1779	13-1779-D	13-1780
					Client ID:	WQ8	WQ6	WQ6	WQ7
					Sample Date:	2013/02/12 0:00	2013/02/13 0:00	Lab Duplicate	2013/02/13 0:00
					MDL				
RC	2013/02/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	0.019	---	0.039
RC	2013/02/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/02/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0003	---	0.0003
RC	2013/02/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00605	0.00554	---	0.00903
RC	2013/02/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/02/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	---	< 0.001
RC	2013/02/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	---	0.000105
RC	2013/02/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	24.0	7.0	---	17.1
RC	2013/02/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	---	0.0005
RC	2013/02/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	---	0.00006
RC	2013/02/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	---	0.0011
RC	2013/02/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0125	0.0797	---	0.1580
RC	2013/02/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	0.00007
RC	2013/02/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	---	< 0.001
RC	2013/02/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.55	1.24	---	4.00
RC	2013/02/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00211	0.00511	---	0.02710
RC	2013/02/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	---	< 0.000005
RC	2013/02/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00053	0.00055	---	0.00078
RC	2013/02/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	< 0.00005	---	0.00021
RC	2013/02/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	---	< 0.02
RC	2013/02/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.0	< 0.5	---	1.0
RC	2013/02/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	---	< 0.0006
RC	2013/02/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.27	6.26	---	6.28
RC	2013/02/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/02/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.1	2.6	---	4.0
RC	2013/02/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.106000	0.051400	---	0.099200
RC	2013/02/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/02/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/02/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	0.0005	---	0.0023
RC	2013/02/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00006	---	0.00022
RC	2013/02/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/02/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0030	0.0024	---	0.0178
AFD	2013/02/14	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.80	7.40	7.40	7.78
AFD	2013/02/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	82.9	22.7	---	59.1

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-64814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1781	13-1782	13-1783	13-1784
					Client ID:	WQ9	WQ Duplicate	Field Blank	Travel Blank
					Sample Date:	2013/02/13 0:00	2013/02/13 0:00	2013/02/13 0:00	2013/02/13 0:00
					MDL				
RC	2013/02/19	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.008	0.010	< 0.002	< 0.002
RC	2013/02/19	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0003	< 0.0001	< 0.0001
RC	2013/02/19	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00705	0.00813	< 0.00005	< 0.00005
RC	2013/02/19	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/19	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	0.000017	< 0.000015	< 0.000015
RC	2013/02/19	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	21.8	17.5	< 0.5	< 0.5
RC	2013/02/19	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/19	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00003	< 0.00002	< 0.00002
RC	2013/02/19	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1230	0.1090	< 0.0001	< 0.0001
RC	2013/02/19	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/19	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.21	3.96	< 0.50	< 0.50
RC	2013/02/19	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01730	0.02250	< 0.00005	< 0.00005
RC	2013/02/21	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/19	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00060	0.00080	< 0.00005	< 0.00005
RC	2013/02/19	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/02/19	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.9	0.6	< 0.5	< 0.5
RC	2013/02/19	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/19	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.03	6.17	< 0.01	< 0.01
RC	2013/02/19	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.0	4.0	< 0.5	< 0.5
RC	2013/02/19	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.105000	0.098900	< 0.000005	< 0.000005
RC	2013/02/19	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/19	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0010	0.0006	< 0.0002	< 0.0002
RC	2013/02/19	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00021	< 0.00005	< 0.00005
RC	2013/02/19	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/19	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0037	0.0074	< 0.0005	< 0.0005
AFD	2013/02/14	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.77	7.77	5.75	5.62
AFD	2013/02/19	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	75.9	60.0	< 6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-64814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1759	13-1759-D	13-1760	13-1761
					Client ID:	WQ26	WQ26	WQ11	WQ10
					Sample Date:	2013/02/12 0:00	Lab Duplicate	2013/02/12 0:00	2013/02/12 0:00
					MDL				
RC	2013/02/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.007	0.007	0.025	0.011
RC	2013/02/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	< 0.0001	0.0003
RC	2013/02/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00811	0.00794	0.01230	0.00704
RC	2013/02/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/02/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	17.9	17.9	25.1	14.9
RC	2013/02/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/02/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0001	0.0006	< 0.0001
RC	2013/02/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0208	0.0206	0.0079	0.0301
RC	2013/02/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.91	3.85	5.27	3.06
RC	2013/02/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00376	0.00369	0.00049	0.00179
RC	2013/02/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00064	0.00068	0.00028	0.00065
RC	2013/02/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2013/02/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.6	0.7	0.5
RC	2013/02/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.52	7.57	6.73	6.47
RC	2013/02/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.0	3.9	4.4	3.7
RC	2013/02/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.102000	0.101000	0.129000	0.091000
RC	2013/02/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	0.0004	< 0.0002
RC	2013/02/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00021	0.00021	0.00035	0.00021
RC	2013/02/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0040	0.0039	0.0033	0.0119
AFD	2013/02/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	60.9	60.6	84.3	49.8

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-64814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1762	13-1763	13-1764	13-1765
					Client ID:	WQ3	WQ15	WQ16	WQ12
					Sample Date:	2013/02/12 0:00	2013/02/12 0:00	2013/02/12 0:00	2013/02/12 0:00
					MDL				
RC	2013/02/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.011	0.016	0.006	0.027
RC	2013/02/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0010	< 0.0001	0.0003	< 0.0001
RC	2013/02/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00417	0.00794	0.00374	0.00556
RC	2013/02/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.001	0.001	0.001	0.001
RC	2013/02/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/02/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	13.1	8.4	7.5	7.1
RC	2013/02/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0009	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/02/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	0.0002	0.0002	0.0002
RC	2013/02/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0312	0.1080	0.0961	0.2200
RC	2013/02/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.32	1.25	1.46	1.29
RC	2013/02/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00314	0.01330	0.03840	0.00811
RC	2013/02/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00068	0.00055	0.00071	0.00043
RC	2013/02/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.05	< 0.01	< 0.01	< 0.01
RC	2013/02/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	< 0.5	< 0.5	< 0.5
RC	2013/02/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	9.51	2.23	1.64	3.24
RC	2013/02/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	2.0	2.3	2.2
RC	2013/02/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.082700	0.076200	0.044800	0.051200
RC	2013/02/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	< 0.0002	< 0.0002	0.0005
RC	2013/02/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	0.00011	0.00019	0.00008
RC	2013/02/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00123	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0044	0.0042	0.0033	0.0027
AFD	2013/02/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	46.5	26.0	24.8	23.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-64814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1766	13-1779	13-1780	13-1781
					Client ID:	WQ8	WQ6	WQ7	WQ9
					Sample Date:	2013/02/12 0:00	2013/02/13 0:00	2013/02/13 0:00	2013/02/13 0:00
					MDL				
RC	2013/02/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	0.019	0.012	0.002
RC	2013/02/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0002	0.0003	0.0004
RC	2013/02/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00605	0.00554	0.00824	0.00705
RC	2013/02/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.002	< 0.001	0.001	0.002
RC	2013/02/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000021	< 0.000015
RC	2013/02/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	24.0	7.0	17.1	21.8
RC	2013/02/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00002	< 0.00002
RC	2013/02/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0002	0.0011	0.0004
RC	2013/02/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0093	0.0574	0.0722	0.0830
RC	2013/02/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.55	1.24	4.00	5.21
RC	2013/02/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00169	0.00511	0.02610	0.01560
RC	2013/02/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00051	0.00047	0.00069	0.00054
RC	2013/02/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005	0.00011	0.00010
RC	2013/02/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	< 0.01	0.01	0.01
RC	2013/02/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.0	< 0.5	1.0	0.9
RC	2013/02/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.27	6.26	6.28	5.03
RC	2013/02/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	2.6	4.0	4.0
RC	2013/02/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.106000	0.051400	0.099200	0.105000
RC	2013/02/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	0.0004	< 0.0002	< 0.0002
RC	2013/02/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	< 0.00005	0.00021	0.00009
RC	2013/02/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0030	0.0024	0.0178	0.0037
AFD	2013/02/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	82.9	22.7	59.1	75.9

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-64814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1782	13-1783	13-1784
					Client ID:	WQ Duplicate	Field Blank	Travel Blank
					Sample Date:	2013/02/13 0:00	2013/02/13 0:00	2013/02/13 0:00
					MDL			
RC	2013/02/21	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.010	< 0.002	< 0.002
RC	2013/02/21	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	< 0.0001	< 0.0001
RC	2013/02/21	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00813	< 0.00005	< 0.00005
RC	2013/02/21	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/21	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/21	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/02/21	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	17.5	< 0.5	< 0.5
RC	2013/02/21	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/21	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/02/21	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001	< 0.0001
RC	2013/02/21	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0714	< 0.0001	< 0.0001
RC	2013/02/21	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/21	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.96	< 0.50	< 0.50
RC	2013/02/21	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02020	< 0.00005	< 0.00005
RC	2013/02/21	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/21	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00067	< 0.00005	< 0.00005
RC	2013/02/21	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01
RC	2013/02/21	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	< 0.5	< 0.5
RC	2013/02/21	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/21	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.17	< 0.01	< 0.01
RC	2013/02/21	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.0	< 0.5	< 0.5
RC	2013/02/21	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.098900	< 0.000005	< 0.000005
RC	2013/02/21	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/21	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2013/02/21	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00021	< 0.00005	< 0.00005
RC	2013/02/21	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/21	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0074	< 0.0005	< 0.0005
AFD	2013/02/21	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	60.0	< 6.0	< 6.0

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64814

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/02/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	65	56-77	65	QC-ALK/F-55
AFD	2013/02/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.78	2.54-2.94	2.790	CC-EC-0.02M-47
AFD	2013/02/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.53	0.44-0.58	0.50	QC-AIK/F-55
AFD	2013/02/14	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.57	1.44-1.76	1.600	CC-Anion-121B
AFD	2013/02/14	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.618	0.54-0.66	0.600	CC-Anion-121B
AFD	2013/02/19	Sulphate-D	mg/l (ppm)	APHA 4110	0.5	25.2	25.2-30.8	28.0	CC-Anion-121B
EL	2013/02/19	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4764	3932-5511	5018	QCP-E2-SLD02009
EL	2013/02/19	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	152	134-153	144	QCP-E2-SLD02009
AFD	2013/02/19	Turbidity	NTU	APHA 2130-b	0.1	9.4	8.5-11.5	10.0	QC-Turb-8
AFD	2013/02/19	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.6	3.6-4.4	4.0	CC-Anion-121B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/02/19	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.56	0.394-0.610	0.50	F2NUT01116
RC	2013/02/13	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	39.1	33.1-42.6	37.9	DMD-TOC-99-Mid
RC	2013/02/13	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	157	132.6-170.5	151.5	DMD-TOC-99-High
AFD	2013/02/14	Phosphate-Ortho-DLL	mg/l (ppm)	APHA 4110	0.003	0.806	0.72-0.88	0.800	CC-Anion-121B
RC	2013/02/19	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	263	225-275	250.000	MS-CCV-HIGH
EL	2013/02/19	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	8.02	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64814

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/02/19	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	48.9	45-55	50.000	MS-CCV-HIGH
RC	2013/02/19	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	95.8	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/19	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	101	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/02/19	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45-55	50.00000	MS-CCV-HIGH
RC	2013/02/19	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	47.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/19	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	46.9	45-55	50.000	MS-CCV-HIGH
RC	2013/02/19	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.2	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/02/19	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/19	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	49.1	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/19	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/19	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/19	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	50.7	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/19	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/19	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	47.5	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/02/19	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26000	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/02/19	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	53.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/21	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.278000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/02/19	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	48.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/19	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/19	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	263	225-275	250.00	MS-CCV-HIGH
RC	2013/02/19	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	26500	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/02/19	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.1	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/19	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
RC	2013/02/19	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.5	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/02/19	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26100	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/19	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	51.5	45-55	50.000000	MS-CCV-HIGH
RC	2013/02/19	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	244	225-275	250.00000	MS-CCV-HIGH
RC	2013/02/19	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	249	225-275	250.0000	MS-CCV-HIGH
RC	2013/02/19	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/19	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	93.7	90-110	100.00000	MS-CCV-HIGH
RC	2013/02/19	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	49.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/19	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.3	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/02/14	pH @ 25°C BC-T	pH Units	APHA 4500H	0.01	6.02	5.94-6.06	6.00	QC-pH-6

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64814

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/02/21	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	54.9	45-55	50.000	MS-CCV-HIGH
RC	2013/02/21	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	110	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/21	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/02/21	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.8	45-55	50.00000	MS-CCV-HIGH
RC	2013/02/21	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	51.7	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/21	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	49.0	45-55	50.000	MS-CCV-HIGH
RC	2013/02/21	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.4	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/02/21	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/21	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	47.5	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/21	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	48.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/21	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	48.0	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/21	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	50.3	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/21	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/21	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	49.8	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/02/21	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24000	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/02/21	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	52.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/21	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.278000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/02/21	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	50.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/21	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	47.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/21	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	266	225-275	250.00	MS-CCV-HIGH
RC	2013/02/21	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24600	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/02/21	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	48.4	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/21	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	108	105-129	117.00	MS-CCV-HIGH
RC	2013/02/21	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	13.2	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/02/21	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/21	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	52.6	45-55	50.000000	MS-CCV-HIGH
RC	2013/02/21	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	251	225-275	250.00000	MS-CCV-HIGH
RC	2013/02/21	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	251	225-275	250.0000	MS-CCV-HIGH
RC	2013/02/21	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	47.6	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/21	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	93.0	90-110	100.00000	MS-CCV-HIGH
RC	2013/02/21	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	47.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/21	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	52.7	45.0-55.0	50.0000	MS-CCV-HIGH

Analytical Comments

Project No. VE52277.2190.02

File No. EC-64814

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-GH 814
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Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC		Tracking #:	
Project Name: NewGold Blackwater	Sampler: Bruce Ott	Phone No.: 604-294-3811	2A.3
Project Manager: Bruce Ott	Phase: 200	Task: 2A.3	
Project Number: VE52095	Date Collected: yyyy/mm/dd	Matrix	
Client Sample ID	AMEC E & E Lab Sample ID		
WQ6	FOR LAB USE ONLY	1L Bottle	
WQ7	13-1779	250 mL Jar	
WQ9	80	40 mL Vial	
	81	1L Polyethylene	
		100 mL Amber	
		250 mL Polyethylene	
		125 mL Polyethylene	
WQ Duplicate	82		
Field Blank	83		
Travel Blank	84		

ANALYSIS REQUIRED (Note preferred method)	100% RUSH (Please Notify Lab Prior To Submission)		50% RUSH (Please Notify Lab Prior To Submission)		QUOTED PRICE
	YES	NO	YES	NO	
TSS	X		X		Please attach a copy of the quote
Cyanide (total and WAD)	X		X		
Total and ortho-Phosphorus	X		X		Quote #: QN-521
Water potability	X		X		Temperature Received: 6.10°C
Ammonia and TKN	X		X		Receiver's Comments
Total and dissolved metals (Ultra ICP/MS)	X		X		
Organic carbon (TOC, DOC)	X		X		

RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	COMMENTS:
Signature: <i>[Signature]</i>	Signature: _____	Signature: _____	1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)
Printed Name: J. Thomas	Printed Name: _____	Printed Name: _____	2) Please use Low Level nitrate and nitrite
Firm: Avision Management Services	Firm: _____	Firm: _____	3) Please analyze CN-t and CN-WAD using H2SO4 method.
Date/Time: 2/13/2012 15:00	Date/Time: _____	Date/Time: _____	



Edmonton Chemistry Lab

EC-04814

Chain of Custody Record/Analysis Request

ISSUING OFFICE:

Burnaby, BC

Tracking #:

83

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: New/Gold Blackwater

Project Manager: Bruce Ott

Project Number: VES2095

Client Sample ID

AMEC E & E Lab Sample ID

Date Collected

Matrix

Sampler: 1L Bottle

Phone No.: 200

Task: 2A.3

604-294-3811

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

Total and dissolved metals (Ultra ICP/MS)

Ammonia and TKN

Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)

100% RUSH (Please Notify Lab Prior To Submission)

Receiver's Comments

Quote #:

Temperature Received:

4.6°C

YES

NO

Comments:

1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneel Lai (raneel.lai@amec.com)

2) Please use Low Level nitrate and nitrite

3) Please analyze CN-4 and CN-WAD using H2SO4 method.

RELINQUISHED BY:

Signature:

Printed Name:

Date/Time:

Firm:

Signature:

Printed Name:

Date/Time:

Firm:

Signature:

Printed Name:

Date/Time:

Firm:

Signature:

Printed Name:

Date/Time:

Firm:



AMEC Environment & Infrastructure
ATTN: Bruce Ott
6000 4445 LOUGHEED HWY
BURNABY BC V5C 0E4

Date Received: 06-FEB-13
Report Date: 15-FEB-13 14:55 (MT)
Version: FINAL

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1265744
Project P.O. #: NOT SUBMITTED
Job Reference: VE52095
C of C Numbers:
Legal Site Desc:

Selam Worku
Account Manager

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ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	Sample ID Description Sampled Date Sampled Time Client ID				
WATER	Cyanides	L1265744-1 WATER 04-FEB-13 WQ12				
	Cyanate (ug/L)	<200				
	Thiocyanate (SCN) (ug/L)	<500				

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1265744

Report Date: 15-FEB-13

Page 1 of 2

Client: AMEC Environment & Infrastructure
 # 6000 4445 LOUGHEED HWY
 BURNABY BC V5C 0E4

Contact: Bruce Ott

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT		Water						
Batch	R2526472							
WG1625484-1	LCS							
Cyanate			111.0		%		85-115	08-FEB-13
WG1625484-2	MB							
Cyanate			<0.20		mg/L		0.2	08-FEB-13
CN-SCN-VA		Water						
Batch	R2524611							
WG1624329-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			98.7		%		85-115	07-FEB-13
WG1624329-6	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			98.1		%		85-115	07-FEB-13
WG1624329-1	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	07-FEB-13
WG1624329-5	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	07-FEB-13
WG1624329-9	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	07-FEB-13
WG1624329-10	MS	L1265856-41						
Thiocyanate (SCN)			82.8		%		75-125	07-FEB-13
WG1624329-3	MS	L1265856-9						
Thiocyanate (SCN)			96.7		%		75-125	07-FEB-13
WG1624329-7	MS	L1265856-29						
Thiocyanate (SCN)			97.0		%		75-125	07-FEB-13

Quality Control Report

Workorder: L1265744

Report Date: 15-FEB-13

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report To	Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company: AMEC	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other	<input checked="" type="radio"/> Regular (Default)
Contact: Bruce Ott	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax	<input type="radio"/> Priority (Specify Date Required -- --) <small>Surcharges apply</small>
Address: Suite 600, 4445 Lougheed Highway, Burnaby, B.C. V5C 0E4	Email 1: bruce.ott@amec.com	<input type="radio"/> Emergency (1 Business Day) - 100% Surcharge
Phone: (604)295-4758 Fax: (604)294-4664	Email 2:	<input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS

Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Client / Project Information	Analysis Request	
Company:	Job #: VE52095	Please indicate below Filtered, Preserved or both (F, P, F/P)	
Contact:	PO / AFE:	P	P
Address:	LSD:		
Phone:	Quote #: Q28456		

Lab Work Order # (lab use only): **L1265744** **ALS Contact:** **Sampler:**

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Cyanate	Thiocyanate	Number of Containers
WQ12		04-Feb-13		Water	X	X	2



Special Instructions / Regulations / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.
Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT_RELEASE (client use)		SHIPMENT_RECEPTION (lab use only)		SHIPMENT_VERIFICATION (lab use only)			Observations:
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Yes / No ?
Ben Pittman	5-Feb-13	15:00	Brittany	Feb. 6	9:35	2.8 °C	If Yes add SiF

Ben Pittman (signature)



Sample Receipt Confirmation

Report Distribution:

Company Name: AMEC Environment & Infrastructure
Contact: Bruce Ott
Address: # 6000 4445 LOUGHEED HWY,
 BURNABY, BC, V5C 0E4
Phone: 604-473-5315
Fax: 604-616-1772
Email: bruce.ott@amec.com
Report Name: CROSSTAB_ALSQC
Digital Type: --
Digital Email: --
Distribution: Hard Copy: Y Email: Y Fax: N

Invoice Distribution:

Acct Name: AMEC Environment & Infrastructure
Contact: Accounts Payable
Address: # 600 - 4445 Lougheed Hwy,
 Burnaby, BC, V5C 0E4
Phone: 604-294-3811
Fax: --
Invoice Email: --
Project #: N/A
Account #: AGR300

Client Information:

Job Reference #: VE52095
Project PO #:
Legal Site Description: N/A
Quote #: Q28456
Date Sampled: 04-FEB-13
Date Received: 06-FEB-13
Sampled By:
Chain Of Custody: --

Workorder Summary:

Lab Work Order #: L1265744
Estimated completion date: 15-FEB-13
1 Samples received at ALS in: VANCOUVER
Client Job #: VE52095
Account Manager: Selam Worku
Estimated sample disposal date: 17-MAR-13

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L1265744-1	WQ12	04-FEB-13 00:00	06-FEB-13 09:35	15-FEB-13		WATER

Analysis Requested:

Cyanate	Thiocyanate by Colour	Sample Handling and Disposal Fee
WQ12	✓	✓

Sample Integrity Observations: No observations were identified for this work order submission.

Notice of Sub-contract Laboratory Service

Please be advised that the following tests will be subcontracted to the corresponding laboratory:

Cyanate subcontracted to: ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Please contact your Account Manager immediately should you have questions or concerns regarding this arrangement. Approval of this arrangement shall be implied unless otherwise notified by you.



ALS Group strives to deliver on-time results to our clients at all times. However, there are times when due to capacity issues or other unforeseen circumstances we are unable to meet our expected turnaround times. The information above is related to a recent workorder you have submitted to our laboratory. In the event that you have an inquiry, please refer to the Lab Work Order # when calling your Account Manager.



Report To	Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company: AMEC	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other	<input checked="" type="radio"/> Regular (Default)
Contact: Bruce Ott	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax	<input type="radio"/> Priority (Specify Date Required -- --) Surcharges apply
Address: Suite 600, 4445 Lougheed Highway, Burnaby, B.C. V5C 0E4	Email 1: bruce.ott@amec.com	<input type="radio"/> Emergency (1 Business Day) - 100% Surcharge
Phone: (604)295-4758 Fax: (604)294-4664	Email 2:	<input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS

Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Client / Project Information	Analysis Request														
Company:	Job #: VE52095	Please indicate below Filtered, Preserved or both (F, P, F/P)														
Contact:	PO / AFE:	P														
Address:	LSD:															
Phone:	Quote #: Q28456															

Lab Work Order # (lab use only) **L1265744**

ALS Contact: _____ Sampler: _____

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Cyanate	Thiocyanate													Number of Containers
WQ12		04-Feb-13		Water	X	X													2



Special Instructions / Regulations / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
 By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.
 Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT_RELEASE (client use)			SHIPMENT_RECEPTION (lab use only)			SHIPMENT_VERIFICATION (lab use only)			Observations: Yes / No ? If Yes add SIF	
Released by:	Date (dd-mmm-yy)	Time (hh:mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:		Time:
Ben Pittman	5-Feb-13	15:00	Brittany	Feb.6	9:35	2.8 °C				

Ben Pittman



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: JESSE DANG
5667 70 Street NW
EDMONTON AB T6B 3P6

Date Received: 14-FEB-13
Report Date: 22-FEB-13 08:49 (MT)
Version: FINAL

Client Phone: 780-940-4147

Certificate of Analysis

Lab Work Order #: L1268429
Project P.O. #: 2220
Job Reference: EC-64814
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1268429-1 WQ26~13-1759 Sampled By: CLIENT on 12-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-FEB-13 20-FEB-13	R2539152 R2539153
L1268429-2 WQ11~13-1760 Sampled By: CLIENT on 12-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-FEB-13 20-FEB-13	R2539152 R2539153
L1268429-3 WQ10~13-1761 Sampled By: CLIENT on 12-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-FEB-13 20-FEB-13	R2539152 R2539153
L1268429-4 WQ3~13-1762 Sampled By: CLIENT on 12-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-FEB-13 20-FEB-13	R2539152 R2539153
L1268429-5 WQ15~13-1763 Sampled By: CLIENT on 12-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-FEB-13 20-FEB-13	R2539152 R2539153
L1268429-6 WQ16~13-1764 Sampled By: CLIENT on 12-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-FEB-13 20-FEB-13	R2539152 R2539153
L1268429-7 WQ12~13-1765 Sampled By: CLIENT on 12-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-FEB-13 20-FEB-13	R2539152 R2539153
L1268429-8 WQ8~13-1766 Sampled By: CLIENT on 12-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-FEB-13 20-FEB-13	R2539152 R2539153
L1268429-9 WQ6~13-1779 Sampled By: CLIENT on 13-FEB-13 Matrix: water							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1268429-9 WQ6~13-1779 Sampled By: CLIENT on 13-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 20-FEB-13 20-FEB-13	 R2539152 R2539153
L1268429-10 WQ7~13-1780 Sampled By: CLIENT on 13-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 20-FEB-13 20-FEB-13	 R2539152 R2539153
L1268429-11 WQ9~13-1781 Sampled By: CLIENT on 13-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 20-FEB-13 20-FEB-13	 R2539152 R2539153
L1268429-12 WQ DUPLICATE~13-1782 Sampled By: CLIENT on 13-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 20-FEB-13 20-FEB-13	 R2539152 R2539153
L1268429-13 FIELD BLANK ~13-1783 Sampled By: CLIENT on 13-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 20-FEB-13 20-FEB-13	 R2539152 R2539153
L1268429-14 TRIP BLANK~13-1784 Sampled By: CLIENT on 13-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 20-FEB-13 20-FEB-13	 R2539152 R2539153

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1268429

Report Date: 22-FEB-13

Page 1 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2539152							
WG1629778-13	DUP	L1268915-23						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629778-17	DUP	L1268429-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629778-21	DUP	L1268898-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629778-24	DUP	L1268251-2						
Cyanide, Total		0.0063	0.0068		mg/L	8.1	20	20-FEB-13
WG1629778-3	DUP	L1268887-9						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629778-9	DUP	L1268915-8						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629778-12	LCS							
Cyanide, Total			91.3		%		80-120	20-FEB-13
WG1629778-16	LCS							
Cyanide, Total			92.4		%		80-120	20-FEB-13
WG1629778-2	LCS							
Cyanide, Total			90.6		%		80-120	20-FEB-13
WG1629778-20	LCS							
Cyanide, Total			90.4		%		80-120	20-FEB-13
WG1629778-23	LCS							
Cyanide, Total			91.4		%		80-120	20-FEB-13
WG1629778-27	LCS							
Cyanide, Total			89.2		%		80-120	20-FEB-13
WG1629778-6	LCS							
Cyanide, Total			90.6		%		80-120	20-FEB-13
WG1629778-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-FEB-13
WG1629778-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-FEB-13
WG1629778-15	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-FEB-13
WG1629778-19	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-FEB-13
WG1629778-26	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-FEB-13
WG1629778-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-FEB-13



Quality Control Report

Workorder: L1268429

Report Date: 22-FEB-13

Page 2 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2539152							
WG1629778-10 MS		L1268915-8						
Cyanide, Total			101.2		%		70-130	20-FEB-13
WG1629778-14 MS		L1268915-23						
Cyanide, Total			99.4		%		70-130	20-FEB-13
WG1629778-18 MS		L1268429-4						
Cyanide, Total			100.0		%		70-130	20-FEB-13
WG1629778-22 MS		L1268898-1						
Cyanide, Total			93.2		%		70-130	20-FEB-13
WG1629778-25 MS		L1268251-2						
Cyanide, Total			108.5		%		70-130	20-FEB-13
CN-WAD-CFA-VA								
	Water							
Batch	R2539153							
WG1629779-13 DUP		L1268915-23						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629779-17 DUP		L1268429-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629779-22 DUP		L1268251-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629779-3 DUP		L1268887-9						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629779-9 DUP		L1268915-8						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-FEB-13
WG1629779-12 LCS								
Cyanide, Weak Acid Diss			107.2		%		80-120	20-FEB-13
WG1629779-16 LCS								
Cyanide, Weak Acid Diss			108.7		%		80-120	20-FEB-13
WG1629779-2 LCS								
Cyanide, Weak Acid Diss			106.8		%		80-120	20-FEB-13
WG1629779-20 LCS								
Cyanide, Weak Acid Diss			106.5		%		80-120	20-FEB-13
WG1629779-21 LCS								
Cyanide, Weak Acid Diss			108.4		%		80-120	20-FEB-13
WG1629779-25 LCS								
Cyanide, Weak Acid Diss			106.4		%		80-120	20-FEB-13
WG1629779-6 LCS								
Cyanide, Weak Acid Diss			106.0		%		80-120	20-FEB-13
WG1629779-1 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-FEB-13



Quality Control Report

Workorder: L1268429

Report Date: 22-FEB-13

Page 3 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2539153							
WG1629779-11 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-FEB-13
WG1629779-15 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-FEB-13
WG1629779-19 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-FEB-13
WG1629779-24 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-FEB-13
WG1629779-5 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-FEB-13
WG1629779-10 MS		L1268915-8						
Cyanide, Weak Acid Diss			102.3		%		70-130	20-FEB-13
WG1629779-14 MS		L1268915-23						
Cyanide, Weak Acid Diss			103.8		%		70-130	20-FEB-13
WG1629779-18 MS		L1268429-4						
Cyanide, Weak Acid Diss			102.0		%		70-130	20-FEB-13
WG1629779-23 MS		L1268251-2						
Cyanide, Weak Acid Diss			115.6		%		70-130	20-FEB-13

Quality Control Report

Workorder: L1268429

Report Date: 22-FEB-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 70 Street NW
EDMONTON AB T6B 3P6
Contact: JESSE DANG

Page 4 of 4

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-64814	WQ26	13-1759-	2013/02/12	Water
EC-64814	WQ11	13-1760-	2013/02/12	Water
EC-64814	WQ10	13-1761-	2013/02/12	Water
EC-64814	WQ3	13-1762-	2013/02/12	Water
EC-64814	WQ15	13-1763-	2013/02/12	Water
EC-64814	WQ16	13-1764-	2013/02/12	Water
EC-64814	WQ12	13-1765-	2013/02/12	Water
EC-64814	WQ8	13-1766-	2013/02/12	Water





AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: JESSE DANG
5667 70 Street NW
EDMONTON AB T6B 3P6

Date Received: 20-FEB-13
Report Date: 27-FEB-13 14:08 (MT)
Version: FINAL

Client Phone: 780-940-4147

Certificate of Analysis

Lab Work Order #: L1270591
Project P.O. #: 2220
Job Reference: EC-64831
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1270591-1 CP01~13-1814 Sampled By: CLIENT on 19-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-FEB-13 25-FEB-13	R2543691 R2543692
L1270591-2 CP02~13-1815 Sampled By: CLIENT on 19-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-FEB-13 25-FEB-13	R2543691 R2543692
L1270591-3 CP03~13-1816 Sampled By: CLIENT on 19-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-FEB-13 25-FEB-13	R2543691 R2543692
L1270591-4 CP06~13-1817 Sampled By: CLIENT on 19-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-FEB-13 25-FEB-13	R2543691 R2543692
L1270591-5 CP07~13-1818 Sampled By: CLIENT on 19-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-FEB-13 25-FEB-13	R2543691 R2543692
L1270591-6 CP08~13-1819 Sampled By: CLIENT on 19-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-FEB-13 25-FEB-13	R2543691 R2543692
L1270591-7 CP15~13-1820 Sampled By: CLIENT on 19-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-FEB-13 25-FEB-13	R2543691 R2543692
L1270591-8 CP DUP~13-1821 Sampled By: CLIENT on 19-FEB-13 Matrix: water Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		25-FEB-13 25-FEB-13	R2543691 R2543692
L1270591-9 FIELD BLANK~13-1822 Sampled By: CLIENT on 19-FEB-13 Matrix: water							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1270591-9 FIELD BLANK~13-1822 Sampled By: CLIENT on 19-FEB-13 Matrix: water							
Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		25-FEB-13	R2543691
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		25-FEB-13	R2543692
L1270591-10 TRIP BLANK~13-1823 Sampled By: CLIENT on 19-FEB-13 Matrix: water							
Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		25-FEB-13	R2543691
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		25-FEB-13	R2543692

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1270591

Report Date: 27-FEB-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2543691							
WG1632009-3	DUP	L1270549-3						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-FEB-13
WG1632009-6	DUP	L1270591-5						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-FEB-13
WG1632009-8	DUP	L1270997-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-FEB-13
WG1632009-11	LCS							
Cyanide, Total			90.4		%		80-120	25-FEB-13
WG1632009-2	LCS							
Cyanide, Total			88.4		%		80-120	25-FEB-13
WG1632009-5	LCS							
Cyanide, Total			90.4		%		80-120	25-FEB-13
WG1632009-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	25-FEB-13
WG1632009-10	MB							
Cyanide, Total			<0.0050		mg/L		0.005	25-FEB-13
WG1632009-4	MB							
Cyanide, Total			<0.0050		mg/L		0.005	25-FEB-13
WG1632009-7	MS	L1270591-5						
Cyanide, Total			98.2		%		70-130	25-FEB-13
WG1632009-9	MS	L1270997-1						
Cyanide, Total			99.7		%		70-130	25-FEB-13
CN-WAD-CFA-VA		Water						
Batch	R2543692							
WG1632010-3	DUP	L1270549-3						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-FEB-13
WG1632010-6	DUP	L1270591-5						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-FEB-13
WG1632010-8	DUP	L1270997-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	25-FEB-13
WG1632010-11	LCS							
Cyanide, Weak Acid Diss			102.1		%		80-120	25-FEB-13
WG1632010-2	LCS							
Cyanide, Weak Acid Diss			105.4		%		80-120	25-FEB-13
WG1632010-5	LCS							
Cyanide, Weak Acid Diss			104.0		%		80-120	25-FEB-13
WG1632010-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	25-FEB-13



Quality Control Report

Workorder: L1270591

Report Date: 27-FEB-13

Page 2 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2543692							
WG1632010-10 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	25-FEB-13
WG1632010-4 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	25-FEB-13
WG1632010-7 MS		L1270591-5						
Cyanide, Weak Acid Diss			98.8		%		70-130	25-FEB-13
WG1632010-9 MS		L1270997-1						
Cyanide, Weak Acid Diss			99.7		%		70-130	25-FEB-13

Quality Control Report

Workorder: L1270591

Report Date: 27-FEB-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 70 Street NW
EDMONTON AB T6B 3P6
Contact: JESSE DANG

Page 3 of 3

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

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Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

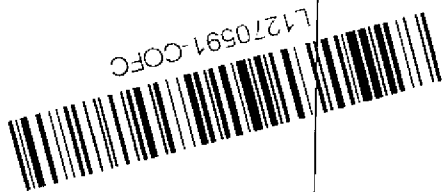


Report to: Company: AMEC Earth & Environmental, Chemistry Dept. Contact: Kristine Connor Address: 5667-70 Street, Edmonton, AB T6B 3P6 Phone: (780) 989-4580 Fax: (780) 377-3600		Report Format / Distribution <input type="checkbox"/> Standard <input type="checkbox"/> Other <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax Email 1: kristine.connor@amec.com Email 2: charlene.rollheiser@amec.com		Service Requested: <input checked="" type="checkbox"/> Regular Service (Default) <input type="checkbox"/> Rush Service (2-3 Days) <input type="checkbox"/> Priority Service (1 Day or ASAP) <input checked="" type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS													
Invoice To: <input checked="" type="checkbox"/> Same as Report		Indicate Bottles: Filtered / Preserved (F/P) ---->															
Company: Same		Client / Project Information:															
Contact:		Job #: EC-64831															
Address:		PO/AFE:															
Sample		Legal Site Description:															
Phone: Fax:		Quote #:															
Lab Work Order # (lab use only)		ALS Contact: Maureen Olinek		Sampler (Initials):													
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	CN-T-CFA-VA	CN-WAD-MID-COL-VA								Hazardous?	Highly Contaminated?	Number of Containers	
	10 Water Samples (See attached)	19-Feb-13		Water	x	x											x
Special Instructions / Hazardous Details																	
Please list both ID's on results.																	
All portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.																	
Relinquished By:	jeffery connor	Date & Time:	20-Feb-13	Received By:	<i>[Signature]</i>	Date & Time:	070 PM	Sample Condition (lab use only)									
Relinquished By:		Date & Time:		Received By:		Date & Time:	13:40	Temperature	10.2	Samples Received in Good Condition? Y / N (if no provided details)							



L1270591-COFC

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-64831	CP01	13-1814-	2013/02/19	Water
EC-64831	CP02	13-1815-	2013/02/19	Water
EC-64831	CP03	13-1816-	2013/02/19	Water
EC-64831	CP06	13-1817-	2013/02/19	Water
EC-64831	CP07	13-1818-	2013/02/19	Water
EC-64831	CP08	13-1819-	2013/02/19	Water
EC-64831	CP15	13-1820-	2013/02/19	Water
EC-64831	CP DUP	13-1821-	2013/02/19	Water
EC-64831	Field Blank	13-1822-	2013/02/19	Water
EC-64831	Trip Blank	13-1823-	2013/02/19	Water



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64781
Project Number: VE52095.200.LAKES
Project Name: NewGold Blackwater
Date Received: 2013/02/06
Date of Report: 2013/02/15
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.200.LAKES

Final
File No. EC-64781

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1611	13-1611-D	13-1612	13-1613
					Client ID:	WQ22-epi	WQ22-epi	WQ22-hyp	WQ20-epi
					Sample Date:	2013/02/04 0:00	Lab Duplicate	2013/02/04 0:00	2013/02/07 0:00
					MDL				
AFD	2013/02/08	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	55	---	53	90
AFD	2013/02/08	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.108	---	0.103	0.163
AFD	2013/02/08	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	---	0.07	0.08
AFD	2013/02/07	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.252	---	0.311	0.036
AFD	2013/02/07	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
AFD	2013/02/07	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.2	---	1.1	2.7
EL	2013/02/11	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	72	68	76	96
EL	2013/02/08	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/02/06	Turbidity	NTU	APHA 2130-b	0.1	2.5	---	1.5	1.6
AFD	2013/02/07	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	---	0.7	0.6

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1614	13-1650	13-1650-D	13-1651
					Client ID:	Field Blank	WQ20 met	WQ20 met	WQ20 hyp
					Sample Date:	2013/02/04 0:00	2013/02/07 0:00	Lab Duplicate	2013/02/07 0:00
					MDL				
AFD	2013/02/08	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	< 1	90	89	104
AFD	2013/02/08	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.001	0.161	0.162	0.184
AFD	2013/02/08	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	0.08	0.07	0.08
AFD	2013/02/07	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	0.107	0.112	0.101
AFD	2013/02/07	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	0.005
AFD	2013/02/07	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	2.1	2.2	1.6
EL	2013/02/11	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4	100	---	124
EL	2013/02/08	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	---	9
AFD	2013/02/06	Turbidity	NTU	APHA 2130-b	0.1	1.2	3.4	3.5	140
AFD	2013/02/07	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.6	0.4	0.6

Water Analysis

Project No. VE52095.200.LAKES

 Final
 File No. EC-64781

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1611	13-1611-D	13-1612	13-1613
					Client ID:	WQ22-epi	WQ22-epi	WQ22-hyp	WQ20-epi
					Sample Date:	2013/02/04 0:00	Lab Duplicate	2013/02/04 0:00	2013/02/07 0:00
					MDL				
EL	2013/02/08	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/02/13	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	14.8	15.0	14.6	8.6
RC	2013/02/13	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	16.0	16.0	14.6	8.6
AFD	2013/02/07	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
RC	2013/02/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.015	0.015	0.017	0.010
EL	2013/02/08	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.45	0.44	0.41	0.29

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1614	13-1650	13-1650-D	13-1651
					Client ID:	Field Blank	WQ20 met	WQ20 met	WQ20 hyp
					Sample Date:	2013/02/04 0:00	2013/02/07 0:00	Lab Duplicate	2013/02/07 0:00
					MDL				
EL	2013/02/08	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	---	0.53
RC	2013/02/13	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1	7.8	---	7.9
RC	2013/02/13	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1	7.8	---	7.9
AFD	2013/02/07	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	0.075
RC	2013/02/13	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.011	---	0.124
EL	2013/02/08	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.24	0.25	0.60

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-64781

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1611	13-1611-D	13-1612	13-1613
					Client ID:	WQ22-epi	WQ22-epi	WQ22-hyp	WQ20-epi
					Sample Date:	2013/02/04 0:00	Lab Duplicate	2013/02/04 0:00	2013/02/07 0:00
					MDL				
RC	2013/02/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.012	0.012	0.008	0.007
RC	2013/02/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00008	< 0.00005	< 0.00005
RC	2013/02/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	0.0002	0.0003
RC	2013/02/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00737	0.00727	0.00727	0.00932
RC	2013/02/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.003	0.003	0.002	0.001
RC	2013/02/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/02/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	14.1	14.2	13.7	22.2
RC	2013/02/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/02/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0003	0.0007	0.0001
RC	2013/02/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0632	0.0674	0.0654	0.0104
RC	2013/02/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00179	0.00177	0.00178	< 0.00005
RC	2013/02/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.90	3.91	3.99	7.16
RC	2013/02/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01190	0.01270	0.03350	0.00833
RC	2013/02/14	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00033	0.00033	0.00032	0.00068
RC	2013/02/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00028	0.00030	0.00025	0.00039
RC	2013/02/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	0.02	< 0.02	< 0.02
RC	2013/02/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.3	1.3	1.3	1.2
RC	2013/02/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.26	5.73	6.57	8.62
RC	2013/02/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.8	3.8	3.9	4.2
RC	2013/02/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.075100	0.074800	0.072600	0.112000
RC	2013/02/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0002	0.0003	0.0002	< 0.0002
RC	2013/02/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0051	0.0048	0.0101	0.0022
AFD	2013/02/08	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	7.33	---	7.42	7.84
AFD	2013/02/08	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	51.3	51.5	50.6	84.9

Water Analysis - Total Metals

Project No. VE52095.200.LAKES

Final
File No. EC-64781

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1614	13-1650	13-1650-D	13-1651
					Client ID:	Field Blank	WQ20 met	WQ20 met	WQ20 hyp
					Sample Date:	2013/02/04 0:00	2013/02/07 0:00	Lab Duplicate	2013/02/07 0:00
					MDL				
RC	2013/02/13	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	0.003	---	0.022
RC	2013/02/13	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/02/13	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0003	---	0.0004
RC	2013/02/13	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00878	---	0.01420
RC	2013/02/13	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/02/13	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.001	---	0.001
RC	2013/02/13	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	---	< 0.000015
RC	2013/02/13	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	23.3	---	24.4
RC	2013/02/13	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	---	< 0.0003
RC	2013/02/13	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	---	0.00003
RC	2013/02/13	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/02/13	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0104	---	0.4310
RC	2013/02/13	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/02/13	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	---	< 0.001
RC	2013/02/13	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	6.58	---	6.46
RC	2013/02/13	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.01890	---	0.56400
RC	2013/02/14	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	---	0.000007
RC	2013/02/13	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00061	---	0.00063
RC	2013/02/13	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00036	---	0.00019
RC	2013/02/13	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.02	< 0.02	< 0.02	---	0.14
RC	2013/02/13	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	1.1	---	1.1
RC	2013/02/13	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	---	< 0.0006
RC	2013/02/13	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	7.94	---	10.3
RC	2013/02/13	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/02/13	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	3.9	---	3.7
RC	2013/02/13	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005	0.111000	---	0.118000
RC	2013/02/13	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/02/13	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/02/13	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	---	0.0012
RC	2013/02/13	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/02/13	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/02/13	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0057	---	0.0028
AFD	2013/02/08	pH @ 25°C BC-T	pH units	APHA 4500H	0.01	5.75	7.75	7.76	7.64
AFD	2013/02/08	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	85.1	---	87.6

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-64781

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1611	13-1611-D	13-1612	13-1613
					Client ID:	WQ22-epi	WQ22-epi	WQ22-hyp	WQ20-epi
					Sample Date:	2013/02/04 0:00	Lab Duplicate	2013/02/04 0:00	2013/02/07 0:00
					MDL				
RC	2013/02/11	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.008	0.010	0.004	0.003
RC	2013/02/11	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00006	< 0.00005	< 0.00005
RC	2013/02/11	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0002	0.0002	0.0003
RC	2013/02/11	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00702	0.00707	0.00665	0.00885
RC	2013/02/11	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/11	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.001	0.001	< 0.001	< 0.001
RC	2013/02/11	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/02/11	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.1	14.2	13.3	22.2
RC	2013/02/11	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/11	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/02/11	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0003	0.0007	0.0001
RC	2013/02/11	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0537	0.0505	0.0539	0.0071
RC	2013/02/11	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00061	0.00061	0.00178	< 0.00005
RC	2013/02/11	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/11	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.90	3.74	3.99	7.16
RC	2013/02/11	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00815	0.00799	0.02870	0.00577
RC	2013/02/14	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/11	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00029	0.00030	0.00030	0.00062
RC	2013/02/11	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	0.01	0.01	< 0.01
RC	2013/02/11	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.3	1.3	1.3	1.2
RC	2013/02/11	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/11	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.26	5.73	6.57	8.62
RC	2013/02/11	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.8	3.7	3.9	4.2
RC	2013/02/11	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.073600	0.073100	0.068000	0.112000
RC	2013/02/11	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/11	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2013/02/11	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0051	0.0048	0.0101	0.0014
AFD	2013/02/08	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	51.3	50.8	49.6	84.9

Water Analysis - Dissolved Metals

Project No. VE52095.200.LAKES

Final
File No. EC-64781

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-1614	13-1650	13-1651
					Client ID:	Field Blank	WQ20 met	WQ20 hyp
					Sample Date:	2013/02/04 0:00	2013/02/07 0:00	2013/02/07 0:00
					MDL			
RC	2013/02/11	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	< 0.002
RC	2013/02/11	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0003	0.0004
RC	2013/02/11	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00878	0.01260
RC	2013/02/11	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/11	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/11	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/02/11	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	23.3	22.9
RC	2013/02/11	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/02/11	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00002
RC	2013/02/11	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/11	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0074	0.3210
RC	2013/02/11	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/02/11	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	6.58	6.46
RC	2013/02/11	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00404	0.56200
RC	2013/02/14	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/02/11	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00061	0.00057
RC	2013/02/11	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.01	0.13
RC	2013/02/11	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	1.1	1.1
RC	2013/02/11	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/02/11	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	7.94	10.3
RC	2013/02/11	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	3.9	3.7
RC	2013/02/11	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005	0.111000	0.113000
RC	2013/02/11	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/02/11	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	0.0002
RC	2013/02/11	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/02/11	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	0.0017	0.0028
AFD	2013/02/08	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	85.1	83.7

Quality Control Standard

Project No. VE52095.200.LAKES

File No. EC-64781

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/02/08	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	67	56-77	65	QC-ALK/F-55
AFD	2013/02/08	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.76	2.54-2.94	2.790	CC-EC-0.02M-47
AFD	2013/02/08	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-AIK/F-55
AFD	2013/02/07	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.68	1.44-1.76	1.600	CC-Anion-120B
AFD	2013/02/07	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.654	0.54-0.66	0.600	CC-Anion-120B
AFD	2013/02/07	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.0	25.2-30.8	28.0	CC-Anion-120B
EL	2013/02/11	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4740	3932-5511	5018	QCP-E2-SLD02009
EL	2013/02/08	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	151	134-153	144	QCP-E2-SLD02009
AFD	2013/02/06	Turbidity	NTU	APHA 2130-b	0.1	11	8.5-11.5	10.0	QC-Turb-8
AFD	2013/02/07	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.0	CC-Anion-120B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/02/08	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.44	0.394-0.610	0.50	F2NUT01116
RC	2013/02/13	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	39.1	33.1-42.6	37.9	DMD-TOC-99-Mid
RC	2013/02/13	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	157	33.1-42.6	37.9	DMD-TOC-99-Mid
AFD	2013/02/07	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.788	0.72-0.88	0.800	CC-Anion-120BL
RC	2013/02/13	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	260	225-275	250.000	MS-CCV-HIGH
EL	2013/02/08	Total Kjeldahl Nitrogen (TKN)	mg/L(ppm)	APHA 4500N-D	0.08	11.1	6.70-11.30	9.00	QC-NUT-2-D2-NUT01114

Quality Control Standard

Project No. VE52095.200.LAKES

File No. EC-64781

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/02/13	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	54.6	45-55	50.000	MS-CCV-HIGH
RC	2013/02/13	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/13	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/02/13	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.4	45-55	50.00000	MS-CCV-HIGH
RC	2013/02/13	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.4	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/13	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	53.7	45-55	50.000	MS-CCV-HIGH
RC	2013/02/13	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.3	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/02/13	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/13	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/13	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.4	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/13	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	49.7	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/13	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	51.1	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/13	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	102	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/13	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	52.8	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/02/13	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26200	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/02/13	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	52.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/14	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.272000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/02/13	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/13	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/13	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	260	225-275	250.00	MS-CCV-HIGH
RC	2013/02/13	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	26700	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/02/13	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.4	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/13	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	117	105-129	117.00	MS-CCV-HIGH
RC	2013/02/13	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	13.0	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/02/13	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26300	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/13	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	52.9	45-55	50.000000	MS-CCV-HIGH
RC	2013/02/13	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	255	225-275	250.00000	MS-CCV-HIGH
RC	2013/02/13	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	256	225-275	250.0000	MS-CCV-HIGH
RC	2013/02/13	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	51.1	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/13	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90-110	100.00000	MS-CCV-HIGH
RC	2013/02/13	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.0500	50.7	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/13	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	50.8	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/02/08	pH @ 25°C BC-T	pH Units	APHA 4500H	0.01	6.03	5.94-6.06	6.00	QC-pH-6

Quality Control Standard

Project No. VE52095.200.LAKES

File No. EC-64781

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/02/11	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	54.9	45-55	50.000	MS-CCV-HIGH
RC	2013/02/11	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	108	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/11	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	104	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/02/11	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	51.5	45-55	50.00000	MS-CCV-HIGH
RC	2013/02/11	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/11	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	50.7	45-55	50.000	MS-CCV-HIGH
RC	2013/02/11	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.5	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/02/11	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25700	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/11	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.6	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/11	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/11	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	50.7	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/11	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	54.1	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/11	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/02/11	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	51.8	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/02/11	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24900	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/02/11	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	52.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/14	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.272000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/02/11	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	49.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/11	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/11	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	265	225-275	250.00	MS-CCV-HIGH
RC	2013/02/11	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25400	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/02/11	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	50.8	45-55	50.0000	MS-CCV-HIGH
RC	2013/02/11	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
RC	2013/02/11	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	13.2	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/02/11	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25000	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/02/11	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	53.0	45-55	50.000000	MS-CCV-HIGH
RC	2013/02/11	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	261	225-275	250.00000	MS-CCV-HIGH
RC	2013/02/11	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	251	225-275	250.0000	MS-CCV-HIGH
RC	2013/02/11	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	51.3	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/02/11	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	100	90-110	100.00000	MS-CCV-HIGH
RC	2013/02/11	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	51.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/02/11	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	53.6	45.0-55.0	50.0000	MS-CCV-HIGH

Analytical Comments

Project No. VE52095.200.LAKES

File No. EC-64781

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

Chain of Custody Record/Analysis Request

EC-64781

ISSUING OFFICE:		Tracking #:												
Burnaby, BC														
Project Name: NewGold Blackwater		Sampler:												
Project Manager: Bruce Ott		Phone No.: 604-294-3811												
Project Number: VES2095		Task: LAKES												
Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	ANALYSIS REQUIRED (Note preferred method)		QUOTED PRICE	
	FOR LAB USE ONLY	YYYY/MM/DD										50% RUSH (Please Notify Lab Prior To Submission)		YES
WC22 epi	15-16-11	04/02/2013	water		2	1	1	1	2	2	X	100% RUSH (Please Notify Lab Prior To Submission)		Please attach a copy of the quote
WC22 hyp	12	04/02/2013	water		2	1	1	1	2	2	X			NO
WC20 hyp	13	04/02/2013	water		2	1	1	1	2	2	X			Quote #:
Field Blank	14	04/02/2013	water		2	1	1	1	2	2	X			QN-521
											X			Temperature Received:
											X			6.1°C
											X			Receiver's Comments:
											X			→ Sample
											X			WAZ Long
											X			Repaired by
											X			WAZO hyp
											X			received
											X			Feb. 2/13

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name: Ben Pittman	Printed Name: J-Lenner	Printed Name:	Printed Name:
Firm: Avison Management Services	Firm: AMEC	Firm:	Firm:
Date/Time: 05/02/2013 1500	Date/Time: Feb 6/2013	Date/Time:	Date/Time:

Comments:
 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com)
 2) Please use Low Level nitrate and nitrite
 3) Please analyze CN-t and CN-WAD using H2SO4 method.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: JESSE DANG
5667 70 Street NW
EDMONTON AB T6B 3P6

Date Received: 07-FEB-13
Report Date: 15-FEB-13 15:16 (MT)
Version: FINAL

Client Phone: 780-940-4147

Certificate of Analysis

Lab Work Order #: L1265945
Project P.O. #: 2220
Job Reference: EC-64781
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1265945-1 WQ22 EPI (13-1611) Sampled By: CLIENT on 04-FEB-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		14-FEB-13	R2533289
L1265945-2 WQ22 HYP (13-1612) Sampled By: CLIENT on 04-FEB-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		14-FEB-13	R2533289
L1265945-3 FIELD BLANK (13-1614) Sampled By: CLIENT on 04-FEB-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		14-FEB-13	R2533289
L1265945-4 WQ20 EPI (13-1613) Sampled By: CLIENT on 07-FEB-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		14-FEB-13	R2533289
L1265945-5 WQ20 MET (13-1650) Sampled By: CLIENT on 07-FEB-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		14-FEB-13	R2533289
L1265945-6 WQ20 HYP (13-1651) Sampled By: CLIENT on 07-FEB-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		14-FEB-13	R2533289

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1265945

Report Date: 15-FEB-13

Page 1 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2533289							
WG1627686-11	DUP	L1265847-6						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627686-15	DUP	L1265945-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627686-19	DUP	L1266846-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627686-3	DUP	L1266489-25						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627686-9	DUP	L1264699-5						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627686-14	LCS							
Cyanide, Total			91.0		%		80-120	14-FEB-13
WG1627686-18	LCS							
Cyanide, Total			91.9		%		80-120	14-FEB-13
WG1627686-2	LCS							
Cyanide, Total			88.6		%		80-120	14-FEB-13
WG1627686-22	LCS							
Cyanide, Total			90.9		%		80-120	14-FEB-13
WG1627686-24	LCS							
Cyanide, Total			89.0		%		80-120	14-FEB-13
WG1627686-6	LCS							
Cyanide, Total			90.2		%		80-120	14-FEB-13
WG1627686-8	LCS							
Cyanide, Total			92.0		%		80-120	14-FEB-13
WG1627686-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-FEB-13
WG1627686-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-FEB-13
WG1627686-17	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-FEB-13
WG1627686-21	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-FEB-13
WG1627686-23	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-FEB-13
WG1627686-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-FEB-13
WG1627686-7	MB							
Cyanide, Total			<0.0050		mg/L		0.005	14-FEB-13



Quality Control Report

Workorder: L1265945

Report Date: 15-FEB-13

Page 2 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2533289							
WG1627686-10 MS		L1264699-5						
Cyanide, Total			102.0		%		70-130	14-FEB-13
WG1627686-12 MS		L1265847-6						
Cyanide, Total			100.6		%		70-130	14-FEB-13
WG1627686-16 MS		L1265945-2						
Cyanide, Total			101.7		%		70-130	14-FEB-13
WG1627686-20 MS		L1266846-4						
Cyanide, Total			102.4		%		70-130	14-FEB-13
WG1627686-4 MS		L1266489-25						
Cyanide, Total			100.8		%		70-130	14-FEB-13
CN-WAD-CFA-VA		Water						
Batch	R2533290							
WG1627690-11 DUP		L1265847-6						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627690-15 DUP		L1265945-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627690-19 DUP		L1266846-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627690-3 DUP		L1266489-25						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627690-9 DUP		L1264699-5						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	14-FEB-13
WG1627690-14 LCS								
Cyanide, Weak Acid Diss			107.4		%		80-120	14-FEB-13
WG1627690-18 LCS								
Cyanide, Weak Acid Diss			108.6		%		80-120	14-FEB-13
WG1627690-2 LCS								
Cyanide, Weak Acid Diss			108.4		%		80-120	14-FEB-13
WG1627690-22 LCS								
Cyanide, Weak Acid Diss			110.0		%		80-120	14-FEB-13
WG1627690-24 LCS								
Cyanide, Weak Acid Diss			110.6		%		80-120	14-FEB-13
WG1627690-6 LCS								
Cyanide, Weak Acid Diss			109.3		%		80-120	14-FEB-13
WG1627690-8 LCS								
Cyanide, Weak Acid Diss			111.0		%		80-120	14-FEB-13
WG1627690-1 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	14-FEB-13



Quality Control Report

Workorder: L1265945

Report Date: 15-FEB-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2533290							
WG1627690-13 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	14-FEB-13
WG1627690-17 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	14-FEB-13
WG1627690-21 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	14-FEB-13
WG1627690-23 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	14-FEB-13
WG1627690-5 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	14-FEB-13
WG1627690-7 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	14-FEB-13
WG1627690-10 MS		L1264699-5						
Cyanide, Weak Acid Diss			104.2		%		70-130	14-FEB-13
WG1627690-12 MS		L1265847-6						
Cyanide, Weak Acid Diss			104.2		%		70-130	14-FEB-13
WG1627690-16 MS		L1265945-2						
Cyanide, Weak Acid Diss			104.3		%		70-130	14-FEB-13
WG1627690-20 MS		L1266846-4						
Cyanide, Weak Acid Diss			105.4		%		70-130	14-FEB-13
WG1627690-4 MS		L1266489-25						
Cyanide, Weak Acid Diss			104.0		%		70-130	14-FEB-13

Quality Control Report

Workorder: L1265945

Report Date: 15-FEB-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE

5667 70 Street NW

EDMONTON AB T6B 3P6

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Contact: JESSE DANG

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Environmental Division

Report to:	Report Format / Distribution	Service Requested:
Company: AMEC Earth & Environmental, Chemistry Dept.	<input type="checkbox"/> Standard <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Regular Service (Default)
Contact: Kristine Connor	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax	<input type="checkbox"/> Rush Service (2-3 Days)
Address: 5667-70 Street, Edmonton, AB T6B 3P6	Email 1: kristine.connor@amec.com	<input type="checkbox"/> Priority Service (1 Day or ASAP)
	Email 2: charlene.rollheiser@amec.com	<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS

Phone: (780) 989-4580 Fax: (780) 377-3600

Invoice To: Same as Report Indicate Bottles Filtered / Preserved (F/P) -----

Company: Same	Client / Project Information:
Contact:	Job #: EC-64781
Address:	PO/AFE:
Sample	Legal Site Description:
Phone: Fax:	Quote #:

Lab Work Order # (lab use only) L1265945 ALS Contact: Maureen Olinek Sampler (Initials):

Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	CN-T-CFA-VA	CN-WAD-MID-COL-VA													Hazardous?	Highly Contaminated?	Number of Containers
	WQ22 epi (13-1611)	04-Feb-13		Water	x	x															x
	WQ22 hyp (13-1612)	04-Feb-13		Water	x	x															x
	Field Blank (13-1614)	04-Feb-13		Water	x	x															x

Guidelines / Regulations	Special Instructions / Hazardous Details
	Please list both ID's on results.

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
 By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Relinquished By: jeffery connor	Date & Time: 02-Feb-13	Received By:	Date & Time:	Temperature	Sample Condition (lab use only)
Relinquished By:	Date & Time:	Received By: RMO 2:29	Date & Time: 2/6/2013	9.9	Samples Received in Good Condition? Y / N (if no)



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64914
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/03/13
Revision #: 1.0
Date of Report: 2013/03/25
Sublet Data: Attached

Comments:
pH results revised for samples 13-2436, 13-2436-D, 13-2437, 13-2438, 13-2440, 13-2449 and 13-2450.

Report reviewed by:



Jesse Dang, B.Sc.
Manager
Laboratory Services



Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2401	13-2401-D	13-2402	13-2403
					Client ID:	WQ3	WQ3	WQ8	WQ10
					Sample Date:	2013/03/11 0:00	Lab Duplicate	2013/03/11 0:00	2013/03/11 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	57	58	80	58
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.106	0.106	0.153	0.111
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.08	0.08	0.06
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.037	0.037	0.088	0.045
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.0	2.0	4.4	3.7
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	52	48	92	60
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	2	3	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	1.4	1.3	1.4	0.8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.2	0.5	0.2

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2404	13-2405	13-2406	13-2407
					Client ID:	WQ12	WQ15	WQ16	WQ26
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	29	30	27	68
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.053	0.054	0.049	0.127
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.04	0.04	0.07
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.039	0.026	0.065	0.047
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.7	1.5	1.7	3.7
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	20	28	40	76
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	25	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	1.9	0.9	9.8	1.0
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2408	13-2409	13-2410	13-2410-D
					Client ID:	Duplicate 2	Travel Blank	WQ6	WQ6
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/12 0:00	Lab Duplicate
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	79	1	26	26
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.153	< 0.001	0.059	0.060
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	< 0.02	0.05	0.05
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.086	< 0.005	0.031	0.031
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.5	< 0.5	2.4	2.4
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	104	< 4	28	32
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	0.7	0.5	0.8	0.7
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	< 0.1	0.2	0.2

Water Analysis

Project No. VE52277.2190.02

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2411	13-2412	13-2413	13-2414
					Client ID:	WQ7	WQ9	BH101	BH161
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	62	72	24	39
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.127	0.150	0.111	0.100
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.08	0.17	0.12
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.028	0.068	0.010	0.007
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.4	4.5	24.6	7.9
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	72	76	21	56
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	< 2	7	6
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	0.9	0.9	52	21
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.4	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2415	13-2436	13-2436-D	13-2437
					Client ID:	Field Blank	WQ23 epi	WQ23 epi	WQ23 met
					Sample Date:	2013/03/12 0:00	2013/03/13 0:00	Lab Duplicate	2013/03/13 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	< 1	25	25	26
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001	0.057	0.056	0.058
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	0.05	0.05	0.05
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	0.067	0.066	0.110
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	2.2	2.2	2.8
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4	52	---	36
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	---	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	0.5	0.7	0.5	0.6
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2438	13-2439	13-2440	13-2449
					Client ID:	WQ23 hypo	WQ24 epi	WQ24 hypo	WQ25 epi
					Sample Date:	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	33	60	33	23
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.071	0.051	0.068	0.052
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.04	0.05	0.04
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.018	0.041	0.043	0.035
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.1	2.0	1.7	1.7
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	36	24	20	24
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	6	< 2	6	2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	8.9	0.6	15	0.8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.3	0.3

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2450
					Client ID:	WQ25 hypo
					Sample Date:	2013/03/13 0:00
					MDL	
AFD	2013/03/13	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	25
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.057
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.066
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.6
EL	2013/03/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	32
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	0.8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3

Water Analysis

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2401	13-2401-D	13-2402	13-2403
					Client ID:	WQ3	WQ3	WQ8	WQ10
					Sample Date:	2013/03/11 0:00	Lab Duplicate	2013/03/11 0:00	2013/03/11 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	1.4	1.3	7.4	1.8
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	1.4	1.3	7.5	1.9
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.053	0.057	0.032	0.019
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	0.29	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2404	13-2405	13-2406	13-2407
					Client ID:	WQ12	WQ15	WQ16	WQ26
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.5	7.1	4.5	2.0
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.5	7.3	4.6	2.0
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.020	0.019	0.039	0.021
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.10	0.16	0.66	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2408	13-2409	13-2410	13-2410-D
					Client ID:	Duplicate 2	Travel Blank	WQ6	WQ6
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/12 0:00	Lab Duplicate
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.4	< 0.1	2.8	2.4
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.7	< 0.1	2.8	2.4
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.027	< 0.001	0.032	0.027
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.18	< 0.08	< 0.08	< 0.08

Water Analysis

Project No. VE52277.2190.02

Revision # 1.0

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2411	13-2412	13-2413	13-2414
					Client ID:	WQ7	WQ9	BH101	BH161
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.2	6.3	0.7	2.9
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.2	6.3	0.7	2.9
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.033	0.046	0.177	0.102
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.12	< 0.08	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2415	13-2436	13-2436-D	13-2437
					Client ID:	Field Blank	WQ23 epi	WQ23 epi	WQ23 met
					Sample Date:	2013/03/12 0:00	2013/03/13 0:00	Lab Duplicate	2013/03/13 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	---	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1	2.9	---	2.9
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1	3.5	---	2.9
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.023	---	0.029
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.09	---	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2438	13-2439	13-2440	13-2449
					Client ID:	WQ23 hypo	WQ24 epi	WQ24 hypo	WQ25 epi
					Sample Date:	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.57	< 0.02	0.25	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.7	4.5	5.0	7.0
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.8	4.5	5.2	7.2
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.356	0.023	0.119	0.023
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.56	0.10	0.32	0.20

Water Analysis

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2450
					Client ID:	WQ25 hypo
					Sample Date:	2013/03/13 0:00
					MDL	
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.9
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.0
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.025
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.16

Water Analysis - Total Metals

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File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2401	13-2401-D	13-2402	13-2403
					Client ID:	WQ3	WQ3	WQ8	WQ10
					Sample Date:	2013/03/11 0:00	Lab Duplicate	2013/03/11 0:00	2013/03/11 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.035	0.034	< 0.002	0.015
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0012	0.0012	0.0005	0.0005
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00457	0.00446	0.00604	0.00764
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	14.6	14.3	24.1	16.3
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0010	0.0010	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00002	< 0.00002	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0004	0.0002
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0844	0.0833	0.0140	0.0381
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.35	3.35	5.43	3.21
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00545	0.00546	0.00137	0.00170
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00090	0.00087	0.00058	0.00092
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00007	0.00024	0.00009
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.05	0.05	0.02	< 0.01
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	0.6	1.0	0.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	7.57	7.58	4.15	5.69
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.1	4.1	4.1	3.8
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.087300	0.085500	0.107000	0.098300
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0012	0.0011	< 0.0002	0.0003
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00021	0.00021	0.00010	0.00030
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00145	0.00141	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0038	0.0037	0.0020	0.0018
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	50.2	49.6	82.6	53.9

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2404	13-2405	13-2406	13-2407
					Client ID:	WQ12	WQ15	WQ16	WQ26
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.076	0.019	0.408	0.011
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00009	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0010	0.0005
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00556	0.00818	0.00782	0.00817
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000037	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.8	9.0	7.3	19.2
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0005	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	0.00012	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0007	0.0003
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2300	0.1000	0.6390	0.0290
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00034	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.35	1.23	1.37	4.08
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01210	0.01580	0.10300	0.00352
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00063	0.00069	0.00108	0.00089
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00007	0.00033	0.00012
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	0.06	< 0.01
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	2.63	1.94	2.16	5.84
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.3	2.0	2.1	4.1
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.053000	0.078000	0.046100	0.108000
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0008	< 0.0002	0.0079	0.0003
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	0.00015	0.00094	0.00028
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00026	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0017	0.0021	0.0063	0.0029
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	25.0	27.5	23.8	64.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2408	13-2409	13-2410	13-2410-D
					Client ID:	Duplicate 2	Travel Blank	WQ6	WQ6
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/12 0:00	Lab Duplicate
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.004	< 0.002	0.027	0.026
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00005	0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	< 0.0001	0.0003	0.0003
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00613	< 0.00005	0.00558	0.00553
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	24.7	< 0.5	8.1	8.2
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	< 0.0001	0.0002	0.0002
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0178	< 0.0001	0.0905	0.0901
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.55	< 0.50	1.36	1.37
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00166	< 0.00005	0.00558	0.00557
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00059	< 0.00005	0.00058	0.00060
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00026	< 0.00005	0.00012	0.00012
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	< 0.01	0.02	0.02
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.0	< 0.5	< 0.5	< 0.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.16	< 0.01	4.81	4.86
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.1	< 0.5	2.9	2.9
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.110000	< 0.000005	0.056500	0.057300
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	0.0005	0.0005
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	< 0.00005	0.00007	0.00007
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0056	< 0.0005	0.0022	0.0022
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	84.6	< 6.0	25.8	26.2

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2411	13-2412	13-2413	13-2414
					Client ID:	WQ7	WQ9	BH101	BH161
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.012	0.014	0.011	< 0.002
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00031	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0005	0.0248	0.0029
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00858	0.00697	0.00813	0.01120
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	19.7	23.2	10.1	13.2
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00003	< 0.00002	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	< 0.0001	< 0.0001
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1070	0.1120	10.3	4.30
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	0.006	0.006
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.25	5.15	1.94	1.64
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02080	0.01620	1.13	0.47300
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00083	0.00064	0.00055	0.00035
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00024	0.00026	0.00008	< 0.00005
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.03	0.04	0.17	0.10
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	0.9	2.4	2.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.68	4.47	7.93	7.29
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.2	4.0	2.2	4.9
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.112000	0.113000	0.042900	0.047000
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0004	0.0003	< 0.0002	< 0.0002
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00028	0.00013	< 0.00005	< 0.00005
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0028	0.0027	0.0607	0.0022
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	66.6	79.1	33.2	39.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2415	13-2436	13-2437	13-2438
					Client ID:	Field Blank	WQ23 epi	WQ23 met	WQ23 hypo
					Sample Date:	2013/03/12 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	0.003	0.002	0.018
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00007	0.00006	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0006	0.0006	0.0127
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00291	0.00339	0.00716
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	8.1	8.1	9.6
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00016
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0002	0.0001	0.0002
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0275	0.0347	4.38
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	1.34	1.38	1.62
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00056	0.04040	0.52500
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	0.000006
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00075	0.00074	0.00122
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00008
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.02	0.02	0.37
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	3.67	4.23	7.23
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	2.5	2.5	2.6
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005	0.049200	0.050600	0.060200
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	0.0008
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00010	0.00009	0.00028
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0027	0.0007	0.0007
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	25.8	25.9	30.7

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2439	13-2440	13-2449	13-2450
					Client ID:	WQ24 epi	WQ24 hypo	WQ25 epi	WQ25 hypo
					Sample Date:	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.011	0.013	0.016	0.016
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0062	0.0002	0.0002
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00296	0.00866	0.00889	0.00963
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.9	10.7	8.8	9.3
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00011	< 0.00002	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0002	0.0002	0.0002
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0055	3.55	0.0348	0.0564
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.31	1.70	1.18	1.25
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	1.01	0.00378	0.06590
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00091	0.00247	0.00065	0.00062
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00005	0.00010	0.00009
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.13	0.02	0.02
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.5	< 0.5	< 0.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.26	2.49	1.60	1.91
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.0	2.2	1.9	1.9
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.044200	0.065300	0.081400	0.085600
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00027	0.00042	0.00013	0.00012
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0025	0.0014	0.0025	0.0009
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	22.5	33.7	26.9	28.5

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2401	13-2401-D	13-2402	13-2403
					Client ID:	WQ3	WQ3	WQ8	WQ10
					Sample Date:	2013/03/11 0:00	Lab Duplicate	2013/03/11 0:00	2013/03/11 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.013	0.008	< 0.002	0.009
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0012	0.0012	0.0005	0.0005
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00381	0.00368	0.00554	0.00694
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.2	13.6	24.1	16.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0009	0.0009	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	0.0004	0.0002
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0288	0.0287	0.0105	0.0290
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.35	3.35	5.43	3.12
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00237	0.00237	0.00059	0.00090
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00083	0.00080	0.00054	0.00088
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	0.00006	0.00024	0.00009
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.05	0.05	0.02	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.6	1.0	0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	7.34	7.52	4.10	5.54
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	4.1	4.1	3.7
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.087300	0.081600	0.106000	0.098300
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0003	< 0.0002	0.0003
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00019	0.00009	0.00029
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00127	0.00124	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0019	0.0018	0.0020	0.0018
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.79	7.82	7.87	7.81
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	49.1	47.9	82.6	53.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2404	13-2405	13-2406	13-2407
					Client ID:	WQ12	WQ15	WQ16	WQ26
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.024	0.014	0.007	0.005
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00008	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0005	0.0005
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00508	0.00762	0.00343	0.00786
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000037	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.8	9.0	7.3	19.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	< 0.00002	0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0004	0.0003
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1980	0.0899	0.1430	0.0193
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.35	1.23	1.33	4.05
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00762	0.01250	0.05530	0.00279
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00060	0.00067	0.00084	0.00089
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00007	0.00008	0.00012
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.02	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	2.63	1.90	1.48	5.84
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.3	2.0	2.1	4.1
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.052300	0.078000	0.043800	0.107000
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0006	< 0.0002	< 0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	0.00015	0.00025	0.00027
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0017	0.0021	0.0059	0.0029
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.34	7.38	7.31	7.88
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	25.0	27.5	23.6	64.7

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2408	13-2409	13-2410	13-2410-D
					Client ID:	Duplicate 2	Travel Blank	WQ6	WQ6
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/12 0:00	Lab Duplicate
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	0.015	0.016
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00005	0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001	0.0003	0.0003
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00537	< 0.00005	0.00533	0.00552
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	23.5	< 0.5	8.1	8.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001	0.0002	0.0002
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0099	< 0.0001	0.0604	0.0606
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.55	< 0.50	1.36	1.37
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00084	< 0.00005	0.00432	0.00437
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00055	< 0.00005	0.00058	0.00060
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00025	< 0.00005	0.00012	0.00011
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	< 0.01	< 0.01	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.0	< 0.5	< 0.5	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.16	< 0.01	4.81	4.86
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	< 0.5	2.9	2.9
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.105000	< 0.000005	0.056000	0.056700
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	0.0004	0.0004
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005	0.00007	0.00007
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0056	< 0.0005	0.0022	0.0022
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.88	5.83	7.32	7.37
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	81.5	< 6.0	25.8	26.2

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2411	13-2412	13-2413	13-2414
					Client ID:	WQ7	WQ9	BH101	BH161
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.005	< 0.002	< 0.002	< 0.002
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00031	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0005	0.0248	0.0029
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00837	0.00681	0.00813	0.01120
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	19.7	23.2	10.1	13.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00002	< 0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	< 0.0001	< 0.0001
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0645	0.0853	10.3	4.30
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	0.006	0.005
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.25	5.15	1.94	1.64
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01900	0.01520	1.13	0.47300
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00083	0.00062	0.00055	0.00035
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00023	0.00008	< 0.00005
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.02	0.17	0.08
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.9	2.4	2.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.68	4.47	7.93	7.29
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.2	4.0	2.2	4.9
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.110000	0.110000	0.041400	0.047000
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00028	0.00013	< 0.00005	< 0.00005
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0028	0.0027	0.0607	0.0022
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.80	7.83	6.95	7.23
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	66.6	79.1	33.2	39.8

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2415	13-2436	13-2436-D	13-2437
					Client ID:	Field Blank	WQ23 epi	WQ23 epi	WQ23 met
					Sample Date:	2013/03/12 0:00	2013/03/13 0:00	Lab Duplicate	2013/03/13 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	---	< 0.002
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00007	---	0.00006
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0006	---	0.0006
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00260	---	0.00304
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	---	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	---	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	8.1	---	8.1
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	---	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	---	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0002	---	0.0001
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0135	---	0.0193
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	---	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	1.34	---	1.38
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	0.02490
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	---	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00073	---	0.00071
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	---	0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	---	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	---	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	3.67	---	4.23
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	2.5	---	2.5
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005	0.048600	---	0.049500
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	---	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00010	---	0.00009
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	0.0027	---	0.0007
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.78	7.39	7.45	7.35
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	25.8	---	25.9

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2438	13-2439	13-2440	13-2449
					Client ID:	WQ23 hypo	WQ24 epi	WQ24 hypo	WQ25 epi
					Sample Date:	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.011	0.003	0.006	0.012
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0127	0.0004	0.0055	0.0002
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00671	0.00251	0.00792	0.00750
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	9.5	6.8	10.4	8.6
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00014	< 0.00002	0.00009	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0002	0.0002
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	4.32	0.0051	3.23	0.0287
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.57	1.30	1.70	1.16
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.51600	< 0.00005	1.01	0.00191
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00116	0.00087	0.00228	0.00063
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	0.00006	< 0.00005	0.00007
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.35	< 0.01	0.11	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.5	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	7.16	1.26	2.42	1.58
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.5	2.0	2.2	1.8
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.059100	0.041600	0.062100	0.073700
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0006	< 0.0002	< 0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00025	0.00035	0.00012
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0007	0.0025	0.0012	0.0025
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.32	7.43	7.40	7.42
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	30.3	22.3	33.1	26.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2450
					Client ID:	WQ25 hypo
					Sample Date:	2013/03/13 0:00
					MDL	
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.013
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00874
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	9.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0435
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.24
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.06350
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00062
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.91
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.9
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.079100
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0005
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.40
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	28.1

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64914

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/03/13	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	65	53-72	63	QC-ALK/F-55
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.75	2.54-2.94	2.790	CC-EC-0.02M-47
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-AIK/F-55
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.60	1.44-1.76	1.600	CC-Anion-121B
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.616	0.54-0.66	0.600	CC-Anion-121B
AFD	2013/03/13	Sulphate-D	mg/l (ppm)	APHA 4110	0.5	26.0	25.2-30.8	28.0	CC-Anion-121B
EL	2013/03/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4564	3932-5511	5018	QCP-E2-SLD02009
EL	2013/03/17	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	152	134-153	144	QCP-E2-SLD02009
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	10	8.5-11.5	10.0	QC-Turb-8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.8	3.6-4.4	4.0	CC-Anion-121B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.30	0.23-0.37	0.30	NH ₃ SC-002
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.8	33.1-42.6	37.9	DMD-TOC-100-Mid
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	156	132.6-170.5	151.5	DMD-TOC-100-High
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/l (ppm)	APHA 4110	0.003	0.784	0.72-0.88	0.800	CC-Anion-121B
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	253	225-275	250.000	MS-CCV-HIGH
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	9.59	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64914

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/03/18	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	52.0	45-55	50.000	MS-CCV-HIGH
RC	2013/03/18	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	98.4	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/18	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/03/18	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.1	45-55	50.00000	MS-CCV-HIGH
RC	2013/03/18	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	48.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/18	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	50.4	45-55	50.000	MS-CCV-HIGH
RC	2013/03/18	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.4	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/03/18	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	26800	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/18	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	51.3	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/18	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	49.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/18	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	48.6	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/18	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/18	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	97.6	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/18	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	51.5	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/03/18	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26000	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/03/18	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	52.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/19	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.282000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/03/18	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/18	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	49.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/18	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	253	225-275	250.00	MS-CCV-HIGH
RC	2013/03/18	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/03/18	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	52.9	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/18	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	123	105-129	117.00	MS-CCV-HIGH
RC	2013/03/18	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.8	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/03/18	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26000	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/18	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	49.3	45-55	50.000000	MS-CCV-HIGH
RC	2013/03/18	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	244	225-275	250.00000	MS-CCV-HIGH
RC	2013/03/18	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	251	225-275	250.0000	MS-CCV-HIGH
RC	2013/03/18	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	51.5	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/18	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	95.8	90-110	100.00000	MS-CCV-HIGH
RC	2013/03/18	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	50.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/18	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	54.4	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64914

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/03/15	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	51.2	45-55	50.000	MS-CCV-HIGH
RC	2013/03/15	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/03/15	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	47.2	45-55	50.00000	MS-CCV-HIGH
RC	2013/03/15	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	50.6	45-55	50.000	MS-CCV-HIGH
RC	2013/03/15	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.5	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/03/15	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	26200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/15	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.9	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	93.9	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	47.7	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/03/15	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/03/15	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	52.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/19	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.282000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/03/15	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	267	225-275	250.00	MS-CCV-HIGH
RC	2013/03/15	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	26300	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/03/15	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	52.5	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
RC	2013/03/15	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.3	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/03/15	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/15	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	48.0	45-55	50.000000	MS-CCV-HIGH
RC	2013/03/15	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	254	225-275	250.00000	MS-CCV-HIGH
RC	2013/03/15	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.0000	MS-CCV-HIGH
RC	2013/03/15	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	99.3	90-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	50.5	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/03/19	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	2.73	5.94-6.06	6.00	QC-pH-7

Analytical Comments

Project No. VE52277.2190.02

File No. EC-64914

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-G4R14
13

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater
 Project Manager: Bruce Ott
 Project Number: VES2277 2190.02

Sampler: Phone No.: 604-294-3811
 Lakes: Task: LAKES

Client Sample ID
 AMEC E & E Lab Sample ID
 Date Collected
 Matrix

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	Quote #:	Temperature Received:	Receiver's Comments
WQ23 epi		3/13/2013	water								X	X	X	X	X	X	X			QN-521		
WQ23 met		3/13/2013	water								X	X	X	X	X	X	X					
WQ23 hypo		3/13/2013	water								X	X	X	X	X	X	X					
WQ24 epi		3/13/2013	water								X	X	X	X	X	X	X					
WQ24 hypo		3/13/2013	water								X	X	X	X	X	X	X					
WQ25 epi		3/13/2013	water								X	X	X	X	X	X	X					
WQ25 hypo		3/13/2013	water								X	X	X	X	X	X	X					

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: Lisa Nordin Printed Name: F. Connor Printed Name: Printed Name:

Firm: Avison Management Services Firm: AMEC Firm: Firm:

Date/Time: 14/03/2013 09:00 Date/Time: March 15/2013 Date/Time: Date/Time:

Comments:
 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneel Lai (raneel.lai@amec.com)
 2) Please use Low Level nitrate and nitrite
 3) Please analyze CN+ and CN-WAD using H2SO4 method.



Edmonton Chemistry Lab

EC-64914

Chain of Custody Record/Analysis Request

Tracking #:

ISSUING OFFICE: Burnaby BC

Project Name: NewGold Blackwater
 Project Manager: Bruce Ott
 Project Number: VES9277 2190.02

Sampler: Phone No.: 604-294-3811
 Task:

Client Sample ID: AMEC E & E Lab Sample ID
 Date Collected: yyyymm/dd
 Matrix: 1L Bottle, 250 mL Jar, 40 mL Vial, 1L Polyethylene, 100 mL Amber, 250 mL Polyethylene, 125 mL Polyethylene

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	QUOTED PRICE
WO6	13-0210	3/12/2013	water	X	X	X	X	X	X	X			YES <input checked="" type="checkbox"/>
WO7	11	3/12/2013	water	X	X	X	X	X	X	X			NO <input type="checkbox"/>
WO9	12	3/12/2013	water	X	X	X	X	X	X	X			Quote #: QN-521
BW101	13	3/12/2013	water	X	X	X	X	X	X	X			Temperature Received:
BW161	14	3/12/2013	water	X	X	X	X	X	X	X			Receiver's Comments
Field Blank	15	3/12/13	water	X	X	X	X	X	X	X			

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: L. Nordin
 Firm: Avision Management Services
 Date/Time: 3/12/2012 17:30:00:00 PM

Printed Name: Ranee Lai
 Firm: amec
 Date/Time: March 14, 2013

Comments:
 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ranee Lai (raanee.lai@amec.com)
 2) Please use Low Level nitrate and nitrite
 3) Please analyze CN-4 and CN-WAD using H2SO4 method.



Edmonton Chemistry Lab

EC-GH914
13

Chain of Custody Record/Analysis Request

ISSUING OFFICE:

Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater

Sampler:

604-294-3811

Project Manager: Bruce Ott

Phone No.:

Task:

Project Number: VES52277 2190.02

Phase:

Task:

Client Sample ID

AMEC E & E Lab
Sample ID

Date Collected

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

Total and dissolved metals (Ultra ICP/MS)

Ammonia and TKN

Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)

100% RUSH (Please Notify Lab Prior To Submission)

50% RUSH (Please Notify Lab Prior To Submission)

100% RUSH (Please Notify Lab Prior To Submission)

Receiver's Comments:

Quote #: QN-521

Temperature Received:

YES

NO

Please attach a copy of the quote

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	Receiver's Comments:	
WQ3		3/11/2013	water								X	X	X	X	X	X	X						
WQ8		3/11/2013	water								X	X	X	X	X	X	X						
WQ10		3/11/2013	water								X	X	X	X	X	X	X						
WQ12		3/11/2013	water								X	X	X	X	X	X	X						
WQ15		3/11/2013	water								X	X	X	X	X	X	X						
WQ16		3/11/2013	water								X	X	X	X	X	X	X						
WQ26		3/11/2013	water								X	X	X	X	X	X	X						
Duplicate 2		3/11/2013	water								X	X	X	X	X	X	X						
Travel Blank		3/11/2013	water								X	X	X	X	X	X	X						

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: L. Nordin Printed Name: Printed Name: Printed Name:

Firm: Avision Management Services Firm: Firm: Firm:

Date/Time: 3/11/2013 15:00 Date/Time: March 13/2013 7:38 Date/Time: Date/Time:

Comments: 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com) 2) Please use Low Level nitrate and nitrite 3) Please analyze CN⁻ and CN⁻WAD using H2SO4 method.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 15-MAR-13
Report Date: 21-MAR-13 14:40 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1279413
Project P.O. #: 2220
Job Reference: EC-64914
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1279413-1 WQ23 EPI~13-2436 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-2 WQ3~-13-2401 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-3 WQ8~13-2402 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-4 WQ10~-13-2403 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-5 WQ12~13-2404 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-6 WQ15~13-2405 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-7 WQ16~13-2406 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-8 WQ26~13-2407 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-9 DUPLICATE 2~12-2408 Sampled By: CLIENT on 11-MAR-13 Matrix:							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1279413-9 DUPLICATE 2~12-2408 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-10 TRAVEL BLANK~13-2409 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-11 WQ6~13-2410 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-12 WQ7~13-2411 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-13 WQ9~13-2412 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-14 BH101~13-2413 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-15 BH161~13-2414 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-16 FIELD BLANK~13-2415 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-17 WQ23 MET~13-2437 Sampled By: CLIENT on 13-MAR-13 Matrix:							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1279413-17 WQ23 MET~13-2437 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-18 WQ23 HYPO~13-2438 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-19 WQ24 EPI~13-2439 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-20 WQ24 HYPO~13-2440 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-21 WQ25 EPI~13-2449 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-22 WQ25 HYPO~13-2450 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

- mg/kg - milligrams per kilogram based on dry weight of sample*
- mg/kg wwt - milligrams per kilogram based on wet weight of sample*
- mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight*
- mg/L - unit of concentration based on volume, parts per million.*
- < - Less than.*

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1279413

Report Date: 21-MAR-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2561061							
WG1643450-15	DUP	L1279634-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643450-17	DUP	L1279616-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643450-3	DUP	L1279413-8						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643450-7	DUP	L1279413-22						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643450-10	LCS							
Cyanide, Total			90.7		%		80-120	20-MAR-13
WG1643450-14	LCS							
Cyanide, Total			91.2		%		80-120	20-MAR-13
WG1643450-2	LCS							
Cyanide, Total			89.4		%		80-120	20-MAR-13
WG1643450-20	LCS							
Cyanide, Total			89.0		%		80-120	20-MAR-13
WG1643450-6	LCS							
Cyanide, Total			89.6		%		80-120	20-MAR-13
WG1643450-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-19	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-9	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-16	MS	L1279634-1						
Cyanide, Total			93.2		%		70-130	20-MAR-13
WG1643450-18	MS	L1279616-4						
Cyanide, Total			99.4		%		70-130	20-MAR-13
WG1643450-4	MS	L1279413-8						
Cyanide, Total			98.0		%		70-130	20-MAR-13
WG1643450-8	MS	L1279413-22						
Cyanide, Total			98.0		%		70-130	20-MAR-13
CN-WAD-CFA-VA		Water						



Quality Control Report

Workorder: L1279413

Report Date: 21-MAR-13

Page 2 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
Water								
Batch	R2561062							
WG1643455-15	DUP	L1279634-1						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643455-17	DUP	L1279616-4						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643455-3	DUP	L1279413-8						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643455-7	DUP	L1279413-22						
	Cyanide, Weak Acid Diss	<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643455-10	LCS							
	Cyanide, Weak Acid Diss		107.1		%		80-120	20-MAR-13
WG1643455-14	LCS							
	Cyanide, Weak Acid Diss		105.4		%		80-120	20-MAR-13
WG1643455-2	LCS							
	Cyanide, Weak Acid Diss		105.2		%		80-120	20-MAR-13
WG1643455-20	LCS							
	Cyanide, Weak Acid Diss		104.8		%		80-120	20-MAR-13
WG1643455-6	LCS							
	Cyanide, Weak Acid Diss		105.3		%		80-120	20-MAR-13
WG1643455-1	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-MAR-13
WG1643455-13	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-MAR-13
WG1643455-19	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-MAR-13
WG1643455-5	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-MAR-13
WG1643455-9	MB							
	Cyanide, Weak Acid Diss		<0.0050		mg/L		0.005	20-MAR-13
WG1643455-16	MS	L1279634-1						
	Cyanide, Weak Acid Diss		101.2		%		70-130	20-MAR-13
WG1643455-18	MS	L1279616-4						
	Cyanide, Weak Acid Diss		103.3		%		70-130	20-MAR-13
WG1643455-4	MS	L1279413-8						
	Cyanide, Weak Acid Diss		99.6		%		70-130	20-MAR-13
WG1643455-8	MS	L1279413-22						
	Cyanide, Weak Acid Diss		101.0		%		70-130	20-MAR-13

Quality Control Report

Workorder: L1279413

Report Date: 21-MAR-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 3 of 3

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64914
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/03/13
Revision #: 1.0
Date of Report: 2013/03/25
Sublet Data: Attached

Comments:
pH results revised for samples 13-2436, 13-2436-D, 13-2437, 13-2438, 13-2440, 13-2449 and 13-2450.

Report reviewed by:



Jesse Dang, B.Sc.
Manager
Laboratory Services



Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2401	13-2401-D	13-2402	13-2403
					Client ID:	WQ3	WQ3	WQ8	WQ10
					Sample Date:	2013/03/11 0:00	Lab Duplicate	2013/03/11 0:00	2013/03/11 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	57	58	80	58
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.106	0.106	0.153	0.111
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.08	0.08	0.06
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.037	0.037	0.088	0.045
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.0	2.0	4.4	3.7
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	52	48	92	60
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	2	3	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	1.4	1.3	1.4	0.8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.2	0.5	0.2

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2404	13-2405	13-2406	13-2407
					Client ID:	WQ12	WQ15	WQ16	WQ26
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	29	30	27	68
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.053	0.054	0.049	0.127
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.04	0.04	0.07
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.039	0.026	0.065	0.047
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.7	1.5	1.7	3.7
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	20	28	40	76
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	25	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	1.9	0.9	9.8	1.0
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2408	13-2409	13-2410	13-2410-D
					Client ID:	Duplicate 2	Travel Blank	WQ6	WQ6
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/12 0:00	Lab Duplicate
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	79	1	26	26
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.153	< 0.001	0.059	0.060
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	< 0.02	0.05	0.05
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.086	< 0.005	0.031	0.031
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.5	< 0.5	2.4	2.4
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	104	< 4	28	32
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	0.7	0.5	0.8	0.7
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	< 0.1	0.2	0.2

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2411	13-2412	13-2413	13-2414
					Client ID:	WQ7	WQ9	BH101	BH161
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	62	72	24	39
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.127	0.150	0.111	0.100
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.08	0.17	0.12
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.028	0.068	0.010	0.007
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.4	4.5	24.6	7.9
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	72	76	21	56
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	< 2	7	6
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	0.9	0.9	52	21
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.4	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2415	13-2436	13-2436-D	13-2437
					Client ID:	Field Blank	WQ23 epi	WQ23 epi	WQ23 met
					Sample Date:	2013/03/12 0:00	2013/03/13 0:00	Lab Duplicate	2013/03/13 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	< 1	25	25	26
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001	0.057	0.056	0.058
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	0.05	0.05	0.05
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	0.067	0.066	0.110
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	2.2	2.2	2.8
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4	52	---	36
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	---	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	0.5	0.7	0.5	0.6
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2438	13-2439	13-2440	13-2449
					Client ID:	WQ23 hypo	WQ24 epi	WQ24 hypo	WQ25 epi
					Sample Date:	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
AFD	2013/03/13	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	33	60	33	23
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.071	0.051	0.068	0.052
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.04	0.05	0.04
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.018	0.041	0.043	0.035
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.1	2.0	1.7	1.7
EL	2013/03/18	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	36	24	20	24
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	6	< 2	6	2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	8.9	0.6	15	0.8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.3	0.3

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2450
					Client ID:	WQ25 hypo
					Sample Date:	2013/03/13 0:00
					MDL	
AFD	2013/03/13	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	25
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.057
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.066
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.6
EL	2013/03/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	32
EL	2013/03/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	0.8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2401	13-2401-D	13-2402	13-2403
					Client ID:	WQ3	WQ3	WQ8	WQ10
					Sample Date:	2013/03/11 0:00	Lab Duplicate	2013/03/11 0:00	2013/03/11 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	1.4	1.3	7.4	1.8
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	1.4	1.3	7.5	1.9
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.053	0.057	0.032	0.019
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	0.29	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2404	13-2405	13-2406	13-2407
					Client ID:	WQ12	WQ15	WQ16	WQ26
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.5	7.1	4.5	2.0
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.5	7.3	4.6	2.0
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.020	0.019	0.039	0.021
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.10	0.16	0.66	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2408	13-2409	13-2410	13-2410-D
					Client ID:	Duplicate 2	Travel Blank	WQ6	WQ6
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/12 0:00	Lab Duplicate
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.4	< 0.1	2.8	2.4
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.7	< 0.1	2.8	2.4
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.027	< 0.001	0.032	0.027
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.18	< 0.08	< 0.08	< 0.08

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					Client ID:	WQ7	WQ9	BH101	BH161
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.2	6.3	0.7	2.9
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.2	6.3	0.7	2.9
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.033	0.046	0.177	0.102
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.12	< 0.08	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2415	13-2436	13-2436-D	13-2437
					Client ID:	Field Blank	WQ23 epi	WQ23 epi	WQ23 met
					Sample Date:	2013/03/12 0:00	2013/03/13 0:00	Lab Duplicate	2013/03/13 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	---	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1	2.9	---	2.9
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1	3.5	---	2.9
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.023	---	0.029
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.09	---	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2438	13-2439	13-2440	13-2449
					Client ID:	WQ23 hypo	WQ24 epi	WQ24 hypo	WQ25 epi
					Sample Date:	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	0.57	< 0.02	0.25	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.7	4.5	5.0	7.0
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	3.8	4.5	5.2	7.2
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.356	0.023	0.119	0.023
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.56	0.10	0.32	0.20

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2450
					Client ID:	WQ25 hypo
					Sample Date:	2013/03/13 0:00
					MDL	
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.9
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.0
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.025
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.16

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2401	13-2401-D	13-2402	13-2403
					Client ID:	WQ3	WQ3	WQ8	WQ10
					Sample Date:	2013/03/11 0:00	Lab Duplicate	2013/03/11 0:00	2013/03/11 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.035	0.034	< 0.002	0.015
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0012	0.0012	0.0005	0.0005
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00457	0.00446	0.00604	0.00764
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	14.6	14.3	24.1	16.3
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0010	0.0010	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00002	< 0.00002	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0004	0.0002
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0844	0.0833	0.0140	0.0381
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.35	3.35	5.43	3.21
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00545	0.00546	0.00137	0.00170
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00090	0.00087	0.00058	0.00092
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00007	0.00024	0.00009
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.05	0.05	0.02	< 0.01
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	0.6	1.0	0.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	7.57	7.58	4.15	5.69
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.1	4.1	4.1	3.8
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.087300	0.085500	0.107000	0.098300
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0012	0.0011	< 0.0002	0.0003
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00021	0.00021	0.00010	0.00030
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00145	0.00141	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0038	0.0037	0.0020	0.0018
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	50.2	49.6	82.6	53.9

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2404	13-2405	13-2406	13-2407
					Client ID:	WQ12	WQ15	WQ16	WQ26
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.076	0.019	0.408	0.011
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00009	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0010	0.0005
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00556	0.00818	0.00782	0.00817
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000037	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.8	9.0	7.3	19.2
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0005	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	0.00012	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0007	0.0003
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2300	0.1000	0.6390	0.0290
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00034	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.35	1.23	1.37	4.08
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01210	0.01580	0.10300	0.00352
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00063	0.00069	0.00108	0.00089
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00007	0.00033	0.00012
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	0.06	< 0.01
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	2.63	1.94	2.16	5.84
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.3	2.0	2.1	4.1
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.053000	0.078000	0.046100	0.108000
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0008	< 0.0002	0.0079	0.0003
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	0.00015	0.00094	0.00028
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00026	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0017	0.0021	0.0063	0.0029
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	25.0	27.5	23.8	64.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2408	13-2409	13-2410	13-2410-D
					Client ID:	Duplicate 2	Travel Blank	WQ6	WQ6
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/12 0:00	Lab Duplicate
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.004	< 0.002	0.027	0.026
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00005	0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	< 0.0001	0.0003	0.0003
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00613	< 0.00005	0.00558	0.00553
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	24.7	< 0.5	8.1	8.2
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	< 0.0001	0.0002	0.0002
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0178	< 0.0001	0.0905	0.0901
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	5.55	< 0.50	1.36	1.37
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00166	< 0.00005	0.00558	0.00557
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00059	< 0.00005	0.00058	0.00060
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00026	< 0.00005	0.00012	0.00012
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	< 0.01	0.02	0.02
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.0	< 0.5	< 0.5	< 0.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.16	< 0.01	4.81	4.86
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.1	< 0.5	2.9	2.9
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.110000	< 0.000005	0.056500	0.057300
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	0.0005	0.0005
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	< 0.00005	0.00007	0.00007
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0056	< 0.0005	0.0022	0.0022
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	84.6	< 6.0	25.8	26.2

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2411	13-2412	13-2413	13-2414
					Client ID:	WQ7	WQ9	BH101	BH161
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.012	0.014	0.011	< 0.002
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00031	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0005	0.0248	0.0029
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00858	0.00697	0.00813	0.01120
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	19.7	23.2	10.1	13.2
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00003	< 0.00002	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0003	< 0.0001	< 0.0001
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1070	0.1120	10.3	4.30
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	0.006	0.006
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.25	5.15	1.94	1.64
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02080	0.01620	1.13	0.47300
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00083	0.00064	0.00055	0.00035
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00024	0.00026	0.00008	< 0.00005
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.03	0.04	0.17	0.10
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	0.9	2.4	2.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.68	4.47	7.93	7.29
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.2	4.0	2.2	4.9
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.112000	0.113000	0.042900	0.047000
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0004	0.0003	< 0.0002	< 0.0002
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00028	0.00013	< 0.00005	< 0.00005
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0028	0.0027	0.0607	0.0022
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	66.6	79.1	33.2	39.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2415	13-2436	13-2437	13-2438
					Client ID:	Field Blank	WQ23 epi	WQ23 met	WQ23 hypo
					Sample Date:	2013/03/12 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	0.003	0.002	0.018
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00007	0.00006	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0006	0.0006	0.0127
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00291	0.00339	0.00716
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	8.1	8.1	9.6
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00016
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0002	0.0001	0.0002
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0275	0.0347	4.38
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	1.34	1.38	1.62
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00056	0.04040	0.52500
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	0.000006
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00075	0.00074	0.00122
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00008
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.02	0.02	0.37
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	3.67	4.23	7.23
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	2.5	2.5	2.6
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005	0.049200	0.050600	0.060200
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	0.0008
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00010	0.00009	0.00028
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0027	0.0007	0.0007
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	25.8	25.9	30.7

Water Analysis - Total Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2439	13-2440	13-2449	13-2450
					Client ID:	WQ24 epi	WQ24 hypo	WQ25 epi	WQ25 hypo
					Sample Date:	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
RC	2013/03/18	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.011	0.013	0.016	0.016
RC	2013/03/18	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0062	0.0002	0.0002
RC	2013/03/18	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00296	0.00866	0.00889	0.00963
RC	2013/03/18	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/18	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.9	10.7	8.8	9.3
RC	2013/03/18	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/18	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00011	< 0.00002	< 0.00002
RC	2013/03/18	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0002	0.0002	0.0002
RC	2013/03/18	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0055	3.55	0.0348	0.0564
RC	2013/03/18	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/18	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.31	1.70	1.18	1.25
RC	2013/03/18	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	1.01	0.00378	0.06590
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/18	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00091	0.00247	0.00065	0.00062
RC	2013/03/18	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00005	0.00010	0.00009
RC	2013/03/18	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.13	0.02	0.02
RC	2013/03/18	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.5	< 0.5	< 0.5
RC	2013/03/18	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/18	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.26	2.49	1.60	1.91
RC	2013/03/18	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.0	2.2	1.9	1.9
RC	2013/03/18	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.044200	0.065300	0.081400	0.085600
RC	2013/03/18	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/18	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
RC	2013/03/18	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00027	0.00042	0.00013	0.00012
RC	2013/03/18	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/18	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0025	0.0014	0.0025	0.0009
RC	2013/03/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	22.5	33.7	26.9	28.5

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2401	13-2401-D	13-2402	13-2403
					Client ID:	WQ3	WQ3	WQ8	WQ10
					Sample Date:	2013/03/11 0:00	Lab Duplicate	2013/03/11 0:00	2013/03/11 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.013	0.008	< 0.002	0.009
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0012	0.0012	0.0005	0.0005
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00381	0.00368	0.00554	0.00694
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	14.2	13.6	24.1	16.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0009	0.0009	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	0.0004	0.0002
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0288	0.0287	0.0105	0.0290
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.35	3.35	5.43	3.12
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00237	0.00237	0.00059	0.00090
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00083	0.00080	0.00054	0.00088
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	0.00006	0.00024	0.00009
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.05	0.05	0.02	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.6	1.0	0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	7.34	7.52	4.10	5.54
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	4.1	4.1	3.7
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.087300	0.081600	0.106000	0.098300
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0003	< 0.0002	0.0003
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00019	0.00009	0.00029
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00127	0.00124	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0019	0.0018	0.0020	0.0018
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.79	7.82	7.87	7.81
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	49.1	47.9	82.6	53.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2404	13-2405	13-2406	13-2407
					Client ID:	WQ12	WQ15	WQ16	WQ26
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00	2013/03/11 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.024	0.014	0.007	0.005
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00008	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0005	0.0005
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00508	0.00762	0.00343	0.00786
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000037	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.8	9.0	7.3	19.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	< 0.00002	0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0004	0.0003
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1980	0.0899	0.1430	0.0193
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.35	1.23	1.33	4.05
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00762	0.01250	0.05530	0.00279
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00060	0.00067	0.00084	0.00089
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00007	0.00008	0.00012
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	0.02	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	2.63	1.90	1.48	5.84
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.3	2.0	2.1	4.1
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.052300	0.078000	0.043800	0.107000
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0006	< 0.0002	< 0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	0.00015	0.00025	0.00027
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0017	0.0021	0.0059	0.0029
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.34	7.38	7.31	7.88
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	25.0	27.5	23.6	64.7

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2408	13-2409	13-2410	13-2410-D
					Client ID:	Duplicate 2	Travel Blank	WQ6	WQ6
					Sample Date:	2013/03/11 0:00	2013/03/11 0:00	2013/03/12 0:00	Lab Duplicate
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	0.015	0.016
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00005	0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001	0.0003	0.0003
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00537	< 0.00005	0.00533	0.00552
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	23.5	< 0.5	8.1	8.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	< 0.0001	0.0002	0.0002
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0099	< 0.0001	0.0604	0.0606
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	5.55	< 0.50	1.36	1.37
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00084	< 0.00005	0.00432	0.00437
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00055	< 0.00005	0.00058	0.00060
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00025	< 0.00005	0.00012	0.00011
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	< 0.01	< 0.01	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	1.0	< 0.5	< 0.5	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.16	< 0.01	4.81	4.86
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	< 0.5	2.9	2.9
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.105000	< 0.000005	0.056000	0.056700
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	0.0004	0.0004
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005	0.00007	0.00007
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0056	< 0.0005	0.0022	0.0022
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.88	5.83	7.32	7.37
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	81.5	< 6.0	25.8	26.2

Water Analysis - Dissolved Metals

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Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2411	13-2412	13-2413	13-2414
					Client ID:	WQ7	WQ9	BH101	BH161
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.005	< 0.002	< 0.002	< 0.002
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00031	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0005	0.0248	0.0029
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00837	0.00681	0.00813	0.01120
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	19.7	23.2	10.1	13.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00002	< 0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	< 0.0001	< 0.0001
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0645	0.0853	10.3	4.30
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	0.006	0.005
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.25	5.15	1.94	1.64
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01900	0.01520	1.13	0.47300
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00083	0.00062	0.00055	0.00035
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00023	0.00008	< 0.00005
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.02	0.17	0.08
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	0.9	2.4	2.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.68	4.47	7.93	7.29
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.2	4.0	2.2	4.9
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.110000	0.110000	0.041400	0.047000
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00028	0.00013	< 0.00005	< 0.00005
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0028	0.0027	0.0607	0.0022
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.80	7.83	6.95	7.23
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	66.6	79.1	33.2	39.8

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2415	13-2436	13-2436-D	13-2437
					Client ID:	Field Blank	WQ23 epi	WQ23 epi	WQ23 met
					Sample Date:	2013/03/12 0:00	2013/03/13 0:00	Lab Duplicate	2013/03/13 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	---	< 0.002
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00007	---	0.00006
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0006	---	0.0006
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00260	---	0.00304
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	---	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	---	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	8.1	---	8.1
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	---	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	---	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0002	---	0.0001
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0135	---	0.0193
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	---	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	1.34	---	1.38
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	0.02490
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	---	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00073	---	0.00071
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	---	0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	---	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	---	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	3.67	---	4.23
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	2.5	---	2.5
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005	0.048600	---	0.049500
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	---	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	---	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00010	---	0.00009
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	---	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	0.0027	---	0.0007
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.78	7.39	7.45	7.35
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	25.8	---	25.9

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2438	13-2439	13-2440	13-2449
					Client ID:	WQ23 hypo	WQ24 epi	WQ24 hypo	WQ25 epi
					Sample Date:	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00	2013/03/13 0:00
					MDL				
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.011	0.003	0.006	0.012
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0127	0.0004	0.0055	0.0002
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00671	0.00251	0.00792	0.00750
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	9.5	6.8	10.4	8.6
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00014	< 0.00002	0.00009	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0002	0.0002
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	4.32	0.0051	3.23	0.0287
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.57	1.30	1.70	1.16
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.51600	< 0.00005	1.01	0.00191
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00116	0.00087	0.00228	0.00063
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	0.00006	< 0.00005	0.00007
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.35	< 0.01	0.11	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.5	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	7.16	1.26	2.42	1.58
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.5	2.0	2.2	1.8
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.059100	0.041600	0.062100	0.073700
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0006	< 0.0002	< 0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00025	0.00035	0.00012
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0007	0.0025	0.0012	0.0025
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.32	7.43	7.40	7.42
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	30.3	22.3	33.1	26.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Revision # 1.0

File No. EC-64914

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2450
					Client ID:	WQ25 hypo
					Sample Date:	2013/03/13 0:00
					MDL	
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.013
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00874
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	9.2
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0435
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.24
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.06350
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00062
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.91
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.9
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.079100
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0005
AFD	2013/03/19	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.40
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	28.1

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64914

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/03/13	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	65	53-72	63	QC-ALK/F-55
AFD	2013/03/13	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.75	2.54-2.94	2.790	CC-EC-0.02M-47
AFD	2013/03/13	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-AIK/F-55
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.60	1.44-1.76	1.600	CC-Anion-121B
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.616	0.54-0.66	0.600	CC-Anion-121B
AFD	2013/03/13	Sulphate-D	mg/l (ppm)	APHA 4110	0.5	26.0	25.2-30.8	28.0	CC-Anion-121B
EL	2013/03/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4564	3932-5511	5018	QCP-E2-SLD02009
EL	2013/03/17	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	152	134-153	144	QCP-E2-SLD02009
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	10	8.5-11.5	10.0	QC-Turb-8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.8	3.6-4.4	4.0	CC-Anion-121B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.30	0.23-0.37	0.30	NH ₃ SC-002
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.8	33.1-42.6	37.9	DMD-TOC-100-Mid
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	156	132.6-170.5	151.5	DMD-TOC-100-High
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/l (ppm)	APHA 4110	0.003	0.784	0.72-0.88	0.800	CC-Anion-121B
RC	2013/03/18	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	253	225-275	250.000	MS-CCV-HIGH
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	9.59	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64914

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/03/18	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	52.0	45-55	50.000	MS-CCV-HIGH
RC	2013/03/18	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	98.4	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/18	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/03/18	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.1	45-55	50.00000	MS-CCV-HIGH
RC	2013/03/18	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	48.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/18	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	50.4	45-55	50.000	MS-CCV-HIGH
RC	2013/03/18	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.4	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/03/18	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	26800	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/18	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	51.3	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/18	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	49.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/18	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	48.6	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/18	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/18	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	97.6	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/18	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	51.5	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/03/18	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26000	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/03/18	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	52.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/19	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.282000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/03/18	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/18	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	49.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/18	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	253	225-275	250.00	MS-CCV-HIGH
RC	2013/03/18	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/03/18	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	52.9	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/18	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	123	105-129	117.00	MS-CCV-HIGH
RC	2013/03/18	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.8	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/03/18	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26000	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/18	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	49.3	45-55	50.000000	MS-CCV-HIGH
RC	2013/03/18	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	244	225-275	250.00000	MS-CCV-HIGH
RC	2013/03/18	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	251	225-275	250.0000	MS-CCV-HIGH
RC	2013/03/18	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	51.5	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/18	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	95.8	90-110	100.00000	MS-CCV-HIGH
RC	2013/03/18	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	50.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/18	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	54.4	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-64914

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/03/15	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	51.2	45-55	50.000	MS-CCV-HIGH
RC	2013/03/15	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/03/15	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	47.2	45-55	50.00000	MS-CCV-HIGH
RC	2013/03/15	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	50.6	45-55	50.000	MS-CCV-HIGH
RC	2013/03/15	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.5	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/03/15	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	26200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/15	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.9	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	93.9	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	47.7	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/03/15	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/03/15	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	52.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/19	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.282000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/03/15	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	267	225-275	250.00	MS-CCV-HIGH
RC	2013/03/15	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	26300	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/03/15	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	52.5	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
RC	2013/03/15	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.3	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/03/15	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/15	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	48.0	45-55	50.000000	MS-CCV-HIGH
RC	2013/03/15	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	254	225-275	250.00000	MS-CCV-HIGH
RC	2013/03/15	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.0000	MS-CCV-HIGH
RC	2013/03/15	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	99.3	90-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	50.5	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/03/19	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	2.73	5.94-6.06	6.00	QC-pH-7

Analytical Comments

Project No. VE52277.2190.02

File No. EC-64914

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-G4R14
13

Chain of Custody Record/Analysis Request

ISSUING OFFICE:

Burnaby BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater
 Project Manager: Bruce Ott
 Project Number: VES2277 2190.02

Phase: Lakes
 Phone No.: 604-294-3811
 Task: LAKES

Client Sample ID

AMEC E & E Lab Sample ID

Date Collected

Matrix

1L Bottle
 250 mL Jar
 40 mL Vial
 1L Polyethylene
 100 mL Amber
 250 mL Polyethylene
 125 mL Polyethylene

FOR LAB USE ONLY yyyy/mm/dd

WQ23 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ23 met 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ23 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ24 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ24 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ25 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ25 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ26 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ26 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ27 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ27 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ28 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ28 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ29 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ29 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ30 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ30 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ31 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ31 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ32 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ32 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ33 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ33 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ34 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ34 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ35 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ35 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ36 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ36 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ37 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ37 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ38 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ38 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ39 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ39 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ40 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ40 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ41 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ41 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ42 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ42 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ43 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ43 hypo 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

WQ44 epi 3/13/2013 water 1L Bottle 250 mL Jar 40 mL Vial 1L Polyethylene 100 mL Amber 250 mL Polyethylene 125 mL Polyethylene

Water potability
 Total and ortho- Phosphorus
 Cyanide (total and WAD)
 TSS
 Total and dissolved metals (Ultra ICP/MS)
 Ammonia and TKN
 Organic carbon (TOC, DOC)
 50% RUSH (Please Notify Lab Prior To Submission)
 100% RUSH (Please Notify Lab Prior To Submission)

YES
 NO
 Please attach a copy of the quote

Quote #:

QN-521

Temperature Received:

Receiver's Comments:

RELINQUISHED BY:

Signature:

Printed Name:

Firm:

Date/Time:

Signature:

Printed Name:

Firm:

Date/Time:

Signature:

Printed Name:

Firm:

Date/Time:

Signature:

Printed Name:

Firm:

Date/Time:

RECEIVED BY:

Signature:

Printed Name:

Firm:

Date/Time:

Signature:

Printed Name:

Firm:

Date/Time:

Signature:

Printed Name:

Firm:

Date/Time:

Signature:

Printed Name:

Firm:

Date/Time:

Comments:
 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneer Lai (raneer.lai@amec.com)
 2) Please use Low Level nitrate and nitrite
 3) Please analyze CN- and CN-WAD using H2SO4 method .



Edmonton Chemistry Lab

EC-64914

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater

Sampler: Phone No.:

Task: 604-294-3811

Project Manager: Bruce Ott

Task: 604-294-3811

Project Number: VES9277 2190.02

Task: 604-294-3811

Client Sample ID

AMEC E & E Lab Sample ID

Date Collected

Matrix

FOR LAB USE ONLY yyyy/mm/dd

1L Bottle
250 mL Jar
40 mL Vial
1L Polyethylene
100 mL Amber
250 mL Polyethylene
125 mL Polyethylene

Water potability
Total and ortho- Phosphorus
Cyanide (total and WAD)
TSS
Total and dissolved metals (Ultra ICP/MS)
Ammonia and TKN
Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)
100% RUSH (Please Notify Lab Prior To Submission)

YES
 NO
Please attach a copy of the quote

Quote #: QN-521

Temperature Received:

Receiver's Comments

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)
W06	13-0210	3/12/2013	water			2	1	1	1	2	X	X	X	X	X	X	X		
W07	11	3/12/2013	water			2	1	1	1	2	X	X	X	X	X	X	X		
W09	12	3/12/2013	water			2	1	1	1	2	X	X	X	X	X	X	X		
BW101	13	3/12/2013	water			2	1	1	1	2	X	X	X	X	X	X	X		
BW161	14	3/12/2013	water			2	1	1	1	2	X	X	X	X	X	X	X		
Field Blank	15	3/12/13	water			2	1	1	1	2	X	X	X	X	X	X	X		

RELINQUISHED BY:

Signature:

Signature:

Signature:

Printed Name:

Printed Name:

Printed Name:

Printed Name:

Firm:

Firm:

Firm:

Firm:

Avison Management Services

Firm:

Firm:

Firm:

Date/Time: 3/12/2012 17:30:00:00 PM

Date/Time: March 14, 2013

Date/Time:

Date/Time:

Comments:
1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneel Lai (raneel.lai@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN-4 and CN-WAD using H2SO4 method.



Edmonton Chemistry Lab

EC-GH914
13

Chain of Custody Record/Analysis Request

ISSUING OFFICE:

Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater

Sampler:

604-294-3811

Project Manager: Bruce Ott

Phone No.:

Project Number: VES52277 2190.02

Task:

Client Sample ID

AMEC E & E Lab
Sample ID

Date Collected

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

Total and dissolved metals (Ultra ICP/MS)

Ammonia and TKN

Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)

100% RUSH (Please Notify Lab Prior To Submission)

Receiver's Comments

Quote #:

QN-521

Temperature Received:

YES

NO

Please attach a copy of the quote

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	Receiver's Comments	
WQ3		3/11/2013	water								X	X	X	X	X	X	X				
WQ8		3/11/2013	water								X	X	X	X	X	X	X				
WQ10		3/11/2013	water								X	X	X	X	X	X	X				
WQ12		3/11/2013	water								X	X	X	X	X	X	X				
WQ15		3/11/2013	water								X	X	X	X	X	X	X				
WQ16		3/11/2013	water								X	X	X	X	X	X	X				
WQ26		3/11/2013	water								X	X	X	X	X	X	X				
Duplicate 2		3/11/2013	water								X	X	X	X	X	X	X				
Travel Blank		3/11/2013	water								X	X	X	X	X	X	X				

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: L. Nordin Printed Name: L. Nordin Printed Name: Printed Name: Printed Name:

Firm: Avision Management Services Firm: Firm: Firm:

Date/Time: 3/11/2013 15:00 Date/Time: March 13/2013 7:38 Date/Time: Date/Time: Date/Time:

Comments: 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com) 2) Please use Low Level nitrate and nitrite 3) Please analyze CN⁻ and CN⁻WAD using H2SO4 method.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-64920
Project Number: VE52095.900.910
Project Name: NewGold Blackwater
Date Received: 2013/03/14
Date of Report: 2013/03/21

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52095.900.910

Final
File No. EC-64920

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2441	13-2442	13-2443
					Client ID:	Eagles Well	Field Blank	Trip Blank
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL			
AFD	2013/03/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	63	< 1	< 1
AFD	2013/03/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.129	< 0.001	< 0.001
AFD	2013/03/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	< 0.02	< 0.02
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.128	< 0.005	< 0.005
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
AFD	2013/03/13	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.1	< 0.5	< 0.5
EL	2013/03/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540 C	4	80	< 4	< 4
EL	2013/03/14	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	1.3	0.4	0.4
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	< 0.1	< 0.1

Water Analysis

Project No. VE52095.900.910

 Final
 File No. EC-64920

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2441	13-2442	13-2443
					Client ID:	Eagles Well	Field Blank	Trip Blank
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL			
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.9	< 0.1	< 0.1
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.9	< 0.1	< 0.1
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
RC	2013/03/14	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.021	< 0.001	< 0.001
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52095.900.910

Final
File No. EC-64920

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2441	13-2442	13-2443
					Client ID:	Eagles Well	Field Blank	Trip Blank
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL			
RC	2013/03/14	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	< 0.002	< 0.002
RC	2013/03/14	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/14	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/14	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00605	< 0.00005	< 0.00005
RC	2013/03/14	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/14	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/14	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/14	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	18.1	< 0.5	< 0.5
RC	2013/03/14	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/14	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/03/14	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0195	< 0.0001	< 0.0001
RC	2013/03/14	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0783	< 0.0001	< 0.0001
RC	2013/03/14	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	< 0.00005	< 0.00005
RC	2013/03/14	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/14	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.84	< 0.50	< 0.50
RC	2013/03/14	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00124	< 0.00005	< 0.00005
RC	2013/03/19	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/14	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00042	< 0.00005	< 0.00005
RC	2013/03/14	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	< 0.00005	< 0.00005
RC	2013/03/14	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	< 0.01	< 0.01
RC	2013/03/14	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	< 0.5	< 0.5
RC	2013/03/14	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/14	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.69	< 0.01	< 0.01
RC	2013/03/14	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/14	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.0	< 0.5	< 0.5
RC	2013/03/14	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.099900	< 0.000005	< 0.000005
RC	2013/03/14	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/14	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/14	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2013/03/14	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	< 0.00005	< 0.00005
RC	2013/03/14	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/14	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0357	< 0.0005	< 0.0005
RC	2013/03/14	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	65.0	< 6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52095.900.910

Final
File No. EC-64920

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-2441	13-2442	13-2443
					Client ID:	Eagles Well	Field Blank	Trip Blank
					Sample Date:	2013/03/12 0:00	2013/03/12 0:00	2013/03/12 0:00
					MDL			
RC	2013/03/15	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002	< 0.002
RC	2013/03/15	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00566	< 0.00005	< 0.00005
RC	2013/03/15	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/03/15	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.1	< 0.5	< 0.5
RC	2013/03/15	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/03/15	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002
RC	2013/03/15	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0195	< 0.0001	< 0.0001
RC	2013/03/15	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0180	< 0.0001	< 0.0001
RC	2013/03/15	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	< 0.00005	< 0.00005
RC	2013/03/15	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001
RC	2013/03/15	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.84	< 0.50	< 0.50
RC	2013/03/15	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00124	< 0.00005	< 0.00005
RC	2013/03/19	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/03/15	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00041	< 0.00005	< 0.00005
RC	2013/03/15	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	< 0.00005	< 0.00005
RC	2013/03/15	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01
RC	2013/03/15	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	< 0.5	< 0.5
RC	2013/03/15	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0006	< 0.0006	< 0.0006	< 0.0006
RC	2013/03/15	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.30	< 0.01	< 0.01
RC	2013/03/15	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	4.0	< 0.5	< 0.5
RC	2013/03/15	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.095600	< 0.000005	< 0.000005
RC	2013/03/15	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/03/15	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002	< 0.0002
RC	2013/03/15	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005	< 0.00005
RC	2013/03/15	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/03/15	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0256	< 0.0005	< 0.0005
AFD	2013/03/14	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.30	5.78	5.54
RC	2013/03/15	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	65.0	< 6.0	< 6.0

Quality Control Standard

Project No. VE52095.900.910

File No. EC-64920

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/03/14	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	59	53-72	63	QC-ALK/F-55
AFD	2013/03/14	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	2.74	2.54-2.94	2.790	CC-EC-0.02M-47
AFD	2013/03/14	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-AIK/F-55
AFD	2013/03/13	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.60	1.44-1.76	1.600	CC-Anion-121B
AFD	2013/03/13	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.593	0.54-0.66	0.600	CC-Anion-121B
AFD	2013/03/13	Sulphate-D	mg/l (ppm)	APHA 4110	0.5	26.9	25.2-30.8	28.0	CC-Anion-121B
EL	2013/03/18	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4564	3932-5511	5018	QCP-E2-SLD02009
EL	2013/03/14	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	150	134-153	144	QCP-E2-SLD02009
AFD	2013/03/14	Turbidity	NTU	APHA 2130-b	0.1	11	8.5-11.5	10.0	QC-Turb-8
AFD	2013/03/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.1	3.6-4.4	4.0	CC-Anion-121B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/03/18	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.30	0.23-0.37	0.30	NH ₃ SC-002
RC	2013/03/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.8	33.1-42.6	37.9	DMD-TOC-100-Mid
RC	2013/03/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	156	132.6-170.5	151.5	DMD-TOC-100-High
AFD	2013/03/13	Phosphate-Ortho-DLL	mg/l (ppm)	APHA 4110	0.003	0.798	0.72-0.88	0.800	CC-Anion-121B
RC	2013/03/14	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	259	225-275	250.000	MS-CCV-HIGH
EL	2013/03/18	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	11.1	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52095.900.910

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Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/03/14	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	53.4	45-55	50.000	MS-CCV-HIGH
RC	2013/03/14	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	96.3	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/14	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/03/14	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.8	45-55	50.00000	MS-CCV-HIGH
RC	2013/03/14	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.4	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/14	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	51.6	45-55	50.000	MS-CCV-HIGH
RC	2013/03/14	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.2	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/03/14	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/14	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.6	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/14	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/14	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	50.3	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/14	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	51.5	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/14	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	96.6	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/14	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	49.1	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/03/14	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/03/14	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	51.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/19	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.282000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/03/14	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/14	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/14	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	259	225-275	250.00	MS-CCV-HIGH
RC	2013/03/14	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	27100	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/03/14	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	50.3	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/14	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	123	105-129	117.00	MS-CCV-HIGH
RC	2013/03/14	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.9	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/03/14	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/14	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	50.0	45-55	50.000000	MS-CCV-HIGH
RC	2013/03/14	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	243	225-275	250.00000	MS-CCV-HIGH
RC	2013/03/14	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	248	225-275	250.0000	MS-CCV-HIGH
RC	2013/03/14	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	51.9	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/14	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	98.1	90-110	100.00000	MS-CCV-HIGH
RC	2013/03/14	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/14	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	50.7	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52095.900.910

File No. EC-64920

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/03/15	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	51.2	45-55	50.000	MS-CCV-HIGH
RC	2013/03/15	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/03/15	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	47.2	45-55	50.00000	MS-CCV-HIGH
RC	2013/03/15	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	50.6	45-55	50.000	MS-CCV-HIGH
RC	2013/03/15	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.5	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/03/15	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	26200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/15	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.6	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.9	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	93.9	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	47.7	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/03/15	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/03/15	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	52.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/19	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.282000	0.212-0.340	0.276000	C2-QCPHG009
RC	2013/03/15	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	267	225-275	250.00	MS-CCV-HIGH
RC	2013/03/15	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	26300	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/03/15	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	52.5	45-55	50.0000	MS-CCV-HIGH
RC	2013/03/15	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
RC	2013/03/15	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.3	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/03/15	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/03/15	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	48.0	45-55	50.000000	MS-CCV-HIGH
RC	2013/03/15	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	254	225-275	250.00000	MS-CCV-HIGH
RC	2013/03/15	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.0000	MS-CCV-HIGH
RC	2013/03/15	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/03/15	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	99.3	90-110	100.00000	MS-CCV-HIGH
RC	2013/03/15	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/03/15	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	50.5	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/03/15	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.03	5.94-6.06	6.00	QC-pH-7

Analytical Comments

Project No. VE52095.900.910

File No. EC-64920

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EG-64920
17

Chain of Custody Record/Analysis Request

ISSUING OFFICE:

Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name:

NewGold Blackwater

Sampler:

604-294-3811

Project Manager:

Bruce Ott

Phone No.:

910

Project Number:

VE52095

Phase:

900

Task:

910

Client Sample ID

AMEC E & E Lab
Sample ID

Date
Collected

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

TSS

Total and dissolved metals (Ultra ICP/MS)

Ammonia and TKN

Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)

100% RUSH (Please Notify Lab Prior To Submission)

Receiver's Comments

6.6°C

Quote #:

QN-521

Temperature Received:

RELINQUISHED BY:

Signature:

Signature:

Signature:

Comments:

Signature: [Handwritten]

Signature: [Handwritten]

Signature:

Signature:

1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN⁺ and CN-WAD using H2SO4 method.

Printed Name:

Printed Name:

Printed Name:

Printed Name:

L. Nordin

[Handwritten]

Firm:

Firm:

Firm: Avision Management Services

Firm: AMEC

Firm:

Firm:

Date/Time: 3/12/2013 15:00

Date/Time: March 11 2013

Date/Time:

Date/Time:

Date/Time:

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AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 15-MAR-13
Report Date: 21-MAR-13 14:40 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1279413
Project P.O. #: 2220
Job Reference: EC-64914
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1279413-1 WQ23 EPI~13-2436 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-2 WQ3~-13-2401 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-3 WQ8~13-2402 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-4 WQ10~-13-2403 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-5 WQ12~13-2404 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-6 WQ15~13-2405 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-7 WQ16~13-2406 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-8 WQ26~13-2407 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-9 DUPLICATE 2~12-2408 Sampled By: CLIENT on 11-MAR-13 Matrix:							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1279413-9 DUPLICATE 2~12-2408 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-10 TRAVEL BLANK~13-2409 Sampled By: CLIENT on 11-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-11 WQ6~13-2410 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-12 WQ7~13-2411 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-13 WQ9~13-2412 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-14 BH101~13-2413 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-15 BH161~13-2414 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-16 FIELD BLANK~13-2415 Sampled By: CLIENT on 12-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		20-MAR-13 20-MAR-13	R2561061 R2561062
L1279413-17 WQ23 MET~13-2437 Sampled By: CLIENT on 13-MAR-13 Matrix:							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1279413-17 WQ23 MET~13-2437 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-18 WQ23 HYPO~13-2438 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-19 WQ24 EPI~13-2439 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-20 WQ24 HYPO~13-2440 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-21 WQ25 EPI~13-2449 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062
L1279413-22 WQ25 HYPO~13-2450 Sampled By: CLIENT on 13-MAR-13 Matrix: Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		20-MAR-13	R2561061
	<0.0050		0.0050	mg/L		20-MAR-13	R2561062

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1279413

Report Date: 21-MAR-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2561061							
WG1643450-15	DUP	L1279634-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643450-17	DUP	L1279616-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643450-3	DUP	L1279413-8						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643450-7	DUP	L1279413-22						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643450-10	LCS							
Cyanide, Total			90.7		%		80-120	20-MAR-13
WG1643450-14	LCS							
Cyanide, Total			91.2		%		80-120	20-MAR-13
WG1643450-2	LCS							
Cyanide, Total			89.4		%		80-120	20-MAR-13
WG1643450-20	LCS							
Cyanide, Total			89.0		%		80-120	20-MAR-13
WG1643450-6	LCS							
Cyanide, Total			89.6		%		80-120	20-MAR-13
WG1643450-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-19	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-9	MB							
Cyanide, Total			<0.0050		mg/L		0.005	20-MAR-13
WG1643450-16	MS	L1279634-1						
Cyanide, Total			93.2		%		70-130	20-MAR-13
WG1643450-18	MS	L1279616-4						
Cyanide, Total			99.4		%		70-130	20-MAR-13
WG1643450-4	MS	L1279413-8						
Cyanide, Total			98.0		%		70-130	20-MAR-13
WG1643450-8	MS	L1279413-22						
Cyanide, Total			98.0		%		70-130	20-MAR-13
CN-WAD-CFA-VA		Water						



Quality Control Report

Workorder: L1279413

Report Date: 21-MAR-13

Page 2 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
Water								
Batch	R2561062							
WG1643455-15	DUP	L1279634-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643455-17	DUP	L1279616-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643455-3	DUP	L1279413-8						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643455-7	DUP	L1279413-22						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-MAR-13
WG1643455-10	LCS							
Cyanide, Weak Acid Diss			107.1		%		80-120	20-MAR-13
WG1643455-14	LCS							
Cyanide, Weak Acid Diss			105.4		%		80-120	20-MAR-13
WG1643455-2	LCS							
Cyanide, Weak Acid Diss			105.2		%		80-120	20-MAR-13
WG1643455-20	LCS							
Cyanide, Weak Acid Diss			104.8		%		80-120	20-MAR-13
WG1643455-6	LCS							
Cyanide, Weak Acid Diss			105.3		%		80-120	20-MAR-13
WG1643455-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-MAR-13
WG1643455-13	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-MAR-13
WG1643455-19	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-MAR-13
WG1643455-5	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-MAR-13
WG1643455-9	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	20-MAR-13
WG1643455-16	MS	L1279634-1						
Cyanide, Weak Acid Diss			101.2		%		70-130	20-MAR-13
WG1643455-18	MS	L1279616-4						
Cyanide, Weak Acid Diss			103.3		%		70-130	20-MAR-13
WG1643455-4	MS	L1279413-8						
Cyanide, Weak Acid Diss			99.6		%		70-130	20-MAR-13
WG1643455-8	MS	L1279413-22						
Cyanide, Weak Acid Diss			101.0		%		70-130	20-MAR-13

Quality Control Report

Workorder: L1279413

Report Date: 21-MAR-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 3 of 3

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65054
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/04/17
Date of Report: 2013/04/25
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3017	13-3017-D	13-3018	13-3019
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/04/15 0:00	Lab Duplicate	2013/04/15 0:00	2013/04/15 0:00
					MDL				
AFD	2013/04/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	48	48	24	57
AFD	2013/04/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.098	0.099	0.056	0.123
AFD	2013/04/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.07	0.06	0.07
AFD	2013/04/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.024	0.029	0.158	0.067
AFD	2013/04/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/04/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.9	1.8	1.4	3.5
EL	2013/04/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	52	44	52	60
EL	2013/04/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	4
AFD	2013/04/17	Turbidity	NTU	APHA 2130-b	0.1	2.5	2.4	0.9	1.9
AFD	2013/04/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.2	0.3	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3020	13-3021	13-3022	13-3023
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/04/15 0:00	2013/04/15 0:00	2013/04/15 0:00	2013/04/15 0:00
					MDL				
AFD	2013/04/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	39	31	18	23
AFD	2013/04/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.088	0.070	0.046	0.053
AFD	2013/04/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.06	0.04	0.04
AFD	2013/04/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.106	0.070	0.046	0.020
AFD	2013/04/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/04/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.1	2.0	1.5	1.5
EL	2013/04/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	28	68	28	32
EL	2013/04/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/04/17	Turbidity	NTU	APHA 2130-b	0.1	0.8	3.2	1.0	0.7
AFD	2013/04/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.5	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3024	13-3025	13-3026	13-3027
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/04/15 0:00	2013/04/15 0:00	2013/04/16 0:00	2013/04/16 0:00
					MDL				
AFD	2013/04/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	22	51	21	55
AFD	2013/04/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.050	0.108	0.052	0.116
AFD	2013/04/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.07	0.05	0.08
AFD	2013/04/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.030	0.054	0.021	0.032
AFD	2013/04/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/04/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.8	3.0	2.3	3.1
EL	2013/04/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	32	52	28	52
EL	2013/04/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/04/17	Turbidity	NTU	APHA 2130-b	0.1	0.7	0.4	0.9	1.2
AFD	2013/04/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.4	0.3	0.5

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3028	13-3029	13-3030	13-3031
					Client ID:	WO9	WO14	Duplicate	Field Blank
					Sample Date:	2013/04/16 0:00	2013/04/16 0:00	2013/04/16 0:00	2013/04/16 0:00
					MDL				
AFD	2013/04/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	64	76	54	< 1
AFD	2013/04/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.140	0.161	0.118	0.001
AFD	2013/04/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.08	0.08	0.08	< 0.02
AFD	2013/04/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.112	0.039	0.121	< 0.005
AFD	2013/04/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/04/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	4.6	4.4	3.2	< 0.5
EL	2013/04/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	40	108	52	< 4
EL	2013/04/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	4	< 2	< 2	< 2
AFD	2013/04/17	Turbidity	NTU	APHA 2130-b	0.1	1.8	1.2	0.9	0.2
AFD	2013/04/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.6	0.5	< 0.1

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3032
					Client ID:	Trip Blank
					Sample Date:	2013/04/16 0:00
					MDL	
AFD	2013/04/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	< 1
AFD	2013/04/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001
AFD	2013/04/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02
AFD	2013/04/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.005
AFD	2013/04/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
AFD	2013/04/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5
EL	2013/04/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4
EL	2013/04/18	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
AFD	2013/04/17	Turbidity	NTU	APHA 2130-b	0.1	0.2
AFD	2013/04/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3017	13-3017-D	13-3018	13-3019
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/04/15 0:00	Lab Duplicate	2013/04/15 0:00	2013/04/15 0:00
					MDL				
EL	2013/04/22	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/04/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.4	2.3	11.0	6.6
RC	2013/04/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	2.4	2.4	11.0	6.8
AFD	2013/04/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/04/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.043	0.044	0.019	0.018
EL	2013/04/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08	0.18	0.31

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3020	13-3021	13-3022	13-3023
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/04/15 0:00	2013/04/15 0:00	2013/04/15 0:00	2013/04/15 0:00
					MDL				
EL	2013/04/22	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/04/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.1	13.4	8.3	7.5
RC	2013/04/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.1	13.5	8.4	7.5
AFD	2013/04/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/04/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.016	0.019	0.019	0.015
EL	2013/04/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.33	0.28	0.26

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3024	13-3025	13-3026	13-3027
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/04/15 0:00	2013/04/15 0:00	2013/04/16 0:00	2013/04/16 0:00
					MDL				
EL	2013/04/22	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/04/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.9	4.9	4.8	7.1
RC	2013/04/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	4.9	4.9	4.8	7.1
AFD	2013/04/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/04/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.009	0.009	0.006	0.009
EL	2013/04/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.19	0.15	0.19	0.24

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3028	13-3029	13-3030	13-3031
					Client ID:	WO9	WO14	Duplicate	Field Blank
					Sample Date:	2013/04/16 0:00	2013/04/16 0:00	2013/04/16 0:00	2013/04/16 0:00
					MDL				
EL	2013/04/22	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/04/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.2	8.0	7.2	< 0.1
RC	2013/04/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.2	8.0	7.2	< 0.1
AFD	2013/04/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/04/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.015	0.015	0.021	< 0.001
EL	2013/04/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.27	0.30	0.25	< 0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3032
					Client ID:	Trip Blank
					Sample Date:	2013/04/16 0:00
					MDL	
EL	2013/04/22	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02
RC	2013/04/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
RC	2013/04/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
AFD	2013/04/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
RC	2013/04/22	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001
EL	2013/04/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3017	13-3017-D	13-3018	13-3019
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/04/15 0:00	Lab Duplicate	2013/04/15 0:00	2013/04/15 0:00
					MDL				
RC	2013/04/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.128	0.124	0.167	0.018
RC	2013/04/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00007	< 0.00005	< 0.00005
RC	2013/04/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0023	0.0023	0.0017	0.0017
RC	2013/04/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01060	0.01060	0.01030	0.01320
RC	2013/04/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.006	0.006	0.005	0.007
RC	2013/04/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/04/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	11.9	11.9	6.2	16.1
RC	2013/04/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0012	0.0012	< 0.0003	< 0.0003
RC	2013/04/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00009	0.00009	0.00005	0.00003
RC	2013/04/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0007	0.0005
RC	2013/04/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.3170	0.3140	0.2250	0.1120
RC	2013/04/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00008	< 0.00005	< 0.00005
RC	2013/04/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	2.95	2.97	2.02	3.83
RC	2013/04/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02630	0.02590	0.00985	0.02600
RC	2013/04/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/04/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00083	0.00081	0.00013	0.00051
RC	2013/04/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00015	0.00029	0.00020
RC	2013/04/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.05	0.05	< 0.01	0.02
RC	2013/04/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.5	0.5	< 0.5	1.1
RC	2013/04/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	7.24	7.42	5.72	3.24
RC	2013/04/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.3	3.4	2.5	2.6
RC	2013/04/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.080600	0.080400	0.039800	0.079900
RC	2013/04/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0042	0.0042	0.0028	0.0006
RC	2013/04/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00026	0.00027	0.00007	0.00008
RC	2013/04/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00196	0.00193	0.00013	< 0.00005
RC	2013/04/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0022	0.0022	0.0020	0.0015
AFD	2013/04/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	41.9	42.0	23.7	55.9

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3020	13-3021	13-3022	13-3023
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/04/15 0:00	2013/04/15 0:00	2013/04/15 0:00	2013/04/15 0:00
					MDL				
RC	2013/04/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.055	0.503	0.136	0.034
RC	2013/04/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0016	0.0022	0.0012	0.0013
RC	2013/04/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01240	0.01720	0.01140	0.01310
RC	2013/04/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.004	0.011	0.003	0.003
RC	2013/04/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/04/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	11.0	9.8	6.1	7.5
RC	2013/04/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	0.0005	< 0.0003	< 0.0003
RC	2013/04/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00010	0.00006	< 0.00002
RC	2013/04/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0011	0.0006	0.0006
RC	2013/04/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0756	0.3310	0.2170	0.0420
RC	2013/04/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
RC	2013/04/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	2.25	2.04	1.05	1.10
RC	2013/04/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00299	0.00743	0.02400	0.00751
RC	2013/04/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/04/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00069	0.00014	0.00046	0.00070
RC	2013/04/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00015	0.00034	0.00014	0.00008
RC	2013/04/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.03	0.02	0.01
RC	2013/04/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.5	< 0.5	< 0.5
RC	2013/04/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.58	5.41	3.55	1.84
RC	2013/04/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.7	2.4	1.8	1.7
RC	2013/04/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.074700	0.058300	0.050600	0.076500
RC	2013/04/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0012	0.0083	0.0029	0.0002
RC	2013/04/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	0.00011	0.00015	0.00014
RC	2013/04/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00058	< 0.00005	< 0.00005
RC	2013/04/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0015	0.0016	0.0019	0.0021
AFD	2013/04/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	36.7	33.0	19.5	23.2

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3024	13-3025	13-3026	13-3027
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/04/15 0:00	2013/04/15 0:00	2013/04/16 0:00	2013/04/16 0:00
					MDL				
RC	2013/04/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.031	0.040	0.080	0.035
RC	2013/04/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0012	0.0037	0.0004	0.0004
RC	2013/04/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00891	0.02160	0.00682	0.00857
RC	2013/04/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.024	< 0.001	< 0.001
RC	2013/04/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/04/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.1	14.4	6.0	15.0
RC	2013/04/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/04/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00002	0.00003	0.00005
RC	2013/04/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0004	0.0004	0.0003
RC	2013/04/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0492	0.0517	0.1180	0.1700
RC	2013/04/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.21	3.13	1.10	3.82
RC	2013/04/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00862	0.00434	0.00608	0.01810
RC	2013/04/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/04/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00083	0.00067	0.00051	0.00063
RC	2013/04/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	0.00016	0.00021	0.00026
RC	2013/04/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	0.02	0.01	0.01
RC	2013/04/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.5	< 0.5	0.7
RC	2013/04/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.46	5.67	5.10	5.55
RC	2013/04/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.9	3.1	2.2	3.6
RC	2013/04/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.043000	0.086800	0.047700	0.088900
RC	2013/04/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0007	0.0008	0.0015	0.0011
RC	2013/04/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00016	0.00009	0.00018
RC	2013/04/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00013
RC	2013/04/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0037	0.0012	0.0012	0.0007
AFD	2013/04/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	20.2	48.8	19.4	53.2

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3028	13-3029	13-3030	13-3031
					Client ID:	WQ9	WQ14	Duplicate	Field Blank
					Sample Date:	2013/04/16 0:00	2013/04/16 0:00	2013/04/16 0:00	2013/04/16 0:00
					MDL				
RC	2013/04/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.087	0.039	0.030	< 0.002
RC	2013/04/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0002	0.0004	< 0.0001
RC	2013/04/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00851	0.01060	0.00840	< 0.00005
RC	2013/04/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	0.001	< 0.001	0.002
RC	2013/04/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/04/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	19.3	22.0	14.7	< 0.5
RC	2013/04/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/04/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00007	0.00003	0.00005	< 0.00002
RC	2013/04/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0006	0.0006	0.0003	< 0.0001
RC	2013/04/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2060	0.2420	0.1670	< 0.0001
RC	2013/04/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.51	4.97	3.74	< 0.50
RC	2013/04/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02890	0.00554	0.01760	< 0.00005
RC	2013/04/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/04/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00058	0.00060	0.00060	< 0.00005
RC	2013/04/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00027	0.00025	0.00025	< 0.00005
RC	2013/04/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	0.01	< 0.01	< 0.01
RC	2013/04/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.9	1.1	0.7	< 0.5
RC	2013/04/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.76	5.37	5.76	< 0.01
RC	2013/04/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.2	3.7	3.4	< 0.5
RC	2013/04/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.099600	0.109000	0.088600	< 0.000005
RC	2013/04/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0039	0.0008	0.0008	< 0.0002
RC	2013/04/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00019	0.00018	< 0.00005
RC	2013/04/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00023	< 0.00005	0.00013	< 0.00005
RC	2013/04/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0012	0.0017	< 0.0005	< 0.0005
AFD	2013/04/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	66.7	75.3	52.1	< 6.0

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3032
					Client ID:	Trip Blank
					Sample Date:	2013/04/16 0:00
					MDL	
RC	2013/04/22	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002
RC	2013/04/22	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2013/04/22	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2013/04/22	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002
RC	2013/04/22	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015
RC	2013/04/22	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2013/04/22	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003
RC	2013/04/22	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002
RC	2013/04/22	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2013/04/22	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2013/04/22	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001
RC	2013/04/22	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50
RC	2013/04/22	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2013/04/22	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01
RC	2013/04/22	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2013/04/22	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2013/04/22	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01
RC	2013/04/22	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5
RC	2013/04/22	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005
RC	2013/04/22	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001
RC	2013/04/22	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002
RC	2013/04/22	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005
RC	2013/04/22	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005
AFD	2013/04/17	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3017	13-3017-D	13-3018	13-3019
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/04/15 0:00	Lab Duplicate	2013/04/15 0:00	2013/04/15 0:00
					MDL				
RC	2013/04/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.019	0.019	0.149	< 0.002
RC	2013/04/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00007	< 0.00005	< 0.00005
RC	2013/04/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0023	0.0023	0.0017	0.0017
RC	2013/04/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01060	0.01060	0.01030	0.01320
RC	2013/04/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.006	0.006	0.005	0.007
RC	2013/04/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/04/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	11.7	11.7	5.9	15.1
RC	2013/04/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0008	0.0008	< 0.0003	< 0.0003
RC	2013/04/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00005	0.00002
RC	2013/04/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004	0.0007	0.0005
RC	2013/04/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0471	0.0475	0.1890	0.0704
RC	2013/04/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	2.90	2.97	2.02	3.81
RC	2013/04/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00353	0.00352	0.00767	0.02240
RC	2013/04/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/04/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00083	0.00081	0.00013	0.00051
RC	2013/04/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00008	0.00029	0.00020
RC	2013/04/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.04	0.04	< 0.01	0.01
RC	2013/04/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.5	0.5	< 0.5	1.1
RC	2013/04/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	6.51	6.62	5.10	2.86
RC	2013/04/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.3	3.4	2.5	2.6
RC	2013/04/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.080600	0.080400	0.039800	0.079400
RC	2013/04/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0007	0.0027	< 0.0002
RC	2013/04/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00016	0.00006	0.00008
RC	2013/04/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00089	0.00093	< 0.00005	< 0.00005
RC	2013/04/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0022	0.0022	0.0020	0.0015
AFD	2013/04/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.70	7.66	7.15	7.66
AFD	2013/04/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	41.2	41.5	23.1	53.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3020	13-3021	13-3022	13-3023
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/04/15 0:00	2013/04/15 0:00	2013/04/15 0:00	2013/04/15 0:00
					MDL				
RC	2013/04/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.038	0.243	0.113	0.015
RC	2013/04/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0016	0.0022	0.0012	0.0013
RC	2013/04/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01240	0.01720	0.01140	0.01310
RC	2013/04/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.004	0.011	0.003	0.003
RC	2013/04/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/04/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	10.6	9.0	5.6	6.9
RC	2013/04/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	0.0003	< 0.0003	< 0.0003
RC	2013/04/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00006	0.00004	< 0.00002
RC	2013/04/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0011	0.0006	0.0006
RC	2013/04/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0529	0.1710	0.1580	0.0317
RC	2013/04/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
RC	2013/04/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	2.24	1.95	1.04	1.10
RC	2013/04/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00195	0.00513	0.01120	0.00327
RC	2013/04/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/04/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00069	0.00014	0.00042	0.00069
RC	2013/04/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	0.00025	0.00014	0.00008
RC	2013/04/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2013/04/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.5	< 0.5	< 0.5
RC	2013/04/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.86	4.71	3.08	1.63
RC	2013/04/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.7	2.3	1.8	1.7
RC	2013/04/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.074700	0.057100	0.049300	0.073700
RC	2013/04/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0011	0.0043	0.0029	< 0.0002
RC	2013/04/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	0.00010	0.00014	0.00012
RC	2013/04/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0015	0.0016	0.0019	0.0021
AFD	2013/04/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.59	7.43	7.17	7.34
AFD	2013/04/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	35.8	30.4	18.3	21.8

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3024	13-3025	13-3026	13-3027
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/04/15 0:00	2013/04/15 0:00	2013/04/16 0:00	2013/04/16 0:00
					MDL				
RC	2013/04/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.019	0.018	0.061	0.018
RC	2013/04/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0012	0.0037	0.0004	0.0004
RC	2013/04/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00891	0.02160	0.00677	0.00817
RC	2013/04/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.002	0.024	< 0.001	< 0.001
RC	2013/04/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/04/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.8	13.4	5.6	14.5
RC	2013/04/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/04/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00002	0.00004
RC	2013/04/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0004	0.0004	0.0003
RC	2013/04/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0292	0.0344	0.0868	0.1200
RC	2013/04/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.21	3.06	1.08	3.82
RC	2013/04/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00683	0.00277	0.00525	0.01490
RC	2013/04/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/04/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00083	0.00067	0.00051	0.00063
RC	2013/04/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	0.00016	0.00021	0.00026
RC	2013/04/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
RC	2013/04/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.5	< 0.5	0.7
RC	2013/04/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.35	4.89	4.24	4.91
RC	2013/04/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.9	3.0	2.2	3.6
RC	2013/04/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.043000	0.085700	0.047700	0.088700
RC	2013/04/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0005	0.0005	0.0013	0.0006
RC	2013/04/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00023	0.00015	0.00008	0.00017
RC	2013/04/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0037	0.0012	0.0012	0.0007
AFD	2013/04/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.30	7.74	7.29	7.79
AFD	2013/04/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	19.3	46.0	18.5	51.9

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3028	13-3029	13-3030	13-3031
					Client ID:	WQ9	WQ14	Duplicate	Field Blank
					Sample Date:	2013/04/16 0:00	2013/04/16 0:00	2013/04/16 0:00	2013/04/16 0:00
					MDL				
RC	2013/04/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.018	0.013	0.019	< 0.002
RC	2013/04/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0002	0.0004	< 0.0001
RC	2013/04/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00733	0.00975	0.00822	< 0.00005
RC	2013/04/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/04/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.4	20.7	14.5	< 0.5
RC	2013/04/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/04/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00003	0.00004	< 0.00002
RC	2013/04/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0006	0.0003	< 0.0001
RC	2013/04/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0752	0.1700	0.1220	< 0.0001
RC	2013/04/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/04/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.51	4.97	3.74	< 0.50
RC	2013/04/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01280	0.00419	0.01480	< 0.00005
RC	2013/04/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/04/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00058	0.00060	0.00060	< 0.00005
RC	2013/04/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00025	0.00025	< 0.00005
RC	2013/04/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.01	< 0.01	< 0.01	< 0.01
RC	2013/04/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.9	1.1	0.7	< 0.5
RC	2013/04/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.04	4.76	4.88	< 0.01
RC	2013/04/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.2	3.6	3.4	< 0.5
RC	2013/04/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.097200	0.109000	0.088600	< 0.000005
RC	2013/04/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/04/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0007	0.0006	0.0006	< 0.0002
RC	2013/04/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00018	0.00017	< 0.00005
RC	2013/04/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/04/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0012	0.0017	< 0.0005	< 0.0005
AFD	2013/04/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.78	7.81	7.74	5.64
AFD	2013/04/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	64.6	72.2	51.5	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65054

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-3032
					Client ID:	Trip Blank
					Sample Date:	2013/04/16 0:00
					MDL	
RC	2013/04/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002
RC	2013/04/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/04/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/04/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2013/04/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
RC	2013/04/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2013/04/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
RC	2013/04/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
RC	2013/04/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/04/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/04/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
RC	2013/04/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50
RC	2013/04/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
RC	2013/04/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2013/04/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2013/04/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/04/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
RC	2013/04/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
RC	2013/04/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005
RC	2013/04/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
RC	2013/04/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
RC	2013/04/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
RC	2013/04/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005
AFD	2013/04/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.53
AFD	2013/04/17	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65054

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/04/17	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	58	53-72	63	QC-ALK/F-56
AFD	2013/04/17	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.74	2.54-2.94	2.790	CC-EC-0.02M-48
AFD	2013/04/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-ALK/F-56
AFD	2013/04/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.71	1.44-1.76	1.600	CC-Anion-122B
AFD	2013/04/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.575	0.54-0.66	0.600	CC-Anion-122B
AFD	2013/04/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.1	25.2-30.8	28.0	CC-Anion-122B
EL	2013/04/22	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-d	4	4820	3932-5511	5018	QCP-E2-SLD02009
EL	2013/04/18	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	146	134-153	144	QCP-E2-SLD02009
AFD	2013/04/17	Turbidity	NTU	APHA 2130-b	0.1	9.6	8.5-11.5	10.0	QC-Turb-9
AFD	2013/04/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.8	3.6-4.4	4.0	CC-Anion-122B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/04/22	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.32	0.23-0.37	0.30	NH ₃ SC-002
RC	2013/04/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	39.4	33.1-42.6	37.9	DMD-TOC-101-Mid
RC	2013/04/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	156	132.6-170.5	151.5	DMD-TOC-101-High
AFD	2013/04/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.763	0.72-0.88	0.800	CC-Anion-122BL
RC	2013/04/22	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	273	225-275	250.000	MS-CCV-HIGH
EL	2013/04/22	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	9.24	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65054

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/04/22	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	53.4	45-55	50.000	MS-CCV-HIGH
RC	2013/04/22	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	99.9	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/04/22	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	104	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/04/22	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.2	45-55	50.00000	MS-CCV-HIGH
RC	2013/04/22	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	51.0	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/04/22	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	54.2	45-55	50.000	MS-CCV-HIGH
RC	2013/04/22	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.2	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/04/22	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	24700	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/04/22	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.2	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/04/22	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	52.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/22	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	51.3	45-55	50.0000	MS-CCV-HIGH
RC	2013/04/22	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	50.9	45-55	50.0000	MS-CCV-HIGH
RC	2013/04/22	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/04/22	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.7	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/04/22	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25400	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/04/22	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	51.1	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/24	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.306000	0.220-0.363	0.291000	E2-QCPHG010
RC	2013/04/22	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	51.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/22	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/22	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	273	225-275	250.00	MS-CCV-HIGH
RC	2013/04/22	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/04/22	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	53.2	45-55	50.0000	MS-CCV-HIGH
RC	2013/04/22	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	126	105-129	117.00	MS-CCV-HIGH
RC	2013/04/22	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	13.0	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/04/22	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25400	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/04/22	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	51.8	45-55	50.000000	MS-CCV-HIGH
RC	2013/04/22	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	250	225-275	250.00000	MS-CCV-HIGH
RC	2013/04/22	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	253	225-275	250.0000	MS-CCV-HIGH
RC	2013/04/22	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	52.3	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/04/22	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	98.7	90-110	100.00000	MS-CCV-HIGH
RC	2013/04/22	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	52.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/22	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.4	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65054

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/04/19	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	53.4	45-55	50.000	MS-CCV-HIGH
RC	2013/04/19	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/04/19	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	104	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/04/19	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.2	45-55	50.00000	MS-CCV-HIGH
RC	2013/04/19	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	52.7	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/04/19	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	49.2	45-55	50.000	MS-CCV-HIGH
RC	2013/04/19	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	48.7	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/04/19	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24200	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/04/19	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/04/19	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	50.3	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/19	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.5	45-55	50.0000	MS-CCV-HIGH
RC	2013/04/19	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	51.2	45-55	50.0000	MS-CCV-HIGH
RC	2013/04/19	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	97.4	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/04/19	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	45.1	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/04/19	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25000	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/04/19	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	51.9	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/24	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.306000	0.220-0.363	0.291000	E2-QCPHG010
RC	2013/04/19	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	52.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/19	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	49.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/19	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	269	225-275	250.00	MS-CCV-HIGH
RC	2013/04/19	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	26400	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/04/19	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	54.4	45-55	50.0000	MS-CCV-HIGH
RC	2013/04/19	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	107	105-129	117.00	MS-CCV-HIGH
RC	2013/04/19	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.9	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/04/19	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/04/19	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.6	45-55	50.000000	MS-CCV-HIGH
RC	2013/04/19	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	238	225-275	250.00000	MS-CCV-HIGH
RC	2013/04/19	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	243	225-275	250.0000	MS-CCV-HIGH
RC	2013/04/19	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	53.4	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/04/19	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	91.0	90-110	100.00000	MS-CCV-HIGH
RC	2013/04/19	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	51.7	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/04/19	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	49.9	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/04/17	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.03	5.94-6.06	6.00	QC-pH-7

Analytical Comments

Project No. VE52277.2190.02

File No. EC-65054

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC Environment & Infrastructure
ATTN: Bruce Ott
600 4445 LOUGHEED HWY
BURNABY BC V5C 0E4

Date Received: 17-APR-13
Report Date: 30-APR-13 17:57 (MT)
Version: FINAL

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1290829
Project P.O. #: NOT SUBMITTED
Job Reference: VE52277.2190.02
C of C Numbers:
Legal Site Desc:

Selam Worku
Account Manager

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ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID Description Sampled Date Sampled Time Client ID	L1290829-1 water 15-APR-13 WQ26	L1290829-2 water 15-APR-13 WQ11	L1290829-3 water 15-APR-13 WQ10	L1290829-4 water 15-APR-13 WQ3	L1290829-5 water 15-APR-13 WQ5
Grouping	Analyte					
WATER						
Cyanides	Cyanate (ug/L)	<2000 ^{DLIS}	<200	<200	<200	<200
	Thiocyanate (SCN) (ug/L)	<500	<500	<500	<500	<500

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	Description	Sampled Date	Sampled Time	Client ID
	L1290829-6	water	15-APR-13		WQ15
	L1290829-7	water	15-APR-13		WQ16
	L1290829-8	water	15-APR-13		WQ12
	L1290829-9	water	15-APR-13		WQ8
Grouping	Analyte				
WATER					
Cyanides	Cyanate (ug/L)				
	<200	<200	<200	<200	<200
	Thiocyanate (SCN) (ug/L)				
	<500	<500	<500	<500	<500

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Duplicate	Cyanate	DLIS	L1290829-1, -2, -3, -4, -5, -6, -7, -8, -9

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLIS	Detection Limit Adjusted: Insufficient Sample

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1290829

Report Date: 30-APR-13

Page 1 of 3

Client: AMEC Environment & Infrastructure
 # 600 4445 LOUGHEED HWY
 BURNABY BC V5C 0E4

Contact: Bruce Ott

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT		Water						
Batch	R2592753							
WG1662348-3	DUP	L1290829-1						
Cyanate		<2.0	<2.0	RPD-NA	mg/L	N/A	20	30-APR-13
WG1662348-1	LCS							
Cyanate			96.4		%		85-115	30-APR-13
WG1662348-2	MB							
Cyanate			<0.20		mg/L		0.2	30-APR-13
CN-SCN-VA		Water						
Batch	R2581250							
WG1656825-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			101.2		%		85-115	18-APR-13
WG1656825-6	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			97.4		%		85-115	18-APR-13
WG1656825-1	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	18-APR-13
WG1656825-5	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	18-APR-13
WG1656825-10	MS	L1289563-2						
Thiocyanate (SCN)			95.0		%		75-125	18-APR-13
WG1656825-4	MS	L1288230-1						
Thiocyanate (SCN)			88.1		%		75-125	18-APR-13
WG1656825-8	MS	L1289088-1						
Thiocyanate (SCN)			92.1		%		75-125	18-APR-13

Quality Control Report

Workorder: L1290829

Report Date: 30-APR-13

Page 2 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1290829

Report Date: 30-APR-13

Page 3 of 3

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Cyanides							
Cyanate	1	15-APR-13	30-APR-13 15:59	14	15	days	EHT
	2	15-APR-13	30-APR-13 15:59	14	15	days	EHT
	3	15-APR-13	30-APR-13 15:59	14	15	days	EHT
	4	15-APR-13	30-APR-13 15:59	14	15	days	EHT
	5	15-APR-13	30-APR-13 15:59	14	15	days	EHT
	6	15-APR-13	30-APR-13 15:59	14	15	days	EHT
	7	15-APR-13	30-APR-13 15:59	14	15	days	EHT
	8	15-APR-13	30-APR-13 15:59	14	15	days	EHT
	9	15-APR-13	30-APR-13 15:59	14	15	days	EHT

Legend & Qualifier Definitions:

- EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1290829 were received on 17-APR-13 08:30.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report To			Report Format / Distribution			Service Requested (Rush for routine analysis subject to availability)					
Company: AMEC			<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other			<input checked="" type="radio"/> Regular (Default)					
Contact: Bruce Ott			<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax			<input type="radio"/> Priority (Specify Date Required → →) Surcharges apply					
Address: Suite 600, 4445 Lougheed Highway, Burnaby, B.C. V5C 0E4			Email 1: bruce.ott@amec.com			<input type="radio"/> Emergency (1 Business Day) - 100% Surcharge					
Phone: (604)295-4758 Fax: (604)294-4664			Email 2:			<input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS					
Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Client / Project Information			Analysis Request					
Company:			Job #: VE52277.2190.02			Please indicate below Filtered, Preserved or both (F, P, F/P)					
Contact:			PO / AFE:			P					
Address:			LSD:			P					
Phone:			Quote #: Q28456			Cyanate Thiocyanate					
ALS Contact:			Sampler:			Number of Containers					
Date (dd-mmm-yy)			Time (hh:mm)			Sample Type					
15-04-13											
WQ26			15-04-13			Water			3		
WQ11			15-04-13			Water			3		
WQ10			15-04-13			Water			3		
WQ3			15-04-13			Water			3		
WQ5			15-04-13			Water			3		
WQ15			15-04-13			Water			3		
WQ16			15-04-13			Water			3		
WQ12			15-04-13			Water			3		
WQ8			15-04-13			Water			3		
Special Instructions / Regulations / Hazardous Details											
*****Note that the wrong bottles were sent for CYANATE analyses so we filled two to make sure you have enough of a sample - just one analysis for Cyanate (and one for Thiocyanate) for each site please. ---											
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.											
By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.											
Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.											
SHIPMENT RELEASE (client use)				SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations:	
L. Nordin	15-Apr-13	16:00	Brittany	Apr. 17	8:30	7.5 °C				Yes / No ? If Yes add SIF	



AMEC Environment & Infrastructure
ATTN: Bruce Ott
600 4445 Lougheed Hwy
Burnaby BC V5C 0E4

Date Received: 18-APR-13
Report Date: 06-MAY-13 17:19 (MT)
Version: FINAL REV. 2

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1291117
Project P.O. #: NOT SUBMITTED
Job Reference: VE52277.2190.02
C of C Numbers:
Legal Site Desc:

Selam Worku
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID Description Sampled Date Sampled Time Client ID	L1291117-1 WATER 16-APR-13 WQ7	L1291117-2 WATER 16-APR-13 WQ9	L1291117-3 WATER 16-APR-13 WQ14	L1291117-4 WATER 16-APR-13 WQ6	L1291117-5 WATER 16-APR-13 FIELD BLANK
Grouping	Analyte					
WATER						
Cyanides	Cyanate (ug/L)	<200	<200	<200	<200	<200
	Thiocyanate (SCN) (ug/L)	<500	<500	<500	<500	<500

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID Description Sampled Date Sampled Time Client ID	L1291117-6 WATER 16-APR-13 TRIP BLANK	L1291117-7 WATER 16-APR-13 DUPLICATE		
Grouping	Analyte				
WATER					
Cyanides	Cyanate (ug/L)	<200	<200		
	Thiocyanate (SCN) (ug/L)	<500	<500		

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Duplicate	Cyanate	DLIS	L1291117-1, -2, -3, -4, -5, -6, -7

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLIS	Detection Limit Adjusted: Insufficient Sample

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1291117

Report Date: 06-MAY-13

Page 1 of 3

Client: AMEC Environment & Infrastructure
 # 600 4445 Lougheed Hwy
 Burnaby BC V5C 0E4
 Contact: Bruce Ott

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT		Water						
Batch	R2592753							
WG1662348-1	LCS							
Cyanate			96.4		%		85-115	30-APR-13
WG1662348-2	MB							
Cyanate			<0.20		mg/L		0.2	30-APR-13
CN-SCN-VA		Water						
Batch	R2590192							
WG1660992-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			101.3		%		85-115	26-APR-13
WG1660992-6	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			96.8		%		85-115	26-APR-13
WG1660992-3	DUP	L1291117-1						
Thiocyanate (SCN)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	26-APR-13
WG1660992-1	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	26-APR-13
WG1660992-5	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	26-APR-13
WG1660992-4	MS	L1291117-2						
Thiocyanate (SCN)			102.3		%		75-125	26-APR-13
WG1660992-7	MS	L1293601-1						
Thiocyanate (SCN)			98.7		%		75-125	26-APR-13

Quality Control Report

Workorder: L1291117

Report Date: 06-MAY-13

Page 2 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1291117

Report Date: 06-MAY-13

Page 3 of 3

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
-------------------------	-----------	---------------	----------------	---------	-----------	-------	-----------

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1291117 were received on 18-APR-13 08:30.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report To			Report Format / Distribution			Service Requested (Rush for routine analysis subject to availability)												
Company: AMEC			<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other			<input checked="" type="radio"/> Regular (Default)												
Contact: Bruce Ott			<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax			<input type="radio"/> Priority (Specify Date Required → →) Surcharges apply												
Address: Suite 600, 4445 Lougheed Highway, Burnaby, B.C. V5C 0E4			Email 1: bruce.ott@amec.com			<input type="radio"/> Emergency (1 Business Day) - 100% Surcharge												
Phone: (604)295-4758 Fax: (604)294-4664			Email 2:			<input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS												
Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Client / Project Information			Analysis Request												
Company:			Job #: VE52277.2190.02			Please indicate below Filtered, Preserved or both (F, P, F/P)												
Contact:			PO / AFE:			P												
Address:			LSD:			Cyanate Thiocyanate												
Phone:			Quote #: Q28456			Number of Containers												
Lab Work Order # (lab use only) 129117			ALS Contact:			Sampler:												
Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Cyanate	Thiocyanate												
	WQ7	16-Apr-13		Water	X	X												2
	WQ9	16-Apr-13		Water	X	X												2
	WQ14	16-Apr-13		Water	X	X												2
	WQ6	16-Apr-13		Water	X	X												2
	FIELD BLANK	16-Apr-13		Water	X	X												2
	TRIP BLANK	16-Apr-13		Water	X	X												2
	DUPLICATE	16-Apr-13		Water	X	X												2
<p>L129117-COFC</p>																		
<p>Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.</p> <p>By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.</p> <p>Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.</p>																		
SHIPMENT RELEASE (client use)						SHIPMENT RECEPTION (lab use only)						SHIPMENT VERIFICATION (lab use only)						
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations:								
C. McFadden	16-Apr-13	14:00	HD	Apr-18-13	8:30	8 °C					Yes / No ? If Yes add SIF							



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 18-APR-13
Report Date: 24-APR-13 16:32 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1291332
Project P.O. #: 2220
Job Reference: EC-65054
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1291332-1 WQ3~13-3017 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-2 WQ5~13-3018 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-3 WQ8~13-3019 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-4 WQ10~13-3020 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-5 WQ11~13-3021 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-6 WQ12~13-3022 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-7 WQ15~13-3023 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-8 WQ16~13-3024 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-9 WQ26~13-3025 Sampled By: CLIENT on 15-APR-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1291332-9 WQ26~13-3025 Sampled By: CLIENT on 15-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-10 WQ6~13-3026 Sampled By: CLIENT on 16-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-11 WQ7~13-3027 Sampled By: CLIENT on 16-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-12 WQ9~13-3028 Sampled By: CLIENT on 16-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-13 WQ14~13-3029 Sampled By: CLIENT on 16-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-14 DUPLICATE~13-3030 Sampled By: CLIENT on 16-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-15 FIELD BLANK~13-3031 Sampled By: CLIENT on 16-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775
L1291332-16 TRIP BLANK~13-3032 Sampled By: CLIENT on 16-APR-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-APR-13 23-APR-13	R2586750 R2586775

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:
GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1291332

Report Date: 24-APR-13

Page 1 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2586750							
WG1659072-15	DUP	L1291240-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659072-17	DUP	L1292221-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659072-3	DUP	L1291056-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659072-5	DUP	L1291767-20						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659072-9	DUP	L1291332-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659072-12	LCS							
Cyanide, Total			94.2		%		80-120	23-APR-13
WG1659072-14	LCS							
Cyanide, Total			94.3		%		80-120	23-APR-13
WG1659072-2	LCS							
Cyanide, Total			94.2		%		80-120	23-APR-13
WG1659072-20	LCS							
Cyanide, Total			94.4		%		80-120	23-APR-13
WG1659072-22	LCS							
Cyanide, Total			93.8		%		80-120	23-APR-13
WG1659072-8	LCS							
Cyanide, Total			94.9		%		80-120	23-APR-13
WG1659072-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-APR-13
WG1659072-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-APR-13
WG1659072-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-APR-13
WG1659072-19	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-APR-13
WG1659072-21	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-APR-13
WG1659072-7	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-APR-13
WG1659072-10	MS	L1291332-2						
Cyanide, Total			98.9		%		70-130	23-APR-13
WG1659072-16	MS	L1291240-2						
Cyanide, Total			100.3		%		70-130	23-APR-13



Quality Control Report

Workorder: L1291332

Report Date: 24-APR-13

Page 2 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2586750							
WG1659072-18	MS	L1292221-4						
Cyanide, Total			86.2		%		70-130	23-APR-13
WG1659072-4	MS	L1291056-1						
Cyanide, Total			101.0		%		70-130	23-APR-13
WG1659072-6	MS	L1291767-20						
Cyanide, Total			98.5		%		70-130	23-APR-13
CN-WAD-CFA-VA								
	Water							
Batch	R2586775							
WG1659079-13	DUP	L1291240-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659079-15	DUP	L1292221-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659079-3	DUP	L1291767-20						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659079-7	DUP	L1291332-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-APR-13
WG1659079-10	LCS							
Cyanide, Weak Acid Diss			108.6		%		80-120	23-APR-13
WG1659079-12	LCS							
Cyanide, Weak Acid Diss			105.0		%		80-120	23-APR-13
WG1659079-18	LCS							
Cyanide, Weak Acid Diss			107.0		%		80-120	23-APR-13
WG1659079-2	LCS							
Cyanide, Weak Acid Diss			107.6		%		80-120	23-APR-13
WG1659079-20	LCS							
Cyanide, Weak Acid Diss			108.4		%		80-120	23-APR-13
WG1659079-6	LCS							
Cyanide, Weak Acid Diss			106.1		%		80-120	23-APR-13
WG1659079-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-APR-13
WG1659079-11	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-APR-13
WG1659079-17	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-APR-13
WG1659079-19	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-APR-13
WG1659079-5	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-APR-13



Quality Control Report

Workorder: L1291332

Report Date: 24-APR-13

Page 3 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2586775							
WG1659079-9 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-APR-13
WG1659079-14 MS		L1291240-2						
Cyanide, Weak Acid Diss			101.0		%		70-130	23-APR-13
WG1659079-16 MS		L1292221-4						
Cyanide, Weak Acid Diss			87.6		%		70-130	23-APR-13
WG1659079-4 MS		L1291767-20						
Cyanide, Weak Acid Diss			99.6		%		70-130	23-APR-13
WG1659079-8 MS		L1291332-2						
Cyanide, Weak Acid Diss			103.6		%		70-130	23-APR-13

Quality Control Report

Workorder: L1291332

Report Date: 24-APR-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 4 of 4

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Report to:	Report Format / Distribution	Service Requested:
Company: AMEC Earth & Environmental, Chemistry Dept.	<input type="checkbox"/> Standard <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Regular Service (Default)
Contact: Kristine Connor	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax	<input type="checkbox"/> Rush Service (2-3 Days)
Address: 5667-70 Street, Edmonton, AB T6B 3P6	Email 1: kristine.connor@amec.com	<input type="checkbox"/> Priority Service (1 Day or ASAP)
	Email 2: charlene.rollheiser@amec.com	<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS

Phone: (780) 989-4580 Fax: (780) 377-3600	Analysis Request
Invoice To: <input checked="" type="checkbox"/> Same as Report	Indicate Bottles: Filtered / Preserved (F/P) →→

Company: Same	Client / Project Information:
Contact:	Job #: EC-65054
Address:	PO/AFE:
Sample	Legal Site Description:
Phone: Fax:	Quote #:

Lab Work Order # (lab use only)	L1291332	ALS Contact: Matreen Olinek	Sampler (Initials):
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Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	CN-T-CFA-VA	CN-WAD-MID-COL-VA													Hazardous?	Highly Contaminated?	Number of Containers
	16 Water Samples (See attached)	see attached		Water	x	x															x



Guidelines / Regulations _____ Instructions / Hazardous Details _____

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Relinquished By: jeffery connor	Date & Time: 18-Apr-13	Received By:	Date & Time: 18 APR 13	Temperature 5.1	Sample Condition (lab use only) Samples Received in Good Condition? Y / N (if no provided details)
Relinquished By:	Date & Time:	Received By:	Date & Time: 14:39		

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-65054	WQ3	13-3017-	2013/04/15	Water
EC-65054	WQ5	13-3018-	2013/04/15	Water
EC-65054	WQ8	13-3019-	2013/04/15	Water
EC-65054	WQ10	13-3020-	2013/04/15	Water
EC-65054	WQ11	13-3021-	2013/04/15	Water
EC-65054	WQ12	13-3022-	2013/04/15	Water
EC-65054	WQ15	13-3023-	2013/04/15	Water
EC-65054	WQ16	13-3024-	2013/04/15	Water
EC-65054	WQ26	13-3025-	2013/04/15	Water
EC-65054	WQ6	13-3026-	2013/04/16	Water
EC-65054	WQ7	13-3027-	2013/04/16	Water
EC-65054	WQ9	13-3028-	2013/04/16	Water
EC-65054	WQ14	13-3029-	2013/04/16	Water
EC-65054	Duplicate	13-3030-	2013/04/16	Water
EC-65054	Field Blank	13-3031-	2013/04/16	Water
EC-65054	Trip Blank	13-3032-	2013/04/16	Water



L1291332-COFC

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65181
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/05/15
Date of Report: 2013/05/27
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4083	13-4083-D	13-4084	13-4085
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/05/13 0:00	Lab Duplicate	2013/05/13 0:00	2013/05/13 0:00
					MDL				
AFD	2013/05/15	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	22	22	7	74
AFD	2013/05/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.045	0.044	0.024	0.145
AFD	2013/05/15	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.06	0.05	0.07
AFD	2013/05/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.016	0.019	0.016	0.102
AFD	2013/05/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.4	1.4	1.1	4.3
EL	2013/05/16	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	60	52	48	104
EL	2013/05/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	4	4	5	2
AFD	2013/05/15	Turbidity	NTU	APHA 2130-b	0.1	2.0	1.7	1.8	1.7
AFD	2013/05/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.2	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4086	13-4087	13-4088	13-4089
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/13 0:00	2013/05/13 0:00	2013/05/13 0:00	2013/05/13 0:00
					MDL				
AFD	2013/05/15	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	9	9	14	21
AFD	2013/05/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.029	0.029	0.035	0.043
AFD	2013/05/15	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.04	0.04
AFD	2013/05/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.031	0.030	0.021	0.030
AFD	2013/05/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.6	1.1	1.3	1.4
EL	2013/05/16	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	44	64	52	24
EL	2013/05/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	7	< 2	< 2	3
AFD	2013/05/15	Turbidity	NTU	APHA 2130-b	0.1	3.1	2.3	1.3	1.8
AFD	2013/05/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4090	13-4091	13-4092	13-4093
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/05/13 0:00	2013/05/13 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
AFD	2013/05/15	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	21	20	10	14
AFD	2013/05/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.043	0.041	0.029	0.037
AFD	2013/05/15	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.04	0.05
AFD	2013/05/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.046	0.019	0.020	0.028
AFD	2013/05/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.5	1.4	1.4	1.5
EL	2013/05/16	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	36	52	48	56
EL	2013/05/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	7	3	< 2
AFD	2013/05/15	Turbidity	NTU	APHA 2130-b	0.1	1.7	3.5	1.5	5.3
AFD	2013/05/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.3	0.4

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4094	13-4095	13-4096	13-4097
					Client ID:	WQ9	WQ13	WQ14	WQ1
					Sample Date:	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
AFD	2013/05/15	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	55	54	47	4
AFD	2013/05/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.106	0.106	0.090	0.019
AFD	2013/05/15	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.07	0.07	0.04
AFD	2013/05/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.015	0.014	0.016	0.007
AFD	2013/05/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.5	3.5	2.2	1.5
EL	2013/05/16	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	96	96	68	40
EL	2013/05/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	10	8	4	4
AFD	2013/05/15	Turbidity	NTU	APHA 2130-b	0.1	3.6	3.0	1.2	3.8
AFD	2013/05/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.4	0.4	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4098	13-4099	13-4100	13-4101
					Client ID:	WQ4	Duplicate	Field Blank	Trip Blank
					Sample Date:	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
AFD	2013/05/15	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	9	48	5	1
AFD	2013/05/15	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.049	0.090	0.016	< 0.001
AFD	2013/05/15	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.07	< 0.02	< 0.02
AFD	2013/05/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.028	0.006	< 0.005	< 0.005
AFD	2013/05/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	8.1	2.3	< 0.5	< 0.5
EL	2013/05/16	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	56	64	< 4	< 4
EL	2013/05/16	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	< 2	< 2	< 2
AFD	2013/05/15	Turbidity	NTU	APHA 2130-b	0.1	3.3	1.2	0.5	0.5
AFD	2013/05/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.2	0.4	0.1	0.1

Water Analysis

Project No. VE52277.2190.02

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File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4083	13-4083-D	13-4084	13-4085
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/05/13 0:00	Lab Duplicate	2013/05/13 0:00	2013/05/13 0:00
					MDL				
EL	2013/05/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.9	12.2	13.4	7.3
RC	2013/05/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.9	12.2	13.4	7.4
AFD	2013/05/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/05/21	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.017	0.014	0.003	0.010
EL	2013/05/16	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.24	0.20	0.20	0.18

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4086	13-4087	13-4088	13-4089
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/13 0:00	2013/05/13 0:00	2013/05/13 0:00	2013/05/13 0:00
					MDL				
EL	2013/05/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.6	19.3	10.5	9.2
RC	2013/05/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.8	19.3	10.5	9.3
AFD	2013/05/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/05/21	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.001	< 0.001	< 0.001
EL	2013/05/16	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.18	0.25	0.15	0.17

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4090	13-4091	13-4092	13-4093
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/05/13 0:00	2013/05/13 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
EL	2013/05/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.4	12.8	10.1	11.8
RC	2013/05/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.7	12.8	10.1	11.8
AFD	2013/05/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/05/21	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/05/16	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.09	0.18	0.11	0.29

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4094	13-4095	13-4096	13-4097
					Client ID:	WQ9	WQ13	WQ14	WQ1
					Sample Date:	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
EL	2013/05/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.3	9.3	12.4	6.0
RC	2013/05/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.3	9.3	12.6	12.3
AFD	2013/05/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/05/21	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.003	0.006	< 0.001	< 0.001
EL	2013/05/16	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.20	0.19	0.28	0.18

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4098	13-4099	13-4100	13-4101
					Client ID:	WQ4	Duplicate	Field Blank	Trip Blank
					Sample Date:	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
EL	2013/05/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.7	13.0	< 0.1	< 0.1
RC	2013/05/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.9	13.0	0.2	< 0.1
AFD	2013/05/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
RC	2013/05/21	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/05/16	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.50	0.19	< 0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4083	13-4083-D	13-4084	13-4085
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/05/13 0:00	Lab Duplicate	2013/05/13 0:00	2013/05/13 0:00
					MDL				
RC	2013/05/21	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.201	0.191	0.258	0.013
RC	2013/05/21	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00007	< 0.00005	< 0.00005
RC	2013/05/21	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0003	0.0005
RC	2013/05/21	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00379	0.00382	0.00298	0.00586
RC	2013/05/21	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000045	0.000192	< 0.000015	< 0.000015
RC	2013/05/21	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.7	5.7	2.7	20.9
RC	2013/05/21	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0005	0.0004	< 0.0003	< 0.0003
RC	2013/05/21	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00006	0.00006	0.00005	0.00002
RC	2013/05/21	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0011	0.0010	0.0006	0.0003
RC	2013/05/21	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2070	0.2100	0.1500	0.0661
RC	2013/05/21	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.48	1.34	0.75	5.01
RC	2013/05/21	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00712	0.00659	0.00511	0.07560
RC	2013/05/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	0.000006	< 0.000005
RC	2013/05/21	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00026	0.00026	0.00008	0.00049
RC	2013/05/21	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00039	0.00038	0.00021	0.00021
RC	2013/05/21	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.03	0.03	0.01	0.02
RC	2013/05/21	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.5	< 0.5	< 0.5	0.8
RC	2013/05/21	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.53	4.45	3.28	3.85
RC	2013/05/21	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.0	1.9	1.4	3.3
RC	2013/05/21	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.038600	0.038300	0.019600	0.101000
RC	2013/05/21	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0041	0.0040	0.0023	0.0005
RC	2013/05/21	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00013	0.00013	0.00008	0.00008
RC	2013/05/21	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00079	0.00076	< 0.00005	< 0.00005
RC	2013/05/21	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0041	0.0037	0.0023	0.0020
RC	2013/05/21	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	20.4	19.7	9.8	72.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4086	13-4087	13-4088	13-4089
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/13 0:00	2013/05/13 0:00	2013/05/13 0:00	2013/05/13 0:00
					MDL				
RC	2013/05/21	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.332	0.480	0.143	0.116
RC	2013/05/21	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0001	0.0002	0.0002
RC	2013/05/21	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00556	0.00579	0.00527	0.00802
RC	2013/05/21	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/05/21	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.6	4.1	5.0	6.3
RC	2013/05/21	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	0.0003	< 0.0003	< 0.0003
RC	2013/05/21	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00007	0.00006	0.00003	0.00003
RC	2013/05/21	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0008	0.0005	0.0003
RC	2013/05/21	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2350	0.2280	0.1580	0.2630
RC	2013/05/21	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.73	0.84	0.86	0.97
RC	2013/05/21	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01310	0.00461	0.00886	0.03100
RC	2013/05/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	0.000010	0.000015	< 0.000005	< 0.000005
RC	2013/05/21	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	0.00007	0.00033	0.00050
RC	2013/05/21	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00031	0.00025	0.00011	0.00007
RC	2013/05/21	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	0.01	< 0.01	< 0.01
RC	2013/05/21	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2013/05/21	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.53	4.85	2.85	2.53
RC	2013/05/21	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.4	1.5	1.3	1.4
RC	2013/05/21	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.028500	0.029800	0.039900	0.061800
RC	2013/05/21	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0052	0.0051	0.0019	0.0016
RC	2013/05/21	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00016	0.00019	0.00016
RC	2013/05/21	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00019	< 0.00005	< 0.00005
RC	2013/05/21	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0042	0.0028	0.0025	0.0026
RC	2013/05/21	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.0	13.8	15.9	19.7

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4090	13-4091	13-4092	13-4093
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/05/13 0:00	2013/05/13 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
RC	2013/05/21	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.070	0.328	0.191	0.408
RC	2013/05/21	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00005	< 0.00005
RC	2013/05/21	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0004	0.0007	0.0005
RC	2013/05/21	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00354	0.00543	0.00472	0.00660
RC	2013/05/21	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000063	< 0.000015	< 0.000015	< 0.000015
RC	2013/05/21	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.5	4.2	3.6	4.8
RC	2013/05/21	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/05/21	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00008	0.00004	0.00015
RC	2013/05/21	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0009	0.0006	0.0006
RC	2013/05/21	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1840	0.2570	0.1320	0.4140
RC	2013/05/21	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00009	0.00005	0.00013
RC	2013/05/21	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.12	0.92	0.65	1.10
RC	2013/05/21	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02520	0.01620	0.00735	0.02380
RC	2013/05/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	0.000006	< 0.000005
RC	2013/05/21	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00066	0.00018	0.00025	0.00021
RC	2013/05/21	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00030	0.00038	0.00039
RC	2013/05/21	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.01	0.01	0.01
RC	2013/05/21	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2013/05/21	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.92	3.58	3.64	3.93
RC	2013/05/21	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.6	1.5	1.4	1.6
RC	2013/05/21	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.038600	0.030300	0.028100	0.033600
RC	2013/05/21	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0011	0.0063	0.0024	0.0104
RC	2013/05/21	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00016	0.00022	0.00016
RC	2013/05/21	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00017	< 0.00005	0.00064
RC	2013/05/21	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0029	0.0028	0.0025	0.0023
RC	2013/05/21	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	18.4	14.3	11.5	16.6

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4094	13-4095	13-4096	13-4097
					Client ID:	WQ9	WQ13	WQ14	WQ1
					Sample Date:	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
RC	2013/05/21	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.141	0.122	0.073	0.390
RC	2013/05/21	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0002	0.0004
RC	2013/05/21	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00679	0.00693	0.00773	0.00374
RC	2013/05/21	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/05/21	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	16.0	15.0	13.6	1.9
RC	2013/05/21	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/05/21	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00007	0.00006	0.00004	0.00007
RC	2013/05/21	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0005	0.0005
RC	2013/05/21	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2180	0.2020	0.2510	0.2380
RC	2013/05/21	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00007
RC	2013/05/21	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.60	3.54	2.91	< 0.50
RC	2013/05/21	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.03420	0.03290	0.01900	0.01010
RC	2013/05/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	0.000005
RC	2013/05/21	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00044	0.00045	0.00040	0.00008
RC	2013/05/21	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00028	0.00026	0.00026	0.00028
RC	2013/05/21	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	< 0.01	< 0.01	0.01
RC	2013/05/21	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	0.7	0.6	< 0.5
RC	2013/05/21	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.85	3.77	4.30	3.35
RC	2013/05/21	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.6	2.5	2.4	1.3
RC	2013/05/21	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.081500	0.076100	0.066700	0.017900
RC	2013/05/21	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0047	0.0037	0.0016	0.0060
RC	2013/05/21	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00009	< 0.00005	0.00018
RC	2013/05/21	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00011	< 0.00005	< 0.00005
RC	2013/05/21	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0015	0.0025	< 0.0005	0.0038
RC	2013/05/21	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	54.7	52.1	45.9	6.4

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4098	13-4099	13-4100	13-4101
					Client ID:	WQ4	Duplicate	Field Blank	Trip Blank
					Sample Date:	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
RC	2013/05/21	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.304	0.045	< 0.002	< 0.002
RC	2013/05/21	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00021	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0019	0.0002	< 0.0001	< 0.0001
RC	2013/05/21	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00373	0.00720	< 0.00005	< 0.00005
RC	2013/05/21	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000124	< 0.000015	< 0.000015	< 0.000015
RC	2013/05/21	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.0	13.6	< 0.5	< 0.5
RC	2013/05/21	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/05/21	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00003	< 0.00002	< 0.00002
RC	2013/05/21	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0014	0.0005	< 0.0001	< 0.0001
RC	2013/05/21	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2180	0.1800	< 0.0001	< 0.0001
RC	2013/05/21	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00028	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/21	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.89	2.88	< 0.50	< 0.50
RC	2013/05/21	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00786	0.01040	< 0.00005	< 0.00005
RC	2013/05/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/05/21	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00040	< 0.00005	< 0.00005
RC	2013/05/21	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00039	0.00026	< 0.00005	< 0.00005
RC	2013/05/21	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	< 0.01	< 0.01	< 0.01
RC	2013/05/21	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	0.6	< 0.5	< 0.5
RC	2013/05/21	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.65	4.40	< 0.01	< 0.01
RC	2013/05/21	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.8	2.4	< 0.5	< 0.5
RC	2013/05/21	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.030000	0.067100	< 0.000005	< 0.000005
RC	2013/05/21	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/21	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0048	0.0011	< 0.0002	< 0.0002
RC	2013/05/21	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/21	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0426	0.0028	0.0005	< 0.0005
RC	2013/05/21	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	16.0	45.8	< 6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4083	13-4083-D	13-4084	13-4085
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/05/13 0:00	Lab Duplicate	2013/05/13 0:00	2013/05/13 0:00
					MDL				
RC	2013/05/16	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.201	0.183	0.240	0.004
RC	2013/05/16	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00006	< 0.00005	< 0.00005
RC	2013/05/16	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0002	0.0005
RC	2013/05/16	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00345	0.00346	0.00248	0.00505
RC	2013/05/16	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000042	0.000042	< 0.000015	< 0.000015
RC	2013/05/16	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.7	5.7	2.7	20.9
RC	2013/05/16	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0005	0.0004	< 0.0003	< 0.0003
RC	2013/05/16	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00006	0.00006	0.00004	< 0.00002
RC	2013/05/16	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0011	0.0010	0.0006	0.0003
RC	2013/05/16	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.2010	0.1850	0.1180	0.0230
RC	2013/05/16	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.48	1.34	0.75	5.01
RC	2013/05/16	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00712	0.00643	0.00240	0.01840
RC	2013/05/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	0.000006	< 0.000005
RC	2013/05/16	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00026	0.00008	0.00049
RC	2013/05/16	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00039	0.00038	0.00021	0.00021
RC	2013/05/16	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.03	0.03	0.01	0.02
RC	2013/05/16	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.5	< 0.5	< 0.5	0.8
RC	2013/05/16	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.43	4.44	3.11	3.85
RC	2013/05/16	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.0	1.9	1.3	3.3
RC	2013/05/16	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.038600	0.038300	0.019600	0.101000
RC	2013/05/16	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0041	0.0036	0.0019	0.0002
RC	2013/05/16	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00013	0.00008	0.00008
RC	2013/05/16	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00079	0.00067	< 0.00005	< 0.00005
RC	2013/05/16	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0041	0.0037	0.0023	0.0020
AFD	2013/05/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.33	7.21	6.75	7.84
RC	2013/05/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	20.4	19.7	9.8	72.8

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4086	13-4087	13-4088	13-4089
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/13 0:00	2013/05/13 0:00	2013/05/13 0:00	2013/05/13 0:00
					MDL				
RC	2013/05/16	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.259	0.463	0.130	0.098
RC	2013/05/16	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0001	0.0001	0.0002
RC	2013/05/16	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00431	0.00480	0.00493	0.00749
RC	2013/05/16	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/05/16	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.6	4.1	5.0	6.3
RC	2013/05/16	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	0.0003	< 0.0003	< 0.0003
RC	2013/05/16	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00004	0.00005	0.00003	< 0.00002
RC	2013/05/16	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0007	0.0008	0.0005	0.0003
RC	2013/05/16	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1350	0.1940	0.1180	0.1750
RC	2013/05/16	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.73	0.84	0.86	0.97
RC	2013/05/16	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00345	0.00241	0.00372	0.01570
RC	2013/05/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	0.000010	< 0.000005	< 0.000005	< 0.000005
RC	2013/05/16	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00007	0.00033	0.00050
RC	2013/05/16	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00031	0.00025	0.00011	0.00007
RC	2013/05/16	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	0.01	< 0.01	< 0.01
RC	2013/05/16	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2013/05/16	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.53	4.85	2.85	2.53
RC	2013/05/16	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.4	1.4	1.3	1.3
RC	2013/05/16	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.028500	0.029800	0.039900	0.061800
RC	2013/05/16	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0032	0.0051	0.0016	0.0015
RC	2013/05/16	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00016	0.00019	0.00016
RC	2013/05/16	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00008	< 0.00005	< 0.00005
RC	2013/05/16	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0042	0.0028	0.0025	0.0026
AFD	2013/05/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.85	6.84	7.13	7.16
RC	2013/05/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.0	13.8	15.9	19.7

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4090	13-4091	13-4092	13-4093
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/05/13 0:00	2013/05/13 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
RC	2013/05/16	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.055	0.241	0.179	0.194
RC	2013/05/16	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0003	0.0006	0.0003
RC	2013/05/16	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00320	0.00404	0.00434	0.00396
RC	2013/05/16	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/05/16	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.5	4.2	3.6	4.8
RC	2013/05/16	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/05/16	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003	0.00003	0.00004
RC	2013/05/16	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0009	0.0006	0.0006
RC	2013/05/16	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1170	0.1280	0.0963	0.1270
RC	2013/05/16	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.12	0.92	0.65	1.07
RC	2013/05/16	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00426	0.00324	0.00289	0.00594
RC	2013/05/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/05/16	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00065	0.00018	0.00025	0.00020
RC	2013/05/16	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00030	0.00038	0.00030
RC	2013/05/16	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.01	0.01	0.01
RC	2013/05/16	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2013/05/16	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.90	3.53	3.64	3.72
RC	2013/05/16	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.6	1.5	1.4	1.6
RC	2013/05/16	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.038600	0.030300	0.028100	0.033600
RC	2013/05/16	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0009	0.0035	0.0024	0.0027
RC	2013/05/16	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00022	0.00016	0.00022	0.00015
RC	2013/05/16	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0029	0.0028	0.0025	0.0023
AFD	2013/05/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.11	7.53	6.98	7.16
RC	2013/05/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	18.4	14.3	11.5	16.5

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4094	13-4095	13-4096	13-4097
					Client ID:	WQ9	WQ13	WQ14	WQ1
					Sample Date:	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
RC	2013/05/16	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.056	0.050	0.029	0.314
RC	2013/05/16	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0004	0.0002	0.0003
RC	2013/05/16	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00580	0.00583	0.00666	0.00291
RC	2013/05/16	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
RC	2013/05/16	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	16.0	15.0	13.6	1.9
RC	2013/05/16	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/05/16	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00004	0.00002	0.00002	0.00004
RC	2013/05/16	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0005	0.0005
RC	2013/05/16	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0791	0.0759	0.1100	0.1420
RC	2013/05/16	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.60	3.54	2.91	< 0.50
RC	2013/05/16	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01700	0.01610	0.00257	0.00631
RC	2013/05/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/05/16	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00044	0.00045	0.00040	0.00008
RC	2013/05/16	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00028	0.00026	0.00026	0.00028
RC	2013/05/16	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.01	< 0.01	< 0.01	0.01
RC	2013/05/16	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	0.7	0.6	< 0.5
RC	2013/05/16	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.83	3.77	4.30	3.35
RC	2013/05/16	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.6	2.5	2.3	1.3
RC	2013/05/16	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.081500	0.076100	0.066700	0.017900
RC	2013/05/16	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0010	0.0009	0.0007	0.0040
RC	2013/05/16	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00009	< 0.00005	0.00018
RC	2013/05/16	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0015	0.0025	< 0.0005	0.0038
AFD	2013/05/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.72	7.69	7.55	6.43
RC	2013/05/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	54.7	52.1	45.9	6.4

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65181

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4098	13-4099	13-4100	13-4101
					Client ID:	WQ4	Duplicate	Field Blank	Trip Blank
					Sample Date:	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00	2013/05/14 0:00
					MDL				
RC	2013/05/16	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.232	0.028	< 0.002	< 0.002
RC	2013/05/16	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0017	0.0002	< 0.0001	< 0.0001
RC	2013/05/16	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00282	0.00660	< 0.00005	< 0.00005
RC	2013/05/16	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000108	< 0.000015	< 0.000015	< 0.000015
RC	2013/05/16	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.0	13.6	< 0.5	< 0.5
RC	2013/05/16	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
RC	2013/05/16	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00002	< 0.00002	< 0.00002
RC	2013/05/16	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0011	0.0005	< 0.0001	< 0.0001
RC	2013/05/16	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1410	0.1050	< 0.0001	< 0.0001
RC	2013/05/16	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
RC	2013/05/16	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.89	2.88	< 0.50	< 0.50
RC	2013/05/16	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00504	0.00239	< 0.00005	< 0.00005
RC	2013/05/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
RC	2013/05/16	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00040	< 0.00005	< 0.00005
RC	2013/05/16	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00039	0.00026	< 0.00005	< 0.00005
RC	2013/05/16	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.01	< 0.01	< 0.01	< 0.01
RC	2013/05/16	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	0.6	< 0.5	< 0.5
RC	2013/05/16	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.65	4.40	< 0.01	< 0.01
RC	2013/05/16	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.7	2.3	< 0.5	< 0.5
RC	2013/05/16	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.030000	0.067100	< 0.000005	< 0.000005
RC	2013/05/16	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
RC	2013/05/16	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0033	0.0006	< 0.0002	< 0.0002
RC	2013/05/16	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
RC	2013/05/16	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0426	0.0028	< 0.0005	< 0.0005
AFD	2013/05/15	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.73	7.54	7.62	5.84
RC	2013/05/16	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	16.0	45.8	< 6.0	< 6.0

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65181

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/05/15	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	65	53-72	63	QC-ALK/F-57
AFD	2013/05/15	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.74	2.54-2.94	2.790	CC-EC-0.02M-48
AFD	2013/05/15	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.50	0.44-0.58	0.50	QC-AIK/F-57
AFD	2013/05/16	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.69	1.44-1.76	1.600	CC-Anion-122B
AFD	2013/05/16	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.603	0.54-0.66	0.600	CC-Anion-121B
AFD	2013/05/16	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	27.0	25.2-30.8	28.0	CC-Anion-122B
EL	2013/05/16	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-c	2	804	628-1059	844	QCP-SLD02008
EL	2013/05/16	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	32	26-36	31	QCP-SLD 02008
AFD	2013/05/15	Turbidity	NTU	APHA 2130-b	0.1	10	8.5-11.5	10.0	QC-Turb-9
AFD	2013/05/16	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.3	3.6-4.4	4.0	CC-Anion-122B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/05/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.55	0.394-0.610	0.50	F2NUT01116
RC	2013/05/17	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.8	33.1-42.6	37.9	DMD-TOC-101-Mid
RC	2013/05/17	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	155	132.6-170.5	151.5	DMD-TOC-101-High
AFD	2013/05/16	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.817	0.72-0.88	0.800	CC-Anion-122BL
RC	2013/05/21	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	261	225-275	250.000	MS-CCV-HIGH
EL	2013/05/16	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	10.7	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65181

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/05/21	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	54.3	45-55	50.000	MS-CCV-HIGH
RC	2013/05/21	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/05/21	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	101	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/05/21	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.9	45-55	50.00000	MS-CCV-HIGH
RC	2013/05/21	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/05/21	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	48.6	45-55	50.000	MS-CCV-HIGH
RC	2013/05/21	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.8	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/05/21	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25300	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/05/21	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.2	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/05/21	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.4	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/21	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	51.7	45-55	50.0000	MS-CCV-HIGH
RC	2013/05/21	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	53.1	45-55	50.0000	MS-CCV-HIGH
RC	2013/05/21	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	98.5	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/05/21	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	49.0	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/05/21	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	26600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/05/21	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	53.4	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/23	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.312000	0.220-0.363	0.291000	E2-QCPHG010
RC	2013/05/21	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	47.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/21	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.4	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/21	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	261	225-275	250.00	MS-CCV-HIGH
RC	2013/05/21	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/05/21	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	51.1	45-55	50.0000	MS-CCV-HIGH
RC	2013/05/21	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	126	105-129	117.00	MS-CCV-HIGH
RC	2013/05/21	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.8	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/05/21	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26000	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/05/21	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	54.0	45-55	50.000000	MS-CCV-HIGH
RC	2013/05/21	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	249	225-275	250.00000	MS-CCV-HIGH
RC	2013/05/21	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	251	225-275	250.0000	MS-CCV-HIGH
RC	2013/05/21	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	51.5	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/05/21	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	98.9	90-110	100.00000	MS-CCV-HIGH
RC	2013/05/21	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.2	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/21	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.6	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65181

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/05/16	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	52.4	45-55	50.000	MS-CCV-HIGH
RC	2013/05/16	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/05/16	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.0000	MS-CCV-HIGH
RC	2013/05/16	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.8	45-55	50.00000	MS-CCV-HIGH
RC	2013/05/16	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	51.5	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/05/16	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	52.5	45-55	50.000	MS-CCV-HIGH
RC	2013/05/16	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.8	45.0-55.0	50.000000	MS-CCV-HIGH
RC	2013/05/16	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/05/16	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.3	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/05/16	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	50.0	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/16	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.8	45-55	50.0000	MS-CCV-HIGH
RC	2013/05/16	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.4	45-55	50.0000	MS-CCV-HIGH
RC	2013/05/16	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	99.2	90.0-110	100.00000	MS-CCV-HIGH
RC	2013/05/16	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	52.4	45.0-55.5	50.000	MS-CCV-HIGH
RC	2013/05/16	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	26600	22545-27555	25050.00	MS-CCV-HIGH
RC	2013/05/16	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	53.8	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/23	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.312000	0.220-0.363	0.291000	E2-QCPHG010
RC	2013/05/16	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/16	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	50.4	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/16	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	258	225-275	250.00	MS-CCV-HIGH
RC	2013/05/16	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	26000	22725-27775	25250.0	MS-CCV-HIGH
RC	2013/05/16	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	48.4	45-55	50.0000	MS-CCV-HIGH
RC	2013/05/16	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
RC	2013/05/16	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	13.0	11.25-13.75	12.50000	MS-CCV-HIGH
RC	2013/05/16	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24400	22545-27555	25050.0	MS-CCV-HIGH
RC	2013/05/16	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	53.3	45-55	50.000000	MS-CCV-HIGH
RC	2013/05/16	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	253	225-275	250.00000	MS-CCV-HIGH
RC	2013/05/16	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	258	225-275	250.0000	MS-CCV-HIGH
RC	2013/05/16	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.6	45.0-55.0	50.0000	MS-CCV-HIGH
RC	2013/05/16	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	103	90-110	100.00000	MS-CCV-HIGH
RC	2013/05/16	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	51.5	45.0-55.0	50.00000	MS-CCV-HIGH
RC	2013/05/16	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	50.3	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/05/15	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.03	5.94-6.06	6.00	QC-pH-7

Analytical Comments

Project No. VE52277.2190.02

File No. EC-65181

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-65181
08

Chain of Custody Record/Analysis Request

Tracking #:

Burnaby, BC

YES
Please attach a copy of the quote

NO

Quote #:

QN-521

Temperature Received:

5.9°C

Receiver's Comments

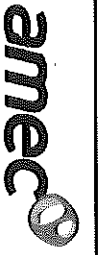
ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

ISSUING OFFICE: Burnaby, BC
Project Name: NewGold Blackwater
Project Manager: Bruce Ott
Project Number: VES2277-2190.02
Phase:
Sampler: Phone No.: 604-294-3811
Task: 804-294-3811

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)
	13-4083	5/13/2013	water								X	X	X	X	X	X	X		
	84	5/13/2013	water								X	X	X	X	X	X	X		
	85	5/13/2013	water								X	X	X	X	X	X	X		
	86	5/13/2013	water								X	X	X	X	X	X	X		
	87	5/13/2013	water								X	X	X	X	X	X	X		
	88	5/13/2013	water								X	X	X	X	X	X	X		
	89	5/13/2013	water								X	X	X	X	X	X	X		
	90	5/13/2013	water								X	X	X	X	X	X	X		
	91	5/13/2013	water								X	X	X	X	X	X	X		

RELINQUISHED BY: Signature: <i>[Signature]</i> Printed Name: C. McFadden Firm: Avision Management Services Date/Time: 5/13/2013 16:00	RECEIVED BY: Signature: <i>[Signature]</i> Printed Name: J. Lorne Firm: Amec Date/Time: May-15-2013 10:00	RELINQUISHED BY: Signature: Printed Name: Firm: Date/Time:	RECEIVED BY: Signature: Printed Name: Firm: Date/Time:	Comments: 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com) 2) Please use Low Level nitrate and nitrite 3) Please analyze CN-1 and CN-WAD using H2SO4 method. * One additional shipment to follow for this sampling event.
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Edmonton Chemistry Lab

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater
 Project Manager: Bruce Ott
 Project Number: VES2277.2190.02

Phase: Sampler: Blackwater
 Phone No.: 604-294-3811

YES
 NO
 Please attach a copy of the quote
 Quote #: QN-521
 Temperature Received:

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	Task:						Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	Receiver's Comments
				1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene										
W06	FOR LAB USE ONLY	yyyy/mm/dd	water																
	92	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	93	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	94	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	95	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	96	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	97	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	98	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	99	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	00	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			
	01	5/14/2013	water	2	1	1	1	1	1	2	2	X	X	X	X	X			

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: C. McFadden Printed Name: Printed Name: Printed Name:

Firm: Avison Management Services Firm: Date/Time: 5/14/2013 16:30 PM Date/Time: Date/Time: Date/Time:

Comments:
 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneel Lai (raneel.lai@amec.com)
 2) Please use Low Level nitrate and nitrite
 3) Please analyze CN- and CN-WAD using H2SO4 method.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 15-MAY-13
Report Date: 27-MAY-13 14:44 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1302195
Project P.O. #: 2220
Job Reference: EC-65181
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1302195-1 WQ2~13-4083 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-2 WQ5~13-4084 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-3 WQ8~13-4085 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-4 WQ10~13-4086 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-5 WQ11~13-4087 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-6 WQ12~13-4088 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-7 WQ15~13-4089 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-8 WQ16~13-4090 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-9 WQ26~13-4091 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1302195-9 WQ26~13-4091 Sampled By: CLIENT on 13-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-10 WQ6~13-4092 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-MAY-13 23-MAY-13	R2615908 R2615917
L1302195-11 WQ7~13-4093 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		24-MAY-13 24-MAY-13	R2617749 R2617752
L1302195-12 WQ9~13-4094 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		24-MAY-13 24-MAY-13	R2617749 R2617752
L1302195-13 WQ13~13-4095 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		24-MAY-13 24-MAY-13	R2617749 R2617752
L1302195-14 WQ14~13-4096 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		24-MAY-13 24-MAY-13	R2617749 R2617752
L1302195-15 WQ1~13-4097 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		24-MAY-13 24-MAY-13	R2617749 R2617752
L1302195-16 WQ4~13-4098 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		24-MAY-13 24-MAY-13	R2617749 R2617752
L1302195-17 DUPLICATE~13-4099 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1302195-17 DUPLICATE~13-4099 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 24-MAY-13 24-MAY-13	 R2617749 R2617752
L1302195-18 FIELD BLANK~13-4100 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 24-MAY-13 24-MAY-13	 R2617749 R2617752
L1302195-19 TRIP BLANK~13-4101 Sampled By: CLIENT on 14-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 24-MAY-13 24-MAY-13	 R2617749 R2617752

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1302195

Report Date: 27-MAY-13

Page 1 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2615908							
WG1675015-12	DUP	L1302195-6						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-MAY-13
WG1675015-11	IRM	ALS-TCN-IRM1						
Cyanide, Total			91.7		%		75-105	23-MAY-13
WG1675015-16	IRM	ALS-TCN-IRM1						
Cyanide, Total			88.7		%		75-105	23-MAY-13
WG1675015-3	IRM	ALS-TCN-IRM1						
Cyanide, Total			88.2		%		75-105	23-MAY-13
WG1675015-6	IRM	ALS-TCN-IRM1						
Cyanide, Total			86.2		%		75-105	23-MAY-13
WG1675015-10	LCS							
Cyanide, Total			102.7		%		80-120	23-MAY-13
WG1675015-15	LCS							
Cyanide, Total			101.4		%		80-120	23-MAY-13
WG1675015-2	LCS							
Cyanide, Total			102.6		%		80-120	23-MAY-13
WG1675015-5	LCS							
Cyanide, Total			102.1		%		80-120	23-MAY-13
WG1675015-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-MAY-13
WG1675015-14	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-MAY-13
WG1675015-4	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-MAY-13
WG1675015-9	MB							
Cyanide, Total			<0.0050		mg/L		0.005	23-MAY-13
WG1675015-13	MS	L1302195-6						
Cyanide, Total			98.4		%		70-130	23-MAY-13
Batch	R2617749							
WG1675703-4	DUP	L1302662-2						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	24-MAY-13
WG1675703-10	IRM	ALS-TCN-IRM1						
Cyanide, Total			91.2		%		75-105	24-MAY-13
WG1675703-3	IRM	ALS-TCN-IRM1						
Cyanide, Total			88.6		%		75-105	24-MAY-13
WG1675703-7	IRM	ALS-TCN-IRM1						
Cyanide, Total			90.8		%		75-105	24-MAY-13
WG1675703-2	LCS							



Quality Control Report

Workorder: L1302195

Report Date: 27-MAY-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2617749							
WG1675703-2	LCS							
Cyanide, Total			103.4		%		80-120	24-MAY-13
WG1675703-6	LCS							
Cyanide, Total			105.1		%		80-120	24-MAY-13
WG1675703-9	LCS							
Cyanide, Total			101.0		%		80-120	24-MAY-13
WG1675703-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	24-MAY-13
WG1675703-5	MB							
Cyanide, Total			<0.0050		mg/L		0.005	24-MAY-13
WG1675703-8	MB							
Cyanide, Total			<0.0050		mg/L		0.005	24-MAY-13
CN-WAD-CFA-VA								
	Water							
Batch	R2615917							
WG1675028-9	DUP	L1302195-6						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-MAY-13
WG1675028-12	LCS							
Cyanide, Weak Acid Diss			106.4		%		80-120	23-MAY-13
WG1675028-2	LCS							
Cyanide, Weak Acid Diss			105.3		%		80-120	23-MAY-13
WG1675028-4	LCS							
Cyanide, Weak Acid Diss			103.6		%		80-120	23-MAY-13
WG1675028-8	LCS							
Cyanide, Weak Acid Diss			103.1		%		80-120	23-MAY-13
WG1675028-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-MAY-13
WG1675028-11	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-MAY-13
WG1675028-3	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-MAY-13
WG1675028-7	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	23-MAY-13
WG1675028-10	MS	L1302195-6						
Cyanide, Weak Acid Diss			99.5		%		70-130	23-MAY-13
Batch	R2617752							
WG1675704-3	DUP	L1302662-2						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	24-MAY-13
WG1675704-2	LCS							



Quality Control Report

Workorder: L1302195

Report Date: 27-MAY-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2617752							
WG1675704-2	LCS							
Cyanide, Weak Acid Diss			102.5		%		80-120	24-MAY-13
WG1675704-5	LCS							
Cyanide, Weak Acid Diss			103.0		%		80-120	24-MAY-13
WG1675704-7	LCS							
Cyanide, Weak Acid Diss			105.7		%		80-120	24-MAY-13
WG1675704-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	24-MAY-13
WG1675704-4	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	24-MAY-13
WG1675704-6	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	24-MAY-13

Quality Control Report

Workorder: L1302195

Report Date: 27-MAY-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 4 of 4

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-65181	WQ3	13-4083-	2013/05/13	Water
EC-65181	WQ5	13-4084-	2013/05/13	Water
EC-65181	WQ8	13-4085-	2013/05/13	Water
EC-65181	WQ10	13-4086-	2013/05/13	Water
EC-65181	WQ11	13-4087-	2013/05/13	Water
EC-65181	WQ12	13-4088-	2013/05/13	Water
EC-65181	WQ15	13-4089-	2013/05/13	Water
EC-65181	WQ16	13-4090-	2013/05/13	Water
EC-65181	WQ26	13-4091-	2013/05/13	Water
EC-65181	WQ6	13-4092-	2013/05/14	Water
EC-65181	WQ7	13-4093-	2013/05/14	Water
EC-65181	WQ9	13-4094-	2013/05/14	Water
EC-65181	WQ13	13-4095-	2013/05/14	Water
EC-65181	WQ14	13-4096-	2013/05/14	Water
EC-65181	WQ1	13-4097-	2013/05/14	Water
EC-65181	WQ4	13-4098-	2013/05/14	Water
EC-65181	Duplicate	13-4099-	2013/05/14	Water
EC-65181	Field Blank	13-4100-	2013/05/14	Water
EC-65181	Trip Blank	13-4101-	2013/05/14	Water



L1302195-COFC

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65224
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/05/23
Date of Report: 2013/06/06
Sublet Data: Attached

Report reviewed by:



Jesse Dang, B.Sc.
Manager
Laboratory Services



Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65224

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4441	13-4441-D	13-4442	13-4443
					Client ID:	WQ6	WQ6	WQ7	WQ9
					Sample Date:	2013/05/21 0:00	Lab Duplicate	2013/05/21 0:00	2013/05/21 0:00
					MDL				
AFD	2013/05/28	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	12	---	21	69
AFD	2013/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.032	---	0.045	0.120
AFD	2013/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	---	0.05	0.06
AFD	2013/05/23	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.033	---	0.023	0.014
AFD	2013/05/23	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
AFD	2013/05/23	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.7	---	1.8	4.0
EL	2013/05/28	Total Dissolved Solids@180°C	mg/L (ppm)	APHA 2540 C	4	40	48	36	92
EL	2013/05/27	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	7	6
AFD	2013/05/28	Turbidity	NTU	APHA 2130-b	0.1	1.1	---	2.2	2.5
AFD	2013/05/23	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	---	0.2	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4444	13-4445	13-4446	13-4447
					Client ID:	WQ14	WQ1	WQ4	Duplicate
					Sample Date:	2013/05/21 0:00	2013/05/21 0:00	2013/05/21 0:00	2013/05/21 0:00
					MDL				
AFD	2013/05/28	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	62	5	10	7
AFD	2013/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.107	0.019	0.061	0.020
AFD	2013/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.03	0.06	0.04
AFD	2013/05/23	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.014	0.008	0.014	0.017
AFD	2013/05/23	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/23	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.9	1.5	9.9	1.7
EL	2013/05/28	Total Dissolved Solids@180°C	mg/L (ppm)	APHA 2540 C	4	164	28	60	64
EL	2013/05/27	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/05/28	Turbidity	NTU	APHA 2130-b	0.1	0.9	1.6	1.6	1.5
AFD	2013/05/23	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	1.1	0.2

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4448	13-4449	13-4450	13-4451
					Client ID:	Field Blank	WQ3	WQ5	WQ8
					Sample Date:	2013/05/21 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
AFD	2013/05/28	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	1	30	11	89
AFD	2013/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001	0.050	0.027	0.173
AFD	2013/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	0.05	0.04	0.07
AFD	2013/05/23	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	0.010	0.028	0.063
AFD	2013/05/23	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/23	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	1.4	1.0	2.9
EL	2013/05/28	Total Dissolved Solids@180°C	mg/L (ppm)	APHA 2540 C	4	< 4	84	88	240
EL	2013/05/27	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	7	2	2
AFD	2013/05/28	Turbidity	NTU	APHA 2130-b	0.1	0.4	2.4	1.1	2.0
AFD	2013/05/23	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	0.3	0.2	0.4

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4452	13-4453	13-4454	13-4455
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
AFD	2013/05/28	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	14	15	17	17
AFD	2013/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.031	0.034	0.035	0.118
AFD	2013/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.04	0.07
AFD	2013/05/23	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.024	0.023	0.014	0.068
AFD	2013/05/23	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/23	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.7	1.2	1.3	3.8
EL	2013/05/28	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	44	92	124	244
EL	2013/05/27	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	5
AFD	2013/05/28	Turbidity	NTU	APHA 2130-b	0.1	1.5	1.8	1.0	2.4
AFD	2013/05/23	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.2	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4456	13-4457	13-4458	13-4509
					Client ID:	WQ16	WQ26	WQ13	Trip Blank
					Sample Date:	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
AFD	2013/05/28	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	25	15	56	< 1
AFD	2013/05/28	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.044	0.044	0.039	< 0.001
AFD	2013/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.04	< 0.02
AFD	2013/05/23	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.011	0.010	0.023	< 0.005
AFD	2013/05/23	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/23	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.6	1.7	1.7	< 0.5
EL	2013/05/28	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	188	68	96	< 4
EL	2013/05/27	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	4	< 2
AFD	2013/05/28	Turbidity	NTU	APHA 2130-b	0.1	1.5	0.9	2.0	0.5
AFD	2013/05/23	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	0.3	0.6

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4441	13-4441-D	13-4442	13-4443
					Client ID:	WQ6	WQ6	WQ7	WQ9
					Sample Date:	2013/05/21 0:00	Lab Duplicate	2013/05/21 0:00	2013/05/21 0:00
					MDL				
EL	2013/05/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.8	7.8	9.4	8.3
RC	2013/05/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.8	7.8	9.4	8.5
AFD	2013/05/23	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
LL	2013/05/24	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	0.004	0.007
EL	2013/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.18	0.15	0.17	0.23

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4444	13-4445	13-4446	13-4447
					Client ID:	WQ14	WQ1	WQ4	Duplicate
					Sample Date:	2013/05/21 0:00	2013/05/21 0:00	2013/05/21 0:00	2013/05/21 0:00
					MDL				
EL	2013/05/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.2	10.4	10.6	10.4
RC	2013/05/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.2	10.4	10.6	10.4
AFD	2013/05/23	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/05/24	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.016	0.026	0.024	0.023
EL	2013/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.21	0.16	0.14	0.25

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4448	13-4449	13-4450	13-4451
					Client ID:	Field Blank	WQ3	WQ5	WQ8
					Sample Date:	2013/05/21 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
EL	2013/05/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.2	10.1	12.8	20.4
RC	2013/05/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	0.2	10.1	12.8	20.8
AFD	2013/05/23	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/05/24	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.041	0.025	0.075
EL	2013/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.23	0.23	0.45

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4452	13-4453	13-4454	13-4455
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
EL	2013/05/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.1	19.6	10.1	8.4
RC	2013/05/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.1	19.6	10.2	8.4
AFD	2013/05/23	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/05/24	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.025	0.032	0.028	0.035
EL	2013/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.19	0.31	0.20	0.21

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4456	13-4457	13-4458	13-4509
					Client ID:	WQ16	WQ26	WQ13	Trip Blank
					Sample Date:	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
EL	2013/05/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
RC	2013/05/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.5	5.0	10.5	< 0.1
RC	2013/05/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.6	5.0	10.5	< 0.1
AFD	2013/05/23	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/05/24	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.024	0.023	0.021	< 0.001
EL	2013/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.23	0.13	0.19	< 0.08

Water Analysis - Total Metals

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4441	13-4441-D	13-4442	13-4443
					Client ID:	WQ6	WQ6	WQ7	WQ9
					Sample Date:	2013/05/21 0:00	Lab Duplicate	2013/05/21 0:00	2013/05/21 0:00
					MDL				
LL	2013/05/24	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.153	0.150	0.219	0.079
LL	2013/05/24	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00006	< 0.00005	0.00005
LL	2013/05/24	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0007	0.0005	0.0006
LL	2013/05/24	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00487	0.00473	0.00587	0.00752
LL	2013/05/24	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.001
LL	2013/05/24	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/24	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.8	3.7	5.7	17.2
LL	2013/05/24	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00003	0.00008	0.00005
LL	2013/05/24	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	0.0001	0.0002	< 0.0001
LL	2013/05/24	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1030	0.1010	0.2090	0.1510
LL	2013/05/24	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00005	< 0.00005
LL	2013/05/24	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.63	0.63	1.21	3.79
LL	2013/05/24	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00512	0.00513	0.01210	0.02760
LL	2013/05/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/24	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00030	0.00028	0.00026	0.00048
LL	2013/05/24	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00030	0.00029	0.00036	0.00030
LL	2013/05/24	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.01	0.02	0.02
LL	2013/05/24	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
LL	2013/05/24	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.08	4.08	4.39	4.10
LL	2013/05/24	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.6	1.7	1.9	3.0
LL	2013/05/24	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.032600	0.032300	0.042700	0.098500
LL	2013/05/24	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0020	0.0019	0.0051	0.0029
LL	2013/05/24	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00021	0.00015	0.00010
LL	2013/05/24	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	0.00019	0.00062	0.00044
LL	2013/05/24	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0011	0.0011	0.0008	0.0008
AFD	2013/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.1	11.9	19.3	58.6

Water Analysis - Total Metals

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4444	13-4445	13-4446	13-4447
					Client ID:	WQ14	WQ1	WQ4	Duplicate
					Sample Date:	2013/05/21 0:00	2013/05/21 0:00	2013/05/21 0:00	2013/05/21 0:00
					MDL				
LL	2013/05/24	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.020	0.313	0.191	0.311
LL	2013/05/24	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00021	< 0.00005
LL	2013/05/24	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0004	0.0020	0.0004
LL	2013/05/24	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00879	0.00317	0.00337	0.00293
LL	2013/05/24	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000153	< 0.000015
LL	2013/05/24	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	15.7	1.8	5.6	1.7
LL	2013/05/24	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00005	0.00003	0.00005
LL	2013/05/24	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0001	0.0005	< 0.0001
LL	2013/05/24	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1510	0.1590	0.1300	0.1590
LL	2013/05/24	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00013	< 0.00005
LL	2013/05/24	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.15	< 0.50	0.97	< 0.50
LL	2013/05/24	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00626	0.00537	0.00589	0.00491
LL	2013/05/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/24	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00043	0.00008	0.00007	0.00009
LL	2013/05/24	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00029	0.00041	0.00027
LL	2013/05/24	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	0.02	0.02	0.01
LL	2013/05/24	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.6	< 0.5	0.9	< 0.5
LL	2013/05/24	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.05	3.81	4.25	3.80
LL	2013/05/24	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00013	< 0.00005
LL	2013/05/24	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.0	1.4	3.3	1.4
LL	2013/05/24	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.088100	0.018600	0.036400	0.017000
LL	2013/05/24	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0006	0.0037	0.0023	0.0039
LL	2013/05/24	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00017	< 0.00005	0.00016
LL	2013/05/24	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00019	0.00032	0.00014	0.00033
LL	2013/05/24	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0006	0.0017	0.0372	0.0015
AFD	2013/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	52.1	6.0	18.0	< 6.0

Water Analysis - Total Metals

Project No. VE52277.2190.02

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4448	13-4449	13-4450	13-4451
					Client ID:	Field Blank	WQ3	WQ5	WQ8
					Sample Date:	2013/05/21 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
LL	2013/05/24	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	0.187	0.242	0.025
LL	2013/05/24	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
LL	2013/05/24	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0006	0.0004	0.0009
LL	2013/05/24	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00420	0.00294	0.00837
LL	2013/05/24	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.002
LL	2013/05/24	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/24	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	6.3	2.9	25.0
LL	2013/05/24	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00006	0.00005	0.00009
LL	2013/05/24	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0002	0.0002	0.0006
LL	2013/05/24	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.2130	0.1350	0.4440
LL	2013/05/24	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	1.42	0.83	5.03
LL	2013/05/24	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00841	0.00460	0.06750
LL	2013/05/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/24	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00029	0.00008	0.00066
LL	2013/05/24	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00024	0.00022	0.00062
LL	2013/05/24	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.02	< 0.01	0.09
LL	2013/05/24	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	1.0
LL	2013/05/24	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	5.28	3.65	6.75
LL	2013/05/24	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	2.3	1.6	4.2
LL	2013/05/24	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005	0.045400	0.022800	0.141000
LL	2013/05/24	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	0.0043	0.0025	0.0012
LL	2013/05/24	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00014	0.00008	0.00006
LL	2013/05/24	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00121	0.00030	0.00027
LL	2013/05/24	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0019	0.0014	0.0042
AFD	2013/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	21.6	10.7	83.1

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65224

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4452	13-4453	13-4454	13-4455
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
LL	2013/05/24	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.246	0.446	0.134	0.075
LL	2013/05/24	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0002	0.0002	0.0006
LL	2013/05/24	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00489	0.00615	0.00522	0.00766
LL	2013/05/24	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/24	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.7	4.6	4.7	16.3
LL	2013/05/24	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00006	0.00003	0.00005
LL	2013/05/24	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0006	0.0001	< 0.0001
LL	2013/05/24	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1560	0.2020	0.1190	0.1760
LL	2013/05/24	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.74	0.87	0.80	3.66
LL	2013/05/24	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00623	0.00334	0.00730	0.04120
LL	2013/05/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	0.016000	< 0.000005	0.003000
LL	2013/05/24	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	0.00008	0.00033	0.00048
LL	2013/05/24	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00027	0.00027	0.00011	0.00030
LL	2013/05/24	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.01	< 0.01	0.01
LL	2013/05/24	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
LL	2013/05/24	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.04	4.59	3.08	4.43
LL	2013/05/24	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.6	1.7	1.5	3.0
LL	2013/05/24	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.031500	0.035800	0.040500	0.092800
LL	2013/05/24	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0032	0.0051	0.0018	0.0025
LL	2013/05/24	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00015	0.00015	0.00018	0.00009
LL	2013/05/24	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00033	0.00056	0.00020	0.00042
LL	2013/05/24	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0020	0.0016	0.0014	0.0015
AFD	2013/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.3	15.1	15.0	55.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65224

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4456	13-4457	13-4458	13-4509
					Client ID:	WQ16	WQ26	WQ13	Trip Blank
					Sample Date:	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
LL	2013/05/24	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.105	0.030	0.224	< 0.002
LL	2013/05/24	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0004	0.0005	< 0.0001
LL	2013/05/24	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00867	0.00322	0.00535	< 0.00005
LL	2013/05/24	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/24	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.2	5.5	5.0	< 0.5
LL	2013/05/24	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	< 0.00002	0.00005	< 0.00002
LL	2013/05/24	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0001	< 0.0001
LL	2013/05/24	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2050	0.0755	0.1620	< 0.0001
LL	2013/05/24	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.92	1.10	1.01	< 0.50
LL	2013/05/24	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01860	0.00937	0.00894	< 0.00005
LL	2013/05/24	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	0.002000	0.011000	< 0.000005
LL	2013/05/24	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00051	0.00070	0.00021	< 0.00005
LL	2013/05/24	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	< 0.00005	0.00028	< 0.00005
LL	2013/05/24	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	0.01	< 0.01
LL	2013/05/24	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/05/24	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	2.62	1.57	4.29	< 0.01
LL	2013/05/24	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.5	1.8	1.8	< 0.5
LL	2013/05/24	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.069000	0.042700	0.039000	< 0.000005
LL	2013/05/24	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0015	0.0005	0.0036	< 0.0002
LL	2013/05/24	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00015	0.00023	0.00015	< 0.00005
LL	2013/05/24	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	< 0.00005	0.00041	< 0.00005
LL	2013/05/24	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0018	0.0015	0.0015	< 0.0005
AFD	2013/05/28	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	19.3	18.2	16.7	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65224

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4441	13-4441-D	13-4442	13-4443
					Client ID:	WQ6	WQ6	WQ7	WQ9
					Sample Date:	2013/05/21 0:00	Lab Duplicate	2013/05/21 0:00	2013/05/21 0:00
					MDL				
LL	2013/05/24	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.112	0.115	0.117	0.024
LL	2013/05/24	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00006	< 0.00005	< 0.00005
LL	2013/05/24	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0003	0.0004
LL	2013/05/24	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00414	0.00415	0.00432	0.00628
LL	2013/05/24	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/24	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.6	3.6	5.3	16.3
LL	2013/05/24	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00003	< 0.00002
LL	2013/05/24	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	0.0001	0.0002	< 0.0001
LL	2013/05/24	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0661	0.0675	0.0933	0.0596
LL	2013/05/24	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.57	0.58	1.16	3.57
LL	2013/05/24	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00215	0.00223	0.00543	0.01120
LL	2013/05/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/24	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00027	0.00027	0.00024	0.00045
LL	2013/05/24	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00027	0.00028	0.00025	0.00024
LL	2013/05/24	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/05/24	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
LL	2013/05/24	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.19	3.05	3.38	3.37
LL	2013/05/24	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.6	1.7	1.9	3.0
LL	2013/05/24	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.029400	0.029400	0.038200	0.085700
LL	2013/05/24	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0013	0.0012	0.0014	0.0005
LL	2013/05/24	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00019	0.00012	0.00008
LL	2013/05/24	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0011	0.0011	0.0008	0.0008
AFD	2013/05/28	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.01	---	7.28	7.78
AFD	2013/05/28	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	11.2	11.3	18.1	55.4

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65224

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4444	13-4445	13-4446	13-4447
					Client ID:	WQ14	WQ1	WQ4	Duplicate
					Sample Date:	2013/05/21 0:00	2013/05/21 0:00	2013/05/21 0:00	2013/05/21 0:00
					MDL				
LL	2013/05/24	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.014	0.256	0.149	0.263
LL	2013/05/24	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00021	< 0.00005
LL	2013/05/24	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0003	0.0017	0.0002
LL	2013/05/24	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00808	0.00259	0.00298	0.00262
LL	2013/05/24	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000153	< 0.000015
LL	2013/05/24	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	15.0	1.7	5.4	1.7
LL	2013/05/24	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003	< 0.00002	0.00003
LL	2013/05/24	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0001	0.0005	< 0.0001
LL	2013/05/24	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1160	0.1250	0.1000	0.1300
LL	2013/05/24	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00008	< 0.00005
LL	2013/05/24	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.02	< 0.50	0.91	< 0.50
LL	2013/05/24	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00442	0.00335	0.00319	0.00345
LL	2013/05/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/24	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00040	0.00007	0.00006	0.00007
LL	2013/05/24	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00025	0.00024	0.00036	0.00024
LL	2013/05/24	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	0.01
LL	2013/05/24	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.6	< 0.5	0.9	< 0.5
LL	2013/05/24	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.79	3.18	3.29	3.20
LL	2013/05/24	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00012	< 0.00005
LL	2013/05/24	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.0	1.4	3.3	1.4
LL	2013/05/24	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.078100	0.016900	0.033400	0.016800
LL	2013/05/24	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0026	0.0018	0.0027
LL	2013/05/24	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00015	< 0.00005	0.00014
LL	2013/05/24	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0006	0.0017	0.0372	0.0014
AFD	2013/05/28	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.59	6.55	6.78	6.40
AFD	2013/05/28	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	49.8	< 6.0	17.2	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65224

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4448	13-4449	13-4450	13-4451
					Client ID:	Field Blank	WQ3	WQ5	WQ8
					Sample Date:	2013/05/21 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
LL	2013/05/24	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	0.120	0.210	0.009
LL	2013/05/24	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
LL	2013/05/24	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0004	0.0002	0.0007
LL	2013/05/24	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00368	0.00272	0.00744
LL	2013/05/24	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/24	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	6.3	2.9	24.7
LL	2013/05/24	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003	0.00003	0.00007
LL	2013/05/24	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0002	0.0002	0.0002
LL	2013/05/24	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.1260	0.1090	0.3650
LL	2013/05/24	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	1.39	0.78	4.78
LL	2013/05/24	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00256	0.00231	0.02630
LL	2013/05/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/24	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00025	0.00007	0.00059
LL	2013/05/24	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00020	0.00019	0.00055
LL	2013/05/24	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.02	< 0.01	0.05
LL	2013/05/24	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.9
LL	2013/05/24	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	4.10	3.03	4.49
LL	2013/05/24	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	2.3	1.6	4.2
LL	2013/05/24	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005	0.045200	0.022200	0.127000
LL	2013/05/24	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	0.0023	0.0017	0.0006
LL	2013/05/24	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00010	0.00006	0.00006
LL	2013/05/24	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00042	< 0.00005	< 0.00005
LL	2013/05/24	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	0.0019	0.0014	0.0042
AFD	2013/05/28	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.59	7.37	6.95	7.56
AFD	2013/05/28	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	21.5	10.4	81.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65224

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4452	13-4453	13-4454	13-4455
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
LL	2013/05/24	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.190	0.434	0.114	0.030
LL	2013/05/24	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	< 0.0001	0.0001	0.0004
LL	2013/05/24	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00442	0.00569	0.00487	0.00641
LL	2013/05/24	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/24	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.7	4.6	4.5	15.6
LL	2013/05/24	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	0.00004	< 0.00002	< 0.00002
LL	2013/05/24	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0006	0.0001	< 0.0001
LL	2013/05/24	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1090	0.2020	0.0943	0.0717
LL	2013/05/24	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.70	0.87	0.75	3.38
LL	2013/05/24	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00239	0.00235	0.00408	0.01110
LL	2013/05/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	0.000016	< 0.000005	< 0.000005
LL	2013/05/24	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00015	0.00006	0.00030	0.00041
LL	2013/05/24	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00025	0.00011	0.00024
LL	2013/05/24	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.01	< 0.01	0.01
LL	2013/05/24	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
LL	2013/05/24	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.26	3.62	2.56	3.33
LL	2013/05/24	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.6	1.7	1.4	3.0
LL	2013/05/24	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.030200	0.034400	0.037800	0.083500
LL	2013/05/24	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0021	0.0051	0.0015	0.0006
LL	2013/05/24	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00014	0.00016	0.00008
LL	2013/05/24	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0020	0.0016	0.0014	0.0015
AFD	2013/05/28	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.91	7.01	7.22	7.25
AFD	2013/05/28	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.1	15.1	14.3	52.8

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65224

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4456	13-4457	13-4458	13-4509
					Client ID:	WQ16	WQ26	WQ13	Trip Blank
					Sample Date:	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00	2013/05/22 0:00
					MDL				
LL	2013/05/24	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.077	0.020	0.171	< 0.002
LL	2013/05/24	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	0.0003	0.0003	< 0.0001
LL	2013/05/24	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00776	0.00283	0.00423	< 0.00005
LL	2013/05/24	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/24	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.9	5.1	4.8	< 0.5
LL	2013/05/24	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/24	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	0.00002	< 0.00002
LL	2013/05/24	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	0.0001	< 0.0001
LL	2013/05/24	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1360	0.0433	0.0947	< 0.0001
LL	2013/05/24	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/24	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.84	1.02	0.96	< 0.50
LL	2013/05/24	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00522	0.00278	0.00233	< 0.00005
LL	2013/05/24	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/24	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00046	0.00065	0.00019	< 0.00005
LL	2013/05/24	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	< 0.00005	0.00022	< 0.00005
LL	2013/05/24	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/05/24	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/05/24	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	2.08	1.42	3.29	< 0.01
LL	2013/05/24	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.5	1.7	1.8	< 0.5
LL	2013/05/24	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.062600	0.038200	0.035700	< 0.000005
LL	2013/05/24	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/24	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0011	0.0003	0.0019	< 0.0002
LL	2013/05/24	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00020	0.00012	< 0.00005
LL	2013/05/24	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/24	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0018	0.0015	0.0015	< 0.0005
AFD	2013/05/28	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.14	7.24	7.77	5.69
AFD	2013/05/28	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	18.3	17.0	15.9	< 6.0

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65224

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/05/28	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	69	53-72	63	QC-ALK/F-57
AFD	2013/05/28	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.76	2.54-2.94	2.790	CC-EC-0.02M-48
AFD	2013/05/28	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.51	0.44-0.58	0.50	QC-AIK/F-57
AFD	2013/05/23	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.67	1.44-1.76	1.600	CC-Anion-122B
AFD	2013/05/23	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.650	0.54-0.66	0.600	CC-Anion-121B
AFD	2013/05/23	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.7	25.2-30.8	28.0	CC-Anion-122B
EL	2013/05/28	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-c	2	784	628-1059	844	QCP-SLD02008
EL	2013/05/27	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	30	26-36	31	QCP-SLD 02008
AFD	2013/05/28	Turbidity	NTU	APHA 2130-b	0.1	10	8.5-11.5	10.0	QC-Turb-9
AFD	2013/05/23	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.0	CC-Anion-122B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/05/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.58	0.394-0.615	0.50	F2NUT01116
RC	2013/05/28	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.9	33.1-42.6	37.9	DMD-TOC-101-Mid
RC	2013/05/28	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	156	132.6-170.5	151.5	DMD-TOC-101-High
AFD	2013/05/23	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.808	0.72-0.88	0.800	CC-Anion-122BL
LL	2013/05/24	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	250	225-275	250.000	MS-CCV-HIGH
EL	2013/05/28	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	9.54	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65224

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/05/24	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	53.4	45-55	50.000	MS-CCV-HIGH
LL	2013/05/24	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	98.6	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/05/24	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	105	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/05/24	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	48.7	45-55	50.00000	MS-CCV-HIGH
LL	2013/05/24	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	48.2	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/24	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	49.8	45-55	50.000	MS-CCV-HIGH
LL	2013/05/24	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.0	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/05/24	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	23900	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/05/24	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.4	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/24	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.7	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	54.8	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/24	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	52.4	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/24	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	98.0	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/05/24	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	48.0	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/05/24	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	25000	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/05/24	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	51.6	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.278000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/05/24	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	48.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	250	225-275	250.00	MS-CCV-HIGH
LL	2013/05/24	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	26900	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/05/24	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	53.0	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/24	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	107	105-129	117.00	MS-CCV-HIGH
LL	2013/05/24	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	13.0	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/05/24	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25500	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/05/24	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	54.1	45-55	50.000000	MS-CCV-HIGH
LL	2013/05/24	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	246	225-275	250.00000	MS-CCV-HIGH
LL	2013/05/24	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	254	225-275	250.0000	MS-CCV-HIGH
LL	2013/05/24	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	52.7	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/24	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	98.8	90-110	100.00000	MS-CCV-HIGH
LL	2013/05/24	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.4	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.1	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65224

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/05/24	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	51.3	45-55	50.000	MS-CCV-HIGH
LL	2013/05/24	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	106	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/05/24	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/05/24	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.9	45-55	50.00000	MS-CCV-HIGH
LL	2013/05/24	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	50.7	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/24	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	54.9	45-55	50.000	MS-CCV-HIGH
LL	2013/05/24	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	50.9	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/05/24	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24800	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/05/24	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.6	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/24	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	49.4	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	50.8	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/24	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	54.7	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/24	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	97.8	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/05/24	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.8	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/05/24	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24600	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/05/24	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	54.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.278000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/05/24	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.8	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	48.7	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	260	225-275	250.00	MS-CCV-HIGH
LL	2013/05/24	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/05/24	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	49.9	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/24	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	125	105-129	117.00	MS-CCV-HIGH
LL	2013/05/24	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.9	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/05/24	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	26400	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/05/24	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	53.5	45-55	50.000000	MS-CCV-HIGH
LL	2013/05/24	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	250	225-275	250.00000	MS-CCV-HIGH
LL	2013/05/24	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	250	225-275	250.0000	MS-CCV-HIGH
LL	2013/05/24	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/24	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	94.1	90-110	100.00000	MS-CCV-HIGH
LL	2013/05/24	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	52.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/24	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	49.9	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/05/28	pH @ 25°C BC-D	--	APHA 4500H	0.01	6.01	6.98-7.02	7.00	pH-7

Analytical Comments

Project No. VE52277.2190.02

File No. EC-65224

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 24-MAY-13
Report Date: 06-JUN-13 11:21 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1306457
Project P.O. #: 2220
Job Reference: EC-65224
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1306457-1 WQ6~13-4441 Sampled By: CLIENT on 21-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-2 WQ7~13-4442 Sampled By: CLIENT on 21-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-3 WQ9~13-4443 Sampled By: CLIENT on 21-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-4 WQ14~13-4444 Sampled By: CLIENT on 21-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-5 WQ1~13-4445 Sampled By: CLIENT on 21-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-6 WQ4~13-4446 Sampled By: CLIENT on 21-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-7 DUPLICATE~13-4447 Sampled By: CLIENT on 21-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-8 FIELD BLANK~13-4448 Sampled By: CLIENT on 21-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-9 WQ3~13-4449 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1306457-9 WQ3~13-4449 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-10 WQ5~13-4450 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-11 WQ8~13-4451 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-12 WQ10~13-4452 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-13 WQ11~13-4453 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-14 WQ12~13-4454 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-15 WQ15~13-4455 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-16 WQ16~13-4456 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-17 WQ26~13-4457 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1306457-17 WQ26~13-4457 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-18 WQ13~13-4458 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537
L1306457-19 TRIP BLANK~13-4509 Sampled By: CLIENT on 22-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		05-JUN-13 05-JUN-13	R2626536 R2626537

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1306457

Report Date: 06-JUN-13

Page 1 of 5

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2626536							
WG1683045-29	DUP	L1305742-3						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-JUN-13
WG1683045-37	DUP	L1306577-6						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-JUN-13
WG1683045-39	DUP	L1308355-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-JUN-13
WG1683045-44	DUP	L1306457-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-JUN-13
WG1683045-25	IRM	ALS-TCN-IRM1						
Cyanide, Total			85.1		%		75-105	05-JUN-13
WG1683045-30	IRM	ALS-TCN-IRM1						
Cyanide, Total			90.4		%		75-105	05-JUN-13
WG1683045-33	IRM	ALS-TCN-IRM1						
Cyanide, Total			89.7		%		75-105	05-JUN-13
WG1683045-40	IRM	ALS-TCN-IRM1						
Cyanide, Total			90.2		%		75-105	05-JUN-13
WG1683045-45	IRM	ALS-TCN-IRM1						
Cyanide, Total			90.0		%		75-105	05-JUN-13
WG1683045-26	LCS							
Cyanide, Total			103.8		%		80-120	05-JUN-13
WG1683045-31	LCS							
Cyanide, Total			103.8		%		80-120	05-JUN-13
WG1683045-34	LCS							
Cyanide, Total			104.7		%		80-120	05-JUN-13
WG1683045-41	LCS							
Cyanide, Total			104.3		%		80-120	05-JUN-13
WG1683045-46	LCS							
Cyanide, Total			104.2		%		80-120	05-JUN-13
WG1683045-24	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-JUN-13
WG1683045-27	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-JUN-13
WG1683045-32	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-JUN-13
WG1683045-35	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-JUN-13
WG1683045-42	MB							
Cyanide, Total			<0.0050		mg/L		0.005	05-JUN-13



Quality Control Report

Workorder: L1306457

Report Date: 06-JUN-13

Page 2 of 5

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2626536							
WG1683045-28 MS		L1305742-3						
Cyanide, Total			98.5		%		70-130	05-JUN-13
WG1683045-36 MS		L1306577-6						
Cyanide, Total			99.1		%		70-130	05-JUN-13
WG1683045-38 MS		L1308355-1						
Cyanide, Total			107.5		%		70-130	05-JUN-13
WG1683045-43 MS		L1306457-1						
Cyanide, Total			99.4		%		70-130	05-JUN-13
CN-WAD-CFA-VA								
	Water							
Batch	R2626537							
WG1683049-15 DUP		L1306457-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-JUN-13
WG1683049-3 DUP		L1305742-3						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-JUN-13
WG1683049-7 DUP		L1306577-6						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-JUN-13
WG1683049-9 DUP		L1308355-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	05-JUN-13
WG1683049-12 LCS								
Cyanide, Weak Acid Diss			100.6		%		80-120	05-JUN-13
WG1683049-14 LCS								
Cyanide, Weak Acid Diss			103.0		%		80-120	05-JUN-13
WG1683049-18 LCS								
Cyanide, Weak Acid Diss			110.0		%		80-120	05-JUN-13
WG1683049-2 LCS								
Cyanide, Weak Acid Diss			104.0		%		80-120	05-JUN-13
WG1683049-6 LCS								
Cyanide, Weak Acid Diss			104.0		%		80-120	05-JUN-13
WG1683049-1 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-JUN-13
WG1683049-11 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-JUN-13
WG1683049-13 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-JUN-13
WG1683049-17 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-JUN-13
WG1683049-5 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	05-JUN-13



Quality Control Report

Workorder: L1306457

Report Date: 06-JUN-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2626537							
WG1683049-10 MS		L1308355-1						
Cyanide, Weak Acid Diss			96.4		%		70-130	05-JUN-13
WG1683049-16 MS		L1306457-1						
Cyanide, Weak Acid Diss			99.9		%		70-130	05-JUN-13
WG1683049-4 MS		L1305742-3						
Cyanide, Weak Acid Diss			98.2		%		70-130	05-JUN-13
WG1683049-8 MS		L1306577-6						
Cyanide, Weak Acid Diss			101.5		%		70-130	05-JUN-13

Quality Control Report

Workorder: L1306457

Report Date: 06-JUN-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

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Contact: KRISTINE CONNOR

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1306457

Report Date: 06-JUN-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 5 of 5

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Cyanides							
Total Cyanide in water by CFA							
	1	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	2	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	3	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	4	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	5	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	6	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	7	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	8	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
Weak Acid Diss. Cyanide in water by CFA							
	1	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	2	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	3	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	4	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	5	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	6	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	7	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT
	8	21-MAY-13	05-JUN-13 18:28	14	15	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1306457 were received on 24-MAY-13 16:11.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Earth & Environmental, Chemistry Dept.

Report Format / Distribution

Standard Other
 PDF Excel Fax

Service Requested:

Regular Service (Default)
 Rush Service (2-3 Days)
 Priority Service (1 Day or ASAP)
 Emergency Service (<1 Day / Wkend) - Contact ALS

Connor

Email 1: kristine.connor@amec.com

Email 2: charlene.rollheiser@amec.com

(780) 989-4580

Fax:

(780) 377-3600

Same as Report

Indicate Bottles: Filtered / Preserved (F/P) -->

Analysis Request

Client / Project Information:

Job #: EC-65224

PO/AFE:

Legal Site Description:

Quote #:

ALS Contact: Maureen Olinek

Sampler (Initials):

Sample Identification

(This description will appear on the report)

19 Water Samples (See attached)

Date

dd-mmm-yy

see attached

Time

hh:mm

Sample Type

(Select from drop-down list)

Water

CN-T-CFA-VA

CN-WAD-MID-COL-VA

Hazardous?

Highly Contaminated?

Number of Containers

x

x

x



L1306457-COFC

Special Instructions / Hazardous Details

Please list both ID's on results.

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.
By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.

Relinquished By: Jeffery Connor	Date & Time: 24-May-13	Received By: <i>[Signature]</i>	Date & Time: 23 May 13	Temperature: 6.6	Sample Condition (lab use only):
Relinquished By:	Date & Time:	Received By:	Date & Time: 76:11		

Samples Received in Good Condition? Y/N (if no provided details)

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-65224	WQ6	13-4441-	2013/05/21	Water
EC-65224	WQ7	13-4442-	2013/05/21	Water
EC-65224	WQ9	13-4443-	2013/05/21	Water
EC-65224	WQ14	13-4444-	2013/05/21	Water
EC-65224	WQ1	13-4445-	2013/05/21	Water
EC-65224	WQ4	13-4446-	2013/05/21	Water
EC-65224	Duplicate	13-4447-	2013/05/21	Water
EC-65224	Field Blank	13-4448-	2013/05/21	Water
EC-65224	WQ3	13-4449-	2013/05/22	Water
EC-65224	WQ5	13-4450-	2013/05/22	Water
EC-65224	WQ8	13-4451-	2013/05/22	Water
EC-65224	WQ10	13-4452-	2013/05/22	Water
EC-65224	WQ11	13-4453-	2013/05/22	Water
EC-65224	WQ12	13-4454-	2013/05/22	Water
EC-65224	WQ15	13-4455-	2013/05/22	Water
EC-65224	WQ16	13-4456-	2013/05/22	Water
EC-65224	WQ26	13-4457-	2013/05/22	Water
EC-65224	WQ13	13-4458-	2013/05/22	Water
EC-65224	Trip Blank	13-4509-	2013/05/22	Water

L1306457-COFC



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65253
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/05/28
Date of Report: 2013/06/10
Sublet Data: Attached

Report reviewed by:



Jesse Dang, B.Sc.
Manager
Laboratory Services



Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4650	13-4650-D	13-4651	13-4652
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/05/27 0:00	Lab Duplicate	2013/05/27 0:00	2013/05/27 0:00
					MDL				
AFD	2013/06/04	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	22	23	9	68
AFD	2013/06/04	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.050	0.050	0.028	0.139
AFD	2013/06/04	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.04	0.05
AFD	2013/05/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.006	0.006	0.012	0.033
AFD	2013/05/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.4	1.4	1.0	4.0
EL	2013/06/03	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	68	80	72	120
EL	2013/06/04	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	4	< 2	6
AFD	2013/06/04	Turbidity	NTU	APHA 2130-b	0.1	1.5	1.5	0.9	1.8
AFD	2013/05/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.2	0.1	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4653	13-4654	13-4655	13-4656
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/27 0:00	2013/05/27 0:00	2013/05/27 0:00	2013/05/27 0:00
					MDL				
AFD	2013/06/04	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	10	11	12	17
AFD	2013/06/04	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.029	0.035	0.032	0.040
AFD	2013/06/04	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.03	0.02	< 0.02
AFD	2013/05/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.021	0.047	0.012	0.007
AFD	2013/05/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.4	1.1	< 0.5	0.8
EL	2013/06/03	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	72	96	64	96
EL	2013/06/04	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	< 2	< 2	2
AFD	2013/06/04	Turbidity	NTU	APHA 2130-b	0.1	1.7	1.5	0.8	1.4
AFD	2013/05/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4657	13-4658	13-4659	13-4660
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/05/27 0:00	2013/05/27 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
AFD	2013/06/04	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	18	13	10	15
AFD	2013/06/04	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.041	0.035	0.031	0.039
AFD	2013/06/04	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	0.03	0.02	0.03
AFD	2013/05/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.015	0.007	0.008	0.024
AFD	2013/05/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.9	0.7	1.7	0.8
EL	2013/06/03	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	92	96	16	44
EL	2013/06/04	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	6	2	15
AFD	2013/06/04	Turbidity	NTU	APHA 2130-b	0.1	1.3	1.9	1.4	2.4
AFD	2013/05/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	0.4	0.4

Water Analysis

Project No. VE52277.2190.02

Final
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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4661	13-4662	13-4663	13-4664
					Client ID:	WQ9	WQ14	WQ1	WQ4
					Sample Date:	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
AFD	2013/06/04	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	50	50	3	10
AFD	2013/06/04	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.104	0.102	0.016	0.054
AFD	2013/06/04	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	< 0.02	0.03
AFD	2013/05/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.026	0.026	0.037	0.020
AFD	2013/05/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.4	1.8	0.7	10.6
EL	2013/06/03	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	64	88	24	60
EL	2013/06/04	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	7	< 2	< 2	< 2
AFD	2013/06/04	Turbidity	NTU	APHA 2130-b	0.1	2.3	0.9	1.9	1.3
AFD	2013/05/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.5	0.5	1.8

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4665	13-4666	13-4667	13-4668
					Client ID:	WQ13	Duplicate	Field Blank	Trip Blank
					Sample Date:	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
AFD	2013/06/04	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	50	50	< 1	< 1
AFD	2013/06/04	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.104	0.104	< 0.001	0.001
AFD	2013/06/04	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	< 0.02	< 0.02
AFD	2013/05/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.032	0.032	< 0.005	< 0.005
AFD	2013/05/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/05/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.2	3.3	< 0.5	< 0.5
EL	2013/06/03	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	16	88	4	4
EL	2013/06/04	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	7	6	< 2	< 2
AFD	2013/06/04	Turbidity	NTU	APHA 2130-b	0.1	1.9	17	0.5	0.5
AFD	2013/05/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.6	0.6	0.1	0.1

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4650	13-4650-D	13-4651	13-4652
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/05/27 0:00	Lab Duplicate	2013/05/27 0:00	2013/05/27 0:00
					MDL				
EL	2013/06/04	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/05/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.4	11.2	14.0	8.0
BN	2013/05/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.4	11.2	14.0	8.1
AFD	2013/05/28	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.13	0.13	0.16	0.25

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4653	13-4654	13-4655	13-4656
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/27 0:00	2013/05/27 0:00	2013/05/27 0:00	2013/05/27 0:00
					MDL				
EL	2013/06/04	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/05/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.0	20.1	10.8	9.7
BN	2013/05/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	12.0	20.1	10.8	9.7
AFD	2013/05/28	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.15	0.09	0.11	0.12

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4657	13-4658	13-4659	13-4660
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/05/27 0:00	2013/05/27 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
EL	2013/06/04	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/05/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.3	11.5	9.7	10.3
BN	2013/05/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.3	11.8	9.7	10.3
AFD	2013/05/28	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.09	0.12	0.10	0.12

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4661	13-4662	13-4663	13-4664
					Client ID:	WQ9	WQ14	WQ1	WQ4
					Sample Date:	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
EL	2013/06/04	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/05/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.7	10.6	11.2	11.8
BN	2013/05/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.7	11.0	11.5	12.0
AFD	2013/05/28	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.14	0.13	0.09	0.17

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4665	13-4666	13-4667	13-4668
					Client ID:	WQ13	Duplicate	Field Blank	Trip Blank
					Sample Date:	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
EL	2013/06/04	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/05/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.5	9.7	0.2	0.2
BN	2013/05/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.6	9.7	0.2	0.2
AFD	2013/05/28	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/03	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.15	0.17	< 0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4650	13-4650-D	13-4651	13-4652
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/05/27 0:00	Lab Duplicate	2013/05/27 0:00	2013/05/27 0:00
					MDL				
LL	2013/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.171	0.173	0.268	0.023
LL	2013/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00007	< 0.00005	< 0.00005
LL	2013/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0006	0.0003	0.0005
LL	2013/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00378	0.00386	0.00297	0.00548
LL	2013/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.002
LL	2013/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.4	7.4	3.7	23.3
LL	2013/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0006	0.0006	< 0.0003	< 0.0003
LL	2013/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00004	0.00004	< 0.00002
LL	2013/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0006	0.0006	0.0006	0.0004
LL	2013/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1780	0.1790	0.1390	0.0532
LL	2013/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.54	1.59	0.94	5.27
LL	2013/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00657	0.00657	0.00621	0.03100
LL	2013/06/03	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00030	0.00032	0.00010	0.00054
LL	2013/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00008	0.00007	0.00009
LL	2013/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.9
LL	2013/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.10	5.10	3.92	3.67
LL	2013/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.4	2.4	1.8	3.9
LL	2013/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.042700	0.044300	0.023200	0.097000
LL	2013/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0035	0.0038	0.0028	0.0009
LL	2013/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	0.00014	0.00008	0.00008
LL	2013/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00050	0.00054	< 0.00005	< 0.00005
LL	2013/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
LL	2013/06/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	24.9	25.0	13.2	79.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4653	13-4654	13-4655	13-4656
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/27 0:00	2013/05/27 0:00	2013/05/27 0:00	2013/05/27 0:00
					MDL				
LL	2013/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.297	0.505	0.152	0.088
LL	2013/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0002	0.0002	0.0002
LL	2013/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00460	0.00603	0.00509	0.00770
LL	2013/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.2	5.7	5.5	7.3
LL	2013/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00005	< 0.00002	< 0.00002
LL	2013/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0010	0.0005	0.0002
LL	2013/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1680	0.2290	0.1270	0.1510
LL	2013/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.77	1.00	0.90	1.01
LL	2013/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00797	0.00381	0.00839	0.01660
LL	2013/06/03	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00008	0.00035	0.00056
LL	2013/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	0.00013	< 0.00005	< 0.00005
LL	2013/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.87	4.55	3.01	2.57
LL	2013/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.8	1.6	1.7
LL	2013/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.027800	0.033700	0.040000	0.063600
LL	2013/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0042	0.0059	0.0022	0.0011
LL	2013/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00015	0.00020	0.00015
LL	2013/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0005	< 0.0005	< 0.0005	< 0.0005
LL	2013/06/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	13.6	18.3	17.5	22.3

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4657	13-4658	13-4659	13-4660
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/05/27 0:00	2013/05/27 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
LL	2013/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.052	0.298	0.188	0.336
LL	2013/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	0.00006	< 0.00005
LL	2013/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0004	0.0007	0.0005
LL	2013/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00311	0.00498	0.00464	0.00567
LL	2013/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000018	0.000016
LL	2013/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.4	5.6	4.3	6.3
LL	2013/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	0.0003	< 0.0003	0.0003
LL	2013/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00005	< 0.00002	0.00010
LL	2013/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0006	0.0005	0.0008
LL	2013/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0956	0.2010	0.1160	0.3120
LL	2013/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00007	0.00006	0.00010
LL	2013/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.30	1.08	0.71	1.34
LL	2013/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01660	0.01330	0.00615	0.01550
LL	2013/06/03	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00077	0.00022	0.00031	0.00023
LL	2013/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00015	0.00013	0.00031
LL	2013/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.58	3.94	3.94	4.18
LL	2013/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.1	1.9	1.7	2.2
LL	2013/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.039600	0.033200	0.029600	0.036800
LL	2013/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0010	0.0051	0.0023	0.0091
LL	2013/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00027	0.00016	0.00024	0.00017
LL	2013/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00017
LL	2013/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0006	< 0.0005	0.0015
LL	2013/06/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	21.3	18.5	13.6	21.2

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4661	13-4662	13-4663	13-4664
					Client ID:	WQ9	WQ14	WQ1	WQ4
					Sample Date:	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
LL	2013/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.121	0.031	0.364	0.202
LL	2013/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005	< 0.00005	0.00019
LL	2013/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0003	0.0003	0.0019
LL	2013/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00652	0.00760	0.00298	0.00330
LL	2013/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	0.002	< 0.001	0.001
LL	2013/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000017	0.000169
LL	2013/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	18.3	18.3	2.0	7.1
LL	2013/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	< 0.00002	0.00003	< 0.00002
LL	2013/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0006	0.0004	0.0005	0.0010
LL	2013/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1690	0.1270	0.1630	0.1140
LL	2013/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00013
LL	2013/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.83	3.54	< 0.50	1.11
LL	2013/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01800	0.00485	0.00538	0.00389
LL	2013/06/03	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00049	0.00047	0.00010	0.00010
LL	2013/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	0.00010	0.00009	0.00022
LL	2013/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	0.8	< 0.5	1.1
LL	2013/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.97	5.05	3.51	4.17
LL	2013/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00012
LL	2013/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.2	3.4	1.4	3.8
LL	2013/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.078200	0.082100	0.017400	0.038600
LL	2013/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0042	0.0009	0.0050	0.0026
LL	2013/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	< 0.00005	0.00018	0.00005
LL	2013/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0010	0.0012	0.0394
LL	2013/06/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	61.5	60.3	6.6	22.3

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4665	13-4666	13-4667	13-4668
					Client ID:	WQ13	Duplicate	Field Blank	Trip Blank
					Sample Date:	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
LL	2013/05/28	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.120	0.134	< 0.002	< 0.002
LL	2013/05/28	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	< 0.0001	< 0.0001
LL	2013/05/28	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00655	0.00661	< 0.00005	< 0.00005
LL	2013/05/28	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	0.001	< 0.001	< 0.001
LL	2013/05/28	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000028	< 0.000015	< 0.000015	< 0.000015
LL	2013/05/28	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	17.1	17.7	< 0.5	< 0.5
LL	2013/05/28	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/05/28	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00005	< 0.00002	< 0.00002
LL	2013/05/28	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0006	< 0.0001	< 0.0001
LL	2013/05/28	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1720	0.1810	< 0.0001	< 0.0001
LL	2013/05/28	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/05/28	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.70	3.71	< 0.50	< 0.50
LL	2013/05/28	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01990	0.01970	< 0.00005	< 0.00005
LL	2013/06/03	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/05/28	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00049	0.00050	< 0.00005	< 0.00005
LL	2013/05/28	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00019	0.00015	< 0.00005	< 0.00005
LL	2013/05/28	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/05/28	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	0.8	< 0.5	< 0.5
LL	2013/05/28	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.97	3.98	< 0.01	< 0.01
LL	2013/05/28	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.1	3.1	< 0.5	< 0.5
LL	2013/05/28	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.078900	0.080400	< 0.000005	0.000021
LL	2013/05/28	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/05/28	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0046	0.0042	< 0.0002	< 0.0002
LL	2013/05/28	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00010	< 0.00005	< 0.00005
LL	2013/05/28	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/05/28	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
LL	2013/06/03	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	58.0	59.5	< 6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4650	13-4650-D	13-4651	13-4652
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/05/27 0:00	Lab Duplicate	2013/05/27 0:00	2013/05/27 0:00
					MDL				
LL	2013/06/01	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.138	0.138	0.249	0.007
LL	2013/06/01	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0003	0.0005
LL	2013/06/01	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00331	0.00342	0.00264	0.00504
LL	2013/06/01	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/01	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.4	7.4	3.7	23.3
LL	2013/06/01	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	0.0003	< 0.0003	< 0.0003
LL	2013/06/01	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
LL	2013/06/01	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0006	0.0003
LL	2013/06/01	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1170	0.1170	0.1070	0.0158
LL	2013/06/01	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.54	1.59	0.94	5.27
LL	2013/06/01	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00252	0.00258	0.00233	0.00367
LL	2013/06/03	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/01	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00013
LL	2013/06/01	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/01	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.9
LL	2013/06/01	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.10	5.10	3.62	3.51
LL	2013/06/01	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.4	2.4	1.8	3.9
LL	2013/06/01	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.023700	0.023000	< 0.000005	0.080200
LL	2013/06/01	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0025	0.0024	0.0020	0.0003
LL	2013/06/01	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	0.00012	0.00008	0.00008
LL	2013/06/01	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00042	0.00044	< 0.00005	< 0.00005
LL	2013/06/01	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AFD	2013/06/04	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.48	7.51	7.08	8.07
LL	2013/06/01	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	24.9	25.0	13.2	79.8

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4653	13-4654	13-4655	13-4656
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/05/27 0:00	2013/05/27 0:00	2013/05/27 0:00	2013/05/27 0:00
					MDL				
LL	2013/06/01	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.254	0.498	0.143	0.083
LL	2013/06/01	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0001	0.0001	0.0002
LL	2013/06/01	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00412	0.00549	0.00474	0.00733
LL	2013/06/01	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/01	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	4.2	5.7	5.5	7.3
LL	2013/06/01	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/01	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
LL	2013/06/01	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0009	0.0003	0.0002
LL	2013/06/01	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1110	0.1980	0.0889	0.1060
LL	2013/06/01	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.77	1.00	0.90	1.01
LL	2013/06/01	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00276	0.00254	0.00427	0.00535
LL	2013/06/03	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/01	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00015
LL	2013/06/01	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/01	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/01	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.77	4.49	2.96	2.43
LL	2013/06/01	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	1.8	1.6	1.7
LL	2013/06/01	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.006570	0.014700	0.019100	0.044700
LL	2013/06/01	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0028	0.0059	0.0016	0.0010
LL	2013/06/01	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00015	0.00019	0.00014
LL	2013/06/01	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AFD	2013/06/04	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.10	7.16	7.33	7.42
LL	2013/06/01	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	13.6	18.3	17.5	22.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4657	13-4658	13-4659	13-4660
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/05/27 0:00	2013/05/27 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
LL	2013/06/01	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.028	0.213	0.170	0.173
LL	2013/06/01	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	0.0007	0.0003
LL	2013/06/01	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00277	0.00404	0.00416	0.00425
LL	2013/06/01	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/01	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	6.4	5.6	4.3	6.3
LL	2013/06/01	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/01	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
LL	2013/06/01	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0005	0.0005	0.0004
LL	2013/06/01	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0381	0.1040	0.0751	0.0925
LL	2013/06/01	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.30	1.08	0.71	1.34
LL	2013/06/01	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00546	0.00276	0.00224	0.00345
LL	2013/06/03	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/01	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00034	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/01	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/01	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.55	3.93	3.94	4.00
LL	2013/06/01	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.1	1.9	1.7	2.2
LL	2013/06/01	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.018600	0.013100	0.007330	0.017600
LL	2013/06/01	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0005	0.0023	0.0018	0.0023
LL	2013/06/01	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00022	0.00015	0.00022	0.00012
LL	2013/06/01	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	0.0006	< 0.0005	< 0.0005
AFD	2013/06/04	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.50	7.29	7.17	7.40
LL	2013/06/01	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	21.3	18.5	13.6	21.2

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4661	13-4662	13-4663	13-4664
					Client ID:	WQ9	WQ14	WQ1	WQ4
					Sample Date:	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
LL	2013/06/01	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.053	0.019	0.317	0.188
LL	2013/06/01	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0002	0.0003	0.0019
LL	2013/06/01	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00595	0.00578	0.00253	0.00302
LL	2013/06/01	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/01	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.3	18.3	2.0	7.1
LL	2013/06/01	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/01	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
LL	2013/06/01	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0004	0.0004	0.0008
LL	2013/06/01	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0743	0.0763	0.1150	0.0923
LL	2013/06/01	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00009
LL	2013/06/01	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.83	3.54	< 0.50	1.11
LL	2013/06/01	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01020	0.00158	0.00281	0.00278
LL	2013/06/03	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/01	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	0.00022	< 0.00005	< 0.00005
LL	2013/06/01	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/01	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	0.8	< 0.5	1.1
LL	2013/06/01	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.97	5.05	3.51	4.17
LL	2013/06/01	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00012
LL	2013/06/01	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.2	3.4	1.4	3.8
LL	2013/06/01	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.063500	0.062300	< 0.000005	0.016400
LL	2013/06/01	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0009	0.0006	0.0032	0.0021
LL	2013/06/01	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	< 0.00005	0.00017	< 0.00005
LL	2013/06/01	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	0.0381
AFD	2013/06/04	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.87	7.81	6.53	7.10
LL	2013/06/01	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	61.5	60.3	6.7	22.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65253

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-4665	13-4666	13-4667	13-4668
					Client ID:	WQ13	Duplicate	Field Blank	Trip Blank
					Sample Date:	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00	2013/05/28 0:00
					MDL				
LL	2013/06/01	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.047	0.052	< 0.002	< 0.002
LL	2013/06/01	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0005	< 0.0001	< 0.0001
LL	2013/06/01	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00610	0.00600	< 0.00005	< 0.00005
LL	2013/06/01	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/01	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	17.1	17.7	< 0.5	< 0.5
LL	2013/06/01	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/01	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
LL	2013/06/01	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0006	0.0004	< 0.0001	< 0.0001
LL	2013/06/01	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0722	0.0751	< 0.0001	< 0.0001
LL	2013/06/01	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/01	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.70	3.71	< 0.50	< 0.50
LL	2013/06/01	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01070	0.01030	< 0.00005	< 0.00005
LL	2013/06/03	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/01	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00010	< 0.00005	< 0.00005
LL	2013/06/01	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/01	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	0.8	< 0.5	< 0.5
LL	2013/06/01	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.97	3.89	< 0.01	< 0.01
LL	2013/06/01	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.1	3.1	< 0.5	< 0.5
LL	2013/06/01	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.062400	0.061900	< 0.000005	< 0.000005
LL	2013/06/01	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/01	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0008	0.0010	< 0.0002	< 0.0002
LL	2013/06/01	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00009	< 0.00005	< 0.00005
LL	2013/06/01	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/01	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
AFD	2013/06/04	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.85	7.83	5.71	6.21
LL	2013/06/01	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	58.0	59.5	< 6.0	< 6.0

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65253

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/06/04	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	62	53-72	63	QC-ALK/F-58
AFD	2013/06/04	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.74	2.54-2.94	2.790	CC-EC-0.02M-50
AFD	2013/06/04	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.51	0.44-0.58	0.50	QC-AIK/F-58
AFD	2013/05/28	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.68	1.44-1.76	1.600	CC-Anion-122B
AFD	2013/05/28	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.625	0.54-0.66	0.600	CC-Anion-122B
AFD	2013/05/28	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.7	25.2-30.8	28.0	CC-Anion-122B
EL	2013/06/03	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-c	2	800	628-1059	844	QCP-SLD02008
EL	2013/06/04	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	28	26-36	31	QCP-SLD 02008
AFD	2013/06/04	Turbidity	NTU	APHA 2130-b	0.1	9.8	8.5-11.5	10.0	QC-Turb-9
AFD	2013/05/28	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.0	CC-Anion-122B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/06/04	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.58	0.394-0.615	0.50	F2NUT01116
BN	2013/05/31	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.5	33.0-42.7	37.9	DMD-TOC-103-Mid
BN	2013/05/31	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	156	132.2-170.6	151.4	DMD-TOC-103-High
AFD	2013/05/28	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.872	0.72-0.88	0.800	CC-Anion-122BL
LL	2013/06/03	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	266	225-275	250.000	MS-CCV-HIGH
EL	2013/06/04	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	10.2	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65253

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/05/28	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	54.7	45-55	50.000	MS-CCV-HIGH
LL	2013/05/28	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	106	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/05/28	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	94.7	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/05/28	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	55.0	45-55	50.00000	MS-CCV-HIGH
LL	2013/05/28	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.6	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/28	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	51.6	45-55	50.000	MS-CCV-HIGH
LL	2013/05/28	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	50.2	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/05/28	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25700	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/05/28	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	52.8	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/28	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	54.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/28	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	52.3	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/28	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	50.6	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/28	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	103	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/05/28	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	49.1	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/05/28	Magnesium-T	mg/L (ppm)	APHA 3125 B	0.50	26200	22.5-27.6	25.10	MS-CCV-HIGH
LL	2013/05/28	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	54.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/03	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.298000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/05/28	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	46.2	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/28	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/28	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	266	225-275	250.00	MS-CCV-HIGH
LL	2013/05/28	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	23700	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/05/28	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	52.2	45-55	50.0000	MS-CCV-HIGH
LL	2013/05/28	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	128	105-129	117.00	MS-CCV-HIGH
LL	2013/05/28	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.5	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/05/28	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	26900	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/05/28	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	51.4	45-55	50.000000	MS-CCV-HIGH
LL	2013/05/28	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	262	225-275	250.00000	MS-CCV-HIGH
LL	2013/05/28	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	268	225-275	250.0000	MS-CCV-HIGH
LL	2013/05/28	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	54.7	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/05/28	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	100	90-110	100.00000	MS-CCV-HIGH
LL	2013/05/28	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	53.6	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/05/28	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	52.0	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65253

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/06/01	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	53.0	45-55	50.000	MS-CCV-HIGH
LL	2013/06/01	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	100	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/01	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/06/01	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.8	45-55	50.00000	MS-CCV-HIGH
LL	2013/06/01	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	51.2	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/01	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	50.7	45-55	50.000	MS-CCV-HIGH
LL	2013/06/01	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.4	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/06/01	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	27100	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/01	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.8	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/01	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	50.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/01	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	47.5	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/01	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	47.4	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/01	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	99.0	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/01	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	53.8	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/06/01	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	25000	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/06/01	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	51.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/03	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.298000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/06/01	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	49.4	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/01	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	47.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/01	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	246	225-275	250.00	MS-CCV-HIGH
LL	2013/06/01	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	26800	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/06/01	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	54.9	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/01	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	122	105-129	117.00	MS-CCV-HIGH
LL	2013/06/01	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	13.1	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/06/01	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25400	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/01	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	53.6	45-55	50.000000	MS-CCV-HIGH
LL	2013/06/01	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	253	225-275	250.00000	MS-CCV-HIGH
LL	2013/06/01	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	262	225-275	250.0000	MS-CCV-HIGH
LL	2013/06/01	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	51.6	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/01	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	98.2	90-110	100.00000	MS-CCV-HIGH
LL	2013/06/01	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/01	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	47.5	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/06/04	pH @ 25°C BC-D	--	APHA 4500H	0.01	7.01	6.98-7.02	7.00	pH-7

Analytical Comments

Project No. VE52277.2190.02

File No. EC-65253

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

Chain of Custody Record/Analysis Request

EC-65253
28

ISSUING OFFICE:		Tracking #:		ANALYSIS REQUIRED (Note preferred method)		QUOTED PRICE													
Burnaby, BC						<input checked="" type="checkbox"/> YES Please attach a copy of the quote <input type="checkbox"/> NO													
Project Name:	NewGold Blackwater	Sampler:	604-294-3811			Quote #:													
Project Manager:	Bruce Ott	Phone No.:				QN-521													
Project Number:	VES277-2190.02	Phase:				Temperature Received:													
Client Sample ID	AMEC E & E Lab Sample ID	Date Collected				6.7°C													
	FOR LAB USE ONLY	yyyy/mm/dd				Receiver's Comments:													
WQ3	B2AL650	5/27/2013	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho-Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	
WQ5	52	5/27/2013																	
WQ8	53	5/27/2013																	
WQ10	54	5/27/2013																	
WQ11	55	5/27/2013																	
WQ12	56	5/27/2013																	
WQ15	57	5/27/2013																	
WQ16	58	5/27/2013																	
WQ26		5/27/2013																	

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:
Printed Name: L. Nordin	Printed Name: <i>[Name]</i>	Printed Name:	Printed Name:
Firm: Avison Management Services	Firm: AMEC	Firm:	Firm:
Date/Time: 5/27/2013 15:00	Date/Time: 28 May 13 8:00	Date/Time:	Date/Time:

Comments:

- 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)
- 2) Please use Low Level nitrate and nitrite
- 3) Please analyze CN-1 and CN-WAD using H2SO4 method.

*Another shipment to follow



Edmonton Chemistry Lab

Chain of Custody Record/Analysis Request

EC-65243
28

ISSUING OFFICE:		Burnaby, BC		Tracking #:			
Project Name:	NewGold Blackwater	Sampler:	Blackwater	Phone No.:	604-294-3811		
Project Manager:	Bruce Ott	Task:	Surface Water				
Project Number:	VE52277-2190.02	Phase:		Task:	40 mL Vial	250 mL Jar	1L Bottle
Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene
	FOR LAB USE ONLY	yyyy/mm/dd	water	2	1	1	2
WQ6	13-2659	5/28/2013	water	2	1	1	2
WQ7	62	5/28/2013	water	2	1	1	2
WQ9	61	5/28/2013	water	2	1	1	2
WQ14	62	5/28/2013	water	2	1	1	2
WQ1	63	5/28/2013	water	2	1	1	2
WQ4	64	5/28/2013	water	2	1	1	2
WQ13	65	5/28/2013	water	2	1	1	2
Duplicate	66	5/28/2013	water	2	1	1	2
Field Blank	67	5/28/2013	water	2	1	1	2
Trp Blank	68	5/28/2013	water	2	1	1	2

RECEIVED BY:	Signature:	Signature:
<i>C. McFadden</i>	<i>[Signature]</i>	<i>[Signature]</i>
Printed Name:	Printed Name:	Printed Name:
C. McFadden	J. Connor	
Firm:	Firm:	Firm:
Avison Management Services	AMEC	
Date/Time:	Date/Time:	Date/Time:
5/28/2013 15:00 PM	May 28 2013 12:10C	

RECEIVED BY:	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Firm:	Firm:	Firm:
Date/Time:	Date/Time:	Date/Time:

Comments:

- 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)
- 2) Please use Low Level nitrate and nitrite
- 3) Please analyze CN-t and CN-WAD using H2SO4 method .



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 29-MAY-13
Report Date: 10-JUN-13 14:22 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1308302
Project P.O. #: 2220
Job Reference: EC-65253
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1308302-1 WQ3~13-4650 Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-2 WQ5~13-4651- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-3 WQ8~13-4652- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-4 WQ10~13-4653- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-5 WQ11~-13-4654- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-6 WQ12~13-4655- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-7 WQ15~13-4656- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-8 WQ16~13-4657- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-9 WQ26~1-4658- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1308302-9 WQ26~1-4658- Sampled By: CLIENT on 27-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-10 WQ6~13-4659- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-11 WQ7~13-4660- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-12 WQ9~13-4661- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-13 WQ14~13-4662- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-14 WQ1~13-4633- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-15 WQ4~13-4664- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-16 WQ13~13-4665- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		07-JUN-13 07-JUN-13	R2628775 R2628784
L1308302-17 DUPLICATE~13-4666- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1308302-17 DUPLICATE~13-4666- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 07-JUN-13 07-JUN-13	 R2628775 R2628784
L1308302-18 FIELD BLANK~13-4667- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 07-JUN-13 07-JUN-13	 R2628775 R2628784
L1308302-19 TRIP BLANK~13-4668- Sampled By: CLIENT on 28-MAY-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	 <0.0050 <0.0050	 	 0.0050 0.0050	 mg/L mg/L	 	 07-JUN-13 07-JUN-13	 R2628775 R2628784

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1308302

Report Date: 10-JUN-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2628775							
WG1684688-4	DUP	L1308162-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	07-JUN-13
WG1684688-9	DUP	L1308302-10						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	07-JUN-13
WG1684688-13	IRM	ALS-TCN-IRM1						
Cyanide, Total			90.8		%		75-105	07-JUN-13
WG1684688-3	IRM	ALS-TCN-IRM1						
Cyanide, Total			88.2		%		75-105	07-JUN-13
WG1684688-8	IRM	ALS-TCN-IRM1						
Cyanide, Total			89.9		%		75-105	07-JUN-13
WG1684688-12	LCS							
Cyanide, Total			101.6		%		80-120	07-JUN-13
WG1684688-2	LCS							
Cyanide, Total			104.6		%		80-120	07-JUN-13
WG1684688-7	LCS							
Cyanide, Total			105.4		%		80-120	07-JUN-13
WG1684688-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	07-JUN-13
WG1684688-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	07-JUN-13
WG1684688-6	MB							
Cyanide, Total			<0.0050		mg/L		0.005	07-JUN-13
WG1684688-10	MS	L1308302-10						
Cyanide, Total			99.4		%		70-130	07-JUN-13
WG1684688-5	MS	L1308162-1						
Cyanide, Total			88.4		%		70-130	07-JUN-13
CN-WAD-CFA-VA		Water						
Batch	R2628784							
WG1684692-3	DUP	L1308162-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	07-JUN-13
WG1684692-7	DUP	L1308302-10						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	07-JUN-13
WG1684692-10	LCS							
Cyanide, Weak Acid Diss			104.4		%		80-120	07-JUN-13
WG1684692-2	LCS							
Cyanide, Weak Acid Diss			102.8		%		80-120	07-JUN-13
WG1684692-6	LCS							
Cyanide, Weak Acid Diss			106.3		%		80-120	07-JUN-13



Quality Control Report

Workorder: L1308302

Report Date: 10-JUN-13

Page 2 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2628784							
WG1684692-1 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	07-JUN-13
WG1684692-5 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	07-JUN-13
WG1684692-9 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	07-JUN-13
WG1684692-4 MS		L1308162-1						
Cyanide, Weak Acid Diss			99.6		%		70-130	07-JUN-13
WG1684692-8 MS		L1308302-10						
Cyanide, Weak Acid Diss			97.8		%		70-130	07-JUN-13

Quality Control Report

Workorder: L1308302

Report Date: 10-JUN-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 3 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-65253	WQ3	13-4650-	2013/05/27	Water
EC-65253	WQ5	13-4651-	2013/05/27	Water
EC-65253	WQ8	13-4652-	2013/05/27	Water
EC-65253	WQ10	13-4653-	2013/05/27	Water
EC-65253	WQ11	13-4654-	2013/05/27	Water
EC-65253	WQ12	13-4655-	2013/05/27	Water
EC-65253	WQ15	13-4656-	2013/05/27	Water
EC-65253	WQ16	13-4657-	2013/05/27	Water
EC-65253	WQ26	13-4658-	2013/05/27	Water
EC-65253	WQ6	13-4659-	2013/05/28	Water
EC-65253	WQ7	13-4660-	2013/05/28	Water
EC-65253	WQ9	13-4661-	2013/05/28	Water
EC-65253	WQ14	13-4662-	2013/05/28	Water
EC-65253	WQ1	13-4663-	2013/05/28	Water
EC-65253	WQ4	13-4664-	2013/05/28	Water
EC-65253	WQ13	13-4665-	2013/05/28	Water
EC-65253	Duplicate	13-4666-	2013/05/28	Water
EC-65253	Field Blank	13-4667-	2013/05/28	Water
EC-65253	Trip Blank	13-4668-	2013/05/28	Water

L1308302-COFC



Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65302
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/06/04
Date of Report: 2013/06/19
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5055	13-5055-D	13-5056	13-5057
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/06 0:00	Lab Duplicate	2013/06/06 0:00	2013/06/06 0:00
					MDL				
AFD	2013/06/07	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	21	---	9	67
AFD	2013/06/07	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.047	---	0.026	0.138
AFD	2013/06/07	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	---	0.02	0.04
AFD	2013/06/05	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.007	---	0.019	0.028
AFD	2013/06/05	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
AFD	2013/06/05	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.6	---	< 0.5	3.3
EL	2013/06/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	28	---	16	60
EL	2013/06/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	4	---	< 2	2
AFD	2013/06/07	Turbidity	NTU	APHA 2130-b	0.1	1.5	---	1.1	1.6
AFD	2013/06/05	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	0.2	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5058	13-5059	13-5060	13-5061
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00
					MDL				
AFD	2013/06/07	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	10	12	13	16
AFD	2013/06/07	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.028	0.034	0.034	0.039
AFD	2013/06/07	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	< 0.02	< 0.02	< 0.02
AFD	2013/06/05	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.031	0.028	0.034	0.032
AFD	2013/06/05	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/05	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.6	< 0.5	0.5	0.8
EL	2013/06/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	16	48	16	24
EL	2013/06/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	< 2	< 2	< 2
AFD	2013/06/07	Turbidity	NTU	APHA 2130-b	0.1	1.7	1.6	0.9	1.1
AFD	2013/06/05	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5062	13-5063	13-5064	13-5065
					Client ID:	WQ16	WQ26	Trip Blank	WQ6
					Sample Date:	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00	2013/06/04 0:00
					MDL				
AFD	2013/06/07	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	17	15	< 1	12
AFD	2013/06/07	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.040	0.036	0.001	0.034
AFD	2013/06/07	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	< 0.02	< 0.02	0.03
AFD	2013/06/05	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.023	0.019	< 0.005	0.055
AFD	2013/06/05	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/05	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.9	0.7	< 0.5	0.7
EL	2013/06/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	24	52	< 4	44
EL	2013/06/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	6	< 2	< 2
AFD	2013/06/07	Turbidity	NTU	APHA 2130-b	0.1	1.1	1.9	0.4	1.6
AFD	2013/06/05	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	< 0.1	
	2013/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1				0.3

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5065-D	13-5066 WQ7	13-5067 WQ9	13-5068 WQ14
					Client ID:	Sample Date:	Lab Duplicate	2013/06/04 0:00	2013/06/04 0:00
					MDL				
AFD	2013/06/07	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	11	18	56	52
AFD	2013/06/07	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.031	0.044	0.115	0.105
AFD	2013/06/07	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.03	0.04	0.05
AFD	2013/06/05	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.054	0.036	0.014	0.034
AFD	2013/06/05	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/05	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.8	0.8	2.8	1.6
EL	2013/06/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	---	20	60	40
EL	2013/06/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	---	14	12	< 2
AFD	2013/06/07	Turbidity	NTU	APHA 2130-b	0.1	1.5	4.1	3.3	1.0
AFD	2013/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.3	0.4	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5069 WQ1	13-5070 WQ4	13-5071 WQ13	13-5072 Duplicate
					Client ID:	Sample Date:	2013/06/04 0:00	2013/06/04 0:00	2013/06/04 0:00
					MDL				
AFD	2013/06/07	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	3	11	56	20
AFD	2013/06/07	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.016	0.057	0.115	0.044
AFD	2013/06/07	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.02	0.03	0.04	0.03
AFD	2013/06/05	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.038	0.031	0.024	0.017
AFD	2013/06/05	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/05	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.7	8.4	2.7	0.8
EL	2013/06/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	12	36	20	24
EL	2013/06/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	7	15
AFD	2013/06/07	Turbidity	NTU	APHA 2130-b	0.1	1.9	1.0	2.3	3.8
AFD	2013/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	1.4	0.4	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5073 Field Blank
					Client ID:	Sample Date:
					MDL	2013/06/04 0:00
AFD	2013/06/07	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	< 1
AFD	2013/06/07	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.001
AFD	2013/06/07	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02
AFD	2013/06/05	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005
AFD	2013/06/05	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003
AFD	2013/06/05	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5
EL	2013/06/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4
EL	2013/06/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2
AFD	2013/06/07	Turbidity	NTU	APHA 2130-b	0.1	0.7
AFD	2013/06/13	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5055	13-5055-D	13-5056	13-5057
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/06 0:00	Lab Duplicate	2013/06/06 0:00	2013/06/06 0:00
					MDL				
EL	2013/06/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/07	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.1	11.1	13.4	7.9
BN	2013/06/07	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	11.1	11.2	13.4	7.9
AFD	2013/06/05	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
LL	2013/06/06	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.025	0.024	0.010	0.013
EL	2013/06/10	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.15	---	0.16	0.32

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5058	13-5059	13-5060	13-5061
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00
					MDL				
EL	2013/06/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/07	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.6	18.8	10.3	9.7
BN	2013/06/07	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	10.6	18.8	10.3	9.7
AFD	2013/06/05	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/06	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.015	0.015	0.012	0.010
EL	2013/06/10	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.10	0.17	0.12	0.11

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5062	13-5063	13-5064	13-5065
					Client ID:	WQ16	WQ26	Trip Blank	WQ6
					Sample Date:	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00	2013/06/04 0:00
					MDL				
EL	2013/06/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/07	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.3	11.0	< 0.1	8.0
BN	2013/06/07	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.5	11.0	< 0.1	8.0
AFD	2013/06/05	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/06	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.010	0.015	< 0.001	0.019
EL	2013/06/10	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.12	< 0.08	< 0.08

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5065-D	13-5066 WQ7	13-5067 WQ9	13-5068 WQ14
					Client ID:	Sample Date:	Lab Duplicate	2013/06/04 0:00	2013/06/04 0:00
EL	2013/06/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	---	< 0.02	< 0.02	< 0.02
BN	2013/06/07	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	---	10.4	9.1	13.0
BN	2013/06/07	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	---	10.4	9.1	13.0
AFD	2013/06/05	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/06	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	---	0.013	0.015	0.015
EL	2013/06/10	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	---	0.12	0.14	0.15

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5069 WQ1	13-5070 WQ4	13-5071 WQ13	13-5072 Duplicate
					Client ID:	Sample Date:	2013/06/04 0:00	2013/06/04 0:00	2013/06/04 0:00
EL	2013/06/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/07	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.6	11.1	9.1	10.5
BN	2013/06/07	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.6	11.1	9.1	10.5
AFD	2013/06/05	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/06	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.014	0.015	0.016	0.013
EL	2013/06/10	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.16	0.15	0.12

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5073 Field Blank
					Client ID:	Sample Date:
EL	2013/06/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02
BN	2013/06/07	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
BN	2013/06/07	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1
AFD	2013/06/05	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003
LL	2013/06/06	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001
EL	2013/06/10	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5055	13-5055-D	13-5056	13-5057
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/06 0:00	Lab Duplicate	2013/06/06 0:00	2013/06/06 0:00
					MDL				
LL	2013/06/06	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.156	0.156	0.235	0.010
LL	2013/06/06	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00006	< 0.00005	< 0.00005
LL	2013/06/06	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0003	0.0004
LL	2013/06/06	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00391	0.00397	0.00338	0.00567
LL	2013/06/06	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.002	0.001	0.002
LL	2013/06/06	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/06	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.6	6.5	3.5	20.3
LL	2013/06/06	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0005	0.0005	< 0.0003	< 0.0003
LL	2013/06/06	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00006	0.00006	0.00004	0.00002
LL	2013/06/06	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0007	0.0004	< 0.0001
LL	2013/06/06	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1670	0.1680	0.1170	0.0284
LL	2013/06/06	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/06	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.42	1.39	0.86	4.62
LL	2013/06/06	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00593	0.00592	0.00422	0.00829
LL	2013/06/10	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/06	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00029	0.00028	0.00009	0.00050
LL	2013/06/06	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00030	0.00025	0.00021	0.00019
LL	2013/06/06	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.03	0.03	0.01	0.02
LL	2013/06/06	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
LL	2013/06/06	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.84	5.82	4.17	3.66
LL	2013/06/06	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.2	2.2	1.7	3.5
LL	2013/06/06	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.042200	0.041300	0.023300	0.091900
LL	2013/06/06	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0027	0.0028	0.0018	0.0003
LL	2013/06/06	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00016	0.00009	0.00009
LL	2013/06/06	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00074	0.00078	< 0.00005	< 0.00005
LL	2013/06/06	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0016	0.0015	0.0008	< 0.0005
AFD	2013/06/07	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	22.2	21.9	12.2	69.8

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5058	13-5059	13-5060	13-5061
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00
					MDL				
LL	2013/06/06	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.219	0.467	0.124	0.091
LL	2013/06/06	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0001	0.0001	0.0002
LL	2013/06/06	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00484	0.00618	0.00525	0.00773
LL	2013/06/06	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	0.002	0.001	0.001
LL	2013/06/06	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/06	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.0	5.7	5.2	6.4
LL	2013/06/06	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/06	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00006	0.00003	< 0.00002
LL	2013/06/06	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0011	0.0003	0.0002
LL	2013/06/06	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1310	0.2020	0.0973	0.1160
LL	2013/06/06	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/06	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.71	1.03	0.80	0.84
LL	2013/06/06	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00571	0.00305	0.00623	0.00775
LL	2013/06/10	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/06	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	0.00007	0.00034	0.00050
LL	2013/06/06	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00027	0.00008	0.00006
LL	2013/06/06	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	0.02	0.01	0.01
LL	2013/06/06	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/06	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.52	5.32	3.21	2.81
LL	2013/06/06	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.6	1.8	1.5	1.4
LL	2013/06/06	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.029300	0.037300	0.038900	0.059800
LL	2013/06/06	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0026	0.0061	0.0014	0.0011
LL	2013/06/06	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00017	0.00022	0.00017
LL	2013/06/06	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00017	< 0.00005	< 0.00005
LL	2013/06/06	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0014	< 0.0005	0.0012	0.0010
AFD	2013/06/07	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.8	18.4	16.2	19.4

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5062	13-5063	13-5064	13-5065
					Client ID:	WQ16	WQ26	Trip Blank	WQ6
					Sample Date:	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00	2013/06/04 0:00
					MDL				
LL	2013/06/06	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.039	0.211	< 0.002	0.134
LL	2013/06/06	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00006	< 0.00005	0.00006
LL	2013/06/06	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	< 0.0001	0.0006
LL	2013/06/06	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00299	0.00510	< 0.00005	0.00484
LL	2013/06/06	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	0.002	< 0.001	0.002
LL	2013/06/06	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/06	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.5	5.3	< 0.5	4.0
LL	2013/06/06	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/06	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00006	< 0.00002	0.00003
LL	2013/06/06	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0007	< 0.0001	0.0005
LL	2013/06/06	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0617	0.1590	< 0.0001	0.0913
LL	2013/06/06	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00006	< 0.00005	0.00005
LL	2013/06/06	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/06	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.02	1.04	< 0.50	0.61
LL	2013/06/06	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01040	0.01000	< 0.00005	0.00539
LL	2013/06/10	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/06	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00067	0.00023	< 0.00005	0.00032
LL	2013/06/06	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00025	< 0.00005	0.00028
LL	2013/06/06	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	0.02	< 0.01	0.01
LL	2013/06/06	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/06	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.83	4.47	< 0.01	4.32
LL	2013/06/06	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.8	< 0.5	1.6
LL	2013/06/06	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.035400	0.035400	< 0.000005	0.029900
LL	2013/06/06	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0006	0.0030	< 0.0002	0.0017
LL	2013/06/06	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00031	0.00017	< 0.00005	0.00024
LL	2013/06/06	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0011	0.0010	< 0.0005	0.0221
AFD	2013/06/07	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	18.0	17.6	< 6.0	12.6

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5066	13-5067	13-5068	13-5069
					Client ID:	WQ7	WQ9	WQ14	WQ1
					Sample Date:	2013/06/04 0:00	2013/06/04 0:00	2013/06/04 0:00	2013/06/04 0:00
					MDL				
LL	2013/06/06	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.194	0.077	0.034	0.263
LL	2013/06/06	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00038
LL	2013/06/06	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0005	0.0002	0.0003
LL	2013/06/06	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00581	0.00685	0.00807	0.00268
LL	2013/06/06	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.002	0.003	0.002
LL	2013/06/06	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/06	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.3	16.7	16.0	1.8
LL	2013/06/06	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/06	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00009	0.00006	0.00003	0.00004
LL	2013/06/06	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0002	0.0003	0.0005
LL	2013/06/06	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.2040	0.1380	0.1250	0.1260
LL	2013/06/06	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	< 0.00005	< 0.00005	0.00006
LL	2013/06/06	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/06	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.35	3.63	3.14	< 0.50
LL	2013/06/06	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01390	0.01730	0.00451	0.00463
LL	2013/06/10	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/06	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00049	0.00039	0.00010
LL	2013/06/06	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00056	0.00024	0.00029	0.00022
LL	2013/06/06	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	0.02	0.01	0.01
LL	2013/06/06	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.7	0.5	< 0.5
LL	2013/06/06	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.74	4.02	5.43	3.96
LL	2013/06/06	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.1	2.9	2.9	1.4
LL	2013/06/06	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.039000	0.080600	0.077600	0.015300
LL	2013/06/06	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0035	0.0022	0.0006	0.0031
LL	2013/06/06	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00011	< 0.00005	0.00018
LL	2013/06/06	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00026	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0017	< 0.0005	0.0008	0.0016
AFD	2013/06/07	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	21.2	56.6	52.7	< 6.0

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5070	13-5071	13-5072	13-5073
					Client ID:	WQ4	WQ13	Duplicate	Field Blank
					Sample Date:	2013/06/04 0:00	2013/06/04 0:00	2013/06/04 0:00	2013/06/04 0:00
					MDL				
LL	2013/06/06	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.143	0.050	0.185	< 0.002
LL	2013/06/06	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0020	0.0005	0.0004	< 0.0001
LL	2013/06/06	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00318	0.00649	0.00582	< 0.00005
LL	2013/06/06	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.002	0.002	0.002	< 0.001
LL	2013/06/06	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000078	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/06	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.4	16.4	6.3	< 0.5
LL	2013/06/06	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/06	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00005	0.00009	< 0.00002
LL	2013/06/06	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0009	0.0002	0.0007	< 0.0001
LL	2013/06/06	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0777	0.1160	0.2080	< 0.0001
LL	2013/06/06	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	< 0.00005	0.00007	< 0.00005
LL	2013/06/06	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/06	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.05	3.63	1.34	< 0.50
LL	2013/06/06	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00567	0.01490	0.01490	< 0.00005
LL	2013/06/10	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/06	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00046	0.00026	< 0.00005
LL	2013/06/06	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00033	0.00025	0.00031	< 0.00005
LL	2013/06/06	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	0.02	0.02	< 0.01
LL	2013/06/06	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.9	0.7	< 0.5	< 0.5
LL	2013/06/06	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.70	4.05	4.66	< 0.01
LL	2013/06/06	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.3	3.0	2.0	< 0.5
LL	2013/06/06	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.037100	0.080600	0.039400	< 0.000005
LL	2013/06/06	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/06	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/06	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0014	0.0015	0.0036	< 0.0002
LL	2013/06/06	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00010	0.00018	< 0.00005
LL	2013/06/06	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00026	< 0.00005
LL	2013/06/06	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0364	0.0010	0.0027	< 0.0005
AFD	2013/06/07	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	20.4	56.0	21.2	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5055	13-5055-D	13-5056	13-5057
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/06 0:00	Lab Duplicate	2013/06/06 0:00	2013/06/06 0:00
					MDL				
LL	2013/06/07	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.129	0.130	0.218	0.005
LL	2013/06/07	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00006	< 0.00005	< 0.00005
LL	2013/06/07	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0004	0.0003	0.0004
LL	2013/06/07	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00332	0.00335	0.00338	0.00556
LL	2013/06/07	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.002	0.002	0.001	0.002
LL	2013/06/07	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/07	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	6.4	6.3	3.4	19.7
LL	2013/06/07	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0003	0.0003	< 0.0003	< 0.0003
LL	2013/06/07	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00005	0.00005	0.00004	< 0.00002
LL	2013/06/07	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0007	0.0007	0.0004	< 0.0001
LL	2013/06/07	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1130	0.1120	0.0993	0.0165
LL	2013/06/07	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/07	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.39	1.38	0.86	4.62
LL	2013/06/07	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00232	0.00229	0.00242	0.00310
LL	2013/06/10	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/07	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00026	0.00008	0.00050
LL	2013/06/07	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00030	0.00025	0.00021	0.00019
LL	2013/06/07	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.01	0.01	< 0.01	< 0.01
LL	2013/06/07	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
LL	2013/06/07	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.84	5.82	4.17	3.66
LL	2013/06/07	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.2	2.1	1.7	3.5
LL	2013/06/07	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.041100	0.041000	0.022300	0.091600
LL	2013/06/07	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0023	0.0024	0.0016	0.0002
LL	2013/06/07	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00013	0.00009	0.00009
LL	2013/06/07	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00059	0.00061	< 0.00005	< 0.00005
LL	2013/06/07	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0016	0.0015	0.0008	< 0.0005
AFD	2013/06/07	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.33	---	6.99	7.89
AFD	2013/06/07	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	21.6	21.3	12.0	68.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5058	13-5059	13-5060	13-5061
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00
					MDL				
LL	2013/06/07	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.193	0.467	0.115	0.079
LL	2013/06/07	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0001	0.0001	0.0002
LL	2013/06/07	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00429	0.00591	0.00503	0.00730
LL	2013/06/07	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.001	0.002	0.001	0.001
LL	2013/06/07	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/07	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	3.9	5.7	5.1	6.3
LL	2013/06/07	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/07	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00006	0.00003	< 0.00002
LL	2013/06/07	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0011	0.0003	0.0002
LL	2013/06/07	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0912	0.2020	0.0780	0.0876
LL	2013/06/07	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/07	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.71	1.03	0.80	0.84
LL	2013/06/07	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00221	0.00236	0.00349	0.00421
LL	2013/06/10	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/07	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	0.00007	0.00033	0.00046
LL	2013/06/07	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00022	0.00027	0.00008	0.00006
LL	2013/06/07	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/07	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/07	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.52	5.32	3.21	2.81
LL	2013/06/07	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.6	1.8	1.5	1.4
LL	2013/06/07	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.029300	0.037300	0.038900	0.059300
LL	2013/06/07	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0020	0.0061	0.0012	0.0010
LL	2013/06/07	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	0.00017	0.00021	0.00017
LL	2013/06/07	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00017	< 0.00005	< 0.00005
LL	2013/06/07	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	0.0012	0.0009
AFD	2013/06/07	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.11	7.14	7.24	7.28
AFD	2013/06/07	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	12.7	18.4	16.1	19.1

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5062	13-5063	13-5064	13-5065
					Client ID:	WQ16	WQ26	Trip Blank	WQ6
					Sample Date:	2013/06/06 0:00	2013/06/06 0:00	2013/06/06 0:00	2013/06/04 0:00
					MDL				
LL	2013/06/07	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.025	0.166	< 0.002	0.126
LL	2013/06/07	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00005
LL	2013/06/07	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	< 0.0001	0.0005
LL	2013/06/07	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00253	0.00422	< 0.00005	0.00440
LL	2013/06/07	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.001	0.002	< 0.001	0.002
LL	2013/06/07	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/07	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.3	5.2	< 0.5	4.0
LL	2013/06/07	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/07	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003	< 0.00002	0.00003
LL	2013/06/07	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0007	< 0.0001	0.0005
LL	2013/06/07	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0248	0.0891	< 0.0001	0.0648
LL	2013/06/07	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00005
LL	2013/06/07	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/07	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.01	1.03	< 0.50	0.61
LL	2013/06/07	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00226	0.00259	< 0.00005	0.00247
LL	2013/06/10	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/07	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00063	0.00022	< 0.00005	0.00031
LL	2013/06/07	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00025	< 0.00005	0.00028
LL	2013/06/07	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/07	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/07	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.83	4.47	< 0.01	4.32
LL	2013/06/07	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	1.8	< 0.5	1.6
LL	2013/06/07	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.035400	0.035400	< 0.000005	0.029900
LL	2013/06/07	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0020	< 0.0002	0.0017
LL	2013/06/07	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00016	< 0.00005	0.00022
LL	2013/06/07	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0011	0.0010	< 0.0005	0.0221
AFD	2013/06/07	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.35	7.29	6.10	
	2013/06/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01				6.90
AFD	2013/06/07	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	17.5	17.1	< 6.0	12.5

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5065-D	13-5066 WQ7	13-5067 WQ9	13-5068 WQ14
					Client ID:	Sample Date:	Lab Duplicate	2013/06/04 0:00	2013/06/04 0:00
LL	2013/06/07	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	---	0.128	0.027	0.018
LL	2013/06/07	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	---	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	---	0.0003	0.0004	0.0002
LL	2013/06/07	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	---	0.00440	0.00584	0.00789
LL	2013/06/07	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	---	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	---	0.002	0.002	0.003
LL	2013/06/07	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	---	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/07	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	---	6.2	16.3	15.7
LL	2013/06/07	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	---	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/07	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	---	0.00009	0.00003	0.00002
LL	2013/06/07	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	---	0.0007	0.0002	0.0003
LL	2013/06/07	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	---	0.0944	0.0621	0.0950
LL	2013/06/07	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	---	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	---	< 0.001	< 0.001	< 0.001
LL	2013/06/07	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	---	1.35	3.59	3.13
LL	2013/06/07	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	---	0.00600	0.00934	0.00265
LL	2013/06/10	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	---	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/07	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	---	0.00023	0.00045	0.00037
LL	2013/06/07	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	---	0.00056	0.00024	0.00029
LL	2013/06/07	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	---	< 0.01	< 0.01	< 0.01
LL	2013/06/07	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	---	< 0.5	0.7	0.5
LL	2013/06/07	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	---	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	---	4.74	4.02	5.43
LL	2013/06/07	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	---	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	---	2.1	2.9	2.9
LL	2013/06/07	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	---	0.038800	0.080600	0.077600
LL	2013/06/07	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	---	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	---	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	---	0.0017	0.0005	0.0005
LL	2013/06/07	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	---	0.00014	0.00009	< 0.00005
LL	2013/06/07	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	---	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	---	0.0017	< 0.0005	0.0008
AFD	2013/06/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.11	7.35	7.84	7.70
AFD	2013/06/07	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	---	20.9	55.4	52.1

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5069	13-5070	13-5071	13-5072
					Client ID:	WQ1	WQ4	WQ13	Duplicate
					Sample Date:	2013/06/04 0:00	2013/06/04 0:00	2013/06/04 0:00	2013/06/04 0:00
					MDL				
LL	2013/06/07	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.240	0.127	0.026	0.128
LL	2013/06/07	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00020	< 0.00005	< 0.00005
LL	2013/06/07	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0018	0.0004	0.0003
LL	2013/06/07	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00228	0.00298	0.00598	0.00454
LL	2013/06/07	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.001	0.002	0.002	0.001
LL	2013/06/07	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/07	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	6.4	16.3	6.2
LL	2013/06/07	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/07	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00002	0.00003	0.00004
LL	2013/06/07	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0009	0.0002	0.0007
LL	2013/06/07	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0947	0.0668	0.0648	0.0937
LL	2013/06/07	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/07	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	1.04	3.63	1.33
LL	2013/06/07	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00275	0.00232	0.00990	0.00616
LL	2013/06/10	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/07	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00009	0.00044	0.00022
LL	2013/06/07	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00022	0.00033	0.00023	0.00031
LL	2013/06/07	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/07	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.9	0.7	< 0.5
LL	2013/06/07	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.96	4.70	4.05	4.66
LL	2013/06/07	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00007	< 0.00005	< 0.00005
LL	2013/06/07	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.4	3.3	3.0	2.0
LL	2013/06/07	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.015300	0.037100	0.080600	0.039400
LL	2013/06/07	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/07	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0024	0.0012	0.0006	0.0017
LL	2013/06/07	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	< 0.00005	0.00009	0.00014
LL	2013/06/07	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/07	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0016	0.0364	< 0.0005	0.0027
AFD	2013/06/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.50	7.08	7.84	7.37
AFD	2013/06/07	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	20.3	55.6	20.9

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65302

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5073
					Client ID:	Field Blank
					Sample Date:	2013/06/04 0:00
					MDL	
LL	2013/06/07	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002
LL	2013/06/07	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
LL	2013/06/07	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
LL	2013/06/07	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
LL	2013/06/07	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015
LL	2013/06/07	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
LL	2013/06/07	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003
LL	2013/06/07	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002
LL	2013/06/07	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
LL	2013/06/07	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
LL	2013/06/07	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001
LL	2013/06/07	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50
LL	2013/06/07	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/10	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005
LL	2013/06/07	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
LL	2013/06/07	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
LL	2013/06/07	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
LL	2013/06/07	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01
LL	2013/06/07	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5
LL	2013/06/07	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005
LL	2013/06/07	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001
LL	2013/06/07	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002
LL	2013/06/07	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005
LL	2013/06/07	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005
AFD	2013/06/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.68
AFD	2013/06/07	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65302

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/06/07	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	61	53-72	63	QC-ALK/F-58
AFD	2013/06/07	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.76	2.54-2.94	2.790	CC-EC-0.02M-50
AFD	2013/06/07	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.48	0.44-0.58	0.50	QC-AIK/F-58
AFD	2013/06/05	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.74	1.44-1.76	1.600	CC-Anion-122B
AFD	2013/06/05	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.650	0.54-0.66	0.600	CC-Anion-122B
AFD	2013/06/05	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.9	25.2-30.8	28.0	CC-Anion-122B
EL	2013/06/10	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-c	2	688	628-1059	844	QCP-SLD02008
EL	2013/06/10	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	28	26-36	31	QCP-SLD 02008
AFD	2013/06/07	Turbidity	NTU	APHA 2130-b	0.1	10	8.5-11.5	10.0	QC-Turb-10
AFD	2013/06/05	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.9	3.6-4.4	4.0	CC-Anion-122B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/06/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.59	0.394-0.615	0.50	F2NUT01116
BN	2013/06/07	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.3	33.0-42.7	37.9	DMD-TOC-103-Mid
BN	2013/06/07	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	38.3	33.0-42.7	37.9	DMD-TOC-103-Mid
AFD	2013/06/05	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	0.872	0.72-0.88	0.800	CC-Anion-122BL
LL	2013/06/06	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	258	225-275	250.000	MS-CCV-HIGH
EL	2013/06/10	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	9.24	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65302

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/06/06	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	50.7	45-55	50.000	MS-CCV-HIGH
LL	2013/06/06	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	98.1	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/06	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	108	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/06/06	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.1	45-55	50.00000	MS-CCV-HIGH
LL	2013/06/06	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.2	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/06	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	50.9	45-55	50.000	MS-CCV-HIGH
LL	2013/06/06	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.5	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/06/06	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25600	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/06	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.4	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/06	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.4	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/06	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	51.2	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/06	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	53.3	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/06	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	98.4	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/06	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.5	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/06/06	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24900	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/06/06	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	51.4	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/10	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.254000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/06/06	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	48.5	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/06	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	50.6	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/06	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	258	225-275	250.00	MS-CCV-HIGH
LL	2013/06/06	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25900	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/06/06	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	50.3	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/06	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	119	105-129	117.00	MS-CCV-HIGH
LL	2013/06/06	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.7	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/06/06	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25700	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/06	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	49.9	45-55	50.000000	MS-CCV-HIGH
LL	2013/06/06	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	246	225-275	250.00000	MS-CCV-HIGH
LL	2013/06/06	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	252	225-275	250.0000	MS-CCV-HIGH
LL	2013/06/06	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	51.2	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/06	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	95.9	90-110	100.00000	MS-CCV-HIGH
LL	2013/06/06	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.2	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/06	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.9	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65302

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/06/07	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	50.6	45-55	50.000	MS-CCV-HIGH
LL	2013/06/07	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	99.6	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/07	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/06/07	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.2	45-55	50.00000	MS-CCV-HIGH
LL	2013/06/07	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	48.8	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/07	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	49.0	45-55	50.000	MS-CCV-HIGH
LL	2013/06/07	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	50.8	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/06/07	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25400	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/07	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	50.3	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/07	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	51.2	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/07	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.2	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/07	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	48.9	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/07	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	98.7	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/07	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	48.2	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/06/07	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24400	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/06/07	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	50.8	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/10	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.254000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/06/07	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	47.8	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/07	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	48.3	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/07	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	241	225-275	250.00	MS-CCV-HIGH
LL	2013/06/07	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25300	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/06/07	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	46.5	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/07	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	118	105-129	117.00	MS-CCV-HIGH
LL	2013/06/07	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.8	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/06/07	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/07	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	49.7	45-55	50.000000	MS-CCV-HIGH
LL	2013/06/07	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	247	225-275	250.00000	MS-CCV-HIGH
LL	2013/06/07	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	231	225-275	250.0000	MS-CCV-HIGH
LL	2013/06/07	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	51.1	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/07	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	97.5	90-110	100.00000	MS-CCV-HIGH
LL	2013/06/07	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	51.5	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/07	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	50.1	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/06/10	pH @ 25°C BC-D	--	APHA 4500H	0.01	6.99	6.98-7.02	7.00	pH-7

Analytical Comments

Project No. VE52277.2190.02

File No. EC-65302

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-68302
54

Chain of Custody Record/Analysis Request

ISSUING OFFICE:

Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater

Project Manager: Bruce Ott
Project Number: VES52277.2190.02

Sampler: Backwater
Phone No.: 604-294-3811
Task: 1L Bottle, 250 mL Jar, 40 mL Vial, 1L Polyethylene, 100 mL Amber, 250 mL Polyethylene, 125 mL Polyethylene

Client Sample ID

AMEC E & E Lab
Sample ID

Date Collected: YYYY/mm/dd
Matrix: water
Water potability
Total and ortho- Phosphorus
Cyanide (total and WAD)
TSS
Total and dissolved metals (Ultra ICP/MS)
Ammonia and TKN
Organic carbon (TOC, DOC)

Signature: [Signature]

Signature: [Signature]

Signature: [Signature]

Printed Name: C. McFadden

Printed Name: [Signature]

Printed Name: [Signature]

Firm: Avision Management Services

Firm: AMEC

Firm: [Signature]

Date/Time: 04/06/2013 15:00 PM

Date/Time: [Signature]

Date/Time: [Signature]

Signature: [Signature]

Signature: [Signature]

Signature: [Signature]

Printed Name: [Signature]

Printed Name: [Signature]

Printed Name: [Signature]

Firm: [Signature]

Firm: [Signature]

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Signature: [Signature]

Signature: [Signature]

Signature: [Signature]

Printed Name: [Signature]

Printed Name: [Signature]

Printed Name: [Signature]

Firm: [Signature]

Firm: [Signature]

Firm: [Signature]

QUOTED PRICE
 YES
 NO
Please attach a copy of the quote
Quote #: QN-521
Temperature Received: 6.8°C
Receiver's Comments:

Comments:
1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneel Lai (raneel.lai@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN-4 and CN-WAD using H2SO4 method.



Edmonton Chemistry Lab

EC-65381
51

Chain of Custody Record/Analysis Request

ISSUING OFFICE:

Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater

Sampler:

Phone No.: 604-294-3811

Task:

50% RUSH (Please Notify Lab Prior To Submission)

100% RUSH (Please Notify Lab Prior To Submission)

Quote #:

Temperature Received:

Receiver's Comments

YES

NO

QN-521

8.10c

Project Manager: Bruce Ott

Project Number: VE2277 2190.02

Phase:

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

Client Sample ID

AMEC E & E Lab Sample ID

Date Collected

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

WC3

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC5

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC8

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC10

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC11

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC12

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC15

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC16

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC26

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

Trip Blank

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC16

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

WC16

FOR LAB USE ONLY yyyy/mm/dd

Matrix

1L Bottle

250 mL Jar

40 mL Vial

1L Polyethylene

100 mL Amber

250 mL Polyethylene

125 mL Polyethylene

Water potability

Total and ortho- Phosphorus

Cyanide (total and WAD)

TSS

RELINQUISHED BY: Signature: C. McFadden
Printed Name: C. McFadden
Firm: Avison Management Services
Date/Time: 03/06/2013 14:00

RECEIVED BY: Signature: [Signature]
Printed Name: [Name]
Firm: AMEC
Date/Time: 03/06/2013 9:00

RELINQUISHED BY: Signature: [Signature]
Printed Name: [Name]
Firm: [Firm]
Date/Time: [Date/Time]

RECEIVED BY: Signature: [Signature]
Printed Name: [Name]
Firm: [Firm]
Date/Time: [Date/Time]

Comments:
1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneel Lai (raneel.lai@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN-1 and CN-WAD using H2SO4 method.

* ANOTHER SAMPLE TO FOLLOW



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTY CONNOR
5667 70 Street NW
EDMONTON AB T6B 3P6

Date Received: 06-JUN-13
Report Date: 18-JUN-13 14:49 (MT)
Version: FINAL

Client Phone: 780-940-4147

Certificate of Analysis

Lab Work Order #: L1312787
Project P.O. #: 2220
Job Reference: EC-65302
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1312787-1 WQ3~(13-5055) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-2 WQ5~(13-5056) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-3 WQ8~(13-5057) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-4 WQ10~(13-5058) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-5 WQ11~(13-5059) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-6 WQ12~(13-5060) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-7 WQ15~(13-5061) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-8 WQ16~(13-5062) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-9 WQ26~(13-5063) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1312787-9 WQ26~(13-5063) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		17-JUN-13	R2633406
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		17-JUN-13	R2633457
L1312787-10 TRIP BLANK~(13-5064) Sampled By: CLIENT on 06-JUN-13 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		17-JUN-13	R2633406
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		17-JUN-13	R2633457
L1312787-11 WQ6~(13-5065) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		17-JUN-13	R2633406
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		17-JUN-13	R2633457
L1312787-12 WQ7~(13-5066) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		17-JUN-13	R2633406
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		17-JUN-13	R2633457
L1312787-13 WQ9~(13-5067) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		17-JUN-13	R2633406
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		17-JUN-13	R2633457
L1312787-14 WQ14~(13-5068) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		17-JUN-13	R2633406
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		17-JUN-13	R2633457
L1312787-15 WQ1~(13-5069) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		17-JUN-13	R2633406
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		17-JUN-13	R2633457
L1312787-16 WQ4~(13-5070) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		17-JUN-13	R2633406
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		17-JUN-13	R2633457
L1312787-17 WQ13~(13-5071) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1312787-17 WQ13~(13-5071) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-18 DUPLICAT~(13-5072) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457
L1312787-19 FIELD BLANK~(13-5073) Sampled By: CLIENT on 04-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		17-JUN-13 17-JUN-13	R2633406 R2633457

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

- mg/kg - milligrams per kilogram based on dry weight of sample*
- mg/kg wwt - milligrams per kilogram based on wet weight of sample*
- mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight*
- mg/L - unit of concentration based on volume, parts per million.*
- < - Less than.*

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1312787

Report Date: 18-JUN-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: KRISTY CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2633406							
WG1690003-14	DUP	L1312719-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	17-JUN-13
WG1690003-19	DUP	L1313306-3						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	17-JUN-13
WG1690003-4	DUP	L1312787-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	17-JUN-13
WG1690003-13	IRM	ALS-TCN-IRM1						
Cyanide, Total			90.4		%		75-105	17-JUN-13
WG1690003-18	IRM	ALS-TCN-IRM1						
Cyanide, Total			81.2		%		75-105	17-JUN-13
WG1690003-23	IRM	ALS-TCN-IRM1						
Cyanide, Total			89.0		%		75-105	17-JUN-13
WG1690003-3	IRM	ALS-TCN-IRM1						
Cyanide, Total			87.4		%		75-105	17-JUN-13
WG1690003-8	IRM	ALS-TCN-IRM1						
Cyanide, Total			88.3		%		75-105	17-JUN-13
WG1690003-12	LCS							
Cyanide, Total			104.2		%		80-120	17-JUN-13
WG1690003-17	LCS							
Cyanide, Total			103.8		%		80-120	17-JUN-13
WG1690003-2	LCS							
Cyanide, Total			104.2		%		80-120	17-JUN-13
WG1690003-22	LCS							
Cyanide, Total			104.2		%		80-120	17-JUN-13
WG1690003-7	LCS							
Cyanide, Total			104.3		%		80-120	17-JUN-13
WG1690003-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	17-JUN-13
WG1690003-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	17-JUN-13
WG1690003-16	MB							
Cyanide, Total			<0.0050		mg/L		0.005	17-JUN-13
WG1690003-21	MB							
Cyanide, Total			<0.0050		mg/L		0.005	17-JUN-13
WG1690003-6	MB							
Cyanide, Total			<0.0050		mg/L		0.005	17-JUN-13
WG1690003-15	MS	L1312719-4						
Cyanide, Total			97.7		%		70-130	17-JUN-13



Quality Control Report

Workorder: L1312787

Report Date: 18-JUN-13

Page 2 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: KRISTY CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2633406							
WG1690003-20 MS		L1313306-3						
Cyanide, Total			89.9		%		70-130	17-JUN-13
WG1690003-5 MS		L1312787-4						
Cyanide, Total			101.1		%		70-130	17-JUN-13
CN-WAD-CFA-VA								
	Water							
Batch	R2633457							
WG1690005-11 DUP		L1312719-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	17-JUN-13
WG1690005-15 DUP		L1313306-3						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	17-JUN-13
WG1690005-3 DUP		L1312787-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	17-JUN-13
WG1690005-10 LCS								
Cyanide, Weak Acid Diss			102.9		%		80-120	17-JUN-13
WG1690005-14 LCS								
Cyanide, Weak Acid Diss			102.5		%		80-120	17-JUN-13
WG1690005-18 LCS								
Cyanide, Weak Acid Diss			101.4		%		80-120	17-JUN-13
WG1690005-2 LCS								
Cyanide, Weak Acid Diss			102.8		%		80-120	17-JUN-13
WG1690005-6 LCS								
Cyanide, Weak Acid Diss			103.0		%		80-120	17-JUN-13
WG1690005-1 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	17-JUN-13
WG1690005-13 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	17-JUN-13
WG1690005-17 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	17-JUN-13
WG1690005-5 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	17-JUN-13
WG1690005-9 MB								
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	17-JUN-13
WG1690005-12 MS		L1312719-4						
Cyanide, Weak Acid Diss			99.0		%		70-130	17-JUN-13
WG1690005-16 MS		L1313306-3						
Cyanide, Weak Acid Diss			95.2		%		70-130	17-JUN-13
WG1690005-4 MS		L1312787-4						
Cyanide, Weak Acid Diss			102.0		%		70-130	17-JUN-13

Quality Control Report

Workorder: L1312787

Report Date: 18-JUN-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE

5667 70 Street NW

EDMONTON AB T6B 3P6

Page 3 of 3

Contact: KRISTY CONNOR

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-65302	WQ3	13-5055-	2013/06/06	Water
EC-65302	WQ5	13-5056-	2013/06/06	Water
EC-65302	WQ8	13-5057-	2013/06/06	Water
EC-65302	WQ10	13-5058-	2013/06/06	Water
EC-65302	WQ11	13-5059-	2013/06/06	Water
EC-65302	WQ12	13-5060-	2013/06/06	Water
EC-65302	WQ15	13-5061-	2013/06/06	Water
EC-65302	WQ16	13-5062-	2013/06/06	Water
EC-65302	WQ26	13-5063-	2013/06/06	Water
EC-65302	Trip Blank	13-5064-	2013/06/06	Water
EC-65302	WQ6	13-5065-	2013/06/04	Water
EC-65302	WQ7	13-5066-	2013/06/04	Water
EC-65302	WQ9	13-5067-	2013/06/04	Water
EC-65302	WQ14	13-5068-	2013/06/04	Water
EC-65302	WQ1	13-5069-	2013/06/04	Water
EC-65302	WQ4	13-5070-	2013/06/04	Water
EC-65302	WQ13	13-5071-	2013/06/04	Water
EC-65302	Duplicate	13-5072-	2013/06/04	Water
EC-65302	Field Blank	13-5073-	2013/06/04	Water



L1312787-COFC

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65342
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/06/11
Date of Report: 2013/06/20
Sublet Data: Attached

Report reviewed by:



Jesse Dang, B.Sc.
Manager
Laboratory Services



Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5353	13-5354	13-5355	13-5356
					Client ID:	WQ3	WQ5	WQ8	WQ10
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	26	11	64	13
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.062	0.029	0.132	0.032
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.07	0.05	0.07	0.04
AFD	2013/06/11	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.096	0.019	0.019	0.019
AFD	2013/06/11	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/11	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.1	< 0.5	3.4	0.8
EL	2013/06/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	60	40	80	48
EL	2013/06/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	< 2	10	< 2
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	1.7	1.7	4.3	1.8
AFD	2013/06/11	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5357	13-5358	13-5359	13-5360
					Client ID:	WQ11	WQ12	WQ15	WQ16
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	16	15	16	18
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.039	0.036	0.041	0.042
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.03	0.03
AFD	2013/06/11	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.015	0.016	0.010	0.016
AFD	2013/06/11	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/11	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	0.7	0.8	1.0
EL	2013/06/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	48	40	76	28
EL	2013/06/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	6
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	2.4	1.6	2.1	2.0
AFD	2013/06/11	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.2	0.2	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5361	13-5362	13-5363	13-5364
					Client ID:	WQ26	WQ13	Trip Blank	WQ6
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/11 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	21	58	< 1	12
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.044	0.162	< 0.001	0.036
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	< 0.02	0.03
AFD	2013/06/11	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.014	< 0.005	0.009	0.027
AFD	2013/06/11	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/11	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.9	3.7	< 0.5	0.8
EL	2013/06/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	36	128	< 4	40
EL	2013/06/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	7	< 2	< 2
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	2.3	2.3	1.3	1.2
AFD	2013/06/11	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	12.2	< 0.1	1.5

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5365	13-5366	13-5367	13-5368
					Client ID:	WQ7	WQ9	WQ14	WQ1
					Sample Date:	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	23	56	58	4
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.055	0.124	0.125	0.018
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.06	0.06	0.02
AFD	2013/06/11	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.056	0.045	0.055	0.029
AFD	2013/06/11	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/11	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.0	3.0	1.8	0.7
EL	2013/06/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	80	112	112	40
EL	2013/06/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	6	7	< 2	< 2
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	1.9	2.5	1.4	1.2
AFD	2013/06/11	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.1	0.8	0.9	0.6

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5369	13-5370	13-5371
					Client ID:	WQ4	Duplicate	Field Blank
					Sample Date:	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00
					MDL			
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	13	59	< 1
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.065	0.123	0.001
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.05	< 0.02
AFD	2013/06/11	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.038	0.026	< 0.005
AFD	2013/06/11	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/11	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	9.8	1.7	< 0.5
EL	2013/06/17	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	60	104	4
EL	2013/06/17	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	0.9	1.2	0.7
AFD	2013/06/11	Chloride-D	mg/L (ppm)	APHA 4110	0.1	1.6	0.5	< 0.1

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5353	13-5353-D	13-5354	13-5355
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/10 0:00	Lab Duplicate	2013/06/10 0:00	2013/06/10 0:00
					MDL				
EL	2013/06/13	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.6	7.8	11.1	8.2
BN	2013/06/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.0	7.8	11.2	8.6
AFD	2013/06/11	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
LL	2013/06/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	---	< 0.001	< 0.001
EL	2013/06/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	---	0.10	0.18

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5356	13-5357	13-5358	13-5359
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00
					MDL				
EL	2013/06/13	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.1	15.8	8.7	9.3
BN	2013/06/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.1	16.1	8.7	9.4
AFD	2013/06/11	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.13	0.09	0.08

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5360	13-5361	13-5362	13-5363
					Client ID:	WQ16	WQ26	WQ13	Trip Blank
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00
					MDL				
EL	2013/06/13	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.2	7.9	8.4	< 0.1
BN	2013/06/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.5	7.9	8.5	< 0.1
AFD	2013/06/11	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.25	0.09	0.18	< 0.08

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5364	13-5365	13-5366	13-5367
					Client ID:	WQ6	WQ7	WQ9	WQ14
					Sample Date:	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00
					MDL				
EL	2013/06/13	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.3	8.0	8.3	10.0
BN	2013/06/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.3	8.0	8.4	10.0
AFD	2013/06/11	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	0.09	0.20	0.17

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5368	13-5369	13-5370	13-5371
					Client ID:	WQ1	WQ4	Duplicate	Field Blank
					Sample Date:	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00
					MDL				
EL	2013/06/13	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.0	9.4	10.1	< 0.1
BN	2013/06/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.1	9.4	10.2	< 0.1
AFD	2013/06/11	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
EL	2013/06/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.13	0.27	0.23	< 0.08

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5353	13-5353-D	13-5354	13-5355
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/10 0:00	Lab Duplicate	2013/06/10 0:00	2013/06/10 0:00
					MDL				
LL	2013/06/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.116	0.124	0.191	0.044
LL	2013/06/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00009	< 0.00005	< 0.00005
LL	2013/06/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	0.0008	< 0.0001	0.0003
LL	2013/06/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00449	0.00456	0.00313	0.00619
LL	2013/06/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.001
LL	2013/06/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.8	7.9	3.7	20.2
LL	2013/06/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0005	0.0005	< 0.0003	< 0.0003
LL	2013/06/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00005	0.00003	0.00004
LL	2013/06/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0003	< 0.0001
LL	2013/06/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1310	0.1360	0.1050	0.0764
LL	2013/06/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.68	1.66	0.92	4.43
LL	2013/06/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00689	0.00683	0.00478	0.02100
LL	2013/06/17	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00045	0.00037	0.00009	0.00054
LL	2013/06/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	0.00017	0.00016	0.00023
LL	2013/06/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.04	0.05	0.01	0.05
LL	2013/06/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
LL	2013/06/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.52	5.65	3.74	3.32
LL	2013/06/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.5	2.4	1.7	3.3
LL	2013/06/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.051900	0.051900	0.026300	0.098400
LL	2013/06/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0028	0.0030	0.0025	0.0016
LL	2013/06/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	0.00014	0.00008	0.00009
LL	2013/06/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0015	0.0014	0.0009	< 0.0005
AFD	2013/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	26.4	26.5	13.0	68.7

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5356	13-5357	13-5358	13-5359
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00
					MDL				
LL	2013/06/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.151	0.388	0.099	0.088
LL	2013/06/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00006
LL	2013/06/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00463	0.00669	0.00563	0.00824
LL	2013/06/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.5	6.7	5.7	6.7
LL	2013/06/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00005	0.00003	0.00002
LL	2013/06/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0001	0.0005	0.0001	0.0002
LL	2013/06/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0875	0.1700	0.1000	0.1170
LL	2013/06/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.79	1.12	0.86	0.84
LL	2013/06/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00530	0.00314	0.01090	0.01870
LL	2013/06/17	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00024	0.00009	0.00042	0.00058
LL	2013/06/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00019	0.00025	0.00010	0.00007
LL	2013/06/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	< 0.01	< 0.01	0.01
LL	2013/06/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.19	4.82	2.96	2.39
LL	2013/06/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.9	1.5	1.4
LL	2013/06/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.033600	0.043700	0.044000	0.066100
LL	2013/06/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0020	0.0053	0.0016	0.0011
LL	2013/06/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00017	0.00022	0.00020
LL	2013/06/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0007	< 0.0005	0.0015	0.0014
AFD	2013/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	14.6	21.2	17.8	20.2

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5360	13-5361	13-5362	13-5363
					Client ID:	WQ16	WQ26	WQ13	Trip Blank
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00
					MDL				
LL	2013/06/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.183	0.128	0.047	< 0.002
LL	2013/06/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00005	0.00005	< 0.00005
LL	2013/06/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0001	0.0002	< 0.0001
LL	2013/06/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00619	0.00514	0.00676	< 0.00005
LL	2013/06/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000126	0.000016	0.000221	< 0.000015
LL	2013/06/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.0	6.6	18.0	< 0.5
LL	2013/06/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00006	0.00004	0.00004	< 0.00002
LL	2013/06/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0002	< 0.0001	< 0.0001
LL	2013/06/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.3870	0.0925	0.1120	< 0.0001
LL	2013/06/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00019	0.00006	< 0.00005	< 0.00005
LL	2013/06/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.04	1.19	3.92	< 0.50
LL	2013/06/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.07860	0.00706	0.01980	< 0.00005
LL	2013/06/17	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00087	0.00032	0.00056	< 0.00005
LL	2013/06/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00020	0.00035	< 0.00005
LL	2013/06/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.06	0.01	0.01	< 0.01
LL	2013/06/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.7	< 0.5
LL	2013/06/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.88	4.29	3.67	< 0.01
LL	2013/06/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.9	3.0	< 0.5
LL	2013/06/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.041200	0.043300	0.090600	< 0.000005
LL	2013/06/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0032	0.0019	0.0018	< 0.0002
LL	2013/06/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00070	0.00016	0.00010	< 0.00005
LL	2013/06/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	0.0013	0.0020	< 0.0005
AFD	2013/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	19.2	21.5	61.2	< 6.0

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5364	13-5365	13-5366	13-5367
					Client ID:	WQ6	WQ7	WQ9	WQ14
					Sample Date:	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00
					MDL				
LL	2013/06/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.106	0.123	0.050	0.011
LL	2013/06/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00006	< 0.00005	< 0.00005
LL	2013/06/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0001	0.0003	< 0.0001
LL	2013/06/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00439	0.00585	0.00689	0.00938
LL	2013/06/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.001
LL	2013/06/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.3	7.6	18.8	19.4
LL	2013/06/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	0.0004	< 0.0003
LL	2013/06/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00006	0.00006	0.00004
LL	2013/06/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0002	0.0002	< 0.0001
LL	2013/06/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0751	0.1380	0.1150	0.1630
LL	2013/06/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00005	< 0.00005	0.00046
LL	2013/06/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.64	1.52	3.89	3.76
LL	2013/06/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00526	0.01130	0.01790	0.00842
LL	2013/06/17	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00032	0.00035	0.00057	0.00045
LL	2013/06/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00024	0.00027	0.00026
LL	2013/06/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.7	< 0.5
LL	2013/06/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.02	4.40	3.54	5.11
LL	2013/06/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.6	2.1	3.0	3.2
LL	2013/06/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.032700	0.049000	0.091800	0.098900
LL	2013/06/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0018	0.0028	0.0019	0.0009
LL	2013/06/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00013	0.00010	0.00006
LL	2013/06/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0007	< 0.0005	0.0011	0.0005
AFD	2013/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	13.3	25.3	62.9	63.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5368	13-5369	13-5370	13-5371
					Client ID:	WQ1	WQ4	Duplicate	Field Blank
					Sample Date:	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00
					MDL				
LL	2013/06/17	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.213	0.099	0.015	< 0.002
LL	2013/06/17	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00020	< 0.00005	< 0.00005
LL	2013/06/17	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	0.0015	< 0.0001	< 0.0001
LL	2013/06/17	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00225	0.00334	0.00949	< 0.00005
LL	2013/06/17	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	0.001	< 0.001
LL	2013/06/17	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000024	0.000113	0.000019	< 0.000015
LL	2013/06/17	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.8	7.5	18.9	< 0.5
LL	2013/06/17	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/17	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	< 0.00002	0.00002	< 0.00002
LL	2013/06/17	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0003	< 0.0001	< 0.0001
LL	2013/06/17	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0854	0.0564	0.1620	< 0.0001
LL	2013/06/17	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/17	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	1.22	3.75	< 0.50
LL	2013/06/17	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00434	0.00297	0.00863	< 0.00005
LL	2013/06/17	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/17	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00012	0.00044	< 0.00005
LL	2013/06/17	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00020	0.00036	0.00027	< 0.00005
LL	2013/06/17	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/17	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.9	< 0.5	< 0.5
LL	2013/06/17	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0002	< 0.0001
LL	2013/06/17	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.92	4.48	5.00	< 0.01
LL	2013/06/17	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00008	< 0.00005	< 0.00005
LL	2013/06/17	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.4	3.5	3.2	< 0.5
LL	2013/06/17	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.016300	0.044300	0.099000	< 0.000005
LL	2013/06/17	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/17	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0025	0.0013	0.0007	< 0.0002
LL	2013/06/17	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	< 0.00005	0.00005	< 0.00005
LL	2013/06/17	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/17	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0027	0.0371	< 0.0005	< 0.0005
AFD	2013/06/18	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	23.7	62.7	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5353	13-5353-D	13-5354	13-5355
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/10 0:00	Lab Duplicate	2013/06/10 0:00	2013/06/10 0:00
					MDL				
LL	2013/06/14	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.093	0.093	0.174	0.011
LL	2013/06/14	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0003	0.0003	< 0.0001	0.0002
LL	2013/06/14	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00406	0.00390	0.00295	0.00562
LL	2013/06/14	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/14	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.7	7.7	3.7	19.6
LL	2013/06/14	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	0.0005	0.0005	< 0.0003	< 0.0003
LL	2013/06/14	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00004	0.00003	< 0.00002
LL	2013/06/14	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0003	< 0.0001
LL	2013/06/14	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0966	0.0951	0.0969	0.0215
LL	2013/06/14	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.68	1.66	0.92	4.43
LL	2013/06/14	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00316	0.00315	0.00292	0.00164
LL	2013/06/17	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/14	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00033	0.00033	0.00009	0.00048
LL	2013/06/14	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00017	0.00016	0.00023
LL	2013/06/14	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/14	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
LL	2013/06/14	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.83	4.88	3.14	2.74
LL	2013/06/14	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.5	2.4	1.7	3.3
LL	2013/06/14	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.049400	0.048600	0.024800	0.091700
LL	2013/06/14	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0019	0.0019	0.0014	0.0004
LL	2013/06/14	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00012	0.00012	0.00008	0.00009
LL	2013/06/14	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0015	0.0014	0.0009	< 0.0005
AFD	2013/06/18	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.42	---	7.03	7.90
AFD	2013/06/18	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	26.3	26.0	13.0	67.2

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5356	13-5357	13-5358	13-5359
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00
					MDL				
LL	2013/06/14	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.135	0.388	0.089	0.069
LL	2013/06/14	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00430	0.00635	0.00530	0.00809
LL	2013/06/14	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/14	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	4.4	6.3	5.6	6.6
LL	2013/06/14	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/14	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00005	0.00003	< 0.00002
LL	2013/06/14	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	0.0005	0.0001	0.0002
LL	2013/06/14	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0705	0.1630	0.0842	0.0824
LL	2013/06/14	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.79	1.12	0.86	0.84
LL	2013/06/14	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00253	0.00235	0.00803	0.00825
LL	2013/06/17	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/14	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00023	0.00009	0.00038	0.00050
LL	2013/06/14	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00025	0.00010	0.00007
LL	2013/06/14	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/14	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/14	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.49	4.10	2.44	2.00
LL	2013/06/14	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	1.9	1.5	1.4
LL	2013/06/14	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.031900	0.040200	0.041600	0.061800
LL	2013/06/14	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0013	0.0053	0.0012	0.0008
LL	2013/06/14	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	0.00017	0.00022	0.00018
LL	2013/06/14	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0007	< 0.0005	0.0015	0.0014
AFD	2013/06/18	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.16	7.25	7.23	7.25
AFD	2013/06/18	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	14.4	20.3	17.5	20.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5360	13-5361	13-5362	13-5363
					Client ID:	WQ16	WQ26	WQ13	Trip Blank
					Sample Date:	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00	2013/06/10 0:00
					MDL				
LL	2013/06/14	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.021	0.098	0.024	< 0.002
LL	2013/06/14	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0001	0.0001	0.0002	< 0.0001
LL	2013/06/14	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00279	0.00480	0.00653	< 0.00005
LL	2013/06/14	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000221	< 0.000015
LL	2013/06/14	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.6	6.2	17.8	< 0.5
LL	2013/06/14	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/14	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00002	0.00003	< 0.00002
LL	2013/06/14	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0002	< 0.0001	< 0.0001
LL	2013/06/14	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0210	0.0600	0.0684	< 0.0001
LL	2013/06/14	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.04	1.19	3.92	< 0.50
LL	2013/06/14	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00277	0.00308	0.01440	< 0.00005
LL	2013/06/17	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/14	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00071	0.00028	0.00049	< 0.00005
LL	2013/06/14	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00020	0.00035	< 0.00005
LL	2013/06/14	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/14	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.6	< 0.5
LL	2013/06/14	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.39	3.60	3.07	< 0.01
LL	2013/06/14	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	1.9	3.0	< 0.5
LL	2013/06/14	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.037100	0.040800	0.084700	< 0.000005
LL	2013/06/14	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0011	0.0009	< 0.0002
LL	2013/06/14	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00031	0.00015	0.00009	< 0.00005
LL	2013/06/14	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	0.0013	0.0020	< 0.0005
AFD	2013/06/18	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.34	7.40	7.81	5.78
AFD	2013/06/18	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	18.3	20.4	60.5	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5364	13-5365	13-5366	13-5367
					Client ID:	WQ6	WQ7	WQ9	WQ14
					Sample Date:	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00
					MDL				
LL	2013/06/14	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.090	0.076	0.020	0.008
LL	2013/06/14	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	< 0.0001	0.0003	< 0.0001
LL	2013/06/14	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00439	0.00503	0.00642	0.00922
LL	2013/06/14	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/14	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	4.2	7.2	17.7	18.7
LL	2013/06/14	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/14	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00003	0.00003	0.00002
LL	2013/06/14	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0002	0.0002	< 0.0001
LL	2013/06/14	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0553	0.0746	0.0630	0.1230
LL	2013/06/14	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00046
LL	2013/06/14	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.64	1.52	3.89	3.76
LL	2013/06/14	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00313	0.00712	0.01300	0.00504
LL	2013/06/17	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/14	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00032	0.00030	0.00046	0.00043
LL	2013/06/14	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00022	0.00024	0.00027	0.00026
LL	2013/06/14	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/14	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	0.6	< 0.5
LL	2013/06/14	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.39	3.70	2.99	4.24
LL	2013/06/14	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.6	2.1	3.0	3.2
LL	2013/06/14	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.030900	0.044800	0.084800	0.090100
LL	2013/06/14	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0010	0.0009	0.0006	0.0004
LL	2013/06/14	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00021	0.00013	0.00010	0.00005
LL	2013/06/14	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0007	< 0.0005	0.0011	0.0005
AFD	2013/06/18	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.16	7.46	7.81	7.74
AFD	2013/06/18	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	13.1	24.2	60.3	62.2

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65342

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5368	13-5369	13-5370	13-5371
					Client ID:	WQ1	WQ4	Duplicate	Field Blank
					Sample Date:	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00	2013/06/11 0:00
					MDL				
LL	2013/06/14	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.197	0.099	0.009	< 0.002
LL	2013/06/14	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0015	< 0.0001	< 0.0001
LL	2013/06/14	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00216	0.00332	0.00949	< 0.00005
LL	2013/06/14	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000020	0.000113	0.000019	< 0.000015
LL	2013/06/14	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	7.4	18.9	< 0.5
LL	2013/06/14	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/14	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	< 0.00002	0.00002	< 0.00002
LL	2013/06/14	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0002	0.0003	< 0.0001	< 0.0001
LL	2013/06/14	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0764	0.0564	0.1250	< 0.0001
LL	2013/06/14	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/14	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	1.22	3.75	< 0.50
LL	2013/06/14	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00270	0.00273	0.00504	< 0.00005
LL	2013/06/17	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/14	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00009	0.00044	< 0.00005
LL	2013/06/14	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00020	0.00036	0.00027	< 0.00005
LL	2013/06/14	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/14	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.8	< 0.5	< 0.5
LL	2013/06/14	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.16	3.73	4.19	< 0.01
LL	2013/06/14	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.4	3.5	3.2	< 0.5
LL	2013/06/14	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.015200	0.040400	0.090800	< 0.000005
LL	2013/06/14	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/14	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0015	0.0010	0.0003	< 0.0002
LL	2013/06/14	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	< 0.00005	0.00005	< 0.00005
LL	2013/06/14	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/14	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0027	0.0371	< 0.0005	< 0.0005
AFD	2013/06/18	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.66	7.05	7.73	5.78
AFD	2013/06/18	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	23.5	62.7	< 6.0

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65342

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/06/18	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	58	53-72	63	QC-ALK/F-58
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.75	2.54-2.94	2.790	CC-EC-0.02M-50
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.48	0.44-0.58	0.50	QC-AIK/F-58
AFD	2013/06/11	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.050	1.70	1.44-1.76	1.600	CC-Anion-123B
AFD	2013/06/11	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.619	0.54-0.66	0.600	CC-Anion-122B
AFD	2013/06/11	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	26.7	25.2-30.8	28.0	CC-Anion-122B
EL	2013/06/17	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-c	2	764	628-1059	844	QCP-SLD02008
EL	2013/06/17	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	34	26-36	31	QCP-SLD 02008
AFD	2013/06/19	Turbidity	NTU	APHA 2130-b	0.1	9.8	8.5-11.5	10.0	QC-Turb-10
AFD	2013/06/11	Chloride-D	mg/L (ppm)	APHA 4110	0.1	3.9	3.6-4.4	4.0	CC-Anion-122B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/06/13	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.54	0.394-0.615	0.50	F2NUT01116
BN	2013/06/18	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	37.4	33.0-42.7	37.9	DMD-TOC-103-Mid
BN	2013/06/18	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	37.4	33.0-42.7	37.9	DMD-TOC-103-Mid
AFD	2013/06/11	Phosphate-Ortho-DLL	mg/l (ppm)	APHA 4110	0.003	0.822	0.72-0.88	0.800	CC-Anion-123BL
LL	2013/06/17	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	259	225-275	250.000	MS-CCV-HIGH
EL	2013/06/17	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	8.88	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65342

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/06/17	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	48.0	45-55	50.000	MS-CCV-HIGH
LL	2013/06/17	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	99.2	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/17	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	105	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/06/17	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.6	45-55	50.00000	MS-CCV-HIGH
LL	2013/06/17	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.2	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/17	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	50.7	45-55	50.000	MS-CCV-HIGH
LL	2013/06/17	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.3	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/06/17	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	26100	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/17	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	49.1	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/17	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	50.4	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/17	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	51.8	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/17	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	52.9	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/17	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/17	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	46.6	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/06/17	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	23900	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/06/17	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	50.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/17	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.272000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/06/17	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	50.7	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/17	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	52.9	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/17	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	227	225-275	250.00	MS-CCV-HIGH
LL	2013/06/17	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	27100	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/06/17	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	53.0	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/17	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	115	105-129	117.00	MS-CCV-HIGH
LL	2013/06/17	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	13.1	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/06/17	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	24600	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/17	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	51.8	45-55	50.000000	MS-CCV-HIGH
LL	2013/06/17	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	257	225-275	250.00000	MS-CCV-HIGH
LL	2013/06/17	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	255	225-275	250.0000	MS-CCV-HIGH
LL	2013/06/17	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.9	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/17	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	98.0	90-110	100.00000	MS-CCV-HIGH
LL	2013/06/17	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.8	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/17	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	50.8	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65342

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/06/14	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	49.9	45-55	50.000	MS-CCV-HIGH
LL	2013/06/14	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	98.7	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/14	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	103	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/06/14	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.7	45-55	50.00000	MS-CCV-HIGH
LL	2013/06/14	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	49.7	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/14	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	52.9	45-55	50.000	MS-CCV-HIGH
LL	2013/06/14	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	51.1	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/06/14	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25400	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/14	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	50.9	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/14	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	52.2	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/14	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	51.5	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/14	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	52.4	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/14	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	99.0	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/14	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	45.1	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/06/14	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24600	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/06/14	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	51.2	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/17	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.272000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/06/14	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	48.8	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/14	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/14	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	249	225-275	250.00	MS-CCV-HIGH
LL	2013/06/14	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/06/14	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	50.8	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/14	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	112	105-129	117.00	MS-CCV-HIGH
LL	2013/06/14	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	13.0	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/06/14	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/14	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	50.5	45-55	50.000000	MS-CCV-HIGH
LL	2013/06/14	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	244	225-275	250.00000	MS-CCV-HIGH
LL	2013/06/14	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	251	225-275	250.0000	MS-CCV-HIGH
LL	2013/06/14	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	51.5	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/14	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	97.3	90-110	100.00000	MS-CCV-HIGH
LL	2013/06/14	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/14	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	50.6	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/06/18	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.00	5.94-6.06	6.00	QC-pH-9

Analytical Comments

Project No. VE52277.2190.02

File No. EC-65342

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EC-65342

Chain of Custody Record/Analysis Request

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

ISSUING OFFICE: Burnaby, BC

Project Name: NewGold Blackwater

Project Manager: Bruce Ott

Project Number: VES2277.2190.02

Sampler: 604-294-3811

Phone No.:

Task:

Phase:

Client Sample ID

AMEC E & E Lab Sample ID

Date Collected

Matrix

FOR LAB USE ONLY

1L Bottle
250 mL Jar
40 mL Vial
1L Polyethylene
100 mL Amber
250 mL Polyethylene
125 mL Polyethylene

Water potability
Total and ortho- Phosphorus
Cyanide (total and WAD)
TSS
Total and dissolved metals (Ultra ICP/MS)
Ammonia and TKN
Organic carbon (TOC, DOC)

50% RUSH (Please Notify Lab Prior To Submission)
100% RUSH (Please Notify Lab Prior To Submission)

YES
 NO
Please attach a copy of the quote

Quote #: QN-521

Temperature Received: 6.4°C

Receiver's Comments

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)
WQ3	13-5353	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ5	4	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ8	5	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ10	6	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ11	7	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ12	8	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ15	9	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ16	60	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ 26	1	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
WQ 13	2	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		
Trip Blank	3	6/10/2013	water				2	1	1	2	X	X	X	X	X	X	X		

RELINQUISHED BY:

Signature:

Signature:

Signature:

RELINQUISHED BY:

Signature:

RELINQUISHED BY:

Signature:

Printed Name:

Printed Name:

Printed Name:

Printed Name:

Firm:

Firm:

Firm:

Firm:

Avison Management Services

Date/Time: 6/10/2013 15:00

Date/Time: 11/5/13 8:49

Date/Time:

Date/Time:

Comments:

1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Rane Lal (rane.lal@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN-4 and CN-WAD using H2SO4 method.



Edmonton Chemistry Lab

EC-65312
77

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

Project Name: NewGold Blackwater
 Project Manager: Bruce Ott
 Project Number: VE52277 2190.02

Sampler: Phone No.: 604-294-3811
 Blackwater
 Task: Surface Water

Client Sample ID: AMEC E & E Lab Sample ID
 Date Collected: YYYY/mm/dd
 Matrix: 1L Bottle, 250 mL Jar, 40 mL Vial, 1L Polyethylene, 100 mL Amber, 250 mL Polyethylene, 125 mL Polyethylene

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	Receiver's Comments
WQ6	654	6/1/2013	water								X	X	X	X	X	X	X			
WQ7	655	6/1/2013	water								X	X	X	X	X	X	X			
WQ9	656	6/1/2013	water								X	X	X	X	X	X	X			
WQ14	657	6/1/2013	water								X	X	X	X	X	X	X			
WQ1	658	6/1/2013	water								X	X	X	X	X	X	X			
WQ4	659	6/1/2013	water								X	X	X	X	X	X	X			
Duplicate	660	6/1/2013	water								X	X	X	X	X	X	X			
Field Blank	661	6/1/2013	water								X	X	X	X	X	X	X			

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: L. Nordin Printed Name: Printed Name: Printed Name:

Firm: Avison Management Services Firm: Firm: Firm:

Date/Time: 6/1/2013 15:00 PM Date/Time: 19 June 13 8:35 Date/Time: Date/Time:

Comments:
 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneel Lal (raneel.lal@amec.com)
 2) Please use Low Level nitrate and nitrite
 3) Please analyze CN- and CN-WAD using H2SO4 method.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 12-JUN-13
Report Date: 20-JUN-13 14:28 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1315720
Project P.O. #: 2220
Job Reference: EC-65342
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1315720-1 WQ3~13-5353 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		19-JUN-13	R2635164
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		19-JUN-13	R2635183
L1315720-2 WQ5~53-5354 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		19-JUN-13	R2635164
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		19-JUN-13	R2635183
L1315720-3 WQ8~13-5355 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		19-JUN-13	R2635164
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		19-JUN-13	R2635183
L1315720-4 WQ10~13-5356 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		19-JUN-13	R2635164
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		19-JUN-13	R2635183
L1315720-5 WQ11~13-5357 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		19-JUN-13	R2635164
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		19-JUN-13	R2635183
L1315720-6 WQ12~13-5358 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		19-JUN-13	R2635164
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		19-JUN-13	R2635183
L1315720-7 WQ15~13-5359 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		19-JUN-13	R2635164
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		19-JUN-13	R2635183
L1315720-8 WQ16~13-5360 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		19-JUN-13	R2635164
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		19-JUN-13	R2635183
L1315720-9 WQ26~13-5361 Sampled By: CLIENT Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1315720-9 WQ26~13-5361 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-10 WQ13~13-5362 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-11 TRIP BLANK~13-5363 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-12 WQ6~13-5364 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-13 WQ7~13-5365 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-14 WQ9~13-5366 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-15 WQ14~13-5367 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-16 WQ1~13-5368 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-17 WQ4~13-5369 Sampled By: CLIENT Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1315720-17 WQ4~13-5369 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-18 DUPLICATE~13-5370 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183
L1315720-19 FIELD BLANK~13-5371 Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		19-JUN-13 19-JUN-13	R2635164 R2635183

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1315720

Report Date: 20-JUN-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2635164							
WG1691822-14	DUP	L1315720-13						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-13
WG1691822-4	DUP	L1313237-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-13
WG1691822-13	IRM	ALS-TCN-IRM1						
Cyanide, Total			89.2		%		75-105	19-JUN-13
WG1691822-3	IRM	ALS-TCN-IRM1						
Cyanide, Total			89.0		%		75-105	19-JUN-13
WG1691822-8	IRM	ALS-TCN-IRM1						
Cyanide, Total			89.6		%		75-105	19-JUN-13
WG1691822-12	LCS							
Cyanide, Total			103.8		%		80-120	19-JUN-13
WG1691822-17	LCS							
Cyanide, Total			86.2		%		80-120	19-JUN-13
WG1691822-2	LCS							
Cyanide, Total			105.4		%		80-120	19-JUN-13
WG1691822-7	LCS							
Cyanide, Total			105.2		%		80-120	19-JUN-13
WG1691822-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	19-JUN-13
WG1691822-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	19-JUN-13
WG1691822-6	MB							
Cyanide, Total			<0.0050		mg/L		0.005	19-JUN-13
WG1691822-5	MS	L1313237-1						
Cyanide, Total			97.2		%		70-130	19-JUN-13
CN-WAD-CFA-VA		Water						
Batch	R2635183							
WG1691826-11	DUP	L1315720-13						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-13
WG1691826-3	DUP	L1313237-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	19-JUN-13
WG1691826-10	LCS							
Cyanide, Weak Acid Diss			104.6		%		80-120	19-JUN-13
WG1691826-14	LCS							
Cyanide, Weak Acid Diss			101.0		%		80-120	19-JUN-13
WG1691826-2	LCS							
Cyanide, Weak Acid Diss			105.2		%		80-120	19-JUN-13



Quality Control Report

Workorder: L1315720

Report Date: 20-JUN-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA								
	Water							
Batch	R2635183							
WG1691826-6	LCS							
Cyanide, Weak Acid Diss			103.1		%		80-120	19-JUN-13
WG1691826-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	19-JUN-13
WG1691826-13	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	19-JUN-13
WG1691826-5	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	19-JUN-13
WG1691826-9	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	19-JUN-13
WG1691826-12	MS	L1315720-13						
Cyanide, Weak Acid Diss			98.7		%		70-130	19-JUN-13
WG1691826-4	MS	L1313237-1						
Cyanide, Weak Acid Diss			99.3		%		70-130	19-JUN-13

Quality Control Report

Workorder: L1315720

Report Date: 20-JUN-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-65342	WQ3	13-5353-	2013/06/10	Water
EC-65342	WQ5	13-5354-	2013/06/10	Water
EC-65342	WQ8	13-5355-	2013/06/10	Water
EC-65342	WQ10	13-5356-	2013/06/10	Water
EC-65342	WQ11	13-5357-	2013/06/10	Water
EC-65342	WQ12	13-5358-	2013/06/10	Water
EC-65342	WQ15	13-5359-	2013/06/10	Water
EC-65342	WQ16	13-5360-	2013/06/10	Water
EC-65342	WQ26	13-5361-	2013/06/10	Water
EC-65342	WQ13	13-5362-	2013/06/10	Water
EC-65342	Trip Blank	13-5363-	2013/06/10	Water
EC-65342	WQ6	13-5364-	2013/06/11	Water
EC-65342	WQ7	13-5365-	2013/06/11	Water
EC-65342	WQ9	13-5366-	2013/06/11	Water
EC-65342	WQ14	13-5367-	2013/06/11	Water
EC-65342	WQ1	13-5368-	2013/06/11	Water
EC-65342	WQ4	13-5369-	2013/06/11	Water
EC-65342	Duplicate	13-5370-	2013/06/11	Water
EC-65342	Field Blank	13-5371-	2013/06/11	Water



L1315720-COFC

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65391
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/06/18
Date of Report: 2013/07/02
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5922	13-5922-D	13-5923	13-5924
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/17 0:00	Lab Duplicate	2013/06/17 0:00	2013/06/17 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	25	26	11	62
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.055	0.055	0.029	0.132
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.03	0.05
AFD	2013/06/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.017	0.014	0.025	0.027
AFD	2013/06/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.8	0.6	< 0.5	3.2
AFD	2013/06/24	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	68	80	92	84
AFD	2013/06/24	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	3	2	3
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	3.4	3.4	2.8	2.1
AFD	2013/06/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.4	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5925	13-5926	13-5927	13-5928
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	13	15	14	16
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.033	0.039	0.035	0.040
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.03	0.03	0.02
AFD	2013/06/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.029	0.030	0.019	0.017
AFD	2013/06/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.8	< 0.5	0.5	0.7
AFD	2013/06/24	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	52	84	64	68
AFD	2013/06/24	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	< 2	< 2	3
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	1.7	2.4	2.2	2.4
AFD	2013/06/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.2	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5929	13-5930	13-5931	13-5932
					Client ID:	WQ16	WQ26	Field Blank	Trip Blank
					Sample Date:	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	17	20	< 1	< 1
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.041	0.045	< 0.001	< 0.001
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.02	0.03	< 0.02	< 0.02
AFD	2013/06/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.017	0.034	< 0.005	< 0.005
AFD	2013/06/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/25	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.9	0.9	< 0.5	< 0.5
AFD	2013/06/24	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	68	56	< 4	< 4
AFD	2013/06/24	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	5	< 2	< 2
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	1.5	1.7	1.1	1.0
AFD	2013/06/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.4	< 0.1	< 0.1

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5933	13-5934	13-5935	13-5936
					Client ID:	WQ6	WQ7	WQ9	WQ14
					Sample Date:	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	13	25	54	59
AFD	2013/06/25	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.032	0.056	0.115	0.122
AFD	2013/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.05	0.06
AFD	2013/06/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.009	0.025	0.023	0.019
AFD	2013/06/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/18	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.8	0.8	2.9	1.6
AFD	2013/06/24	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	72	40	84	104
AFD	2013/06/24	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	10	5	< 2
AFD	2013/06/25	Turbidity	NTU	APHA 2130-b	0.1	1.7	3.5	2.5	1.5
AFD	2013/06/18	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.4	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5937	13-5938	13-5939	13-5940
					Client ID:	WQ1	WQ4	WQ13	Duplicate
					Sample Date:	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00
					MDL				
AFD	2013/06/18	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	5	13	54	26
AFD	2013/06/25	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.019	0.059	0.118	0.056
AFD	2013/06/25	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.03	0.04	0.05	0.04
AFD	2013/06/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.032	0.019	0.023	0.009
AFD	2013/06/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/06/18	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.0	8.7	2.9	0.8
AFD	2013/06/24	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	16	76	64	76
AFD	2013/06/24	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	4	12
AFD	2013/06/25	Turbidity	NTU	APHA 2130-b	0.1	1.2	1.0	1.8	2.8
AFD	2013/06/18	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	1.3	0.4	0.3

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5922	13-5922-D	13-5923	13-5924
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/17 0:00	Lab Duplicate	2013/06/17 0:00	2013/06/17 0:00
					MDL				
EL	2013/06/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.1	9.0	12.3	8.3
BN	2013/06/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.1	9.1	12.6	8.6
LL	2013/06/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.029	0.025	< 0.001	0.019
AFD	2013/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.15	0.18	0.27	0.38

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5925	13-5926	13-5927	13-5928
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00
					MDL				
EL	2013/06/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.9	16.6	9.7	9.7
BN	2013/06/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.9	16.8	9.7	9.8
LL	2013/06/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.015	0.018	< 0.001	0.025
AFD	2013/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.23	0.68	0.35	0.23

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5929	13-5930	13-5931	13-5932
					Client ID:	WQ16	WQ26	Field Blank	Trip Blank
					Sample Date:	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00
					MDL				
EL	2013/06/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.6	9.1	0.3	< 0.1
BN	2013/06/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.6	9.1	0.3	< 0.1
LL	2013/06/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.033	< 0.001	< 0.001
AFD	2013/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.25	0.11	< 0.08	< 0.08

Water Analysis

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5933	13-5934	13-5935	13-5936
					Client ID:	WQ6	WQ7	WQ9	WQ14
					Sample Date:	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00
					MDL				
EL	2013/06/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.3	10.7	9.3	11.2
BN	2013/06/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.3	10.7	9.3	11.3
LL	2013/06/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.026	0.025	0.270
AFD	2013/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.21	0.50	0.65	0.69

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5937	13-5938	13-5939	13-5940
					Client ID:	WQ1	WQ4	WQ13	Duplicate
					Sample Date:	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00
					MDL				
EL	2013/06/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/06/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.2	10.4	9.3	10.7
BN	2013/06/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.2	10.4	9.3	10.7
LL	2013/06/19	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/06/19	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.033	< 0.001	0.031
AFD	2013/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.11	0.63	0.24	0.65

Water Analysis - Total Metals

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5922	13-5922-D	13-5923	13-5924
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/17 0:00	Lab Duplicate	2013/06/17 0:00	2013/06/17 0:00
					MDL				
LL	2013/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.117	0.117	0.194	0.021
LL	2013/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00009	0.00005	0.00005
LL	2013/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0003	0.0003
LL	2013/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00498	0.00498	0.00325	0.00571
LL	2013/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	< 0.001	< 0.001	0.001
LL	2013/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	7.4	7.4	3.7	19.1
LL	2013/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	0.0004	0.0004	< 0.0003	< 0.0003
LL	2013/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00007	0.00006	0.00005	0.00003
LL	2013/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1470	0.1450	0.1170	0.0500
LL	2013/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005	0.00007	< 0.00005
LL	2013/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.57	1.57	0.93	4.46
LL	2013/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00650	0.00643	0.00490	0.01190
LL	2013/06/25	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00032	0.00034	0.00010	0.00049
LL	2013/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00392	0.00457	0.00017	0.00022
LL	2013/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.03	0.03	< 0.01	0.02
LL	2013/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
LL	2013/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	6.03	6.08	4.19	3.19
LL	2013/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.5	2.5	1.7	3.4
LL	2013/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.048500	0.048100	0.025600	0.088900
LL	2013/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0025	0.0026	0.0021	0.0008
LL	2013/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00015	0.00015	0.00009	0.00008
LL	2013/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0011	0.0012	0.0013	0.0014
LL	2013/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	25.0	24.9	13.1	66.0

Water Analysis - Total Metals

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5925	13-5926	13-5927	13-5928
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00
					MDL				
LL	2013/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.153	0.396	0.118	0.084
LL	2013/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	< 0.0001	< 0.0001	0.0001
LL	2013/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00482	0.00640	0.00587	0.00823
LL	2013/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.5	6.2	5.4	6.4
LL	2013/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00007	0.00003	0.00004
LL	2013/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0981	0.1700	0.1070	0.1130
LL	2013/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.79	1.10	0.83	0.83
LL	2013/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00494	0.00344	0.00989	0.02070
LL	2013/06/25	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00025	0.00007	0.00037	0.00051
LL	2013/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00027	0.00007	0.00005
LL	2013/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	0.02	0.01	0.01
LL	2013/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.29	5.02	3.17	2.63
LL	2013/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	1.9	1.5	1.4
LL	2013/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.033200	0.039200	0.041600	0.060700
LL	2013/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0018	0.0047	0.0015	0.0011
LL	2013/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00017	0.00017	0.00023	0.00018
LL	2013/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0032	0.0014	0.0012	0.0018
LL	2013/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	14.4	19.9	16.8	19.3

Water Analysis - Total Metals

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5929	13-5930	13-5931	13-5932
					Client ID:	WQ16	WQ26	Field Blank	Trip Blank
					Sample Date:	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00
					MDL				
LL	2013/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.032	0.125	< 0.002	< 0.002
LL	2013/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0003	< 0.0001	< 0.0001
LL	2013/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00295	0.00531	< 0.00005	< 0.00005
LL	2013/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	0.001	< 0.001	< 0.001
LL	2013/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.5	6.4	< 0.5	< 0.5
LL	2013/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00004	< 0.00002	< 0.00002
LL	2013/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0362	0.0951	< 0.0001	< 0.0001
LL	2013/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.98	1.20	< 0.50	< 0.50
LL	2013/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00577	0.00696	< 0.00005	< 0.00005
LL	2013/06/25	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00079	0.00028	< 0.00005	< 0.00005
LL	2013/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00025	< 0.00005	< 0.00005
LL	2013/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	0.02	< 0.01	< 0.01
LL	2013/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	1.87	4.48	< 0.01	< 0.01
LL	2013/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	2.1	< 0.5	< 0.5
LL	2013/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.036600	0.041500	< 0.000005	< 0.000005
LL	2013/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0005	0.0019	< 0.0002	< 0.0002
LL	2013/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00030	0.00015	< 0.00005	< 0.00005
LL	2013/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0013	0.0024	< 0.0005	< 0.0005
LL	2013/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	17.7	20.8	< 6.0	< 6.0

Water Analysis - Total Metals

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Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5933	13-5934	13-5935	13-5936
					Client ID:	WQ6	WQ7	WQ9	WQ14
					Sample Date:	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00
					MDL				
LL	2013/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.116	0.142	0.042	0.154
LL	2013/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00005	< 0.00005	0.00737
LL	2013/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0003	0.0004	0.0016
LL	2013/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00513	0.00646	0.00642	0.09510
LL	2013/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.022
LL	2013/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000017	< 0.000015	< 0.000015	0.000057
LL	2013/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	4.2	8.0	16.0	186
LL	2013/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00006	0.00007	0.00005	0.00031
LL	2013/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0829	0.1570	0.1190	1.61
LL	2013/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	0.002
LL	2013/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.65	1.66	3.50	36.9
LL	2013/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00457	0.01200	0.01690	0.08030
LL	2013/06/25	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00033	0.00028	0.00052	0.00484
LL	2013/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00029	0.00027	0.00028	0.00456
LL	2013/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.01	0.02	0.02	0.17
LL	2013/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	0.6	4.4
LL	2013/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0011
LL	2013/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.36	4.82	3.79	53.4
LL	2013/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.6	2.3	2.9	31.7
LL	2013/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.031200	0.048800	0.078400	0.921000
LL	2013/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0018	0.0026	0.0012	0.0063
LL	2013/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00022	0.00014	0.00008	0.00048
LL	2013/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0019	0.0018	0.0008	0.0112
LL	2013/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	13.1	26.7	54.2	615

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5937	13-5938	13-5939	13-5940
					Client ID:	WQ1	WQ4	WQ13	Duplicate
					Sample Date:	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00
					MDL				
LL	2013/06/25	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.206	0.124	0.049	0.150
LL	2013/06/25	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	0.00021	0.00006	0.00007
LL	2013/06/25	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0002	0.0017	0.0004	0.0003
LL	2013/06/25	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00266	0.00370	0.00695	0.00670
LL	2013/06/25	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	0.001	< 0.001	< 0.001
LL	2013/06/25	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	0.000020	0.000090	< 0.000015	< 0.000015
LL	2013/06/25	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.9	7.3	16.7	7.9
LL	2013/06/25	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/25	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00004	0.00005	0.00008
LL	2013/06/25	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0999	0.0747	0.1430	0.1720
LL	2013/06/25	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00007	< 0.00005	0.00006
LL	2013/06/25	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/25	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	1.05	3.68	1.68
LL	2013/06/25	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00447	0.00750	0.01970	0.01400
LL	2013/06/25	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/25	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00010	0.00050	0.00028
LL	2013/06/25	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00018	0.00030	0.00029	0.00024
LL	2013/06/25	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.01	0.02	0.02
LL	2013/06/25	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	0.8	0.7	< 0.5
LL	2013/06/25	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.13	4.52	3.73	4.68
LL	2013/06/25	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00006	< 0.00005	< 0.00005
LL	2013/06/25	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.5	3.3	3.1	2.3
LL	2013/06/25	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.017000	0.042800	0.082000	0.048600
LL	2013/06/25	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/25	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0019	0.0014	0.0017	0.0031
LL	2013/06/25	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00016	< 0.00005	0.00009	0.00014
LL	2013/06/25	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/25	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0032	0.0329	0.0013	< 0.0005
LL	2013/06/25	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	6.2	22.6	56.9	26.7

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5922	13-5922-D	13-5923	13-5924
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/06/17 0:00	Lab Duplicate	2013/06/17 0:00	2013/06/17 0:00
					MDL				
LL	2013/06/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.105	0.103	0.194	0.007
LL	2013/06/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00009	0.00005	0.00005
LL	2013/06/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00376	0.00357	0.00294	0.00523
LL	2013/06/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	7.1	6.9	3.5	17.6
LL	2013/06/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00004	0.00004	0.00004	0.00003
LL	2013/06/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.1010	0.0990	0.1030	0.0266
LL	2013/06/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00007	< 0.00005
LL	2013/06/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.49	1.46	0.86	4.08
LL	2013/06/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00110	0.00113	0.00132	0.00384
LL	2013/06/25	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00027	0.00031	0.00009	0.00049
LL	2013/06/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00392	0.00457	0.00017	0.00022
LL	2013/06/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.01	0.01	< 0.01	< 0.01
LL	2013/06/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.49	4.41	3.23	2.53
LL	2013/06/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.8
LL	2013/06/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.046000	0.046100	0.024400	0.086300
LL	2013/06/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0023	0.0021	0.0018	0.0004
LL	2013/06/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00011	0.00012	0.00007	0.00008
LL	2013/06/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0011	0.0012	0.0013	0.0009
AFD	2013/06/18	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.36	7.37	7.02	7.92
LL	2013/06/19	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	23.8	23.2	12.3	60.7

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5925	13-5926	13-5927	13-5928
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00
					MDL				
LL	2013/06/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.150	0.396	0.103	0.069
LL	2013/06/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00421	0.00580	0.00500	0.00737
LL	2013/06/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	4.2	5.8	5.1	6.0
LL	2013/06/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00007	0.00003	< 0.00002
LL	2013/06/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0785	0.1590	0.0851	0.0790
LL	2013/06/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.73	1.03	0.75	0.77
LL	2013/06/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00082	0.00062	0.00410	0.00822
LL	2013/06/25	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00025	0.00007	0.00031	0.00046
LL	2013/06/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00017	0.00027	0.00007	0.00005
LL	2013/06/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.44	3.87	2.48	2.09
LL	2013/06/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.031700	0.038600	0.039300	0.059700
LL	2013/06/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0017	0.0047	0.0009	0.0008
LL	2013/06/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	0.00014	0.00020	0.00015
LL	2013/06/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0032	0.0014	0.0012	0.0018
AFD	2013/06/18	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.17	7.22	7.20	7.22
LL	2013/06/19	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	13.5	18.6	15.8	18.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5929	13-5930	13-5931	13-5932
					Client ID:	WQ16	WQ26	Field Blank	Trip Blank
					Sample Date:	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00	2013/06/17 0:00
					MDL				
LL	2013/06/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.032	0.113	< 0.002	< 0.002
LL	2013/06/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00265	0.00460	< 0.00005	< 0.00005
LL	2013/06/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/06/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.1	5.8	< 0.5	< 0.5
LL	2013/06/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00002	< 0.00002	< 0.00002
LL	2013/06/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0214	0.0674	< 0.0001	< 0.0001
LL	2013/06/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.91	1.10	< 0.50	< 0.50
LL	2013/06/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00194	0.00103	< 0.00005	< 0.00005
LL	2013/06/25	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00060	0.00025	< 0.00005	< 0.00005
LL	2013/06/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00025	< 0.00005	< 0.00005
LL	2013/06/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.54	3.48	< 0.01	< 0.01
LL	2013/06/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.034800	0.040200	< 0.000005	< 0.000005
LL	2013/06/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0015	< 0.0002	< 0.0002
LL	2013/06/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00026	0.00013	< 0.00005	< 0.00005
LL	2013/06/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0013	0.0024	< 0.0005	< 0.0005
AFD	2013/06/18	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.30	7.33	5.74	5.64
LL	2013/06/19	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	16.5	19.1	< 6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5933	13-5934	13-5935	13-5936
					Client ID:	WQ6	WQ7	WQ9	WQ14
					Sample Date:	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00
					MDL				
LL	2013/06/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.108	0.112	0.024	0.060
LL	2013/06/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	< 0.00005	< 0.00005	0.00737
LL	2013/06/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00455	0.00518	0.00594	0.08660
LL	2013/06/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	0.019
LL	2013/06/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000017	< 0.000015	< 0.000015	0.000057
LL	2013/06/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	4.1	7.3	15.0	173
LL	2013/06/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00006	0.00004	0.00004	0.00029
LL	2013/06/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0673	0.0981	0.0815	1.14
LL	2013/06/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	0.002
LL	2013/06/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.65	1.55	3.34	34.0
LL	2013/06/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00169	0.00469	0.01150	0.01830
LL	2013/06/25	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00031	0.00024	0.00047	0.00422
LL	2013/06/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00029	0.00027	0.00028	0.00456
LL	2013/06/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	0.03
LL	2013/06/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.35	3.63	2.91	39.6
LL	2013/06/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	6.6
LL	2013/06/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.029800	0.045900	0.077500	0.894000
LL	2013/06/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0018	0.0016	0.0006	0.0063
LL	2013/06/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00019	0.00010	0.00007	0.00033
LL	2013/06/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0019	0.0018	0.0008	0.0112
AFD	2013/06/25	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.85	7.46	7.78	7.70
LL	2013/06/19	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	13.0	24.6	51.1	571

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65391

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-5937	13-5938	13-5939	13-5940
					Client ID:	WQ1	WQ4	WQ13	Duplicate
					Sample Date:	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00	2013/06/18 0:00
					MDL				
LL	2013/06/19	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.202	0.117	0.024	0.114
LL	2013/06/19	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00018	0.00006	0.00007
LL	2013/06/19	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	0.0002	< 0.0001	< 0.0001
LL	2013/06/19	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00237	0.00336	0.00592	0.00536
LL	2013/06/19	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	0.001	< 0.001	< 0.001
LL	2013/06/19	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	0.000020	0.000058	< 0.000015	< 0.000015
LL	2013/06/19	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	6.9	15.2	7.3
LL	2013/06/19	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/06/19	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	0.00003	0.00004	0.00004
LL	2013/06/19	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0835	0.0621	0.0849	0.0995
LL	2013/06/19	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/06/19	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	1.00	3.41	1.55
LL	2013/06/19	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00105	0.00117	0.01230	0.00479
LL	2013/06/25	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/06/19	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00010	0.00049	0.00026
LL	2013/06/19	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00018	0.00030	0.00029	0.00024
LL	2013/06/19	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/06/19	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/06/19	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.17	3.49	2.97	3.56
LL	2013/06/19	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	0.9	< 0.5	< 0.5
LL	2013/06/19	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.016500	0.040700	0.077600	0.046600
LL	2013/06/19	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/06/19	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0015	0.0013	0.0007	0.0020
LL	2013/06/19	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00014	< 0.00005	0.00008	0.00011
LL	2013/06/19	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/06/19	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0032	0.0329	0.0013	< 0.0005
AFD	2013/06/25	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	6.64	7.03	7.74	7.48
LL	2013/06/19	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	21.2	52.0	24.5

Quality Control Standard

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File No. EC-65391

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/06/18	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	58	53-72	63	QC-ALK/F-58
AFD	2013/06/18	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.75	2.54-2.94	2.790	CC-EC-0.02M-50
AFD	2013/06/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.52	0.44-0.58	0.50	QC-AIK/F-58
AFD	2013/06/25	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.050	1.58	1.44-1.76	1.600	CC-Anion-123B
AFD	2013/06/25	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.030	0.558	0.54-0.66	0.600	CC-Anion-123B
AFD	2013/06/25	Sulphate-D	mg/l (ppm)	APHA 4110	0.5	26.1	25.2-30.8	28.0	CC-Anion-123B
AFD	2013/06/24	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-c	2	860	628-1059	844	QCP-SLD02008
AFD	2013/06/24	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	34	26-36	31	QCP-SLD 02008
AFD	2013/06/18	Turbidity	NTU	APHA 2130-b	0.1	9.7	8.5-11.5	10.0	QC-Turb-10
AFD	2013/06/25	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.1	3.6-4.4	4.0	CC-Anion-123B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/06/24	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	6.06	3.93-6.09	5.00	A2Nut01108
BN	2013/06/21	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	36.8	33.0-42.7	37.9	DMD-TOC-103-Mid
BN	2013/06/21	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	36.8	33.0-42.7	37.9	DMD-TOC-103-Mid
LL	2013/06/19	Phosphate-Ortho-DLL	mg/l (ppm)	APHA 4110	0.003	0.844	0.72-0.88	0.800	CC-Anion-123BL
LL	2013/06/19	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	260	225-275	250.000	MS-CCV-HIGH
AFD	2013/06/24	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	10.7	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

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Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/06/25	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	48.2	45-55	50.000	MS-CCV-HIGH
LL	2013/06/25	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	97.7	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/25	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/06/25	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.0	45-55	50.00000	MS-CCV-HIGH
LL	2013/06/25	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	50.4	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/25	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	51.2	45-55	50.000	MS-CCV-HIGH
LL	2013/06/25	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.4	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/06/25	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	24700	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/25	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	50.4	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/25	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.9	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/25	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	52.5	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/25	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	49.2	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/25	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	98.9	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/25	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	47.2	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/06/25	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24100	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/06/25	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/25	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.330000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/06/25	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	49.7	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/25	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/25	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	260	225-275	250.00	MS-CCV-HIGH
LL	2013/06/25	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25600	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/06/25	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	52.3	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/25	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	126	105-129	117.00	MS-CCV-HIGH
LL	2013/06/25	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.1	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/06/25	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/25	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	47.2	45-55	50.000000	MS-CCV-HIGH
LL	2013/06/25	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	248	225-275	250.00000	MS-CCV-HIGH
LL	2013/06/25	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	256	225-275	250.0000	MS-CCV-HIGH
LL	2013/06/25	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	51.0	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/25	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	99.7	90-110	100.00000	MS-CCV-HIGH
LL	2013/06/25	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/25	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	52.7	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

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File No. EC-65391

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/06/19	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	53.8	45-55	50.000	MS-CCV-HIGH
LL	2013/06/19	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	98.1	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/19	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	102	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/06/19	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45-55	50.00000	MS-CCV-HIGH
LL	2013/06/19	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	46.3	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/19	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	48.4	45-55	50.000	MS-CCV-HIGH
LL	2013/06/19	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	49.2	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/06/19	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	25100	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/19	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	50.0	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/19	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	52.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/19	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	50.5	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/19	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	53.6	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/19	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	97.5	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/06/19	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	45.6	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/06/19	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24500	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/06/19	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/25	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.330000	0.220-0.363	0.291000	E2-QCPHG010
LL	2013/06/19	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	49.5	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/19	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/19	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	260	225-275	250.00	MS-CCV-HIGH
LL	2013/06/19	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	25600	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/06/19	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	51.2	45-55	50.0000	MS-CCV-HIGH
LL	2013/06/19	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	112	105-129	117.00	MS-CCV-HIGH
LL	2013/06/19	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.6	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/06/19	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	26000	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/06/19	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	48.8	45-55	50.000000	MS-CCV-HIGH
LL	2013/06/19	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	248	225-275	250.00000	MS-CCV-HIGH
LL	2013/06/19	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	256	225-275	250.0000	MS-CCV-HIGH
LL	2013/06/19	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	49.6	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/06/19	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	98.9	90-110	100.00000	MS-CCV-HIGH
LL	2013/06/19	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	46.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/06/19	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	49.1	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/06/18	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.09	5.94-6.06	6.00	QC-pH-9

Analytical Comments

Project No. VE52277.2190.02

File No. EC-65391

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

Chain of Custody Record/Analysis Request

EG-65581
1

ISSUING OFFICE: Burnaby, BC		Tracking #: _____	
Project Name: NewGold Blackwater		Sampler: _____	
Project Manager: Bruce Ott		Phone No.: 604-294-3811	
Project Number: VES2277-2190.02		Task: _____	
Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Phase
	FOR LAB USE ONLY	YYYY/mm/dd	
WQ3	13-5072	6/17/2013	water
WQ5	23	6/17/2013	water
WQ8	24	6/17/2013	water
WQ10	25	6/17/2013	water
WQ11	26	6/17/2013	water
WQ12	27	6/17/2013	water
WQ15	28	6/17/2013	water
WQ16	29	6/17/2013	water
WQ 26	30	6/17/2013	water
Field Blank	31	6/17/2013	water
Trip Blank	32	6/17/2013	water

ANALYSIS REQUIRED (Note preferred method)	Task							
	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Matrix
Water potability	X	X	X	X	X	X	X	
Total and ortho- Phosphorus	X	X	X	X	X	X	X	
Cyanide (total and WAD)	X	X	X	X	X	X	X	
TSS	X	X	X	X	X	X	X	
Total and dissolved metals (Ultra ICP/MS)	X	X	X	X	X	X	X	
Ammonia and TKN	X	X	X	X	X	X	X	
Organic carbon (TOC, DOC)	X	X	X	X	X	X	X	
50% RUSH (Please Notify Lab Prior To Submission)								
100% RUSH (Please Notify Lab Prior To Submission)								

QUOTED PRICE	
<input checked="" type="checkbox"/> YES	Please attach a copy of the quote
<input type="checkbox"/> NO	
Quote #:	QN-521
Temperature Received:	12.6 °C
Receiver's Comments:	

RELINQUISHED BY:	SIGNATURE: _____	RECEIVED BY:	SIGNATURE: _____
Signature: C. McFadden		Signature: _____	
Printed Name: C. McFadden		Printed Name: _____	
Firm: Avison Management Services		Firm: _____	
Date/Time: 6/17/2013 15:00		Date/Time: 18 Jun 13 9:00	

Comments:	
1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)	
2) Please use Low Level nitrate and nitrite	
3) Please analyze CN- and CN-WAD using H2SO4 method.	
* Part 1 of shipment	
Part 2 to be shipped later.	



Edmonton Chemistry Lab

EC-65391

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC		Tracking #:	
Project Name: NewGold Blackwater		Sampler: Phone No.: 604-294-3811	
Project Manager: Bruce Ott		Surface Water	
Project Number: VE52277.2190.02		Task:	40 mL Vial
Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	1L Polyethylene
	FOR LAB USE ONLY	yyyy/mm/dd	250 mL Jar
	WQ6	6/18/2013	1L Bottle
	WQ7	6/18/2013	Matrix
	WQ9	6/18/2013	water
	WQ14	6/18/2013	water
	WQ1	6/18/2013	water
	WQ4	6/18/2013	water
	WQ13	6/18/2013	water
	Duplicate	6/18/2013	water

ANALYSIS REQUIRED (Note preferred method)		QUOTED PRICE
<input type="checkbox"/> YES	100% RUSH (Please Notify Lab Prior To Submission)	<input checked="" type="checkbox"/> YES Please attach a copy of the quote <input type="checkbox"/> NO
<input type="checkbox"/> NO	50% RUSH (Please Notify Lab Prior To Submission)	
Water potability	X	Quote #: QN-521
Total and ortho-Phosphorus	X	Temperature Received: 6.3 °C
Cyanide (total and WAD)	X	Receiver's Comments:
TSS	X	
Total and dissolved metals (Ultra ICP/MS)	X	
Ammonia and TKN	X	
Organic carbon (TOC, DOC)	X	

RELINQUISHED BY:	RECEIVED BY:	Comments:
Signature:	Signature:	1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)
Printed Name:	Printed Name:	2) Please use Low Level nitrate and nitrite
C. McFadden	C. McFadden	3) Please analyze CN-t and CN-WAD using H2SO4 method.
Firm:	Firm:	
Avison Management Services	AMEC	
Date/Time:	Date/Time:	
6/18/2013 15:00 PM	6/18/2013 8:00	

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65489
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/07/03
Date of Report: 2013/07/04

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Schermers".

Charlene Schermers
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65489

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6763	13-6764	13-6765	
					Client ID:	TL1006	TL1010	TL1021	
					Sample Date:	2013/06/27 0:00	2013/06/27 0:00	2013/06/27 0:00	
					MDL				
EL	2013/07/03	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d		2	11	3	3

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65489

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/07/03	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	28	26-36	31	QCP-SLD 02008

Analytical Comments

Project No. VE52277.2190.02

File No. EC-65489

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit



Edmonton Chemistry Lab

EL-654489 21

Chain of Custody Record/Analysis Request

ISSUING OFFICE: Burnaby, BC Tracking #: ANALYSIS REQUIRED (Note preferred method) QUOTED PRICE

Project Name: NewGold Blackwater Project Manager: Bruce Ott Project Number: VES2277.2190.02 Phase: Sampler: Phone No.: 604-294-3811 Task: FAFH

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	Container						TSS	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)	Receiver's Comments
				1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene				
TL1006	13-6783	27/06/2013	water							X			6.700
TL1010	64	27/06/2013	water							X			
TL1021	65	27/06/2013	water							X			

RELINQUISHED BY: Signature: [Signature] Printed Name: C. McFadden Firm: Avision Management Services Date/Time: 02/07/2013 7:00	RECEIVED BY: Signature: [Signature] Printed Name: [Signature] Firm: AMEC Date/Time: 3-5-13 8:10	RELINQUISHED BY: Signature: Printed Name: Firm: Date/Time:	RECEIVED BY: Signature: Printed Name: Firm: Date/Time:	Comments: 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com) 2) Please use Low Level nitrate and nitrite 3) Please analyze CN-1 and CN-WAD using H2SO4 method.
--------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------	--------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 19-JUN-13
Report Date: 02-JUL-13 13:11 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1319271
Project P.O. #: 2220
Job Reference: EC-65391
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1319271-1 WQ3~13-5922 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-2 WQ5~13-5923 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-3 WQ8~13-5924 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-4 WQ10~13-5925 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-5 WQ11~13-5926 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-6 WQ12~13-5927 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-7 WQ15~13-5928 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-8 WQ16~13-5929 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-9 WQ26~13-5930 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1319271-9 WQ26~13-5930 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-10 FIELD BLANK~13-5931 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-11 TRIP BLANK~13-5932 Sampled By: CLIENT on 17-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-12 WQ6~13-5933 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-13 WQ7~13-5934 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-14 WQ9~13-5935 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-15 WQ14~13-5936 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-16 WQ1~13-5937 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-17 WQ4~13-5938 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1319271-17 WQ4~13-5938 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-18 WQ13~13-5939 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616
L1319271-19 DUPLICATE~13-5940 Sampled By: CLIENT on 18-JUN-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		01-JUL-13 01-JUL-13	R2641596 R2641616

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1319271

Report Date: 02-JUL-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2641596							
WG1698794-9	DUP	L1319271-4						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	01-JUL-13
WG1698794-13	IRM	ALS-TCN-IRM1						
Cyanide, Total			86.8		%		75-105	01-JUL-13
WG1698794-3	IRM	ALS-TCN-IRM1						
Cyanide, Total			86.0		%		75-105	01-JUL-13
WG1698794-8	IRM	ALS-TCN-IRM1						
Cyanide, Total			87.6		%		75-105	01-JUL-13
WG1698794-12	LCS							
Cyanide, Total			102.1		%		80-120	01-JUL-13
WG1698794-2	LCS							
Cyanide, Total			105.0		%		80-120	01-JUL-13
WG1698794-7	LCS							
Cyanide, Total			104.8		%		80-120	01-JUL-13
WG1698794-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	01-JUL-13
WG1698794-11	MB							
Cyanide, Total			<0.0050		mg/L		0.005	01-JUL-13
WG1698794-6	MB							
Cyanide, Total			<0.0050		mg/L		0.005	01-JUL-13
WG1698794-10	MS	L1319271-4						
Cyanide, Total			100.7		%		70-130	01-JUL-13
CN-WAD-CFA-VA								
	Water							
Batch	R2641616							
WG1698795-7	DUP	L1319271-4						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	01-JUL-13
WG1698795-10	LCS							
Cyanide, Weak Acid Diss			103.6		%		80-120	01-JUL-13
WG1698795-2	LCS							
Cyanide, Weak Acid Diss			102.4		%		80-120	01-JUL-13
WG1698795-6	LCS							
Cyanide, Weak Acid Diss			103.5		%		80-120	01-JUL-13
WG1698795-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	01-JUL-13
WG1698795-5	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	01-JUL-13
WG1698795-9	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	01-JUL-13



Quality Control Report

Workorder: L1319271

Report Date: 02-JUL-13

Page 2 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2641616							
WG1698795-8	MS	L1319271-4						
Cyanide, Weak Acid Diss			100.5		%		70-130	01-JUL-13

Quality Control Report

Workorder: L1319271

Report Date: 02-JUL-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

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Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65527
Project Number: VE52277.2190.02 Lake
Project Name: NewGold Blackwater
Date Received: 2013/07/10
Date of Report: 2013/07/24
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Kristine Connor".

Kristine Connor
Client Services Representative
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6996	13-6996-D	13-6997	13-6998
					Client ID:	W21E	W21E	W21M	W21H
					Sample Date:	2013/07/08 0:00	Lab Duplicate	2013/07/08 0:00	2013/07/08 0:00
					MDL				
AFD	2013/07/10	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	60	---	63	65
AFD	2013/07/10	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.130	---	0.135	0.142
AFD	2013/07/10	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	---	0.05	0.05
AFD	2013/07/10	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	---	< 0.005	0.058
AFD	2013/07/10	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
AFD	2013/07/10	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.0	---	3.2	3.4
EL	2013/07/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	124	---	116	120
EL	2013/07/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	2	< 2	3
AFD	2013/07/10	Turbidity	NTU	APHA 2130-b	0.1	1.7	---	1.4	1.7
AFD	2013/07/10	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	---	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6999	13-7000	13-7264	13-7264-D
					Client ID:	Duplicate E	Duplicate M	WQ22 Epi	WQ22 Epi
					Sample Date:	2013/07/08 0:00	2013/07/08 0:00	2013/07/09 0:00	Lab Duplicate
					MDL				
AFD	2013/07/10	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	60	61	34	35
AFD	2013/07/10	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.130	0.131		
	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001			0.075	0.075
AFD	2013/07/10	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.05	0.05	0.05
AFD	2013/07/10	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.015	0.009	0.010	0.012
AFD	2013/07/10	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/07/10	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	3.1	3.1	< 0.5	< 0.5
EL	2013/07/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	148	140	96	---
EL	2013/07/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	< 2	< 2	< 2
AFD	2013/07/10	Turbidity	NTU	APHA 2130-b	0.1	1.4	1.4	1.5	1.5
AFD	2013/07/10	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.5	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7265	13-7266	13-7267	13-7268
					Client ID:	WQ22 Hypo	WQ23 Epi	WQ23 Meta	WQ23 Hypo
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00
					MDL				
AFD	2013/07/10	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	34	15	26	28
AFD	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.075	0.041	0.056	0.061
AFD	2013/07/10	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	0.02	0.02	0.02
AFD	2013/07/10	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.045	0.093	0.052	0.043
AFD	2013/07/10	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/07/10	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	1.2	1.6	1.5
EL	2013/07/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	80	48	64	36
EL	2013/07/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	< 2	< 2	7
AFD	2013/07/10	Turbidity	NTU	APHA 2130-b	0.1	2.5	1.0	1.0	2.7
AFD	2013/07/10	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.4	0.3	0.3

Water Analysis

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7269	13-7270	13-7271	13-7272
					Client ID:	WQ24 Epi	WQ24 Hypo	WQ25 Epi	WQ25 Hypo
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00
					MDL				
AFD	2013/07/10	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	16	17	17	17
AFD	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.041	0.042	0.043	0.043
AFD	2013/07/10	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.02	0.02	0.02	0.02
AFD	2013/07/10	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.030	0.033	0.028	0.036
AFD	2013/07/10	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
AFD	2013/07/10	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.9	1.0	0.9	0.9
EL	2013/07/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	44	28	68	44
EL	2013/07/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/07/10	Turbidity	NTU	APHA 2130-b	0.1	0.8	0.8	1.2	1.3
AFD	2013/07/10	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.3	0.3	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7273	13-7274
					Client ID:	Field Blank	Trip Blank
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00
					MDL		
AFD	2013/07/10	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	< 1	< 1
AFD	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	< 0.001	< 0.001
AFD	2013/07/10	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	< 0.02	< 0.02
AFD	2013/07/10	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	< 0.005	< 0.005
AFD	2013/07/10	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
AFD	2013/07/10	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	< 0.5	< 0.5
EL	2013/07/10	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	< 4	< 4
EL	2013/07/10	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2
AFD	2013/07/10	Turbidity	NTU	APHA 2130-b	0.1	0.5	0.5
AFD	2013/07/10	Chloride-D	mg/L (ppm)	APHA 4110	0.1	< 0.1	< 0.1

Water Analysis

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6996	13-6996-D	13-6997	13-6998
					Client ID:	W21E	W21E	W21M	W21H
					Sample Date:	2013/07/08 0:00	Lab Duplicate	2013/07/08 0:00	2013/07/08 0:00
					MDL				
EL	2013/07/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	---	< 0.02	< 0.02
BN	2013/07/11	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.0	9.0	8.4	7.4
BN	2013/07/11	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.0	9.0	8.4	7.4
AFD	2013/07/10	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
LL	2013/07/16	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.011	0.013	0.018	0.008
EL	2013/07/15	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.18	0.15	0.24	0.44

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6999	13-7000	13-7264	13-7264-D
					Client ID:	Duplicate E	Duplicate M	WQ22 Epi	WQ22 Epi
					Sample Date:	2013/07/08 0:00	2013/07/08 0:00	2013/07/09 0:00	Lab Duplicate
					MDL				
EL	2013/07/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02		
	2013/07/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02			< 0.02	< 0.02
BN	2013/07/11	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.4	8.4	15.1	15.2
BN	2013/07/11	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.4	8.4	15.1	15.3
AFD	2013/07/10	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/07/16	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.010	0.013	0.038	0.037
EL	2013/07/15	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.24	0.33	0.31	0.35

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7265	13-7266	13-7267	13-7268
					Client ID:	WQ22 Hypo	WQ23 Epi	WQ23 Meta	WQ23 Hypo
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00
					MDL				
EL	2013/07/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/07/11	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	15.3	4.8	2.8	2.6
BN	2013/07/11	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	15.4	4.8	2.8	2.7
AFD	2013/07/10	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/07/16	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.036	0.031	0.032	0.039
EL	2013/07/15	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.28	< 0.08	< 0.08	0.11

Water Analysis

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7269	13-7270	13-7271	13-7272
					Client ID:	WQ24 Epi	WQ24 Hypo	WQ25 Epi	WQ25 Hypo
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00
					MDL				
EL	2013/07/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/07/11	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.1	4.9	9.0	8.9
BN	2013/07/11	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.1	4.9	9.0	9.0
AFD	2013/07/10	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/07/16	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.030	0.034	0.030	0.034
EL	2013/07/15	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.09	0.13	0.10	0.19

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7273	13-7274
					Client ID:	Field Blank	Trip Blank
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00
					MDL		
EL	2013/07/17	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02
BN	2013/07/11	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1	< 0.1
BN	2013/07/11	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	< 0.1	< 0.1
AFD	2013/07/10	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003
LL	2013/07/16	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	< 0.001
EL	2013/07/15	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	< 0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6996	13-6996-D	13-6997	13-6998
					Client ID:	W21E	W21E	W21M	W21H
					Sample Date:	2013/07/08 0:00	Lab Duplicate	2013/07/08 0:00	2013/07/08 0:00
					MDL				
LL	2013/07/16	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.021	0.025	0.015	0.023
LL	2013/07/16	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0004	0.0005
LL	2013/07/16	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00554	0.00532	0.00548	0.00588
LL	2013/07/16	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	0.001	0.001	0.002
LL	2013/07/16	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/16	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	18.7	18.6	19.4	21.6
LL	2013/07/16	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/16	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00002	< 0.00002	< 0.00002
LL	2013/07/16	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0354	0.0351	0.0329	0.0399
LL	2013/07/16	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00010	< 0.00005
LL	2013/07/16	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/16	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.36	4.33	4.58	5.14
LL	2013/07/16	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00341	0.00345	0.00666	0.02420
LL	2013/07/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/16	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00044	0.00044	0.00046	0.00049
LL	2013/07/16	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00046	0.00043	0.00047	0.00047
LL	2013/07/16	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	0.02	0.02	0.03
LL	2013/07/16	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	0.7	0.8	0.9
LL	2013/07/16	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.58	3.63	4.20	5.00
LL	2013/07/16	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.3	3.3	3.5	3.9
LL	2013/07/16	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.084100	0.082700	0.087700	0.097300
LL	2013/07/16	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0005	0.0006	0.0005	0.0006
LL	2013/07/16	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00008	0.00009	0.00009
LL	2013/07/16	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	< 0.0005	0.0008	< 0.0005
LL	2013/07/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	64.6	64.2	67.3	75.2

Water Analysis - Total Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6999	13-7000	13-7264	13-7264-D
					Client ID:	Duplicate E	Duplicate M	WQ22 Epi	WQ22 Epi
					Sample Date:	2013/07/08 0:00	2013/07/08 0:00	2013/07/09 0:00	Lab Duplicate
					MDL				
LL	2013/07/16	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.014	0.026	0.034	0.037
LL	2013/07/16	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0004	0.0004
LL	2013/07/16	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00568	0.00620	0.01720	0.01690
LL	2013/07/16	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.001	0.002	0.036	0.036
LL	2013/07/16	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/16	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	20.1	22.7	12.5	12.7
LL	2013/07/16	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/16	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	0.00002	0.00002	0.00002
LL	2013/07/16	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	0.0001	0.0001
LL	2013/07/16	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0325	0.0350	0.0744	0.0749
LL	2013/07/16	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/16	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.73	5.32	2.68	2.69
LL	2013/07/16	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00525	0.00402	0.01150	0.01160
LL	2013/07/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/16	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00049	0.00052	0.00024	0.00023
LL	2013/07/16	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00038	0.00128	0.00045	0.00051
LL	2013/07/16	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.02	0.02	0.05	0.06
LL	2013/07/16	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.8	0.9	0.9	0.9
LL	2013/07/16	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	3.92	4.31	4.59	4.63
LL	2013/07/16	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.7	4.1	2.9	2.9
LL	2013/07/16	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.090000	0.099300	0.061100	0.060400
LL	2013/07/16	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0005	0.0006	0.0005	0.0006
LL	2013/07/16	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00009	0.00010	< 0.00005	< 0.00005
LL	2013/07/16	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	0.00024	0.00025
LL	2013/07/16	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0026	< 0.0005	< 0.0005	< 0.0005
LL	2013/07/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	69.7	78.6	42.3	42.9

Water Analysis - Total Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7265	13-7266	13-7267	13-7268
					Client ID:	WQ22 Hypo	WQ23 Epi	WQ23 Meta	WQ23 Hypo
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00
					MDL				
LL	2013/07/16	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.029	0.027	< 0.002	< 0.002
LL	2013/07/16	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00008	0.00005	< 0.00005
LL	2013/07/16	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0008	0.0006	0.0006	0.0016
LL	2013/07/16	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01610	0.00220	0.00312	0.00451
LL	2013/07/16	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	0.040	< 0.001	< 0.001	< 0.001
LL	2013/07/16	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/16	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	12.8	6.2	8.8	9.7
LL	2013/07/16	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/16	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00002	< 0.00002	< 0.00002	0.00004
LL	2013/07/16	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0003	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1090	0.0185	0.0826	0.3830
LL	2013/07/16	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/16	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	2.68	0.85	1.35	1.46
LL	2013/07/16	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02480	0.00163	0.00744	0.25300
LL	2013/07/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/16	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00024	0.00047	0.00058	0.00076
LL	2013/07/16	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00048	0.00033	0.00029	0.00024
LL	2013/07/16	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.06	0.05	0.05	0.08
LL	2013/07/16	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.0	< 0.5	< 0.5	< 0.5
LL	2013/07/16	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.90	3.69	3.98	4.75
LL	2013/07/16	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.9	2.0	2.3	2.5
LL	2013/07/16	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.062100	0.037100	0.050900	0.056700
LL	2013/07/16	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0006	0.0004	0.0002	0.0002
LL	2013/07/16	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00018	0.00009	0.00010
LL	2013/07/16	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00027	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0016	0.0023	< 0.0005	0.0008
LL	2013/07/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	43.0	19.0	27.5	30.2

Water Analysis - Total Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7269	13-7270	13-7271	13-7272
					Client ID:	WQ24 Epi	WQ24 Hypo	WQ25 Epi	WQ25 Hypo
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00
					MDL				
LL	2013/07/16	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.040	0.053	0.069	0.085
LL	2013/07/16	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0002	0.0003
LL	2013/07/16	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00262	0.00275	0.00808	0.00956
LL	2013/07/16	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/16	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/16	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.5	6.6	8.2	7.9
LL	2013/07/16	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/16	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00003
LL	2013/07/16	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0208	0.0250	0.0768	0.2390
LL	2013/07/16	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/16	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.05	1.12	0.90	0.94
LL	2013/07/16	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00168	0.00522	0.00533	0.06640
LL	2013/07/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/16	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00067	0.00064	0.00049	0.00043
LL	2013/07/16	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00027	0.00028	0.00034	0.00031
LL	2013/07/16	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.04	0.04	0.04	0.05
LL	2013/07/16	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/07/16	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	2.08	1.64	2.87	2.66
LL	2013/07/16	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.8	1.8	1.6	1.6
LL	2013/07/16	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.038200	0.039800	0.070600	0.067500
LL	2013/07/16	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0004	0.0003	0.0007	0.0009
LL	2013/07/16	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00031	0.00030	0.00018	0.00018
LL	2013/07/16	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0016	0.0015	0.0020	0.0018
LL	2013/07/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	20.5	21.0	24.1	23.6

Water Analysis - Total Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7273	13-7274
					Client ID:	Field Blank	Trip Blank
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00
					MDL		
LL	2013/07/16	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	< 0.002	< 0.002
LL	2013/07/16	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
LL	2013/07/16	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015
LL	2013/07/16	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5
LL	2013/07/16	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003
LL	2013/07/16	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	< 0.00002
LL	2013/07/16	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001
LL	2013/07/16	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	< 0.50	< 0.50
LL	2013/07/16	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/15	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
LL	2013/07/16	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01
LL	2013/07/16	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5
LL	2013/07/16	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01
LL	2013/07/16	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5
LL	2013/07/16	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	< 0.000005	< 0.000005
LL	2013/07/16	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/16	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	< 0.0002	< 0.0002
LL	2013/07/16	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/16	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	< 0.0005	< 0.0005
LL	2013/07/16	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6996	13-6996-D	13-6997	13-6998
					Client ID:	W21E	W21E	W21M	W21H
					Sample Date:	2013/07/08 0:00	Lab Duplicate	2013/07/08 0:00	2013/07/08 0:00
					MDL				
LL	2013/07/10	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.012	0.011	0.012	0.004
LL	2013/07/10	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004	0.0004	0.0005
LL	2013/07/10	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00528	0.00532	0.00542	0.00555
LL	2013/07/10	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/10	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/10	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.6	18.3	19.4	21.6
LL	2013/07/10	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/10	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
LL	2013/07/10	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0240	0.0235	0.0214	0.0157
LL	2013/07/10	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	0.00010	< 0.00005
LL	2013/07/10	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/10	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.36	4.33	4.58	5.14
LL	2013/07/10	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00193	0.00190	0.00122	0.00226
LL	2013/07/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/10	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00044	0.00044	0.00046	0.00049
LL	2013/07/10	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00009	0.00015	0.00008
LL	2013/07/10	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	0.02
LL	2013/07/10	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	0.7	0.8	0.9
LL	2013/07/10	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.58	3.63	4.20	5.00
LL	2013/07/10	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.3	3.2	3.5	3.9
LL	2013/07/10	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.083500	0.082700	0.087700	0.097300
LL	2013/07/10	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0004	0.0004	0.0003
LL	2013/07/10	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00008	0.00009	0.00009
LL	2013/07/10	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005	0.0008	< 0.0005
AFD	2013/07/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.82	---	7.73	7.75
LL	2013/07/10	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	64.3	63.5	67.3	75.2

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-6999	13-7000	13-7264	13-7264-D
					Client ID:	Duplicate E	Duplicate M	WQ22 Epi	WQ22 Epi
					Sample Date:	2013/07/08 0:00	2013/07/08 0:00	2013/07/09 0:00	Lab Duplicate
					MDL				
LL	2013/07/10	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.012	0.014	0.020	0.020
LL	2013/07/10	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	0.0004	0.0004
LL	2013/07/10	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00568	0.00620	0.01720	0.01690
LL	2013/07/10	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	0.036	0.036
LL	2013/07/10	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/10	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	20.1	22.7	9.2	9.2
LL	2013/07/10	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/10	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	0.00002	0.00002	0.00002
LL	2013/07/10	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0261	0.0274	0.0603	0.0604
LL	2013/07/10	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/10	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.73	5.32	2.68	2.69
LL	2013/07/10	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00213	0.00278	0.01050	0.01050
LL	2013/07/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/10	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00049	0.00052	0.00024	0.00023
LL	2013/07/10	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00016	0.00014	< 0.00005	< 0.00005
LL	2013/07/10	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/07/10	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.8	0.9	0.7	0.7
LL	2013/07/10	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	3.92	4.31	4.38	4.32
LL	2013/07/10	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.7	4.1	2.9	2.9
LL	2013/07/10	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.090000	0.099300	0.050300	0.049300
LL	2013/07/10	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	0.0004	0.0005	0.0005
LL	2013/07/10	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00009	0.00010	< 0.00005	< 0.00005
LL	2013/07/10	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0026	< 0.0005	< 0.0005	< 0.0005
AFD	2013/07/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.85	7.76	7.54	7.58
LL	2013/07/10	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	69.7	78.6	33.9	34.1

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7265	13-7266	13-7267	13-7268
					Client ID:	WQ22 Hypo	WQ23 Epi	WQ23 Meta	WQ23 Hypo
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00
					MDL				
LL	2013/07/10	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.021	0.021	< 0.002	< 0.002
LL	2013/07/10	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00007	< 0.00005	< 0.00005
LL	2013/07/10	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0008	0.0006	0.0004	0.0008
LL	2013/07/10	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01610	0.00194	0.00276	0.00331
LL	2013/07/10	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	0.040	< 0.001	< 0.001	< 0.001
LL	2013/07/10	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/10	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	9.3	4.6	6.5	7.3
LL	2013/07/10	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/10	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00002	< 0.00002	< 0.00002	0.00004
LL	2013/07/10	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0846	0.0108	0.0074	0.0454
LL	2013/07/10	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/10	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	2.68	0.85	1.35	1.46
LL	2013/07/10	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.02330	0.00062	0.00653	0.23100
LL	2013/07/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/10	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00024	0.00047	0.00058	0.00076
LL	2013/07/10	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	0.01
LL	2013/07/10	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
LL	2013/07/10	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.84	3.45	3.67	4.54
LL	2013/07/10	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.9	2.0	2.3	2.5
LL	2013/07/10	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.050300	0.030200	0.041900	0.048000
LL	2013/07/10	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0002	< 0.0002	< 0.0002
LL	2013/07/10	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00018	0.00008	0.00008
LL	2013/07/10	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0016	0.0023	< 0.0005	0.0008
AFD	2013/07/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.38	7.30	7.23	7.07
LL	2013/07/10	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	34.2	14.9	21.9	24.3

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7269	13-7270	13-7271	13-7272
					Client ID:	WQ24 Epi	WQ24 Hypo	WQ25 Epi	WQ25 Hypo
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00	2013/07/09 0:00
					MDL				
LL	2013/07/10	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.022	0.014	0.054	0.062
LL	2013/07/10	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0003	0.0002	0.0002
LL	2013/07/10	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00218	0.00242	0.00696	0.00839
LL	2013/07/10	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/10	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/10	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	4.9	5.1	5.9	5.8
LL	2013/07/10	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/10	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002	< 0.00002	0.00003
LL	2013/07/10	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0122	0.0125	0.0519	0.1610
LL	2013/07/10	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/10	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.05	1.12	0.90	0.94
LL	2013/07/10	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00068	0.00226	0.00244	0.05370
LL	2013/07/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/10	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00067	0.00064	0.00049	0.00043
LL	2013/07/10	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/07/10	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/07/10	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	1.91	1.56	2.58	2.47
LL	2013/07/10	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.8	1.8	1.5	1.6
LL	2013/07/10	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.031800	0.032700	0.057600	0.057500
LL	2013/07/10	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0003	< 0.0002	0.0005	0.0007
LL	2013/07/10	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00031	0.00029	0.00017	0.00018
LL	2013/07/10	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0016	0.0015	0.0020	0.0018
AFD	2013/07/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.33	7.26	7.31	7.02
LL	2013/07/10	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	16.5	17.2	18.4	18.4

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02 Lake

Final
File No. EC-65527

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7273	13-7274
					Client ID:	Field Blank	Trip Blank
					Sample Date:	2013/07/09 0:00	2013/07/09 0:00
					MDL		
LL	2013/07/10	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	< 0.002	< 0.002
LL	2013/07/10	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
LL	2013/07/10	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015
LL	2013/07/10	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5
LL	2013/07/10	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003
LL	2013/07/10	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	< 0.00002
LL	2013/07/10	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001
LL	2013/07/10	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	< 0.50	< 0.50
LL	2013/07/10	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00006
LL	2013/07/15	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005
LL	2013/07/10	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01
LL	2013/07/10	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5
LL	2013/07/10	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01
LL	2013/07/10	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5
LL	2013/07/10	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	< 0.000005	< 0.000005
LL	2013/07/10	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001
LL	2013/07/10	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	< 0.0002	< 0.0002
LL	2013/07/10	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005
LL	2013/07/10	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	< 0.0005	< 0.0005
AFD	2013/07/10	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	5.67	5.57
LL	2013/07/10	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	< 6.0	< 6.0

Quality Control Standard

Project No. VE52277.2190.02 Lake

File No. EC-65527

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
AFD	2013/07/17	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	57	53-72	63	QC-ALK/F-60
AFD	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.74	2.54-2.94	2.790	CC-EC-0.02M-50
AFD	2013/07/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.56	0.44-0.58	0.50	QC-AIK/F-60
AFD	2013/07/10	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.050	1.53	1.44-1.76	1.600	CC-Anion-123B
AFD	2013/07/10	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.554	0.54-0.66	0.600	CC-Anion-123B
AFD	2013/07/10	Sulphate-D	mg/l (ppm)	APHA 4110	0.5	26.3	25.2-30.8	28.0	CC-Anion-123B
EL	2013/07/17	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-c	2	832	628-1059	844	QCP-SLD02008
EL	2013/07/10	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	28	26-36	31	QCP-SLD 02008
AFD	2013/07/10	Turbidity	NTU	APHA 2130-b	0.1	9.8	8.5-11.5	10.0	QC-Turb-11
AFD	2013/07/10	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.0	CC-Anion-123B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/07/11	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	5.12	3.93-6.09	5.00	A2Nut01108
BN	2013/07/11	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	36.1	33.0-42.7	37.9	DMD-TOC-104-Mid
BN	2013/07/11	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	36.1	33.0-42.7	37.9	DMD-TOC-104-Mid
AFD	2013/07/10	Phosphate-Ortho-DLL	mg/l (ppm)	APHA 4110	0.003	0.790	0.72-0.88	0.800	CC-Anion-123BL
LL	2013/07/16	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	254	225-275	250.000	MS-CCV-HIGH
EL	2013/07/15	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	11.3	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02 Lake

File No. EC-65527

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/07/16	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	50.8	45-55	50.000	MS-CCV-HIGH
LL	2013/07/16	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	98.7	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/07/16	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	99.7	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/07/16	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	50.9	45-55	50.00000	MS-CCV-HIGH
LL	2013/07/16	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	46.1	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/16	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	51.0	45-55	50.000	MS-CCV-HIGH
LL	2013/07/16	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	51.4	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/07/16	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	25000	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/07/16	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	48.3	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/16	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	51.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/16	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	48.6	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/16	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	47.4	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/16	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	101	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/07/16	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	50.2	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/07/16	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24300	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/07/16	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	50.7	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/15	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	1.01	0.7318-1.2102	0.971000	E2-QCPHG010
LL	2013/07/16	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	48.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/16	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	51.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/16	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	254	225-275	250.00	MS-CCV-HIGH
LL	2013/07/16	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	25100	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/07/16	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	49.7	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/16	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	127	105-129	117.00	MS-CCV-HIGH
LL	2013/07/16	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	13.1	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/07/16	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	25000	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/07/16	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	52.7	45-55	50.000000	MS-CCV-HIGH
LL	2013/07/16	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	253	225-275	250.00000	MS-CCV-HIGH
LL	2013/07/16	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	245	225-275	250.0000	MS-CCV-HIGH
LL	2013/07/16	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	51.0	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/16	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	99.5	90-110	100.00000	MS-CCV-HIGH
LL	2013/07/16	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	51.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/16	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	51.6	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02 Lake

File No. EC-65527

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/07/10	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	51.9	45-55	50.000	MS-CCV-HIGH
LL	2013/07/10	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	105	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/07/10	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	100	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/07/10	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	47.5	45-55	50.00000	MS-CCV-HIGH
LL	2013/07/10	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	45.2	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/10	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	53.8	45-55	50.000	MS-CCV-HIGH
LL	2013/07/10	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	48.1	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/07/10	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24900	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/07/10	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	49.2	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/10	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	48.5	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/10	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	49.2	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/10	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	48.3	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/10	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	94.4	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/07/10	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	45.5	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/07/10	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24600	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/07/10	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	50.5	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/15	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	1.01	0.7318-1.2102	0.971000	E2-QCPHG010
LL	2013/07/10	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	46.1	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/10	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/10	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	256	225-275	250.00	MS-CCV-HIGH
LL	2013/07/10	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24500	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/07/10	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	50.6	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/10	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	127	105-129	117.00	MS-CCV-HIGH
LL	2013/07/10	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.4	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/07/10	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24600	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/07/10	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	51.4	45-55	50.000000	MS-CCV-HIGH
LL	2013/07/10	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	233	225-275	250.00000	MS-CCV-HIGH
LL	2013/07/10	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	257	225-275	250.0000	MS-CCV-HIGH
LL	2013/07/10	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.7	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/10	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	93.6	90-110	100.00000	MS-CCV-HIGH
LL	2013/07/10	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/10	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	49.8	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/07/17	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.00	5.94-6.06	6.00	QC-pH-9

Analytical Comments

Project No. VE52277.2190.02 Lake

File No. EC-65527

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 10-JUL-13
Report Date: 24-JUL-13 12:31 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1330302
Project P.O. #: 2220
Job Reference: EC-66527
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1330302-1 W21E (13-6996) Sampled By: CLIENT on 08-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-JUL-13 18-JUL-13	R2652743 R2652757
L1330302-2 W21M (13-6997) Sampled By: CLIENT on 08-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-JUL-13 18-JUL-13	R2652743 R2652757
L1330302-3 W21H (13-6998) Sampled By: CLIENT on 08-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-JUL-13 18-JUL-13	R2652743 R2652757
L1330302-4 DUPLICATE E (13-6999) Sampled By: CLIENT on 08-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-JUL-13 18-JUL-13	R2652743 R2652757
L1330302-5 DUPLICATE M (13-7000) Sampled By: CLIENT on 08-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		18-JUL-13 18-JUL-13	R2652743 R2652757
L1330302-6 13-7264-WQ22 EPI Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-JUL-13 23-JUL-13	R2655242 R2655250
L1330302-7 13-7265-WQ22 HYPO Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-JUL-13 23-JUL-13	R2655242 R2655250
L1330302-8 13-7266-WQ23 EPI Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		23-JUL-13 23-JUL-13	R2655242 R2655250
L1330302-9 13-7267-WQ23 META Sampled By: CLIENT Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1330302-9 13-7267-WQ23 META Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		23-JUL-13	R2655242
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		23-JUL-13	R2655250
L1330302-10 13-7268-WQ23 HYPO Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		23-JUL-13	R2655242
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		23-JUL-13	R2655250
L1330302-11 13-7269-WQ24 EPI Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		23-JUL-13	R2655242
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		23-JUL-13	R2655250
L1330302-12 13-7270-WQ24 HYPO Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		23-JUL-13	R2655242
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		23-JUL-13	R2655250
L1330302-13 13-7271-WQ25 EPI Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		23-JUL-13	R2655242
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		23-JUL-13	R2655250
L1330302-14 13-7272-WQ25 HYPO Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		23-JUL-13	R2655242
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		23-JUL-13	R2655250
L1330302-15 13-7273-FIELD BLANK Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		23-JUL-13	R2655242
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		23-JUL-13	R2655250
L1330302-16 13-7274-TRIP BLANK Sampled By: CLIENT Matrix: WATER Miscellaneous Parameters							
Cyanide, Total	<0.0050		0.0050	mg/L		23-JUL-13	R2655242
Cyanide, Weak Acid Diss	<0.0050		0.0050	mg/L		23-JUL-13	R2655250

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1330302

Report Date: 24-JUL-13

Page 1 of 3

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2652743							
WG1709749-13	DUP	L1332099-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	18-JUL-13
WG1709749-7	DUP	L1325895-1						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	18-JUL-13
WG1709749-10	IRM	ALS-TCN-IRM1						
Cyanide, Total			91.8		%		75-105	18-JUL-13
WG1709749-17	IRM	ALS-TCN-IRM1						
Cyanide, Total			92.0		%		75-105	18-JUL-13
WG1709749-3	IRM	ALS-TCN-IRM1						
Cyanide, Total			86.6		%		75-105	18-JUL-13
WG1709749-6	IRM	ALS-TCN-IRM1						
Cyanide, Total			92.0		%		75-105	18-JUL-13
WG1709749-16	LCS							
Cyanide, Total			105.4		%		80-120	18-JUL-13
WG1709749-2	LCS							
Cyanide, Total			103.2		%		80-120	18-JUL-13
WG1709749-5	LCS							
Cyanide, Total			105.5		%		80-120	18-JUL-13
WG1709749-9	LCS							
Cyanide, Total			106.6		%		80-120	18-JUL-13
WG1709749-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	18-JUL-13
WG1709749-15	MB							
Cyanide, Total			<0.0050		mg/L		0.005	18-JUL-13
WG1709749-4	MB							
Cyanide, Total			<0.0050		mg/L		0.005	18-JUL-13
WG1709749-8	MB							
Cyanide, Total			<0.0050		mg/L		0.005	18-JUL-13
WG1709749-14	MS	L1332099-1						
Cyanide, Total			91.2		%		70-130	18-JUL-13
Batch	R2655242							
WG1712745-4	DUP	L1333626-9						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-JUL-13
WG1712745-9	DUP	L1330302-13						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-JUL-13
WG1712745-10	MS	L1330302-13						
Cyanide, Total			106.1		%		70-130	23-JUL-13
WG1712745-5	MS	L1333626-9						



Quality Control Report

Workorder: L1330302

Report Date: 24-JUL-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA								
	Water							
Batch	R2655242							
WG1712745-5	MS	L1333626-9						
Cyanide, Total			98.7		%		70-130	23-JUL-13
CN-WAD-CFA-VA								
	Water							
Batch	R2652757							
WG1709759-10	DUP	L1332099-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	18-JUL-13
WG1709759-5	DUP	L1325895-1						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	18-JUL-13
WG1709759-13	LCS							
Cyanide, Weak Acid Diss			107.6		%		80-120	18-JUL-13
WG1709759-2	LCS							
Cyanide, Weak Acid Diss			105.2		%		80-120	18-JUL-13
WG1709759-4	LCS							
Cyanide, Weak Acid Diss			106.6		%		80-120	18-JUL-13
WG1709759-7	LCS							
Cyanide, Weak Acid Diss			104.9		%		80-120	18-JUL-13
WG1709759-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	18-JUL-13
WG1709759-12	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	18-JUL-13
WG1709759-3	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	18-JUL-13
WG1709759-6	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	18-JUL-13
WG1709759-11	MS	L1332099-1						
Cyanide, Weak Acid Diss			100.6		%		70-130	18-JUL-13
Batch	R2655250							
WG1712749-3	DUP	L1333626-9						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-JUL-13
WG1712749-7	DUP	L1330302-13						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	23-JUL-13
WG1712749-4	MS	L1333626-9						
Cyanide, Weak Acid Diss			98.7		%		70-130	23-JUL-13
WG1712749-8	MS	L1330302-13						
Cyanide, Weak Acid Diss			106.2		%		70-130	23-JUL-13

Quality Control Report

Workorder: L1330302

Report Date: 24-JUL-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: KRISTINE CONNOR

Page 3 of 3

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Final Analytical Report

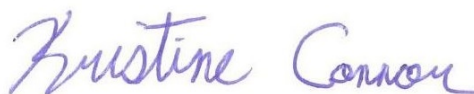
Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65574
Project Number: VE52277.2190.02
Project Name: NewGold Blackwater
Date Received: 2013/07/17
Date of Report: 2013/07/31
Sublet Data: Attached

Report reviewed by:

A handwritten signature in blue ink that reads "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink that reads "Kristine Connor".

Kristine Connor
Client Services Representative
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7391	13-7391-D	13-7392	13-7393
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/07/15 0:00	Lab Duplicate	2013/07/15 0:00	2013/07/15 0:00
					MDL				
AFD	2013/07/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	30	---	14	61
JL	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.062	---	0.035	0.131
AFD	2013/07/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.05	---	0.04	0.06
JL	2013/07/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.012	---	0.037	0.036
JL	2013/07/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.005	---	0.003	0.003
JL	2013/07/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.6	---	< 0.5	3.1
EL	2013/07/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	40	36	60	132
EL	2013/07/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	2
AFD	2013/07/17	Turbidity	NTU	APHA 2130-b	0.1	1.5	---	0.9	1.2
JL	2013/07/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	---	0.2	0.4

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7394	13-7395	13-7396	13-7397
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/07/15 0:00	2013/07/15 0:00	2013/07/15 0:00	2013/07/15 0:00
					MDL				
AFD	2013/07/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	18	18	16	17
JL	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.045	0.045	0.040	0.043
AFD	2013/07/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.04	0.03	0.03
JL	2013/07/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.036	0.027	0.058	0.029
JL	2013/07/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.005	0.005	0.005	0.005
JL	2013/07/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	0.9	< 0.5	< 0.5	0.7
EL	2013/07/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	32	56	20	60
EL	2013/07/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	< 2	< 2	< 2
AFD	2013/07/17	Turbidity	NTU	APHA 2130-b	0.1	1.0	1.5	1.0	1.1
JL	2013/07/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.2	0.4	0.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7398	13-7399	13-7400	13-7401
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/07/15 0:00	2013/07/15 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
AFD	2013/07/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	28	15	14	32
JL	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.061	0.040	0.039	0.071
AFD	2013/07/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.04	0.03	0.03	0.04
JL	2013/07/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.029	0.030	0.022	0.020
JL	2013/07/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.004	0.004	< 0.003	0.003
JL	2013/07/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	1.0	0.9	1.1	1.1
EL	2013/07/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	52	132	100	64
EL	2013/07/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	< 2	42	3	4
AFD	2013/07/17	Turbidity	NTU	APHA 2130-b	0.1	0.9	2.5	1.7	1.8
JL	2013/07/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.3	0.4	0.3	0.3

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7402	13-7403	13-7404	13-7405
					Client ID:	WQ9	WQ14	WQ1	WQ4
					Sample Date:	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
AFD	2013/07/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	56	74	6	22
JL	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.122	0.150	0.022	0.083
AFD	2013/07/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.07	0.03	0.05
JL	2013/07/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.018	0.009	0.009	0.013
JL	2013/07/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.004	< 0.003	0.004	0.003
JL	2013/07/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.8	1.5	1.0	11.8
EL	2013/07/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	104	168	36	84
EL	2013/07/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	2	30	< 2	< 2
AFD	2013/07/17	Turbidity	NTU	APHA 2130-b	0.1	2.2	9.0	1.2	0.9
JL	2013/07/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.4	0.3	1.3

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7406	13-7407	13-7408	13-7409
					Client ID:	WQ13	Duplicate	Field Blank	Travel Blank
					Sample Date:	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
AFD	2013/07/17	Alkalinity as CaCO3	mg/L (ppm)	APHA 2320	1	57	33	2	< 1
JL	2013/07/17	Conductivity @ 25°C	mS/cm	APHA 2510 B	0.001	0.122	0.069	0.004	< 0.001
AFD	2013/07/17	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.06	0.04	< 0.02	< 0.02
JL	2013/07/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	0.017	0.010	< 0.005	0.018
JL	2013/07/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.003	< 0.003	< 0.003	0.003
JL	2013/07/17	Sulphate-D	mg/L (ppm)	APHA 4110	0.5	2.8	1.0	< 0.5	< 0.5
EL	2013/07/22	Total Dissolved Solids180°C	mg/L (ppm)	APHA 2540 C	4	76	56	< 4	< 4
EL	2013/07/22	Total Suspended Solids @105°C	mg/L (ppm)	APHA 2540-d	2	3	7	< 2	< 2
AFD	2013/07/17	Turbidity	NTU	APHA 2130-b	0.1	2.2	1.7	0.7	0.7
JL	2013/07/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	0.4	0.3	< 0.1	< 0.1

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7391	13-7391-D	13-7392	13-7393
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/07/15 0:00	Lab Duplicate	2013/07/15 0:00	2013/07/15 0:00
					MDL				
EL	2013/07/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/07/23	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.9	6.9	10.0	8.9
BN	2013/07/23	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	6.9	7.0	10.6	9.2
JL	2013/07/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	---	< 0.003	< 0.003
LL	2013/07/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.022	0.021	0.004	0.003
EL	2013/07/23	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.19	0.17	0.19	0.44

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7394	13-7395	13-7396	13-7397
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/07/15 0:00	2013/07/15 0:00	2013/07/15 0:00	2013/07/15 0:00
					MDL				
EL	2013/07/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/07/23	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.4	15.1	8.9	9.7
BN	2013/07/23	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	7.4	15.1	8.9	9.7
JL	2013/07/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/07/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.005	0.008	0.005	0.003
EL	2013/07/23	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.15	0.26	0.18	0.21

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7398	13-7399	13-7400	13-7401
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/07/15 0:00	2013/07/15 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
EL	2013/07/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/07/23	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.4	7.1	6.4	7.4
BN	2013/07/23	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	5.4	7.1	6.4	7.4
JL	2013/07/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/07/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	< 0.001	0.002	0.001	0.018
EL	2013/07/23	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.15	< 0.08	0.11	0.16

Water Analysis

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7402	13-7403	13-7404	13-7405
					Client ID:	WQ9	WQ14	WQ1	WQ4
					Sample Date:	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
EL	2013/07/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/07/23	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.0	8.6	8.7	8.2
BN	2013/07/23	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	9.1	8.6	8.7	8.2
JL	2013/07/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/07/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.009	0.014	0.003	< 0.001
EL	2013/07/23	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.21	0.31	0.20	0.20

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7406	13-7407	13-7408	13-7409
					Client ID:	WQ13	Duplicate	Field Blank	Travel Blank
					Sample Date:	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
EL	2013/07/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH3-G	0.02	< 0.02	< 0.02	< 0.02	< 0.02
BN	2013/07/23	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.9	7.4	< 0.1	< 0.1
BN	2013/07/23	Carbon (Total Organic)	mg/L (ppm)	APHA 5310 B	0.1	8.9	7.4	0.1	< 0.1
JL	2013/07/17	Phosphate-Ortho-DLL	mg/L (ppm)	APHA 4110	0.003	< 0.003	< 0.003	< 0.003	< 0.003
LL	2013/07/17	Phosphorus (Total-Dissolved) LL	mg/L (ppm)	APHA 3030 E/3120 B	0.001	0.004	0.005	< 0.001	< 0.001
EL	2013/07/23	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-d	0.08	0.17	0.20	< 0.08	< 0.08

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7391	13-7391-D	13-7392	13-7393
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/07/15 0:00	Lab Duplicate	2013/07/15 0:00	2013/07/15 0:00
					MDL				
LL	2013/07/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.073	0.073	0.127	0.017
LL	2013/07/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00006	0.00006	< 0.00005	< 0.00005
LL	2013/07/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0007	0.0006	0.0004	0.0004
LL	2013/07/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00429	0.00420	0.00324	0.00561
LL	2013/07/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	0.000059	< 0.000015
LL	2013/07/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	8.8	8.6	4.6	19.2
LL	2013/07/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00005	0.00005	0.00004	0.00002
LL	2013/07/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1210	0.1150	0.1160	0.0369
LL	2013/07/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.90	1.86	1.17	4.36
LL	2013/07/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00710	0.00726	0.00712	0.00902
LL	2013/07/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00036	0.00033	0.00009	0.00050
LL	2013/07/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	0.06	0.06	< 0.01	< 0.01
LL	2013/07/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
LL	2013/07/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	7.19	6.97	4.78	3.71
LL	2013/07/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.7	2.7	2.0	3.3
LL	2013/07/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.055300	0.052900	0.032000	0.085400
LL	2013/07/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00022	0.00015	0.00013
LL	2013/07/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0018	0.0016	0.0014	0.0008
LL	2013/07/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00012	0.00012	0.00006	0.00008
LL	2013/07/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00087	0.00085	< 0.00005	0.00006
LL	2013/07/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0025	0.0024	0.0020	0.0012
LL	2013/07/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	29.7	29.1	16.3	65.8

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7394	13-7395	13-7396	13-7397
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/07/15 0:00	2013/07/15 0:00	2013/07/15 0:00	2013/07/15 0:00
					MDL				
LL	2013/07/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.107	0.320	0.090	0.068
LL	2013/07/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0002	0.0002	0.0002
LL	2013/07/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00523	0.00629	0.00572	0.00742
LL	2013/07/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000034
LL	2013/07/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	6.4	7.2	6.1	6.9
LL	2013/07/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00004	0.00004	0.00002
LL	2013/07/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0842	0.1410	0.1330	0.1010
LL	2013/07/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	1.13	1.32	0.89	0.85
LL	2013/07/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00617	0.00303	0.01890	0.02080
LL	2013/07/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00028	0.00006	0.00035	0.00048
LL	2013/07/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/07/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/07/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	5.53	6.01	3.75	2.90
LL	2013/07/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	2.2	2.1	1.7	1.6
LL	2013/07/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.042500	0.044300	0.044200	0.062400
LL	2013/07/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00011	0.00010	0.00008	0.00007
LL	2013/07/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0016	0.0038	0.0014	0.0008
LL	2013/07/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00014	0.00016	0.00018	0.00017
LL	2013/07/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00026	< 0.00005	< 0.00005
LL	2013/07/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0022	0.0031	0.0018	0.0030
LL	2013/07/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	20.6	23.4	18.8	20.7

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7398	13-7399	13-7400	13-7401
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/07/15 0:00	2013/07/15 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
LL	2013/07/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.027	0.075	0.130	0.061
LL	2013/07/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00007	0.00005	0.00006	< 0.00005
LL	2013/07/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0004	0.0004	0.0006	0.0004
LL	2013/07/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00252	0.00584	0.00519	0.00611
LL	2013/07/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	0.000043	< 0.000015	< 0.000015
LL	2013/07/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	5.3	8.4	5.1	9.6
LL	2013/07/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	< 0.00002	0.00003	0.00003	0.00005
LL	2013/07/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0268	0.0739	0.0826	0.1120
LL	2013/07/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	0.94	1.69	0.77	2.07
LL	2013/07/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00582	0.00684	0.00634	0.01270
LL	2013/07/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00070	0.00038	0.00036	0.00038
LL	2013/07/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	< 0.01	< 0.01	0.01
LL	2013/07/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/07/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	2.03	5.61	4.98	5.83
LL	2013/07/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	1.7	2.4	2.0	2.6
LL	2013/07/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.034400	0.052700	0.036200	0.058500
LL	2013/07/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0005	0.0013	0.0013	0.0017
LL	2013/07/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00029	0.00012	0.00015	0.00011
LL	2013/07/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	0.00009	< 0.00005	0.00022
LL	2013/07/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0017	0.0015	0.0026	0.0013
LL	2013/07/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	17.1	28.0	15.9	32.6

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7402	13-7403	13-7404	13-7405
					Client ID:	WQ9	WQ14	WQ1	WQ4
					Sample Date:	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
LL	2013/07/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.027	0.030	0.198	0.105
LL	2013/07/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00020
LL	2013/07/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	0.0005	0.0018
LL	2013/07/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00634	0.01230	0.00269	0.00715
LL	2013/07/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000067
LL	2013/07/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	17.8	23.3	2.4	9.8
LL	2013/07/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	0.0006
LL	2013/07/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00003	0.00007	0.00004	0.00012
LL	2013/07/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0701
LL	2013/07/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1020	0.3960	0.1130	0.0599
LL	2013/07/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00018
LL	2013/07/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	3.94	4.49	< 0.50	1.65
LL	2013/07/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.01710	0.06320	0.00673	0.05280
LL	2013/07/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00051	0.00051	0.00009	0.00025
LL	2013/07/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00117
LL	2013/07/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.01	< 0.01	< 0.01
LL	2013/07/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	0.5	< 0.5	1.4
LL	2013/07/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.16	6.15	5.36	5.32
LL	2013/07/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00005
LL	2013/07/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.1	3.5	1.8	3.7
LL	2013/07/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.082400	0.110000	0.018900	0.051800
LL	2013/07/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001
LL	2013/07/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0008	0.0011	0.0020	0.0010
LL	2013/07/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00010	0.00013	< 0.00005
LL	2013/07/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00015	0.00015	< 0.00005	< 0.00005
LL	2013/07/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0012	0.0043	0.0031	0.4490
LL	2013/07/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	60.7	76.6	7.8	31.1

Water Analysis - Total Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7406	13-7407	13-7408	13-7409
					Client ID:	WC13	Duplicate	Field Blank	Travel Blank
					Sample Date:	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
LL	2013/07/20	Aluminum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.002	0.017	0.069	< 0.002	< 0.002
LL	2013/07/20	Antimony-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Arsenic-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.0005	0.0005	< 0.0001	< 0.0001
LL	2013/07/20	Barium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00649	0.00601	< 0.00005	< 0.00005
LL	2013/07/20	Beryllium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Boron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Cadmium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/20	Calcium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	18.3	9.7	< 0.5	< 0.5
LL	2013/07/20	Chromium -T	mg/L (ppm)	APHA 3030 E/3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/20	Cobalt-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00002	0.00004	0.00004	< 0.00002	< 0.00002
LL	2013/07/20	Copper-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Iron-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	0.1120	0.1150	< 0.0001	< 0.0001
LL	2013/07/20	Lead-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Lithium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/20	Magnesium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.50	4.01	2.08	< 0.50	< 0.50
LL	2013/07/20	Manganese-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.02060	0.01260	< 0.00005	< 0.00005
LL	2013/07/23	Mercury-T	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/20	Molybdenum-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00052	0.00036	< 0.00005	< 0.00005
LL	2013/07/20	Nickel-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Phosphorus-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	< 0.01	0.03	< 0.01	< 0.01
LL	2013/07/20	Potassium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
LL	2013/07/20	Selenium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Silicon-T	mg/L (ppm)	APHA 3030 E/3125 B	0.01	4.33	5.78	< 0.01	< 0.01
LL	2013/07/20	Silver-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Sodium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.5	3.2	2.6	< 0.5	< 0.5
LL	2013/07/20	Strontium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.000005	0.084300	0.057600	< 0.000005	< 0.000005
LL	2013/07/20	Thallium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/20	Tin-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/20	Titanium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0002	0.0007	0.0018	< 0.0002	< 0.0002
LL	2013/07/20	Uranium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00008	0.00010	< 0.00005	< 0.00005
LL	2013/07/20	Vanadium-T	mg/L (ppm)	APHA 3030 E/3125 B	0.00005	0.00010	0.00018	< 0.00005	< 0.00005
LL	2013/07/20	Zinc-T	mg/L (ppm)	APHA 3030 E/3125 B	0.0005	0.0011	0.0005	< 0.0005	< 0.0005
LL	2013/07/20	T-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	62.1	32.7	< 6.0	< 6.0

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7391	13-7391-D	13-7392	13-7393
					Client ID:	WQ3	WQ3	WQ5	WQ8
					Sample Date:	2013/07/15 0:00	Lab Duplicate	2013/07/15 0:00	2013/07/15 0:00
					MDL				
LL	2013/07/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.059	0.062	0.125	0.012
LL	2013/07/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00006	0.00006	< 0.00005	< 0.00005
LL	2013/07/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0007	0.0006	0.0004	0.0004
LL	2013/07/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00391	0.00386	0.00308	0.00539
LL	2013/07/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	0.000059	< 0.000015
LL	2013/07/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	8.8	8.6	4.6	19.2
LL	2013/07/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00004	0.00004	0.00003	0.00002
LL	2013/07/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0917	0.0901	0.1160	0.0275
LL	2013/07/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.90	1.86	1.16	4.36
LL	2013/07/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00416	0.00409	0.00391	0.00582
LL	2013/07/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00036	0.00033	0.00008	0.00050
LL	2013/07/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	0.02	0.02	< 0.01	< 0.01
LL	2013/07/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	0.7
LL	2013/07/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	7.19	6.97	4.78	3.71
LL	2013/07/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.7	2.7	2.0	3.3
LL	2013/07/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.055300	0.052900	0.032000	0.085400
LL	2013/07/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0012	0.0011	0.0012	0.0003
LL	2013/07/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00010	0.00010	0.00006	0.00008
LL	2013/07/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00059	0.00059	< 0.00005	< 0.00005
LL	2013/07/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0025	0.0024	0.0020	0.0012
AFD	2013/07/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.49	---	7.29	7.88
LL	2013/07/23	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	29.7	29.1	16.3	65.8

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7394	13-7395	13-7396	13-7397
					Client ID:	WQ10	WQ11	WQ12	WQ15
					Sample Date:	2013/07/15 0:00	2013/07/15 0:00	2013/07/15 0:00	2013/07/15 0:00
					MDL				
LL	2013/07/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.099	0.320	0.083	0.063
LL	2013/07/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0001	0.0002	0.0002
LL	2013/07/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00493	0.00608	0.00539	0.00735
LL	2013/07/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000034
LL	2013/07/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	6.4	7.2	6.1	6.9
LL	2013/07/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00004	0.00003	0.00002
LL	2013/07/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0802	0.1410	0.1240	0.0934
LL	2013/07/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	1.12	1.32	0.89	0.85
LL	2013/07/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00455	0.00303	0.01140	0.01170
LL	2013/07/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00028	< 0.00005	0.00035	0.00048
LL	2013/07/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/07/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/07/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	5.53	6.01	3.75	2.90
LL	2013/07/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	2.2	2.1	1.7	1.6
LL	2013/07/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.042500	0.044300	0.044200	0.062400
LL	2013/07/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0011	0.0038	0.0011	0.0006
LL	2013/07/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00013	0.00016	0.00017	0.00016
LL	2013/07/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	0.00007	< 0.00005	< 0.00005
LL	2013/07/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0022	0.0031	0.0018	0.0030
AFD	2013/07/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.39	7.36	7.31	7.29
LL	2013/07/23	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	20.5	23.4	18.8	20.7

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7398	13-7399	13-7400	13-7401
					Client ID:	WQ16	WQ26	WQ6	WQ7
					Sample Date:	2013/07/15 0:00	2013/07/15 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
LL	2013/07/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.027	0.058	0.076	0.040
LL	2013/07/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00007	0.00005	0.00006	< 0.00005
LL	2013/07/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0004	0.0004	0.0006	0.0004
LL	2013/07/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00251	0.00543	0.00495	0.00591
LL	2013/07/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	5.3	8.4	5.1	9.6
LL	2013/07/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	< 0.00002	0.00002	0.00002	0.00003
LL	2013/07/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0236	0.0607	0.0757	0.0913
LL	2013/07/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	0.94	1.69	0.77	2.07
LL	2013/07/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00505	0.00396	0.00488	0.01040
LL	2013/07/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00070	0.00038	0.00036	0.00038
LL	2013/07/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	0.01
LL	2013/07/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/07/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	2.03	5.61	4.98	5.83
LL	2013/07/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	1.7	2.4	2.0	2.6
LL	2013/07/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.034400	0.052700	0.036200	0.058500
LL	2013/07/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0002	0.0009	0.0011	0.0006
LL	2013/07/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00028	0.00012	0.00014	0.00010
LL	2013/07/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0017	0.0015	0.0026	0.0013
AFD	2013/07/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.57	7.34	7.22	7.61
LL	2013/07/23	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	17.1	28.0	15.9	32.6

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7402	13-7403	13-7404	13-7405
					Client ID:	WQ9	WQ14	WQ1	WQ4
					Sample Date:	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
LL	2013/07/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.011	0.004	0.188	0.062
LL	2013/07/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	0.00017
LL	2013/07/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0004	0.0005	0.0016
LL	2013/07/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00604	0.01050	0.00260	0.00349
LL	2013/07/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	0.000063
LL	2013/07/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	17.8	23.3	2.4	9.8
LL	2013/07/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00003	0.00003	< 0.00002
LL	2013/07/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0898	0.2400	0.1130	0.0395
LL	2013/07/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	3.94	4.49	< 0.50	1.65
LL	2013/07/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01330	0.01730	0.00604	0.00457
LL	2013/07/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00051	0.00051	0.00006	0.00015
LL	2013/07/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	0.01	< 0.01	< 0.01
LL	2013/07/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	0.5	< 0.5	0.9
LL	2013/07/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.16	6.15	5.36	5.32
LL	2013/07/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.1	3.5	1.8	3.7
LL	2013/07/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.082400	0.110000	0.018900	0.051800
LL	2013/07/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0003	0.0016	0.0006
LL	2013/07/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00008	0.00012	< 0.00005
LL	2013/07/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0012	0.0011	0.0031	0.0358
AFD	2013/07/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.84	7.78	6.81	7.27
LL	2013/07/23	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	60.7	76.6	7.9	31.1

Water Analysis - Dissolved Metals

Project No. VE52277.2190.02

Final
File No. EC-65574

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-7406	13-7407	13-7408	13-7409
					Client ID:	WQ13	Duplicate	Field Blank	Travel Blank
					Sample Date:	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00	2013/07/16 0:00
					MDL				
LL	2013/07/23	Aluminum-D	mg/L (ppm)	APHA 3125 B	0.002	0.011	0.042	< 0.002	< 0.002
LL	2013/07/23	Antimony-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Arsenic-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0005	0.0005	< 0.0001	< 0.0001
LL	2013/07/23	Barium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00635	0.00601	< 0.00005	< 0.00005
LL	2013/07/23	Beryllium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Boron-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Cadmium-D	mg/L (ppm)	APHA 3125 B	0.000015	< 0.000015	< 0.000015	< 0.000015	< 0.000015
LL	2013/07/23	Calcium-D	mg/L (ppm)	APHA 3125 B	0.5	18.3	9.7	< 0.5	< 0.5
LL	2013/07/23	Chromium-D	mg/L (ppm)	APHA 3125 B	0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
LL	2013/07/23	Cobalt-D	mg/L (ppm)	APHA 3125 B	0.00002	0.00003	0.00003	< 0.00002	< 0.00002
LL	2013/07/23	Copper-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Iron-D	mg/L (ppm)	APHA 3125 B	0.0001	0.0994	0.0940	< 0.0001	< 0.0001
LL	2013/07/23	Lead-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Lithium-D	mg/L (ppm)	APHA 3125 B	0.001	< 0.001	< 0.001	< 0.001	< 0.001
LL	2013/07/23	Magnesium-D	mg/L (ppm)	APHA 3125 B	0.50	4.01	2.08	< 0.50	< 0.50
LL	2013/07/23	Manganese-D	mg/L (ppm)	APHA 3125 B	0.00005	0.01590	0.01040	< 0.00005	< 0.00005
LL	2013/07/23	Mercury-D	mg/L (ppm)	APHA 3112	0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
LL	2013/07/23	Molybdenum-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00052	0.00036	< 0.00005	< 0.00005
LL	2013/07/23	Nickel-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Phosphorus-D	mg/L (ppm)	APHA 3125 B	0.01	< 0.01	< 0.01	< 0.01	< 0.01
LL	2013/07/23	Potassium-D	mg/L (ppm)	APHA 3125 B	0.5	0.7	< 0.5	< 0.5	< 0.5
LL	2013/07/23	Selenium-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Silicon-D	mg/L (ppm)	APHA 3125 B	0.01	4.33	5.78	< 0.01	< 0.01
LL	2013/07/23	Silver-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Sodium-D	mg/L (ppm)	APHA 3125 B	0.5	3.2	2.6	< 0.5	< 0.5
LL	2013/07/23	Strontium-D	mg/L (ppm)	APHA 3125 B	0.000005	0.084300	0.057600	< 0.000005	< 0.000005
LL	2013/07/23	Thallium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Tin-D	mg/L (ppm)	APHA 3125 B	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
LL	2013/07/23	Titanium-D	mg/L (ppm)	APHA 3125 B	0.0002	0.0004	0.0007	< 0.0002	< 0.0002
LL	2013/07/23	Uranium-D	mg/L (ppm)	APHA 3125 B	0.00005	0.00008	0.00010	< 0.00005	< 0.00005
LL	2013/07/23	Vanadium-D	mg/L (ppm)	APHA 3125 B	0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
LL	2013/07/23	Zinc-D	mg/L (ppm)	APHA 3125 B	0.0005	0.0011	0.0005	< 0.0005	< 0.0005
AFD	2013/07/17	pH @ 25°C BC-D	pH units	APHA 4500H	0.01	7.79	7.57	6.56	5.74
LL	2013/07/23	D-Hardness as CaCO3	mg/L (ppm)	Calculation	6.0	62.1	32.7	< 6.0	< 6.0

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65574

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
JL	2013/07/18	Alkalinity as CaCO ₃	mg/L (ppm)	APHA 2320	1	58	53-72	63	QC-ALK/F-60
JL	2013/07/18	Conductivity @ 25°C	mS/cm	APHA 2150 B	0.001	2.75	2.54-2.94	2.790	CC-EC-0.02M-50
JL	2013/07/18	Fluoride-D	mg/L (ppm)	APHA 4500F-c	0.02	0.56	0.44-0.58	0.50	QC-AIK/F-60
JL	2013/07/17	Nitrate-N-D	mg/L (ppm)	APHA 4110	0.005	1.56	1.44-1.76	1.600	CC-Anion-123B
JL	2013/07/17	Nitrite-N-D	mg/L (ppm)	APHA 4110	0.003	0.567	0.54-0.66	0.600	CC-Anion-123B
JL	2013/07/17	Sulphate-D	mg/l (ppm)	APHA 4110	0.5	27.5	25.2-30.8	28.0	CC-Anion-123B
EL	2013/07/22	Total Dissolved Solids _{180°C}	mg/L (ppm)	APHA 2540-c	2	788	628-1059	844	QCP-SLD02008
EL	2013/07/22	Total Suspended Solids @ _{105°C}	mg/L (ppm)	APHA 2540-d	2	32	26-36	31	QCP-SLD 02008
JL	2013/07/18	Turbidity	NTU	APHA 2130-b	0.1	9.7	8.5-11.5	10.0	QC-Turb-10
JL	2013/07/17	Chloride-D	mg/L (ppm)	APHA 4110	0.1	4.0	3.6-4.4	4.0	CC-Anion-123B

Water Analysis

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
EL	2013/07/23	Ammonia - Nitrogen	mg/L (ppm)	APHA 4500NH ₃ -G	0.02	0.58	0.394-0.615	0.50	F2NUT01116
BN	2013/07/23	Carbon (Dissolved Organic)	mg/L (ppm)	APHA 5310-B	0.1	36.6	33.0-42.7	37.9	DMD-TOC-105-Mid
BN	2013/07/23	Carbon (Total Organic)	mg/L (ppm)	APHA 5310-B	0.1	36.6	33.0-42.7	37.9	DMD-TOC-105-Mid
JL	2013/07/17	Phosphate-Ortho-DLL	mg/l (ppm)	APHA 4110	0.003	0.723	0.72-0.88	0.800	CC-Anion-123BL
LL	2013/07/17	Phosphorus (Total-Dissolved) LL	µg/L (ppb)	APHA 3125 B	10.000	258	225-275	250.000	MS-CCV-HIGH
EL	2013/07/23	Total Kjeldahl Nitrogen (TKN)	mg/L (ppm)	APHA 4500N-D	0.08	12.9	8.4-13.6	11.00	QC-NUT-D2Nut01115

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65574

Water Analysis - Total Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/07/20	Aluminum-T	µg/L (ppb)	APHA 3125 B	2.000	48.7	45-55	50.000	MS-CCV-HIGH
LL	2013/07/20	Antimony-T	µg/L (ppb)	APHA 3125 B	0.05000	93.6	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/07/20	Arsenic-T	µg/L (ppb)	APHA 3125 B	0.1000	99.2	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/07/20	Barium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.3	45-55	50.00000	MS-CCV-HIGH
LL	2013/07/20	Beryllium-T	µg/L (ppb)	APHA 3125 B	0.1000	45.7	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/20	Boron-T	µg/L (ppb)	APHA 3125 B	1.000	54.6	45-55	50.000	MS-CCV-HIGH
LL	2013/07/20	Cadmium-T	µg/L (ppb)	APHA 3125 B	0.015000	49.3	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/07/20	Calcium-T	µg/L (ppb)	APHA 3125 B	500.0	24300	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/07/20	Chromium -T	µg/L (ppb)	APHA 3125 B	0.3000	48.9	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/20	Cobalt-T	µg/L (ppb)	APHA 3125 B	0.02000	49.9	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/20	Copper-T	µg/L (ppb)	APHA 3125 B	0.1000	48.4	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/20	Iron-T	µg/L (ppb)	APHA 3125 B	0.1000	46.7	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/20	Lead-T	µg/L (ppb)	APHA 3125 B	0.05000	99.5	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/07/20	Lithium-T	µg/L (ppb)	APHA 3125 B	1.000	46.5	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/07/20	Magnesium-T	µg/L (ppb)	APHA 3125 B	500.00	24200	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/07/20	Manganese-T	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/23	Mercury-T	µg/L (ppb)	APHA 3112	0.005000	0.961000	0.7318-1.2102	0.971000	E2-QCPHG010
LL	2013/07/20	Molybdenum-T	µg/L (ppb)	APHA 3125 B	0.05000	45.8	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/20	Nickel-T	µg/L (ppb)	APHA 3125 B	0.05000	47.7	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/20	Phosphorus-T	µg/L (ppb)	APHA 3125 B	10.00	258	225-275	250.00	MS-CCV-HIGH
LL	2013/07/20	Potassium-T	µg/L (ppb)	APHA 3125 B	500.0	24800	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/07/20	Selenium-T	µg/L (ppb)	APHA 3125 B	0.6000	50.2	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/20	Silicon-T	µg/L (ppb)	APHA 3125 B	10.00	113	105-129	117.00	MS-CCV-HIGH
LL	2013/07/20	Silver-T	µg/L (ppb)	APHA 3125 B	0.05000	12.0	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/07/20	Sodium-T	µg/L (ppb)	APHA 3125 B	500.0	24200	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/07/20	Strontium-T	µg/L (ppb)	APHA 3125 B	0.005000	52.6	45-55	50.000000	MS-CCV-HIGH
LL	2013/07/20	Thallium-T	µg/L (ppb)	APHA 3125 B	0.05000	249	225-275	250.00000	MS-CCV-HIGH
LL	2013/07/20	Tin-T	µg/L (ppb)	APHA 3125 B	0.1000	262	225-275	250.0000	MS-CCV-HIGH
LL	2013/07/20	Titanium-T	µg/L (ppb)	APHA 3125 B	0.2000	50.6	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/20	Uranium-T	µg/L (ppb)	APHA 3125 B	0.05000	98.5	90-110	100.00000	MS-CCV-HIGH
LL	2013/07/20	Vanadium-T	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/20	Zinc-T	µg/L (ppb)	APHA 3125 B	0.5000	49.2	45.0-55.0	50.0000	MS-CCV-HIGH

Quality Control Standard

Project No. VE52277.2190.02

File No. EC-65574

Water Analysis - Dissolved Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/07/23	Aluminum-D	µg/L (ppb)	APHA 3125 B	2.000	48.7	45-55	50.000	MS-CCV-HIGH
LL	2013/07/23	Antimony-D	µg/L (ppb)	APHA 3125 B	0.05000	93.6	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/07/23	Arsenic-D	µg/L (ppb)	APHA 3125 B	0.1000	99.2	90.0-110	100.0000	MS-CCV-HIGH
LL	2013/07/23	Barium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.3	45-55	50.00000	MS-CCV-HIGH
LL	2013/07/23	Beryllium-D	µg/L (ppb)	APHA 3125 B	0.1000	45.7	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/23	Boron-D	µg/L (ppb)	APHA 3125 B	1.000	54.6	45-55	50.000	MS-CCV-HIGH
LL	2013/07/23	Cadmium-D	µg/L (ppb)	APHA 3125 B	0.015000	49.3	45.0-55.0	50.000000	MS-CCV-HIGH
LL	2013/07/23	Calcium-D	µg/L (ppb)	APHA 3125 B	500.0	24300	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/07/23	Chromium-D	µg/L (ppb)	APHA 3125 B	0.3000	48.9	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/23	Cobalt-D	µg/L (ppb)	APHA 3125 B	0.02000	49.9	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/23	Copper-D	µg/L (ppb)	APHA 3125 B	0.1000	48.4	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/23	Iron-D	µg/L (ppb)	APHA 3125 B	0.1000	46.7	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/23	Lead-D	µg/L (ppb)	APHA 3125 B	0.05000	99.5	90.0-110	100.00000	MS-CCV-HIGH
LL	2013/07/23	Lithium-D	µg/L (ppb)	APHA 3125 B	1.000	46.5	45.0-55.5	50.000	MS-CCV-HIGH
LL	2013/07/23	Magnesium-D	µg/L (ppb)	APHA 3125 B	500.00	24200	22545-27555	25050.00	MS-CCV-HIGH
LL	2013/07/23	Manganese-D	µg/L (ppb)	APHA 3125 B	0.05000	50.0	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/23	Mercury-D	µg/L (ppb)	APHA 3112	0.005000	0.961000	0.7318-1.2102	0.971000	E2-QCPHG010
LL	2013/07/23	Molybdenum-D	µg/L (ppb)	APHA 3125 B	0.05000	45.8	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/23	Nickel-D	µg/L (ppb)	APHA 3125 B	0.05000	47.7	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/23	Phosphorus-D	µg/L (ppb)	APHA 3125 B	10.00	258	225-275	250.00	MS-CCV-HIGH
LL	2013/07/23	Potassium-D	µg/L (ppb)	APHA 3125 B	500.0	24800	22725-27775	25250.0	MS-CCV-HIGH
LL	2013/07/23	Selenium-D	µg/L (ppb)	APHA 3125 B	0.6000	50.2	45-55	50.0000	MS-CCV-HIGH
LL	2013/07/23	Silicon-D	µg/L (ppb)	APHA 3125 B	10.00	113	105-129	117.00	MS-CCV-HIGH
LL	2013/07/23	Silver-D	µg/L (ppb)	APHA 3125 B	0.05000	12.0	11.25-13.75	12.50000	MS-CCV-HIGH
LL	2013/07/23	Sodium-D	µg/L (ppb)	APHA 3125 B	500.0	24200	22545-27555	25050.0	MS-CCV-HIGH
LL	2013/07/23	Strontium-D	µg/L (ppb)	APHA 3125 B	0.005000	52.6	45-55	50.000000	MS-CCV-HIGH
LL	2013/07/23	Thallium-D	µg/L (ppb)	APHA 3125 B	0.05000	249	225-275	250.00000	MS-CCV-HIGH
LL	2013/07/23	Tin-D	µg/L (ppb)	APHA 3125 B	0.1000	262	225-275	250.0000	MS-CCV-HIGH
LL	2013/07/23	Titanium-D	µg/L (ppb)	APHA 3125 B	0.2000	50.6	45.0-55.0	50.0000	MS-CCV-HIGH
LL	2013/07/23	Uranium-D	µg/L (ppb)	APHA 3125 B	0.05000	98.5	90-110	100.00000	MS-CCV-HIGH
LL	2013/07/23	Vanadium-D	µg/L (ppb)	APHA 3125 B	0.05000	49.6	45.0-55.0	50.00000	MS-CCV-HIGH
LL	2013/07/23	Zinc-D	µg/L (ppb)	APHA 3125 B	0.5000	49.2	45.0-55.0	50.0000	MS-CCV-HIGH
AFD	2013/07/17	pH @ 25°C BC-D	pH Units	APHA 4500H	0.01	6.00	5.92-6.08	6.00	QC-pH-10

Analytical Comments

Project No. VE52277.2190.02

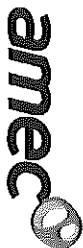
File No. EC-65574

All Analytical results pertain to samples analyzed as received.

APHA: Standard Method for the Examination of Water and Wastewater, 2005. 21st Ed. American Public Health Association.

MDL - Method Detection Limit

Total Alkalinity titration performed to pH endpoint 4.5.



Edmonton Chemistry Lab

EG-65574
41

Chain of Custody Record/Analysis Request

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

ISSUING OFFICE: Burnaby, BC

YES

Please attach a copy of the quote

NO

Project Name: NewGold Blackwater
 Project Manager: Bruce Ott
 Project Number: VES2277 2190.02
 Phase:
 Sampler:
 Phone No.: 604-294-3811
 Task:
 Client Sample ID:
 AMEC E & E Lab Sample ID:
 Date Collected:
 Matrix:
 1L Bottle
 250 mL Jar
 40 mL Vial
 1L Polyethylene
 100 mL Amber
 250 mL Polyethylene
 125 mL Polyethylene

Quote #:

QN-521

Temperature Received:

9.8

Receiver's Comments

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus	Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN	Organic carbon (TOC, DOC)	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)
WQ3	13-1291	15/07/2013	water								X	X	X	X	X	X	X		
WQ5	92	15/07/2013	water								X	X	X	X	X	X	X		
WQ8	93	15/07/2013	water								X	X	X	X	X	X	X		
WQ10	94	15/07/2013	water								X	X	X	X	X	X	X		
WQ11	95	15/07/2013	water								X	X	X	X	X	X	X		
WQ12	96	15/07/2013	water								X	X	X	X	X	X	X		
WQ15	97	15/07/2013	water								X	X	X	X	X	X	X		
WQ16	98	15/07/2013	water								X	X	X	X	X	X	X		
WQ 26	99	15/07/2013	water								X	X	X	X	X	X	X		

RELINQUISHED BY: Signature: RECEIVED BY: Signature: RELINQUISHED BY: Signature: RECEIVED BY: Signature:

Printed Name: C. MacFadden Printed Name: Printed Name: Printed Name:

Firm: Avision Management Services Firm: Firm: Firm:

Date/Time: 16/07/2013 15:00 Date/Time: Date/Time: Date/Time:

Comments:
 1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com)
 2) Please use Low Level nitrate and nitrite
 3) Please analyze CN4 and CN-WAD using H2SO4 method.



Edmonton Chemistry Lab

EC-65574
41

Chain of Custody Record/Analysis Request

Tracking #:

ANALYSIS REQUIRED (Note preferred method)

QUOTED PRICE

ISSUING OFFICE:

Burnaby, BC

YES

NO

Please attach a copy of the quote

Project Name:

NewGold Blackwater

Sampler:

Blackwater

Project Manager:

Bruce Ott

Phone No.:

604-294-3811

Project Number:

VE52277 2190.02

Task:

Surface Water

Quote #:

QN-521

Temperature Received:

15.0°C

Receiver's Comments

Client Sample ID	AMEC E & E Lab Sample ID	Date Collected yyyy/mm/dd	Matrix	Container						ANALYSIS REQUIRED (Note preferred method)			50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)				
				1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	100 mL Amber	250 mL Polyethylene	125 mL Polyethylene	Water potability	Total and ortho- Phosphorus			Cyanide (total and WAD)	TSS	Total and dissolved metals (Ultra ICP/MS)	Ammonia and TKN
WQ6		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
WQ7		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
WQ9		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
WQ14		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
WQ1		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
WQ4		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
WQ13		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
Duplicate		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
Field Blank		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		
Travel Blank		16/07/2013	water			2	1	1	1	1	2	X	X	X	X	X		

RELINQUISHED BY:

Signature:

RELINQUISHED BY:

Signature:

Comments:

Signature: *[Handwritten Signature]*

Signature: *[Handwritten Signature]*

Signature:

1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Ramee Lai (ramee.lai@amec.com)
2) Please use Low Level nitrate and nitrite
3) Please analyze CN-4 and CN-WAD using H2SO4 method.

Printed Name:

Printed Name: *[Handwritten Name]*

Printed Name:

Printed Name:

Firm:

Firm: *[Handwritten Firm Name]*

Firm:

Firm:

Avision Management Services

Firm: *[Handwritten Firm Name]*

Firm:

Firm:

Date/Time:

Date/Time: *[Handwritten Date/Time]*

Date/Time:

Date/Time:

7/16/2013 15:00 PM

Date/Time: *[Handwritten Date/Time]*

Date/Time:

Date/Time:



AMEC Environment & Infrastructure
ATTN: Bruce Ott
600 4445 Lougheed Hwy
Burnaby BC V5C 0E4

Date Received: 18-JUL-13
Report Date: 24-JUL-13 13:53 (MT)
Version: FINAL REV. 2

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1334447
Project P.O. #: NOT SUBMITTED
Job Reference: VE52277.2190.02
C of C Numbers:
Legal Site Desc:

Comments:

24-JUL-13: Revised report in mg/L, no other modifications were made.

Selam Worku
Account Manager

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ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1334447-1	L1334447-2	L1334447-3	L1334447-4	L1334447-5
		Description	WATER	WATER	WATER	WATER	WATER
		Sampled Date	16-JUL-13	16-JUL-13	16-JUL-13	16-JUL-13	16-JUL-13
		Sampled Time					
		Client ID	WQ7	WQ9	WQ14	WQ6	WQ13
Grouping	Analyte						
WATER							
Cyanides	Cyanate (mg/L)		<0.20	<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)		<0.50	<0.50	<0.50	<0.50	<0.50

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	Description	Sampled Date	Sampled Time	Client ID
	L1334447-6	WATER	16-JUL-13		TRIP BLANK
	L1334447-7	WATER	16-JUL-13		WQ1
	L1334447-8	WATER	16-JUL-13		WQ4
Grouping	Analyte				
WATER					
Cyanides	Cyanate (mg/L)		<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)		<0.50	<0.50	<0.50

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1334447

Report Date: 24-JUL-13

Page 1 of 2

Client: AMEC Environment & Infrastructure
 # 600 4445 Lougheed Hwy
 Burnaby BC V5C 0E4
 Contact: Bruce Ott

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT		Water						
Batch	R2654507							
WG1711208-3	DUP	L1334447-1						
Cyanate		<0.20	<0.20	RPD-NA	mg/L	N/A	20	23-JUL-13
WG1711208-2	LCS		93.5		%		85-115	23-JUL-13
Cyanate								
WG1711208-1	MB		<0.20		mg/L		0.2	23-JUL-13
Cyanate								
CN-SCN-VA		Water						
Batch	R2652814							
WG1710474-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			109.7		%		85-115	19-JUL-13
WG1710474-6	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			98.6		%		85-115	19-JUL-13
WG1710474-1	MB		<0.50		mg/L		0.5	19-JUL-13
Thiocyanate (SCN)								
WG1710474-5	MB		<0.50		mg/L		0.5	19-JUL-13
Thiocyanate (SCN)								
WG1710474-4	MS	L1334013-15						
Thiocyanate (SCN)			99.4		%		75-125	19-JUL-13
WG1710474-8	MS	L1334476-3						
Thiocyanate (SCN)			103.1		%		75-125	19-JUL-13

Quality Control Report

Workorder: L1334447

Report Date: 24-JUL-13

Page 2 of 2

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



AMEC Environment & Infrastructure
ATTN: Bruce Ott
600 4445 Lougheed Hwy
Burnaby BC V5C 0E4

Date Received: 18-JUL-13
Report Date: 25-JUL-13 16:56 (MT)
Version: FINAL

Client Phone: 604-473-5315

Certificate of Analysis

Lab Work Order #: L1334476
Project P.O. #: NOT SUBMITTED
Job Reference: VE52277.2190.02
C of C Numbers:
Legal Site Desc:

Selam Worku
Account Manager

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ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
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ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1334476-6	L1334476-7	L1334476-8	L1334476-9
		Description	WATER	WATER	WATER	WATER
		Sampled Date	15-JUL-13	15-JUL-13	15-JUL-13	15-JUL-13
		Sampled Time				
		Client ID	WQ15	WQ16	WQ12	WQ8
Grouping	Analyte					
WATER						
Cyanides	Cyanate (mg/L)		<0.20	<0.20	<0.20	<0.20
	Thiocyanate (SCN) (mg/L)		<0.50	<0.50	<0.50	<0.50

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-CNO-WT	Water	Cyanate	APHA 4500-CN-L
CN-SCN-VA	Water	Thiocyanate by Colour	APHA 4500-CN CYANIDE

This analysis is carried out using procedures adapted from APHA Method 4500-CN- M "Thiocyanate" Thiocyanate is determined by the ferric nitrate colourimetric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1334476

Report Date: 25-JUL-13

Page 1 of 2

Client: AMEC Environment & Infrastructure
 # 600 4445 Lougheed Hwy
 Burnaby BC V5C 0E4
 Contact: Bruce Ott

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-CNO-WT		Water						
Batch	R2656266							
WG1712507-2	LCS							
Cyanate			87.7		%		85-115	25-JUL-13
WG1712507-1	MB							
Cyanate			<0.20		mg/L		0.2	25-JUL-13
CN-SCN-VA		Water						
Batch	R2652814							
WG1710474-2	CRM	VA-SCN-LOW-CONTROL						
Thiocyanate (SCN)			109.7		%		85-115	19-JUL-13
WG1710474-6	CRM	VA-SCN-HIGH-CONTROL						
Thiocyanate (SCN)			98.6		%		85-115	19-JUL-13
WG1710474-7	DUP	L1334476-2						
Thiocyanate (SCN)		<0.50	<0.50	RPD-NA	mg/L	N/A	20	19-JUL-13
WG1710474-1	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	19-JUL-13
WG1710474-5	MB							
Thiocyanate (SCN)			<0.50		mg/L		0.5	19-JUL-13
WG1710474-4	MS	L1334013-15						
Thiocyanate (SCN)			99.4		%		75-125	19-JUL-13
WG1710474-8	MS	L1334476-3						
Thiocyanate (SCN)			103.1		%		75-125	19-JUL-13

Quality Control Report

Workorder: L1334476

Report Date: 25-JUL-13

Page 2 of 2

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: KRISTINE CONNOR
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 18-JUL-13
Report Date: 31-JUL-13 14:33 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1334814
Project P.O. #: 2220
Job Reference: EC-65574
C of C Numbers:
Legal Site Desc:

Maureen Olinek
Senior Account Manager

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ADDRESS: 9936-67 Avenue, Edmonton, AB T6E 0P5 Canada | Phone: +1 780 413 5227 | Fax: +1 780 437 2311
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1334814-1 WQ3~13-7391 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-2 WQ5~13-7392 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-3 WQ8~13-7393 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-4 WQ10~13-7394 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-5 WQ11~13-7395 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-6 WQ12~13-7396 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-7 WQ15~13-7397 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-8 WQ16~13-7398 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-9 WQ26~13-7399 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1334814-9 WQ26~13-7399 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-10 WQ6~13-73400 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-11 WQ7~13-73401 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-12 WQ9~13-7402 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-13 WQ14~13-7403 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-14 WQ1~13-7404 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-15 WQ4~13-7405 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-16 WQ13~13-7406 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER Miscellaneous Parameters Cyanide, Total Cyanide, Weak Acid Diss	<0.0050 <0.0050		0.0050 0.0050	mg/L mg/L		30-JUL-13 30-JUL-13	R2662591 R2662599
L1334814-17 DUPLICATE~13-7407 Sampled By: CLIENT on 15-JUL-13 Matrix: WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-T-CFA-VA	Water	Total Cyanide in water by CFA	ISO 14403:2002
This analysis is carried out using procedures adapted from ISO Method 14403:2002 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis. Method Limitation: This method is susceptible to interference from thiocyanate (SCN). If SCN is present in the sample, there could be a positive interference with this method, but it would be less than 1% and could be as low as zero.			
CN-WAD-CFA-VA	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN CYANIDE
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak Acid Dissociable (WAD) cyanide is determined by in-line sample distillation with final determination by colourimetric analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

*mg/kg - milligrams per kilogram based on dry weight of sample
 mg/kg wwt - milligrams per kilogram based on wet weight of sample
 mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
 mg/L - unit of concentration based on volume, parts per million.*

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1334814

Report Date: 31-JUL-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-VA		Water						
Batch	R2662591							
WG1717340-16	DUP	L1334649-20						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	30-JUL-13
WG1717340-9	DUP	L1334814-15						
Cyanide, Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	30-JUL-13
WG1717340-15	IRM	ALS-TCN-IRM1						
Cyanide, Total			91.2		%		75-105	30-JUL-13
WG1717340-20	IRM	ALS-TCN-IRM1						
Cyanide, Total			91.6		%		75-105	30-JUL-13
WG1717340-3	IRM	ALS-TCN-IRM1						
Cyanide, Total			92.8		%		75-105	30-JUL-13
WG1717340-8	IRM	ALS-TCN-IRM1						
Cyanide, Total			93.1		%		75-105	30-JUL-13
WG1717340-14	LCS							
Cyanide, Total			106.2		%		80-120	30-JUL-13
WG1717340-19	LCS							
Cyanide, Total			108.2		%		80-120	30-JUL-13
WG1717340-2	LCS							
Cyanide, Total			106.7		%		80-120	30-JUL-13
WG1717340-7	LCS							
Cyanide, Total			108.1		%		80-120	30-JUL-13
WG1717340-1	MB							
Cyanide, Total			<0.0050		mg/L		0.005	30-JUL-13
WG1717340-13	MB							
Cyanide, Total			<0.0050		mg/L		0.005	30-JUL-13
WG1717340-18	MB							
Cyanide, Total			<0.0050		mg/L		0.005	30-JUL-13
WG1717340-6	MB							
Cyanide, Total			<0.0050		mg/L		0.005	30-JUL-13
WG1717340-10	MS	L1334814-15						
Cyanide, Total			101.1		%		70-130	30-JUL-13
WG1717340-17	MS	L1334649-20						
Cyanide, Total			101.6		%		70-130	30-JUL-13
CN-WAD-CFA-VA		Water						
Batch	R2662599							
WG1717345-7	DUP	L1334814-15						
Cyanide, Weak Acid Diss		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	30-JUL-13
WG1717345-10	LCS							
Cyanide, Weak Acid Diss			106.7		%		80-120	30-JUL-13



Quality Control Report

Workorder: L1334814

Report Date: 31-JUL-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-VA	Water							
Batch	R2662599							
WG1717345-2	LCS							
Cyanide, Weak Acid Diss			105.4		%		80-120	30-JUL-13
WG1717345-6	LCS							
Cyanide, Weak Acid Diss			106.0		%		80-120	30-JUL-13
WG1717345-1	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	30-JUL-13
WG1717345-5	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	30-JUL-13
WG1717345-9	MB							
Cyanide, Weak Acid Diss			<0.0050		mg/L		0.005	30-JUL-13
WG1717345-8	MS	L1334814-15						
Cyanide, Weak Acid Diss			100.9		%		70-130	30-JUL-13

Quality Control Report

Workorder: L1334814

Report Date: 31-JUL-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

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Contact: KRISTINE CONNOR

Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L1334814

Report Date: 31-JUL-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: KRISTINE CONNOR

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Cyanides							
Total Cyanide in water by CFA							
	1	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	2	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	3	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	4	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	5	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	6	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	7	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	8	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	9	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	10	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	11	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	12	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	13	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	14	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	15	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	16	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	17	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	18	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
	19	15-JUL-13	30-JUL-13 12:01	14	15	days	EHT
Weak Acid Diss. Cyanide in water by CFA							
	1	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	2	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	3	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	4	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	5	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	6	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	7	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	8	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	9	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	10	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	11	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	12	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	13	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	14	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	15	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	16	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	17	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	18	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT
	19	15-JUL-13	30-JUL-13 12:06	14	15	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1334814 were received on 18-JUL-13 17:13.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government

Quality Control Report

Workorder: L1334814

Report Date: 31-JUL-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

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Contact: KRISTINE CONNOR

requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

FileNbr	SampleName	LabNbr	DateSampled	Description
EC-65574	WQ3	13-7391-	2013/07/15	Water
EC-65574	WQ5	13-7392-	2013/07/15	Water
EC-65574	WQ8	13-7393-	2013/07/15	Water
EC-65574	WQ10	13-7394-	2013/07/15	Water
EC-65574	WQ11	13-7395-	2013/07/15	Water
EC-65574	WQ12	13-7396-	2013/07/15	Water
EC-65574	WQ15	13-7397-	2013/07/15	Water
EC-65574	WQ16	13-7398-	2013/07/15	Water
EC-65574	WQ26	13-7399-	2013/07/15	Water
EC-65574	WQ6	13-7400-	2013/07/16	Water
EC-65574	WQ7	13-7401-	2013/07/16	Water
EC-65574	WQ9	13-7402-	2013/07/16	Water
EC-65574	WQ14	13-7403-	2013/07/16	Water
EC-65574	WQ1	13-7404-	2013/07/16	Water
EC-65574	WQ4	13-7405-	2013/07/16	Water
EC-65574	WQ13	13-7406-	2013/07/16	Water
EC-65574	Duplicate	13-7407-	2013/07/16	Water
EC-65574	Field Blank	13-7408-	2013/07/16	Water
EC-65574	Travel Blank	13-7409-	2013/07/16	Water



L1334814-COFC



Annex 5 Sediment Quality Database

ANALYTICAL REPORT

AMEC Earth & Environmental
 Suite 600, 4445 Lougheed Highway
 Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals

Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10917	11-10917-D	11-10918	11-10919	11-10920
					Client ID:	WQ1	WQ1	WQ3	WQ3 Split	WQ4
					Sample Date:	2011-08-16 16:25	Lab Duplicate	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25
					MDL					
JL	2011/08/24	Moisture	%	---	0.5	61.3	60.5	56.2	56.9	62.7
BM	2011/08/29	Aluminum	µg/g (ppm)	BCME	1	15200	15400	10700	9180	29200
BM	2011/08/29	Antimony	µg/g (ppm)	BCME	0.1	0.9	0.9	0.7	0.6	3.7
BM	2011/08/29	Arsenic	µg/g (ppm)	BCME	0.05	16.2	16.1	6.20	5.44	223
BM	2011/08/29	Barium	µg/g (ppm)	BCME	0.1	112	110	103	81.6	238
BM	2011/08/29	Beryllium	µg/g (ppm)	BCME	0.1	1.0	1.0	0.6	0.5	1.6
BM	2011/08/29	Bismuth	µg/g (ppm)	BCME	0.1	0.1	0.1	< 0.1	< 0.1	0.2
BM	2011/08/29	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
BM	2011/08/29	Cadmium	µg/g (ppm)	BCME	0.01	0.96	0.92	0.39	0.32	9.83
BM	2011/08/29	Calcium	µg/g (ppm)	BCME	5	3410	3380	7590	5920	7240
BM	2011/08/29	Chromium	µg/g (ppm)	BCME	0.05	13.2	13.1	34.3	27.1	18.8
BM	2011/08/29	Cobalt	µg/g (ppm)	BCME	0.05	3.70	3.66	4.70	3.86	13.5
BM	2011/08/29	Copper	µg/g (ppm)	BCME	0.01	10.5	10.4	15.9	8.58	25.0
BM	2011/08/29	Iron	µg/g (ppm)	BCME	5	11800	11700	10600	9580	30800
BM	2011/08/29	Lead	µg/g (ppm)	BCME	0.1	10.9	10.7	11.0	10.7	44.6
BM	2011/08/29	Magnesium	µg/g (ppm)	BCME	1	1700	1680	2030	1670	2110
BM	2011/08/29	Manganese	µg/g (ppm)	BCME	0.1	212	210	475	363	4380
BM	2011/08/30	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.11	0.11	0.09	0.08	0.21
BM	2011/08/29	Molybdenum	µg/g (ppm)	BCME	0.1	2.7	2.6	1.4	0.9	5.2
BM	2011/08/29	Nickel	µg/g (ppm)	BCME	0.1	8.5	8.5	9.4	7.0	18.9
BM	2011/08/29	Phosphorus	µg/g (ppm)	BCME	5	812	802	721	642	1160
BM	2011/08/29	Potassium	µg/g (ppm)	BCME	1	459	450	431	363	769
BM	2011/08/29	Selenium	µg/g (ppm)	BCME	0.01	0.41	0.37	1.42	1.03	0.65
BM	2011/08/29	Silver	µg/g (ppm)	BCME	0.05	0.37	0.36	0.21	0.16	3.62
BM	2011/08/29	Sodium	µg/g (ppm)	BCME	1	94	92	112	103	90
BM	2011/08/29	Strontium	µg/g (ppm)	BCME	0.1	35.7	35.3	62.4	48.6	61.9
BM	2011/08/29	Thallium	µg/g (ppm)	BCME	0.05	0.40	0.33	0.13	0.12	0.46
BM	2011/08/29	Tin	µg/g (ppm)	BCME	0.1	0.6	0.5	0.4	0.8	0.5
BM	2011/08/29	Titanium	µg/g (ppm)	BCME	0.5	171	169	252	292	67.5
BM	2011/08/29	Vanadium	µg/g (ppm)	BCME	0.05	38.6	38.4	35.0	29.3	45.4

Report reviewed by:



Jesse Dang, B.Sc.
 Manager
 Laboratory Services



Charlene Rollheiser
 Director of QA/QC
 Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

5667 - 70 Street
Edmonton, Alberta
Canada T6B 3P6
Tel: (780) 436-2152
Fax: (780) 377-3600



ANALYTICAL REPORT

All Analytical results pertain to samples analyzed as received.

BCME (Metals): British Columbia Ministry of Environment - Contaminated Sites Regulation, SALM Analytical Method 8, v1.0, 2001

BCME (pH1:1): British Columbia Ministry of Environment - Contaminated Sites Regulation, pH (1:1H₂O), Method PHSED, v1.0, 2000

EPA: U.S. Environmental Protection Agency. 1997. Test Methods of Evaluation of Solid Waste 3rd Ed through Update III. Office Solid Waste Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

MDL - Method Detection Limit

Report reviewed by:

A handwritten signature in black ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in black ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

ANALYTICAL REPORT

AMEC Earth & Environmental
 Suite 600, 4445 Lougheed Highway
 Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals

Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10921	11-10922	11-10923	11-10924	11-10925
					Client ID:	WQ5	WQ6	WQ6 Split	WQ7	WQ7 Split
					Sample Date:	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25
					MDL					
JL	2011/08/24	Moisture	%	---	0.5	34.1	59.7	52.1	21.7	24.8
BM	2011/08/29	Aluminum	µg/g (ppm)	BCME	1	17600	15100	15100	11000	10600
BM	2011/08/29	Antimony	µg/g (ppm)	BCME	0.1	0.5	0.8	0.7	0.5	0.5
BM	2011/08/29	Arsenic	µg/g (ppm)	BCME	0.05	9.05	19.0	18.7	5.31	4.82
BM	2011/08/29	Barium	µg/g (ppm)	BCME	0.1	130	143	140	95.5	90.8
BM	2011/08/29	Beryllium	µg/g (ppm)	BCME	0.1	0.6	0.8	0.8	0.4	0.4
BM	2011/08/29	Bismuth	µg/g (ppm)	BCME	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
BM	2011/08/29	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
BM	2011/08/29	Cadmium	µg/g (ppm)	BCME	0.01	0.45	0.65	0.62	0.17	0.15
BM	2011/08/29	Calcium	µg/g (ppm)	BCME	5	4350	4270	4180	4950	4880
BM	2011/08/29	Chromium	µg/g (ppm)	BCME	0.05	17.8	12.6	12.5	21.6	21.5
BM	2011/08/29	Cobalt	µg/g (ppm)	BCME	0.05	6.67	4.53	4.39	7.21	7.06
BM	2011/08/29	Copper	µg/g (ppm)	BCME	0.01	15.0	12.6	12.3	12.2	11.7
BM	2011/08/29	Iron	µg/g (ppm)	BCME	5	18700	16400	15700	18500	17800
BM	2011/08/29	Lead	µg/g (ppm)	BCME	0.1	11.4	17.6	17.2	7.6	7.4
BM	2011/08/29	Magnesium	µg/g (ppm)	BCME	1	2850	2180	2150	3630	3610
BM	2011/08/29	Manganese	µg/g (ppm)	BCME	0.1	722	451	415	499	463
BM	2011/08/30	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.07	0.15	0.15	0.04	0.04
BM	2011/08/29	Molybdenum	µg/g (ppm)	BCME	0.1	0.9	1.5	1.5	0.7	0.6
BM	2011/08/29	Nickel	µg/g (ppm)	BCME	0.1	11.8	12.0	11.8	16.9	16.6
BM	2011/08/29	Phosphorus	µg/g (ppm)	BCME	5	753	775	779	691	688
BM	2011/08/29	Potassium	µg/g (ppm)	BCME	1	505	566	562	495	491
BM	2011/08/29	Selenium	µg/g (ppm)	BCME	0.01	0.36	0.65	0.64	0.34	0.31
BM	2011/08/29	Silver	µg/g (ppm)	BCME	0.05	0.33	0.46	0.46	0.09	0.20
BM	2011/08/29	Sodium	µg/g (ppm)	BCME	1	140	86	85	188	193
BM	2011/08/29	Strontium	µg/g (ppm)	BCME	0.1	39.0	47.6	46.5	41.5	40.1
BM	2011/08/29	Thallium	µg/g (ppm)	BCME	0.05	0.14	0.22	0.22	0.08	0.07
BM	2011/08/29	Tin	µg/g (ppm)	BCME	0.1	0.8	0.4	0.4	0.4	0.5
BM	2011/08/29	Titanium	µg/g (ppm)	BCME	0.5	323	79.5	73.5	761	787
BM	2011/08/29	Vanadium	µg/g (ppm)	BCME	0.05	31.8	26.7	26.7	40.9	41.1

Report reviewed by:



Jesse Dang, B.Sc.
 Manager
 Laboratory Services



Charlene Rollheiser
 Director of QA/QC
 Laboratory Services

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ANALYTICAL REPORT

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MDL - Method Detection Limit

Report reviewed by:

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Jesse Dang, B.Sc.
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Laboratory Services

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ANALYTICAL REPORT

AMEC Earth & Environmental
 Suite 600, 4445 Lougheed Highway
 Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals

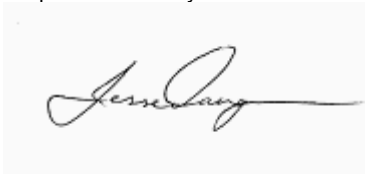
Attention: Ott, Bruce

Project No. VE52095.200.2A


File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10926	11-10927	11-10927-D	11-10928	11-10929
					Client ID:	WQ8	WQ9	WQ9	WQ10	WQ11
					Sample Date:	2011-08-16 16:25	2011-08-16 16:25	Lab Duplicate	2011-08-16 16:25	2011-08-16 16:25
					MDL					
JL	2011/08/24	Moisture	%	---	0.5	47.1	26.9	27.1	24.4	54.1
BM	2011/08/29	Aluminum	µg/g (ppm)	BCME	1	7290	10100	---	12800	24800
BM	2011/08/29	Antimony	µg/g (ppm)	BCME	0.1	0.3	0.4	---	0.4	0.2
BM	2011/08/29	Arsenic	µg/g (ppm)	BCME	0.05	2.46	3.57	---	7.93	3.48
BM	2011/08/29	Barium	µg/g (ppm)	BCME	0.1	55.9	79.6	---	116	194
BM	2011/08/29	Beryllium	µg/g (ppm)	BCME	0.1	0.3	0.3	---	0.5	1.0
BM	2011/08/29	Bismuth	µg/g (ppm)	BCME	0.1	< 0.1	< 0.1	---	< 0.1	< 0.1
BM	2011/08/29	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	---	< 0.5	< 0.5
BM	2011/08/29	Cadmium	µg/g (ppm)	BCME	0.01	0.07	0.11	---	0.27	0.39
BM	2011/08/29	Calcium	µg/g (ppm)	BCME	5	8500	5080	---	5030	10600
BM	2011/08/29	Chromium	µg/g (ppm)	BCME	0.05	15.3	18.3	---	19.0	15.9
BM	2011/08/29	Cobalt	µg/g (ppm)	BCME	0.05	3.57	5.60	---	5.43	6.90
BM	2011/08/29	Copper	µg/g (ppm)	BCME	0.01	15.8	11.6	---	12.8	18.2
BM	2011/08/29	Iron	µg/g (ppm)	BCME	5	9410	15500	---	16400	19700
BM	2011/08/29	Lead	µg/g (ppm)	BCME	0.1	5.0	6.1	---	12.3	6.3
BM	2011/08/29	Magnesium	µg/g (ppm)	BCME	1	3020	3220	---	2650	3490
BM	2011/08/29	Manganese	µg/g (ppm)	BCME	0.1	225	295	---	510	1140
BM	2011/08/30	Mercury	µg/g (ppm)	EPA 7471A	0.02	< 0.02	0.03	---	0.06	0.11
BM	2011/08/29	Molybdenum	µg/g (ppm)	BCME	0.1	1.5	0.6	---	1.2	0.8
BM	2011/08/29	Nickel	µg/g (ppm)	BCME	0.1	13.2	13.4	---	11.2	12.5
BM	2011/08/29	Phosphorus	µg/g (ppm)	BCME	5	893	695	---	632	879
BM	2011/08/29	Potassium	µg/g (ppm)	BCME	1	490	436	---	491	800
BM	2011/08/29	Selenium	µg/g (ppm)	BCME	0.01	0.38	0.32	---	0.43	0.67
BM	2011/08/29	Silver	µg/g (ppm)	BCME	0.05	< 0.05	0.07	---	0.19	0.20
BM	2011/08/29	Sodium	µg/g (ppm)	BCME	1	234	191	---	126	139
BM	2011/08/29	Strontium	µg/g (ppm)	BCME	0.1	50.8	38.2	---	41.7	88.7
BM	2011/08/29	Thallium	µg/g (ppm)	BCME	0.05	< 0.05	0.07	---	0.12	0.14
BM	2011/08/29	Tin	µg/g (ppm)	BCME	0.1	0.5	0.3	---	0.8	0.6
BM	2011/08/29	Titanium	µg/g (ppm)	BCME	0.5	433	734	---	335	105
BM	2011/08/29	Vanadium	µg/g (ppm)	BCME	0.05	22.9	33.8	---	33.4	32.4

Report reviewed by:



Jesse Dang, B.Sc.
 Manager
 Laboratory Services



Charlene Rollheiser
 Director of QA/QC
 Laboratory Services

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MDL - Method Detection Limit

Report reviewed by:

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Jesse Dang, B.Sc.
Manager
Laboratory Services

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Director of QA/QC
Laboratory Services

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ANALYTICAL REPORT

AMEC Earth & Environmental
 Suite 600, 4445 Lougheed Highway
 Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals

Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10930	11-10931	11-10932	11-10932-D	11-10933
					Client ID:	WQ12	WQ12 Split	WQ13	WQ13	WQ14 Rep1
					Sample Date:	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25	Lab Duplicate	2011-08-16 16:25
					MDL					
JL	2011/08/24	Moisture	%	---	0.5	49.5	35.6	31.8	---	68.0
BM	2011/08/29	Aluminum	µg/g (ppm)	BCME	1	14100	16200	11100	10700	17300
BM	2011/08/29	Antimony	µg/g (ppm)	BCME	0.1	0.3	0.3	0.4	0.4	0.3
BM	2011/08/29	Arsenic	µg/g (ppm)	BCME	0.05	5.71	7.04	5.00	5.08	21.6
BM	2011/08/29	Barium	µg/g (ppm)	BCME	0.1	138	149	95.5	96.8	236
BM	2011/08/29	Beryllium	µg/g (ppm)	BCME	0.1	0.6	0.7	0.3	0.3	0.7
BM	2011/08/29	Bismuth	µg/g (ppm)	BCME	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
BM	2011/08/29	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
BM	2011/08/29	Cadmium	µg/g (ppm)	BCME	0.01	0.15	0.16	0.13	0.12	0.49
BM	2011/08/29	Calcium	µg/g (ppm)	BCME	5	3960	4260	4770	4810	12500
BM	2011/08/29	Chromium	µg/g (ppm)	BCME	0.05	14.5	16.3	19.0	19.1	24.5
BM	2011/08/29	Cobalt	µg/g (ppm)	BCME	0.05	5.27	5.72	6.06	6.13	6.75
BM	2011/08/29	Copper	µg/g (ppm)	BCME	0.01	9.47	14.3	13.5	13.7	36.8
BM	2011/08/29	Iron	µg/g (ppm)	BCME	5	17800	19800	19400	19300	51100
BM	2011/08/29	Lead	µg/g (ppm)	BCME	0.1	7.4	7.9	6.4	6.5	6.0
BM	2011/08/29	Magnesium	µg/g (ppm)	BCME	1	2290	2460	3220	3230	3960
BM	2011/08/29	Manganese	µg/g (ppm)	BCME	0.1	491	508	421	426	1900
BM	2011/08/30	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.06	0.06	0.04	0.04	0.05
BM	2011/08/29	Molybdenum	µg/g (ppm)	BCME	0.1	1.5	1.7	0.6	0.6	1.7
BM	2011/08/29	Nickel	µg/g (ppm)	BCME	0.1	8.0	9.2	14.2	14.3	28.3
BM	2011/08/29	Phosphorus	µg/g (ppm)	BCME	5	799	874	766	768	1340
BM	2011/08/29	Potassium	µg/g (ppm)	BCME	1	429	471	446	447	1010
BM	2011/08/29	Selenium	µg/g (ppm)	BCME	0.01	0.25	0.28	0.39	0.40	0.84
BM	2011/08/29	Silver	µg/g (ppm)	BCME	0.05	0.12	0.14	0.08	0.08	0.19
BM	2011/08/29	Sodium	µg/g (ppm)	BCME	1	106	113	197	198	147
BM	2011/08/29	Strontium	µg/g (ppm)	BCME	0.1	34.3	36.5	38.2	38.6	87.5
BM	2011/08/29	Thallium	µg/g (ppm)	BCME	0.05	0.12	0.13	0.07	0.07	0.09
BM	2011/08/29	Tin	µg/g (ppm)	BCME	0.1	0.4	0.4	0.5	0.5	0.4
BM	2011/08/29	Titanium	µg/g (ppm)	BCME	0.5	257	236	689	686	122
BM	2011/08/29	Vanadium	µg/g (ppm)	BCME	0.05	32.3	35.9	36.0	36.3	51.5

Report reviewed by:

Jesse Dang, B.Sc.
 Manager
 Laboratory Services

Charlene Rollheiser
 Director of QA/QC
 Laboratory Services

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ANALYTICAL REPORT

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MDL - Method Detection Limit

Report reviewed by:

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Jesse Dang, B.Sc.
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Laboratory Services

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ANALYTICAL REPORT

AMEC Earth & Environmental
 Suite 600, 4445 Lougheed Highway
 Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals


Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10934	11-10935	11-10936	11-10936-D	11-10937
					Client ID:	WQ14 Rep2	WQ14 Rep3	WQ14 Rep4	WQ14 Rep4	WQ14 Rep5
					Sample Date:	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25	Lab Duplicate	2011-08-16 16:25
					MDL					
JL	2011/08/24	Moisture	%	---	0.5	67.5	56.3	56.4	---	59.5
BM	2011/08/29	Aluminum	µg/g (ppm)	BCME	1	16500	17300	16400	---	17300
BM	2011/08/29	Antimony	µg/g (ppm)	BCME	0.1	0.3	0.3	0.3	---	0.3
BM	2011/08/29	Arsenic	µg/g (ppm)	BCME	0.05	20.6	24.4	22.2	---	24.1
BM	2011/08/29	Barium	µg/g (ppm)	BCME	0.1	245	270	253	---	279
BM	2011/08/29	Beryllium	µg/g (ppm)	BCME	0.1	0.7	0.8	0.7	---	0.7
BM	2011/08/29	Bismuth	µg/g (ppm)	BCME	0.1	< 0.1	< 0.1	< 0.1	---	< 0.1
BM	2011/08/29	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	---	< 0.5
BM	2011/08/29	Cadmium	µg/g (ppm)	BCME	0.01	0.51	0.51	0.49	---	0.52
BM	2011/08/29	Calcium	µg/g (ppm)	BCME	5	11600	11700	11400	---	12100
BM	2011/08/29	Chromium	µg/g (ppm)	BCME	0.05	24.9	26.0	25.0	---	25.6
BM	2011/08/29	Cobalt	µg/g (ppm)	BCME	0.05	6.76	7.27	7.04	---	7.88
BM	2011/08/29	Copper	µg/g (ppm)	BCME	0.01	36.5	38.4	36.1	---	37.8
BM	2011/08/29	Iron	µg/g (ppm)	BCME	5	48500	54500	50400	---	54400
BM	2011/08/29	Lead	µg/g (ppm)	BCME	0.1	6.4	6.2	5.8	---	6.3
BM	2011/08/29	Magnesium	µg/g (ppm)	BCME	1	3930	3980	3860	---	3940
BM	2011/08/29	Manganese	µg/g (ppm)	BCME	0.1	1950	2160	2250	---	3130
BM	2011/08/30	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.05	0.08	0.06	---	0.06
BM	2011/08/29	Molybdenum	µg/g (ppm)	BCME	0.1	1.8	2.0	2.0	---	2.2
BM	2011/08/29	Nickel	µg/g (ppm)	BCME	0.1	28.3	29.7	28.1	---	29.6
BM	2011/08/29	Phosphorus	µg/g (ppm)	BCME	5	1270	1330	1270	---	1350
BM	2011/08/29	Potassium	µg/g (ppm)	BCME	1	1010	1060	1010	---	1030
BM	2011/08/29	Selenium	µg/g (ppm)	BCME	0.01	0.84	0.85	0.85	---	0.95
BM	2011/08/29	Silver	µg/g (ppm)	BCME	0.05	0.20	0.21	0.20	---	0.21
BM	2011/08/29	Sodium	µg/g (ppm)	BCME	1	149	153	148	---	151
BM	2011/08/29	Strontium	µg/g (ppm)	BCME	0.1	82.0	85.1	81.7	---	89.2
BM	2011/08/29	Thallium	µg/g (ppm)	BCME	0.05	0.09	0.10	0.10	---	0.11
BM	2011/08/29	Tin	µg/g (ppm)	BCME	0.1	1.3	0.5	0.4	---	0.8
BM	2011/08/29	Titanium	µg/g (ppm)	BCME	0.5	108	114	113	---	109
BM	2011/08/29	Vanadium	µg/g (ppm)	BCME	0.05	49.6	53.8	51.0	---	51.6

Report reviewed by:



Jesse Dang, B.Sc.
 Manager
 Laboratory Services



Charlene Rollheiser
 Director of QA/QC
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ANALYTICAL REPORT

AMEC Earth & Environmental
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals

Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10917	11-10917-D	11-10918	11-10919	11-10920
					Client ID:	WQ1	WQ1	WQ3	WQ3 Split	WQ4
					Sample Date:	2011-08-16 16:25	Lab Duplicate	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25
					MDL					
BM	2011/08/29	Zinc	µg/g (ppm)	BCME	0.5	125	124	59.0	53.7	2980
SA	2011/08/24	pH 1:1 H2O BC	pH units	BCME	0.01	5.14	5.06	6.01	5.90	5.51

All Analytical results pertain to samples analyzed as received.

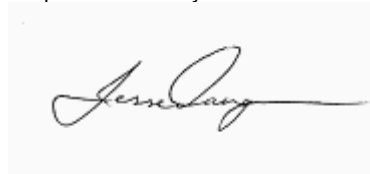
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ANALYTICAL REPORT

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Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals

Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10921	11-10922	11-10923	11-10924	11-10925
					Client ID:	WQ5	WQ6	WQ6 Split	WQ7	WQ7 Split
					Sample Date:	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25
					MDL					
BM	2011/08/29	Zinc	µg/g (ppm)	BCME	0.5	124	98.1	97.0	61.1	59.7
SA	2011/08/24	pH 1:1 H2O BC	pH units	BCME	0.01	5.42	5.28	5.31	6.52	6.50

All Analytical results pertain to samples analyzed as received.

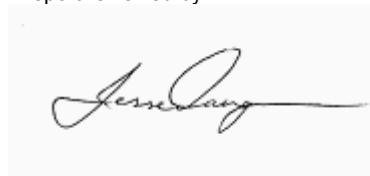
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Date Received: 2011/08/17
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Sediment Analysis - ICP/MS Metals

Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10926	11-10927	11-10927-D	11-10928	11-10929
					Client ID:	WQ8	WQ9	WQ9	WQ10	WQ11
					Sample Date:	2011-08-16 16:25	2011-08-16 16:25	Lab Duplicate	2011-08-16 16:25	2011-08-16 16:25
					MDL					
BM	2011/08/29	Zinc	µg/g (ppm)	BCME	0.5	34.8	46.1	---	77.9	51.5
SA	2011/08/24	pH 1:1 H2O BC	pH units	BCME	0.01	6.05	5.96	---	6.64	6.41

All Analytical results pertain to samples analyzed as received.

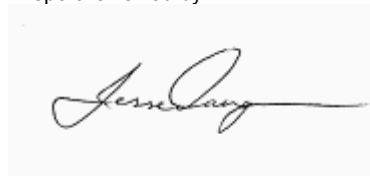
BCME (Metals): British Columbia Ministry of Environment - Contaminated Sites Regulation, SALM Analytical Method 8, v1.0, 2001

BCME (pH1:1): British Columbia Ministry of Environment - Contaminated Sites Regulation, pH (1:1H2O), Method PHSED, v1.0, 2000

EPA: U.S. Environmental Protection Agency. 1997. Test Methods of Evaluation of Solid Waste 3rd Ed through Update III. Office Solid Waste Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

MDL - Method Detection Limit

Report reviewed by:



Jesse Dang, B.Sc.
 Manager
 Laboratory Services



Charlene Rollheiser
 Director of QA/QC
 Laboratory Services

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ANALYTICAL REPORT

AMEC Earth & Environmental
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals

Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10930	11-10931	11-10932	11-10932-D	11-10933
					Client ID:	WQ12	WQ12 Split	WQ13	WQ13	WQ14 Rep1
					Sample Date:	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25	Lab Duplicate	2011-08-16 16:25
					MDL					
BM	2011/08/29	Zinc	µg/g (ppm)	BCME	0.5	48.6	54.5	49.4	49.9	104
SA	2011/08/24	pH 1:1 H2O BC	pH units	BCME	0.01	5.43	5.44	5.38	---	6.90

All Analytical results pertain to samples analyzed as received.

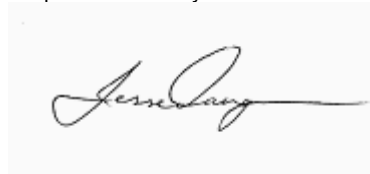
BCME (Metals): British Columbia Ministry of Environment - Contaminated Sites Regulation, SALM Analytical Method 8, v1.0, 2001

BCME (pH1:1): British Columbia Ministry of Environment - Contaminated Sites Regulation, pH (1:1H2O), Method PHSED, v1.0, 2000

EPA: U.S. Environmental Protection Agency. 1997. Test Methods of Evaluation of Solid Waste 3rd Ed through Update III. Office Solid Waste Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

MDL - Method Detection Limit

Report reviewed by:



Jesse Dang, B.Sc.
 Manager
 Laboratory Services



Charlene Rollheiser
 Director of QA/QC
 Laboratory Services

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ANALYTICAL REPORT

AMEC Earth & Environmental
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Date Received: 2011/08/17
Report Date: 2011/09/08

Sediment Analysis - ICP/MS Metals

Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	11-10934	11-10935	11-10936	11-10936-D	11-10937
					Client ID:	WQ14 Rep2	WQ14 Rep3	WQ14 Rep4	WQ14 Rep4	WQ14 Rep5
					Sample Date:	2011-08-16 16:25	2011-08-16 16:25	2011-08-16 16:25	Lab Duplicate	2011-08-16 16:25
					MDL					
BM	2011/08/29	Zinc	µg/g (ppm)	BCME	0.5	107	108	102	---	106
SA	2011/08/24	pH 1:1 H2O BC	pH units	BCME	0.01	6.88	6.95	6.91	6.93	7.07

All Analytical results pertain to samples analyzed as received.

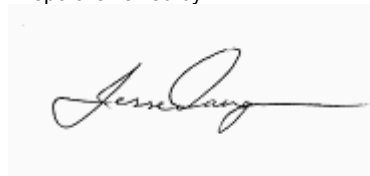
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BCME (pH1:1): British Columbia Ministry of Environment - Contaminated Sites Regulation, pH (1:1H2O), Method PHSED, v1.0, 2000

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MDL - Method Detection Limit

Report reviewed by:



Jesse Dang, B.Sc.
 Manager
 Laboratory Services



Charlene Rollheiser
 Director of QA/QC
 Laboratory Services

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ANALYTICAL REPORT

AMEC Earth & Environmental
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Report Date: 2011/09/08

Quality Control Standard

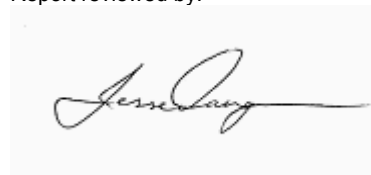
Attention: Ott, Bruce

Project No. VE52095.200.2A

File No.: EC-61555

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
BM	2011/08/29	Aluminum	µg/g (ppm)	BCME	5	9870	5550-15600	10,600.00	ERA D066-540
BM	2011/08/29	Antimony	µg/g (ppm)	BCME	0.5	13.7	1.9-18.1	10.00	SS#8
BM	2011/08/29	Arsenic	µg/g (ppm)	BCME	0.50	101	85.1-128	107.00	ERA D066-540
BM	2011/08/29	Barium	µg/g (ppm)	BCME	1.0	324	262-400	331.00	ERA D066-540
BM	2011/08/29	Beryllium	µg/g (ppm)	BCME	0.1	66.1	60.5-87.8	74.10	ERA D066-540
BM	2011/08/29	Bismuth	µg/L (ppb)	BCME	0.5	101	90-110	100.00	MS-CCV-HIGH
BM	2011/08/29	Boron	µg/g (ppm)	BCME	0.5	119	112-192	152.00	ERA D066-540
BM	2011/08/29	Cadmium	µg/g (ppm)	BCME	0.10	241	200-288	244.00	ERA D066-540
BM	2011/08/29	Calcium	µg/g (ppm)	BCME	5	8980	7980-11400	9,690.00	ERA D066-540
BM	2011/08/29	Chromium	µg/g (ppm)	BCME	0.50	76.3	64.1-97	80.60	ERA D066-540
BM	2011/08/29	Cobalt	µg/g (ppm)	BCME	0.50	83.5	70.3-101	85.80	ERA D066-540
BM	2011/08/29	Copper	µg/g (ppm)	BCME	0.10	62.5	52.5-78.1	65.30	ERA D066-540
BM	2011/08/29	Iron	µg/g (ppm)	BCME	5	20300	9310-27500	18,400.00	ERA D066-540
BM	2011/08/29	Lead	µg/g (ppm)	BCME	0.5	107	85.9-128	107.00	ERA D066-540
BM	2011/08/29	Magnesium	µg/g (ppm)	BCME	1	3830	3060-5130	4,100.00	ERA D066-540
BM	2011/08/29	Manganese	µg/g (ppm)	BCME	0.5	455	365-539	452.00	ERA D066-540
BM	2011/08/30	Mercury	µg/g (ppm)	EPA 7471A	0.02	2.89	2-3.93	2.96	ERA D066-540
BM	2011/08/29	Molybdenum	µg/g (ppm)	BCME	0.5	50.3	36.8-57.5	47.20	ERA D066-540
BM	2011/08/29	Nickel	µg/g (ppm)	BCME	0.5	99.2	77.2-116	96.80	ERA D066-540
BM	2011/08/29	Phosphorus	µg/g (ppm)	BCME	5	918	882-1235	1,058.50	SS#8
BM	2011/08/29	Potassium	µg/g (ppm)	BCME	5	4120	3240-5740	4,490.00	ERA D066-540
BM	2011/08/29	Selenium	µg/g (ppm)	BCME	0.50	185	139-216	177.00	ERA D066-540
BM	2011/08/29	Silver	µg/g (ppm)	BCME	0.10	43.5	30.6-61.8	46.20	ERA D066-540
BM	2011/08/29	Sodium	µg/g (ppm)	BCME	1	967	782-1340	1,060.00	ERA D066-540
BM	2011/08/29	Strontium	µg/g (ppm)	BCME	0.5	99.0	81.7-125	103.00	ERA D066-540
BM	2011/08/29	Thallium	µg/g (ppm)	BCME	0.50	270	220-325	272.00	ERA D066-540
BM	2011/08/29	Tin	µg/g (ppm)	BCME	0.5	179	141-224	183.00	ERA D066-540
BM	2011/08/29	Titanium	µg/g (ppm)	BCME	0.5	356	132-686	409.00	ERA D066-540
BM	2011/08/29	Vanadium	µg/g (ppm)	BCME	0.20	109	91.5-138	115.00	ERA D066-540
BM	2011/08/29	Zinc	µg/g (ppm)	BCME	0.5	366	296-460	378.00	ERA D066-540
SA	2011/08/24	pH 1:1 H2O BC	---	BCME	0.01	7.55	6.831-8.349	7.59	SS#15

Report reviewed by:



Jesse Dang, B.Sc.
 Manager
 Laboratory Services



Charlene Rollheiser
 Director of QA/QC
 Laboratory Services

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5667 - 70 Street
Edmonton, Alberta
Canada T6B 3P6
Tel: (780) 436-2152
Fax: (780) 377-3600



ANALYTICAL REPORT

All Analytical results pertain to samples analyzed as received.

BCME (Metals): British Columbia Ministry of Environment - Contaminated Sites Regulation, SALM Analytical Method 8, v1.0, 2001

BCME (pH1:1): British Columbia Ministry of Environment - Contaminated Sites Regulation, pH (1:1H₂O), Method PHSED, v1.0, 2000

EPA: U.S. Environmental Protection Agency. 1997. Test Methods of Evaluation of Solid Waste 3rd Ed through Update III. Office Solid Waste Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

MDL - Method Detection Limit

Report reviewed by:

A handwritten signature in black ink, appearing to read "Jesse Dang". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in black ink, appearing to read "Charlene Rollheiser". The signature is cursive and somewhat stylized, with a large initial "C".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

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Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-63759
Project Number: VE52095.2A.3
Project Name: NewGold Blackwater
Date Received: 2012/08/15
Date of Report: 2012/08/30
Sublet Data: Attached

Comments:
Metals analysis was performed on the <63 μm fraction.

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Charlene Rollheiser".

Charlene Rollheiser
Director of QA/QC
Laboratory Services

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Sediment Analysis - Metals

Project No. VE52095.2A.3

Final
File No. EC-63759

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9675	12-9675-D	12-9676	12-9677
					Client ID:	WQ1	WQ1	WQ3-S1	WQ3-S2
					Sample Date:	2012/08/13 0:00	Lab Duplicate	2012/08/14 0:00	2012/08/14 0:00
					MDL				
TA	2012/08/20	Moisture	%	---	0.5	74.9	---	91.5	58.8
LL	2012/08/23	Aluminum	µg/g (ppm)	BCME	1	13200	13500	8980	8000
LL	2012/08/23	Antimony	µg/g (ppm)	BCME	0.1	0.6	0.7	0.4	0.4
LL	2012/08/23	Arsenic	µg/g (ppm)	BCME	0.05	10.5	10.6	5.94	5.79
LL	2012/08/23	Barium	µg/g (ppm)	BCME	0.1	86.6	88.6	70.1	69.7
LL	2012/08/23	Beryllium	µg/g (ppm)	BCME	0.1	0.8	0.8	0.4	0.4
LL	2012/08/23	Bismuth	µg/g (ppm)	BCME	0.1	0.1	0.1	< 0.1	< 0.1
LL	2012/08/23	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2012/08/23	Cadmium	µg/g (ppm)	BCME	0.01	0.54	0.56	0.19	0.20
LL	2012/08/23	Calcium	µg/g (ppm)	BCME	5	2870	2920	4180	4450
LL	2012/08/23	Chromium	µg/g (ppm)	BCME	0.05	12.4	12.6	21.7	22.1
LL	2012/08/23	Cobalt	µg/g (ppm)	BCME	0.05	3.12	3.17	3.18	3.34
LL	2012/08/23	Copper	µg/g (ppm)	BCME	0.01	8.95	9.04	6.81	7.30
LL	2012/08/23	Iron	µg/g (ppm)	BCME	5	9900	9770	9490	9260
LL	2012/08/23	Lead	µg/g (ppm)	BCME	0.1	10.4	10.6	9.8	13.3
LL	2012/08/23	Magnesium	µg/g (ppm)	BCME	1	1490	1510	1340	1360
LL	2012/08/23	Manganese	µg/g (ppm)	BCME	0.1	199	200	352	408
LL	2012/08/22	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.09	0.08	0.05	0.06
LL	2012/08/23	Molybdenum	µg/g (ppm)	BCME	0.1	1.6	1.7	0.5	0.5
LL	2012/08/23	Nickel	µg/g (ppm)	BCME	0.1	7.6	7.7	6.2	6.0
LL	2012/08/23	Phosphorus	µg/g (ppm)	BCME	5	629	635	636	645
LL	2012/08/23	Potassium	µg/g (ppm)	BCME	1	366	370	303	287
LL	2012/08/23	Selenium	µg/g (ppm)	BCME	0.01	0.24	0.22	0.66	0.71
LL	2012/08/23	Silver	µg/g (ppm)	BCME	0.05	0.27	0.28	0.12	0.12
LL	2012/08/23	Sodium	µg/g (ppm)	BCME	1	100	101	113	107
LL	2012/08/23	Strontium	µg/g (ppm)	BCME	0.1	28.2	28.9	37.0	39.1
LL	2012/08/23	Thallium	µg/g (ppm)	BCME	0.05	0.18	0.17	0.09	0.08
LL	2012/08/23	Tin	µg/g (ppm)	BCME	0.1	0.5	0.5	0.2	4.6
LL	2012/08/23	Titanium	µg/g (ppm)	BCME	0.5	273	270	375	423
LL	2012/08/23	Vanadium	µg/g (ppm)	BCME	0.05	33.8	34.5	25.3	25.2
LL	2012/08/23	Zinc	µg/g (ppm)	BCME	0.5	108	110	45.0	43.9
TA	2012/08/22	pH 1:1 H2O BC	pH units	BCME	0.01	5.16	5.26	5.98	6.00

Sediment Analysis - Metals

Project No. VE52095.2A.3

Final
File No. EC-63759

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9678	12-9679	12-9680	12-9681
					Client ID:	WO4-S1	WO4-S2	WO5	WO6
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/14 0:00	2012/08/13 0:00
					MDL				
TA	2012/08/20	Moisture	%	---	0.5	148	165	29.7	151
LL	2012/08/23	Aluminum	µg/g (ppm)	BCME	1	30800	28800	13200	13700
LL	2012/08/23	Antimony	µg/g (ppm)	BCME	0.1	2.8	3.2	0.4	0.5
LL	2012/08/23	Arsenic	µg/g (ppm)	BCME	0.05	236	245	5.56	20.6
LL	2012/08/23	Barium	µg/g (ppm)	BCME	0.1	239	253	79.2	123
LL	2012/08/23	Beryllium	µg/g (ppm)	BCME	0.1	1.8	1.9	0.5	0.8
LL	2012/08/23	Bismuth	µg/g (ppm)	BCME	0.1	0.2	0.2	0.1	< 0.1
LL	2012/08/23	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2012/08/23	Cadmium	µg/g (ppm)	BCME	0.01	9.14	9.74	0.23	0.56
LL	2012/08/23	Calcium	µg/g (ppm)	BCME	5	7030	7370	4070	3020
LL	2012/08/23	Chromium	µg/g (ppm)	BCME	0.05	21.5	23.2	16.3	12.3
LL	2012/08/23	Cobalt	µg/g (ppm)	BCME	0.05	16.1	14.7	4.65	4.46
LL	2012/08/23	Copper	µg/g (ppm)	BCME	0.01	25.3	27.2	10.7	11.5
LL	2012/08/23	Iron	µg/g (ppm)	BCME	5	32300	30700	12500	17100
LL	2012/08/23	Lead	µg/g (ppm)	BCME	0.1	50.7	49.8	10.4	16.3
LL	2012/08/23	Magnesium	µg/g (ppm)	BCME	1	2150	2190	2460	1860
LL	2012/08/23	Manganese	µg/g (ppm)	BCME	0.1	5480	6250	366	425
LL	2012/08/22	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.20	0.28	0.05	0.15
LL	2012/08/23	Molybdenum	µg/g (ppm)	BCME	0.1	5.8	6.1	0.5	0.9
LL	2012/08/23	Nickel	µg/g (ppm)	BCME	0.1	21.0	21.7	10.1	11.9
LL	2012/08/23	Phosphorus	µg/g (ppm)	BCME	5	1080	1240	588	662
LL	2012/08/23	Potassium	µg/g (ppm)	BCME	1	744	844	372	439
LL	2012/08/23	Selenium	µg/g (ppm)	BCME	0.01	0.65	0.68	0.23	0.54
LL	2012/08/23	Silver	µg/g (ppm)	BCME	0.05	3.57	3.67	0.21	0.40
LL	2012/08/23	Sodium	µg/g (ppm)	BCME	1	117	109	141	91
LL	2012/08/23	Strontium	µg/g (ppm)	BCME	0.1	61.7	66.8	34.4	35.3
LL	2012/08/23	Thallium	µg/g (ppm)	BCME	0.05	0.37	0.44	0.10	0.18
LL	2012/08/23	Tin	µg/g (ppm)	BCME	0.1	0.5	2.5	0.4	0.5
LL	2012/08/23	Titanium	µg/g (ppm)	BCME	0.5	132	403	525	83.4
LL	2012/08/23	Vanadium	µg/g (ppm)	BCME	0.05	56.2	58.0	29.9	26.8
LL	2012/08/23	Zinc	µg/g (ppm)	BCME	0.5	2800	2960	66.7	99.4
TA	2012/08/22	pH 1:1 H2O BC	pH units	BCME	0.01	5.56	5.50	5.78	5.23

Sediment Analysis - Metals

Project No. VE52095.2A.3

Final
File No. EC-63759

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9682	12-9683	12-9684	12-9685
					Client ID:	WQ7-S1	WQ7 S2	WQ8	WQ9
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
TA	2012/08/20	Moisture	%	---	0.5	32.3	31.8	160	82.0
LL	2012/08/23	Aluminum	µg/g (ppm)	BCME	1	11100	10400	7840	9420
LL	2012/08/23	Antimony	µg/g (ppm)	BCME	0.1	0.5	0.4	0.3	0.3
LL	2012/08/23	Arsenic	µg/g (ppm)	BCME	0.05	6.27	5.36	2.11	3.19
LL	2012/08/23	Barium	µg/g (ppm)	BCME	0.1	104	91.9	57.5	86.9
LL	2012/08/23	Beryllium	µg/g (ppm)	BCME	0.1	0.5	0.4	0.1	0.3
LL	2012/08/23	Bismuth	µg/g (ppm)	BCME	0.1	< 0.1	< 0.1	< 0.1	< 0.1
LL	2012/08/23	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	0.5
LL	2012/08/23	Cadmium	µg/g (ppm)	BCME	0.01	0.18	0.16	0.07	0.13
LL	2012/08/23	Calcium	µg/g (ppm)	BCME	5	5380	4770	6740	4640
LL	2012/08/23	Chromium	µg/g (ppm)	BCME	0.05	25.0	24.3	13.8	18.2
LL	2012/08/23	Cobalt	µg/g (ppm)	BCME	0.05	7.90	7.09	2.80	5.44
LL	2012/08/23	Copper	µg/g (ppm)	BCME	0.01	14.8	12.4	13.0	11.2
LL	2012/08/23	Iron	µg/g (ppm)	BCME	5	20200	19000	8340	15000
LL	2012/08/23	Lead	µg/g (ppm)	BCME	0.1	8.5	7.9	3.9	5.9
LL	2012/08/23	Magnesium	µg/g (ppm)	BCME	1	3900	3570	2300	2960
LL	2012/08/23	Manganese	µg/g (ppm)	BCME	0.1	487	400	165	204
LL	2012/08/22	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.04	0.04	< 0.02	0.03
LL	2012/08/23	Molybdenum	µg/g (ppm)	BCME	0.1	0.7	0.6	0.9	0.3
LL	2012/08/23	Nickel	µg/g (ppm)	BCME	0.1	20.7	18.9	9.3	13.6
LL	2012/08/23	Phosphorus	µg/g (ppm)	BCME	5	605	602	708	570
LL	2012/08/23	Potassium	µg/g (ppm)	BCME	1	434	411	455	405
LL	2012/08/23	Selenium	µg/g (ppm)	BCME	0.01	0.35	0.30	0.31	0.29
LL	2012/08/23	Silver	µg/g (ppm)	BCME	0.05	0.12	0.10	0.06	0.08
LL	2012/08/23	Sodium	µg/g (ppm)	BCME	1	209	206	303	233
LL	2012/08/23	Strontium	µg/g (ppm)	BCME	0.1	44.9	40.5	54.4	35.5
LL	2012/08/23	Thallium	µg/g (ppm)	BCME	0.05	0.07	0.07	0.07	0.06
LL	2012/08/23	Tin	µg/g (ppm)	BCME	0.1	0.7	0.6	1.3	0.3
LL	2012/08/23	Titanium	µg/g (ppm)	BCME	0.5	587	682	837	627
LL	2012/08/23	Vanadium	µg/g (ppm)	BCME	0.05	45.0	44.0	25.5	35.9
LL	2012/08/23	Zinc	µg/g (ppm)	BCME	0.5	75.0	69.7	31.0	55.8
TA	2012/08/22	pH 1:1 H2O BC	pH units	BCME	0.01	6.61	6.80	6.28	5.43

Sediment Analysis - Metals

Project No. VE52095.2A.3

Final
File No. EC-63759

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9686	12-9687	12-9688	12-9689
					Client ID:	WQ10	WQ11	WQ12-S1	WQ12-S2
					Sample Date:	2012/08/14 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
TA	2012/08/20	Moisture	%	---	0.5	60.4	45.3	87.6	88.9
LL	2012/08/23	Aluminum	µg/g (ppm)	BCME	1	12300	26000	13400	12800
LL	2012/08/23	Antimony	µg/g (ppm)	BCME	0.1	0.3	0.1	0.2	0.2
LL	2012/08/23	Arsenic	µg/g (ppm)	BCME	0.05	13.2	3.50	3.64	4.01
LL	2012/08/23	Barium	µg/g (ppm)	BCME	0.1	104	177	115	127
LL	2012/08/23	Beryllium	µg/g (ppm)	BCME	0.1	0.5	1.0	0.5	0.6
LL	2012/08/23	Bismuth	µg/g (ppm)	BCME	0.1	< 0.1	< 0.1	< 0.1	< 0.1
LL	2012/08/23	Boron	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2012/08/23	Cadmium	µg/g (ppm)	BCME	0.01	0.34	0.34	0.14	0.16
LL	2012/08/23	Calcium	µg/g (ppm)	BCME	5	4540	8320	3610	3950
LL	2012/08/23	Chromium	µg/g (ppm)	BCME	0.05	18.2	16.7	14.3	14.3
LL	2012/08/23	Cobalt	µg/g (ppm)	BCME	0.05	5.11	6.69	4.60	4.69
LL	2012/08/23	Copper	µg/g (ppm)	BCME	0.01	9.15	22.0	7.97	10.5
LL	2012/08/23	Iron	µg/g (ppm)	BCME	5	18100	20000	14300	14600
LL	2012/08/23	Lead	µg/g (ppm)	BCME	0.1	12.2	6.8	6.9	7.6
LL	2012/08/23	Magnesium	µg/g (ppm)	BCME	1	2240	3040	1940	1970
LL	2012/08/23	Manganese	µg/g (ppm)	BCME	0.1	496	977	246	262
LL	2012/08/22	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.06	0.07	0.06	0.05
LL	2012/08/23	Molybdenum	µg/g (ppm)	BCME	0.1	1.0	0.7	0.9	1.0
LL	2012/08/23	Nickel	µg/g (ppm)	BCME	0.1	10.6	12.7	7.6	7.9
LL	2012/08/23	Phosphorus	µg/g (ppm)	BCME	5	603	723	667	671
LL	2012/08/23	Potassium	µg/g (ppm)	BCME	1	410	661	326	332
LL	2012/08/23	Selenium	µg/g (ppm)	BCME	0.01	0.47	0.55	0.20	0.20
LL	2012/08/23	Silver	µg/g (ppm)	BCME	0.05	0.21	0.20	0.11	0.12
LL	2012/08/23	Sodium	µg/g (ppm)	BCME	1	141	146	120	122
LL	2012/08/23	Strontium	µg/g (ppm)	BCME	0.1	38.9	73.8	28.6	31.2
LL	2012/08/23	Thallium	µg/g (ppm)	BCME	0.05	0.10	0.11	0.09	0.10
LL	2012/08/23	Tin	µg/g (ppm)	BCME	0.1	0.4	1.5	0.3	0.4
LL	2012/08/23	Titanium	µg/g (ppm)	BCME	0.5	378	137	336	255
LL	2012/08/23	Vanadium	µg/g (ppm)	BCME	0.05	36.1	35.0	31.3	31.5
LL	2012/08/23	Zinc	µg/g (ppm)	BCME	0.5	102	60.7	51.3	53.7
TA	2012/08/22	pH 1:1 H2O BC	pH units	BCME	0.01	6.50	6.91	5.42	5.34

Sediment Analysis - Metals

Project No. VE52095.2A.3

Final
File No. EC-63759

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9690	12-9691	12-9692	12-9693
					Client ID:	WQ13	WQ14-S1	WQ14-S2	WQ14-R1
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL				
TA	2012/08/20	Moisture	%	---	0.5	67.5	163	135	169
LL	2012/08/23	Aluminum	µg/g (ppm)	BCME	1	9550	16200	17300	17500
LL	2012/08/23	Antimony	µg/g (ppm)	BCME	0.1	0.3	0.2	0.1	0.1
LL	2012/08/23	Arsenic	µg/g (ppm)	BCME	0.05	4.21	17.7	20.1	25.8
LL	2012/08/23	Barium	µg/g (ppm)	BCME	0.1	100	275	270	254
LL	2012/08/23	Beryllium	µg/g (ppm)	BCME	0.1	0.3	0.8	0.8	0.8
LL	2012/08/23	Bismuth	µg/g (ppm)	BCME	0.1	< 0.1	0.1	0.1	0.1
LL	2012/08/23	Boron	µg/g (ppm)	BCME	0.5	< 0.5	0.8	1.0	1.0
LL	2012/08/23	Cadmium	µg/g (ppm)	BCME	0.01	0.14	0.58	0.59	0.55
LL	2012/08/23	Calcium	µg/g (ppm)	BCME	5	5140	11200	11300	11000
LL	2012/08/23	Chromium	µg/g (ppm)	BCME	0.05	19.9	27.5	31.8	32.3
LL	2012/08/23	Cobalt	µg/g (ppm)	BCME	0.05	5.97	6.80	6.97	7.27
LL	2012/08/23	Copper	µg/g (ppm)	BCME	0.01	12.6	36.2	39.6	39.8
LL	2012/08/23	Iron	µg/g (ppm)	BCME	5	17800	46500	47700	53800
LL	2012/08/23	Lead	µg/g (ppm)	BCME	0.1	6.2	6.1	6.1	6.3
LL	2012/08/23	Magnesium	µg/g (ppm)	BCME	1	2940	3690	3820	3850
LL	2012/08/23	Manganese	µg/g (ppm)	BCME	0.1	515	2190	2110	1550
LL	2012/08/22	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.04	0.05	0.04	< 0.02
LL	2012/08/23	Molybdenum	µg/g (ppm)	BCME	0.1	0.5	1.2	1.3	1.5
LL	2012/08/23	Nickel	µg/g (ppm)	BCME	0.1	14.1	29.7	31.3	31.8
LL	2012/08/23	Phosphorus	µg/g (ppm)	BCME	5	654	1100	1200	1260
LL	2012/08/23	Potassium	µg/g (ppm)	BCME	1	407	862	1070	1080
LL	2012/08/23	Selenium	µg/g (ppm)	BCME	0.01	0.34	0.77	0.86	0.89
LL	2012/08/23	Silver	µg/g (ppm)	BCME	0.05	0.09	0.21	0.23	0.22
LL	2012/08/23	Sodium	µg/g (ppm)	BCME	1	227	176	178	176
LL	2012/08/23	Strontium	µg/g (ppm)	BCME	0.1	39.9	86.6	85.8	84.9
LL	2012/08/23	Thallium	µg/g (ppm)	BCME	0.05	< 0.05	0.06	0.08	0.09
LL	2012/08/23	Tin	µg/g (ppm)	BCME	0.1	0.8	0.6	0.7	1.1
LL	2012/08/23	Titanium	µg/g (ppm)	BCME	0.5	684	132	334	340
LL	2012/08/23	Vanadium	µg/g (ppm)	BCME	0.05	38.5	48.7	58.8	69.3
LL	2012/08/23	Zinc	µg/g (ppm)	BCME	0.5	52.7	126	146	150
TA	2012/08/22	pH 1:1 H2O BC	pH units	BCME	0.01	5.75	6.96	7.02	7.05

Sediment Analysis - Metals

Project No. VE52095.2A.3

Final
File No. EC-63759

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9694	12-9695	12-9695-D	12-9696
					Client ID:	WQ14-R2	WQ14 R3	WQ14 R3	WQ14-R4
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	Lab Duplicate	2012/08/13 0:00
					MDL				
TA	2012/08/20	Moisture	%	---	0.5	66.0	145	---	99.7
LL	2012/08/23	Aluminum	µg/g (ppm)	BCME	1	18100	17500	17500	16200
LL	2012/08/23	Antimony	µg/g (ppm)	BCME	0.1	0.2	0.1	0.1	0.2
LL	2012/08/23	Arsenic	µg/g (ppm)	BCME	0.05	20.5	15.7	15.8	15.0
LL	2012/08/23	Barium	µg/g (ppm)	BCME	0.1	261	256	250	232
LL	2012/08/23	Beryllium	µg/g (ppm)	BCME	0.1	0.8	0.8	0.8	0.8
LL	2012/08/23	Bismuth	µg/g (ppm)	BCME	0.1	0.1	0.1	0.1	0.1
LL	2012/08/23	Boron	µg/g (ppm)	BCME	0.5	0.7	0.9	0.8	0.8
LL	2012/08/23	Cadmium	µg/g (ppm)	BCME	0.01	0.46	0.55	0.53	0.52
LL	2012/08/23	Calcium	µg/g (ppm)	BCME	5	9540	10100	9870	9480
LL	2012/08/23	Chromium	µg/g (ppm)	BCME	0.05	28.4	32.7	32.6	27.1
LL	2012/08/23	Cobalt	µg/g (ppm)	BCME	0.05	6.97	6.80	6.85	6.26
LL	2012/08/23	Copper	µg/g (ppm)	BCME	0.01	33.2	37.9	37.8	34.1
LL	2012/08/23	Iron	µg/g (ppm)	BCME	5	52600	41000	39900	40700
LL	2012/08/23	Lead	µg/g (ppm)	BCME	0.1	6.0	6.2	6.0	6.1
LL	2012/08/23	Magnesium	µg/g (ppm)	BCME	1	3740	3800	3830	3450
LL	2012/08/23	Manganese	µg/g (ppm)	BCME	0.1	1460	1030	1040	1200
LL	2012/08/22	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.08	0.04	0.05	0.04
LL	2012/08/23	Molybdenum	µg/g (ppm)	BCME	0.1	1.3	1.1	1.1	1.0
LL	2012/08/23	Nickel	µg/g (ppm)	BCME	0.1	29.0	30.1	30.0	27.0
LL	2012/08/23	Phosphorus	µg/g (ppm)	BCME	5	1040	1040	1050	974
LL	2012/08/23	Potassium	µg/g (ppm)	BCME	1	848	1010	1010	796
LL	2012/08/23	Selenium	µg/g (ppm)	BCME	0.01	0.66	0.75	0.77	0.62
LL	2012/08/23	Silver	µg/g (ppm)	BCME	0.05	0.20	0.22	0.22	0.19
LL	2012/08/23	Sodium	µg/g (ppm)	BCME	1	192	173	174	168
LL	2012/08/23	Strontium	µg/g (ppm)	BCME	0.1	76.9	74.7	72.4	72.4
LL	2012/08/23	Thallium	µg/g (ppm)	BCME	0.05	0.06	0.10	0.09	0.05
LL	2012/08/23	Tin	µg/g (ppm)	BCME	0.1	0.4	0.6	0.6	0.8
LL	2012/08/23	Titanium	µg/g (ppm)	BCME	0.5	132	312	314	128
LL	2012/08/23	Vanadium	µg/g (ppm)	BCME	0.05	54.8	60.7	60.2	46.9
LL	2012/08/23	Zinc	µg/g (ppm)	BCME	0.5	97.0	123	124	124
TA	2012/08/22	pH 1:1 H2O BC	pH units	BCME	0.01	7.12	6.82	---	7.09

Sediment Analysis - Metals

Project No. VE52095.2A.3

Final
File No. EC-63759

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	12-9697	12-9698	12-9699
					Client ID:	WQ17	WQ18	WQ19
					Sample Date:	2012/08/13 0:00	2012/08/13 0:00	2012/08/13 0:00
					MDL			
TA	2012/08/20	Moisture	%	---	0.5	26.3	35.1	33.9
LL	2012/08/23	Aluminum	µg/g (ppm)	BCME	1	10200	14500	13100
LL	2012/08/23	Antimony	µg/g (ppm)	BCME	0.1	0.5	0.4	0.5
LL	2012/08/23	Arsenic	µg/g (ppm)	BCME	0.05	11.2	3.99	4.53
LL	2012/08/23	Barium	µg/g (ppm)	BCME	0.1	92.5	119	58.9
LL	2012/08/23	Beryllium	µg/g (ppm)	BCME	0.1	0.4	0.3	0.4
LL	2012/08/23	Bismuth	µg/g (ppm)	BCME	0.1	0.6	< 0.1	< 0.1
LL	2012/08/23	Boron	µg/g (ppm)	BCME	0.5	< 0.5	0.6	2.1
LL	2012/08/23	Cadmium	µg/g (ppm)	BCME	0.01	0.25	0.20	0.43
LL	2012/08/23	Calcium	µg/g (ppm)	BCME	5	4390	4690	17900
LL	2012/08/23	Chromium	µg/g (ppm)	BCME	0.05	20.7	51.6	67.3
LL	2012/08/23	Cobalt	µg/g (ppm)	BCME	0.05	7.94	12.7	10.5
LL	2012/08/23	Copper	µg/g (ppm)	BCME	0.01	25.6	15.0	61.8
LL	2012/08/23	Iron	µg/g (ppm)	BCME	5	23600	28700	18800
LL	2012/08/23	Lead	µg/g (ppm)	BCME	0.1	8.9	3.9	7.2
LL	2012/08/23	Magnesium	µg/g (ppm)	BCME	1	2900	6110	7620
LL	2012/08/23	Manganese	µg/g (ppm)	BCME	0.1	596	454	364
LL	2012/08/22	Mercury	µg/g (ppm)	EPA 7471A	0.02	0.02	0.06	0.06
LL	2012/08/23	Molybdenum	µg/g (ppm)	BCME	0.1	2.1	0.6	0.6
LL	2012/08/23	Nickel	µg/g (ppm)	BCME	0.1	11.1	45.3	16.7
LL	2012/08/23	Phosphorus	µg/g (ppm)	BCME	5	662	663	1060
LL	2012/08/23	Potassium	µg/g (ppm)	BCME	1	675	427	412
LL	2012/08/23	Selenium	µg/g (ppm)	BCME	0.01	0.21	0.24	3.69
LL	2012/08/23	Silver	µg/g (ppm)	BCME	0.05	0.13	0.09	0.18
LL	2012/08/23	Sodium	µg/g (ppm)	BCME	1	249	336	364
LL	2012/08/23	Strontium	µg/g (ppm)	BCME	0.1	36.2	37.9	70.3
LL	2012/08/23	Thallium	µg/g (ppm)	BCME	0.05	0.13	< 0.05	0.09
LL	2012/08/23	Tin	µg/g (ppm)	BCME	0.1	1.1	0.5	7.8
LL	2012/08/23	Titanium	µg/g (ppm)	BCME	0.5	1220	1650	1400
LL	2012/08/23	Vanadium	µg/g (ppm)	BCME	0.05	55.6	65.9	53.0
LL	2012/08/23	Zinc	µg/g (ppm)	BCME	0.5	112	74.0	98.0
TA	2012/08/22	pH 1:1 H2O BC	pH units	BCME	0.01	6.35	7.28	7.28

Quality Control Standard

Project No.

File No. EC-63759

Sediment Analysis - Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2012/08/23	Aluminum	µg/g (ppm)	BCME	5	11900	4400-16800	10,600.00	ERA D073-540
LL	2012/08/23	Antimony	µg/g (ppm)	BCME	0.1	194	0.5-269	120.00	ERA D073-540
LL	2012/08/23	Arsenic	µg/g (ppm)	BCME	0.50	136	96.7-151	124.00	ERA D073-540
LL	2012/08/23	Barium	µg/g (ppm)	BCME	1.0	309	252-380	316.00	ERA D073-540
LL	2012/08/23	Beryllium	µg/g (ppm)	BCME	0.1	104	76.1-114	95.00	ERA D073-540
LL	2012/08/23	Bismuth	µg/L (ppb)	BCME	0.5	105	90-110	100.00	MS-CCV-HIGH
LL	2012/08/23	Boron	mg/L (ppm)	BCME	0.0	50.8	45-55	50.00	CCV-Soil
LL	2012/08/23	Cadmium	µg/g (ppm)	BCME	0.10	119	93.6-138	116.00	ERA D073-540
LL	2012/08/23	Calcium	µg/g (ppm)	BCME	5	10400	8610-13200	10,900.00	ERA D073-540
LL	2012/08/23	Chromium	µg/g (ppm)	BCME	0.50	106	73.6-118	95.90	ERA D073-540
LL	2012/08/23	Cobalt	µg/g (ppm)	BCME	0.50	146	111-164	138.00	ERA D073-540
LL	2012/08/23	Copper	µg/g (ppm)	BCME	0.10	90.8	64.2-101	82.80	ERA D073-540
LL	2012/08/23	Iron	µg/g (ppm)	BCME	5	22400	9220-27200	18,200.00	ERA D073-540
LL	2012/08/23	Lead	µg/g (ppm)	BCME	0.5	146	106-168	137.00	ERA D073-540
LL	2012/08/23	Magnesium	µg/g (ppm)	BCME	1	3040	1960-4130	3,040.00	ERA D073-540
LL	2012/08/23	Manganese	µg/g (ppm)	BCME	0.5	569	449-708	578.00	ERA D073-540
LL	2012/08/22	Mercury	µg/g (ppm)	EPA 7471A	0.02	16.2	10.9-19.5	15.20	ERA D073-540
LL	2012/08/23	Molybdenum	µg/g (ppm)	BCME	0.5	88.2	67.7-109	88.60	ERA D073-540
LL	2012/08/23	Nickel	µg/g (ppm)	BCME	0.5	131	96.3-145	121.00	ERA D073-540
LL	2012/08/23	Phosphorus	mg/L (ppm)	BCME	5	246	225-275	250.00	CCV-Soils
LL	2012/08/23	Potassium	µg/g (ppm)	BCME	5	1740	1290-2450	1,870.00	ERA D073-540
LL	2012/08/23	Selenium	µg/g (ppm)	BCME	0.50	225	155-248	202.00	ERA D073-540
LL	2012/08/23	Silver	µg/g (ppm)	BCME	0.10	57.5	35.5-71.6	53.50	ERA D073-540
LL	2012/08/23	Sodium	µg/g (ppm)	BCME	1	746	512-939	726.00	ERA D073-540
LL	2012/08/23	Strontium	µg/g (ppm)	BCME	0.5	72.7	59.2-87.2	73.20	ERA D073-540
LL	2012/08/23	Thallium	µg/g (ppm)	BCME	0.50	239	174-287	231.00	ERA D073-540
LL	2012/08/23	Tin	µg/g (ppm)	BCME	0.5	134	98.3-166	132.00	ERA D073-540
LL	2012/08/23	Titanium	µg/g (ppm)	BCME	0.5	421	51.7-667	359.00	ERA D073-540
LL	2012/08/23	Vanadium	µg/g (ppm)	BCME	0.20	113	78.6-129	104.00	ERA D073-540
LL	2012/08/23	Zinc	µg/g (ppm)	BCME	0.5	67.0	51.9-70.8	61.40	SS#15
TA	2012/08/22	pH 1:1 H2O BC	pH Units	McKeague 4.11	0.01	7.42	7.21-7.57	7.39	SS#17

Analytical Comments

Project No. VE52095.2A.3

File No. EC-63759

All Analytical results pertain to samples analyzed as received.

BCME (EPH): British Columbia Ministry of Environment - Contaminated Sites Regulation, Analytical Methods v2.1, 1999.

BCME (Metals): British Columbia Ministry of Environment - Contaminated Sites Regulation, SALM Analytical Method 8, v1.0, 2001

Extraction and analysis limits for holding time for Hydrocarbons undetermined, no sampling date provided.

MDL - Method Detection Limit

Note: Metals analysis was performed on the <63 μm fraction.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

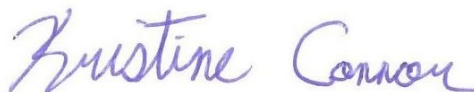
Results for File: EC-65783
Project Number: VE52277.Sediment
Project Name: Blackwater
Date Received: 2013/08/16
Date of Report: 2013/08/29
Sublet Data: Attached

Comments:
Metals analysis was performed on the <63 μm fraction.

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Kristine Connor".

Kristine Connor
Client Services Representative
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Soil Analysis - Metals

Project No. VE52277.Sediment

Final
File No. EC-65783

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-8887	13-8887-D	13-8888	13-8889
					Client ID:	WQ15	WQ15	WQ16	Tatelkuz-Rep-1
					Sample Date:	2013/08/12 0:00	Lab Duplicate	2013/08/12 0:00	2013/08/13 0:00
					MDL				
SF	2013/08/20	Moisture	%	---	0.5	65.2	68.1	41.9	25.6
RC	2013/08/20	Aluminum	µg/g (ppm)	BCME	5.00	9040	8930	13300	6660
RC	2013/08/20	Antimony	µg/g (ppm)	BCME	0.5	1.5	1.5	< 0.5	< 0.5
RC	2013/08/20	Arsenic	µg/g (ppm)	BCME	0.5	5.4	5.4	1.9	1.5
RC	2013/08/20	Barium	µg/g (ppm)	BCME	1	161	163	123	50
RC	2013/08/20	Beryllium	µg/g (ppm)	BCME	0.1	1.0	1.0	1.3	0.2
RC	2013/08/20	Cadmium	µg/g (ppm)	BCME	0.1	0.6	0.6	0.3	< 0.1
RC	2013/08/20	Calcium	µg/g (ppm)	BCME	5	7630	7720	5380	5010
RC	2013/08/20	Chromium	µg/g (ppm)	BCME	0.5	9.4	9.5	11.3	13.1
RC	2013/08/20	Cobalt	µg/g (ppm)	BCME	0.5	3.2	3.2	3.0	3.8
RC	2013/08/20	Copper	µg/g (ppm)	BCME	0.1	37.3	37.4	20.8	12.1
RC	2013/08/20	Iron	µg/g (ppm)	BCME	5	10900	10900	7300	10300
RC	2013/08/20	Lead	µg/g (ppm)	BCME	0.5	19.4	19.6	13.7	7.2
RC	2013/08/20	Magnesium	µg/g (ppm)	BCME	1	1230	1230	1800	3180
RC	2013/08/20	Manganese	µg/g (ppm)	BCME	0.5	1090	1090	95.4	164
RC	2013/08/20	Molybdenum	µg/g (ppm)	BCME	0.5	3.6	3.6	1.7	< 0.5
RC	2013/08/20	Nickel	µg/g (ppm)	BCME	0.5	2.8	2.8	7.1	9.8
RC	2013/08/20	Phosphorus	µg/g (ppm)	BCME	5	745	741	438	686
RC	2013/08/20	Potassium	µg/g (ppm)	BCME	5	452	450	515	364
RC	2013/08/20	Selenium	µg/g (ppm)	BCME	0.5	0.6	0.6	< 0.5	< 0.5
RC	2013/08/20	Silver	µg/g (ppm)	BCME	0.1	0.3	0.3	0.2	< 0.1
RC	2013/08/20	Sodium	µg/g (ppm)	BCME	0.1	116	115	113	252
RC	2013/08/20	Strontium	µg/g (ppm)	BCME	0.5	74.2	75.5	42.3	31.0
RC	2013/08/20	Thallium	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5
RC	2013/08/20	Tin	µg/g (ppm)	BCME	0.5	7.6	7.5	1.4	3.0
RC	2013/08/20	Titanium	µg/g (ppm)	BCME	0.5	239	237	137	683
RC	2013/08/20	Uranium	µg/g (ppm)	BCME	15.0	< 15.0	< 15.0	< 15.0	< 15.0
RC	2013/08/20	Vanadium	µg/g (ppm)	BCME	0.2	18.4	18.5	13.5	24.8
RC	2013/08/20	Zinc	µg/g (ppm)	BCME	0.5	119	119	42.2	31.8
RC	2013/08/20	Mercury (Cold Vapour)	µg/g (ppm)	EPA 7471A	0.02	0.22	0.21	0.13	0.07
SF	2013/08/27	pH (1:1 H2O) BC	pH units	BCME	0.01	5.37	5.39	6.02	6.42

Soil Analysis - Metals

Project No. VE52277.Sediment

Final
File No. EC-65783

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-8890	13-8891	13-8892	13-8893
					Client ID:	Tatelkuz-Rep 2	Tatelkuz-Rep 3	Tatelkuz-Rep 4	Tatelkuz-Rep 5
					Sample Date:	2013/08/13 0:00	2013/08/13 0:00	2013/08/13 0:00	2013/08/13 0:00
					MDL				
SF	2013/08/20	Moisture	%	---	0.5	26.8	27.3	28.4	31.4
RC	2013/08/20	Aluminum	µg/g (ppm)	BCME	5.00	6460	5890	5970	6490
RC	2013/08/20	Antimony	µg/g (ppm)	BCME	0.5	<0.5	<0.5	<0.5	<0.5
RC	2013/08/20	Arsenic	µg/g (ppm)	BCME	0.5	1.5	1.3	1.4	1.4
RC	2013/08/20	Barium	µg/g (ppm)	BCME	1	46	42	43	43
RC	2013/08/20	Beryllium	µg/g (ppm)	BCME	0.1	0.2	0.2	0.2	0.2
RC	2013/08/20	Cadmium	µg/g (ppm)	BCME	0.1	<0.1	<0.1	<0.1	<0.1
RC	2013/08/20	Calcium	µg/g (ppm)	BCME	5	4660	4500	4610	4690
RC	2013/08/20	Chromium	µg/g (ppm)	BCME	0.5	13.0	11.4	11.6	12.0
RC	2013/08/20	Cobalt	µg/g (ppm)	BCME	0.5	3.7	3.5	3.5	3.5
RC	2013/08/20	Copper	µg/g (ppm)	BCME	0.1	10.6	11.9	7.7	7.4
RC	2013/08/20	Iron	µg/g (ppm)	BCME	5	10100	9070	8970	9170
RC	2013/08/20	Lead	µg/g (ppm)	BCME	0.5	5.8	6.5	4.0	3.6
RC	2013/08/20	Magnesium	µg/g (ppm)	BCME	1	3060	2890	2790	2940
RC	2013/08/20	Manganese	µg/g (ppm)	BCME	0.5	148	146	136	147
RC	2013/08/20	Molybdenum	µg/g (ppm)	BCME	0.5	<0.5	<0.5	<0.5	<0.5
RC	2013/08/20	Nickel	µg/g (ppm)	BCME	0.5	9.6	8.8	8.3	8.9
RC	2013/08/20	Phosphorus	µg/g (ppm)	BCME	5	674	634	646	661
RC	2013/08/20	Potassium	µg/g (ppm)	BCME	5	318	317	323	318
RC	2013/08/20	Selenium	µg/g (ppm)	BCME	0.5	<0.5	<0.5	<0.5	<0.5
RC	2013/08/20	Silver	µg/g (ppm)	BCME	0.1	<0.1	<0.1	<0.1	<0.1
RC	2013/08/20	Sodium	µg/g (ppm)	BCME	0.1	240	238	243	256
RC	2013/08/20	Strontium	µg/g (ppm)	BCME	0.5	28.9	27.6	27.8	29.2
RC	2013/08/20	Thallium	µg/g (ppm)	BCME	0.5	<0.5	<0.5	<0.5	<0.5
RC	2013/08/20	Tin	µg/g (ppm)	BCME	0.5	2.4	3.2	0.7	<0.5
RC	2013/08/20	Titanium	µg/g (ppm)	BCME	0.5	671	566	643	612
RC	2013/08/20	Uranium	µg/g (ppm)	BCME	15.0	<15.0	<15.0	<15.0	<15.0
RC	2013/08/20	Vanadium	µg/g (ppm)	BCME	0.2	24.0	21.7	22.9	23.3
RC	2013/08/20	Zinc	µg/g (ppm)	BCME	0.5	31.6	29.2	27.9	27.9
RC	2013/08/20	Mercury (Cold Vapour)	µg/g (ppm)	EPA 7471A	0.02	0.06	0.08	0.05	0.05
SF	2013/08/27	pH (1:1 H2O) BC	pH units	BCME	0.01	5.97	6.17	5.84	6.35

Soil Analysis - Metals

Project No. VE52277.Sediment

Final
File No. EC-65783

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-8894	13-8895	13-8896
					Client ID:	Lake 1682 -- WQ23	Lake 1538 -- WQ24	Lake 1428 -- WQ25
					Sample Date:	2013/08/13 0:00	2013/08/13 0:00	2013/08/13 0:00
					MDL			
SF	2013/08/20	Moisture	%	---	0.5	24.4	19.8	19.1
RC	2013/08/20	Aluminum	µg/g (ppm)	BCME	5.00	7180	8370	5510
RC	2013/08/20	Antimony	µg/g (ppm)	BCME	0.5	1.1	0.6	<0.5
RC	2013/08/20	Arsenic	µg/g (ppm)	BCME	0.5	4.5	4.2	1.6
RC	2013/08/20	Barium	µg/g (ppm)	BCME	1	65	81	60
RC	2013/08/20	Beryllium	µg/g (ppm)	BCME	0.1	0.8	0.7	0.3
RC	2013/08/20	Cadmium	µg/g (ppm)	BCME	0.1	0.2	0.2	<0.1
RC	2013/08/20	Calcium	µg/g (ppm)	BCME	5	4980	4220	2850
RC	2013/08/20	Chromium	µg/g (ppm)	BCME	0.5	12.0	12.7	9.5
RC	2013/08/20	Cobalt	µg/g (ppm)	BCME	0.5	3.1	3.7	3.6
RC	2013/08/20	Copper	µg/g (ppm)	BCME	0.1	42.1	18.0	6.3
RC	2013/08/20	Iron	µg/g (ppm)	BCME	5	7690	11500	9580
RC	2013/08/20	Lead	µg/g (ppm)	BCME	0.5	49.2	12.4	7.8
RC	2013/08/20	Magnesium	µg/g (ppm)	BCME	1	2240	2690	1700
RC	2013/08/20	Manganese	µg/g (ppm)	BCME	0.5	180	262	199
RC	2013/08/20	Molybdenum	µg/g (ppm)	BCME	0.5	3.1	1.2	<0.5
RC	2013/08/20	Nickel	µg/g (ppm)	BCME	0.5	5.6	5.7	4.6
RC	2013/08/20	Phosphorus	µg/g (ppm)	BCME	5	677	549	466
RC	2013/08/20	Potassium	µg/g (ppm)	BCME	5	662	430	309
RC	2013/08/20	Selenium	µg/g (ppm)	BCME	0.5	0.6	<0.5	<0.5
RC	2013/08/20	Silver	µg/g (ppm)	BCME	0.1	0.2	0.1	<0.1
RC	2013/08/20	Sodium	µg/g (ppm)	BCME	0.1	140	178	129
RC	2013/08/20	Strontium	µg/g (ppm)	BCME	0.5	37.3	26.3	22.2
RC	2013/08/20	Thallium	µg/g (ppm)	BCME	0.5	<0.5	<0.5	<0.5
RC	2013/08/20	Tin	µg/g (ppm)	BCME	0.5	16.5	2.3	<0.5
RC	2013/08/20	Titanium	µg/g (ppm)	BCME	0.5	413	560	604
RC	2013/08/20	Uranium	µg/g (ppm)	BCME	15.0	27.3	<15.0	<15.0
RC	2013/08/20	Vanadium	µg/g (ppm)	BCME	0.2	20.9	32.0	25.9
RC	2013/08/20	Zinc	µg/g (ppm)	BCME	0.5	67.8	58.9	29.6
RC	2013/08/20	Mercury (Cold Vapour)	µg/g (ppm)	EPA 7471A	0.02	0.09	0.06	0.03
SF	2013/08/27	pH (1:1 H2O) BC	pH units	BCME	0.01	6.23	5.85	5.77

Quality Control Standard

Project No. VE52277.Sediment

File No. EC-65783

Soil Analysis - Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
RC	2013/08/20	Aluminum	µg/g (ppm)	EPA 3050/6010	5.00	9050	4400-16800	10600.00	ERA D073-540
RC	2013/08/20	Antimony	µg/g (ppm)	EPA 3050/6010	0.1	111	0.5-269	120.0	ERA D073-540
RC	2013/08/20	Arsenic	µg/g (ppm)	EPA 3050/6010	0.5	110	96.7-151	124.0	ERA D073-540
RC	2013/08/20	Barium	µg/g (ppm)	EPA 3050/6010	1	299	252-380	316	ERA D073-540
RC	2013/08/20	Beryllium	µg/g (ppm)	EPA 3050/6010	0.1	89.5	76.1-114	95.0	ERA D073-540
RC	2013/08/20	Cadmium	µg/g (ppm)	EPA 3050/6010	0.1	103	93.6-138	116.0	ERA D073-540
RC	2013/08/20	Calcium	µg/g (ppm)	EPA 3050/6010	5	10300	8610-13200	10900	ERA D073-540
RC	2013/08/20	Chromium	µg/g (ppm)	EPA 3050/6010	0.5	87.8	73.6-118	95.9	ERA D073-540
RC	2013/08/20	Cobalt	µg/g (ppm)	EPA 3050/6010	0.5	133	111-164	138.0	ERA D073-540
RC	2013/08/20	Copper	µg/g (ppm)	EPA 3050/6010	0.1	80.4	64.2-101	82.8	ERA D073-540
RC	2013/08/20	Iron	µg/g (ppm)	EPA 3050/6010	5	17500	9220-27200	18200	ERA D073-540
RC	2013/08/20	Lead	µg/g (ppm)	EPA 3050/6010	0.5	128	106-168	137.0	ERA D073-540
RC	2013/08/20	Magnesium	µg/g (ppm)	EPA 3050/6010	1	2670	1960-4130	3040	ERA D073-540
RC	2013/08/20	Manganese	µg/g (ppm)	EPA 3050/6010	0.5	570	449-708	578.0	ERA D073-540
RC	2013/08/20	Molybdenum	µg/g (ppm)	EPA 3050/6010	0.5	85.2	67.7-109	88.6	ERA D073-540
RC	2013/08/20	Nickel	µg/g (ppm)	EPA 3050/6010	0.5	115	96.3-145	121.0	ERA D073-540
RC	2013/08/20	Phosphorus	µg/g (ppm)	EPA 3050/6010	5	454	415.70-472.23	444	SS#18
RC	2013/08/20	Potassium	µg/g (ppm)	EPA 3050/6010	5	1810	1290-2450	1870	ERA D073-540
RC	2013/08/20	Selenium	µg/g (ppm)	EPA 3050/6010	0.5	164	155-248	202.0	ERA D073-540
RC	2013/08/20	Silver	µg/g (ppm)	EPA 3050/6010	0.1	50.3	35.5-71.6	53.5	ERA D073-540
RC	2013/08/20	Sodium	µg/g (ppm)	EPA 3050/6010	1.0	669	512-939	726.0	ERA D073-540
RC	2013/08/20	Strontium	µg/g (ppm)	EPA 3050/6010	0.5	70.1	59.2-87.2	73.2	ERA D073-540
RC	2013/08/20	Thallium	µg/g (ppm)	EPA 3050/6010	0.5	218	174-287	231.0	ERA D073-540
RC	2013/08/20	Tin	µg/g (ppm)	EPA 3050/6010	0.5	119	98.3-166	132.0	ERA D073-540
RC	2013/08/20	Titanium	µg/g (ppm)	EPA 3050/6010	0.5	313	51.7-667	359.0	ERA D073-540
RC	2013/08/20	Uranium	µg/g (ppm)	EPA 3050/6010	15.0	177	127-237	182.0	SQC071
RC	2013/08/20	Vanadium	µg/g (ppm)	EPA 3050/6010	0.2	96.4	78.6-129	104.0	ERA D073-540
RC	2013/08/20	Zinc	µg/g (ppm)	EPA 3050/6010	0.5	236	216-334	275.0	ERA D073-540
RC	2013/08/20	Mercury (Cold Vapour)	µg/g (ppm)	EPA 7471A	0.00	13	10.9-19.5	15.20	ERA D073-540
SF	2013/08/27	pH (1:1 H2O) BC	pH Units	McKeague 4.11	0.01	7.07	6.91-7.33	7.12	SS#18

Analytical Comments

Project No. VE52277.Sediment

File No. EC-65783

All Analytical results pertain to samples analyzed as received.

BCME (Metals): British Columbia Ministry of Environment - Contaminated Sites Regulation, SALM Analytical Method 8, v1.0, 2001

BCME (pH1:1): British Columbia Ministry of Environment - Contaminated Sites Regulation, pH (1:1H₂O), Method PHSED, v1.0, 2000

EPA: U.S. Environmental Protection Agency. 1997. Test Methods of Evaluation of Solid Waste 3rd Ed through Update III. Office Solid Waste Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

MDL - Method Detection Limit

Metals analysis performed on <63um fraction



Edmonton Chemistry Lab

EC-65783
SRB16

Chain of Custody Record/Analysis Request

Tracking #: _____

ISSUING OFFICE: Burnaby, BC

Quotation # 522

Project Name: Blackwater

Project Manager: Bruce Ott

Project Number: VE52277

Phase: _____

Sampler: _____

Phone No.: 604-294-3811

Task: Sediment

ANALYSIS REQUIRED (Note preferred method)										QUOTED PRICE			
Client Sample ID	AMEC E & E Lab Sample ID	Date Collected	Matrix	1L Bottle	250 mL Jar	40 mL Vial	1L Polyethylene	ziploc bag	carbon (total organic)	ICP-BC-soil-ext (<63 um)	particle size analysis	50% RUSH (Please Notify Lab Prior To Submission)	100% RUSH (Please Notify Lab Prior To Submission)
WQ15	13-8887	2013/08/12	soil/sed					1	X	X	X		
WQ16	88	2013/08/12	soil/sed					1	X	X	X		
TateIKUZ	89 90 91 92 93	2013/08/13	soil/sed					1	X	X	X		
Lake 1682	94	2013/08/13	soil/sed					1	X	X	X		
Lake 1538	95	2013/08/13	soil/sed					1	X	X	X		
Lake 1438	96	2013/08/13	soil/sed					1	X	X	X		

YES
Please attach a copy of the quote

NO

Quote #: QN-522

Temperature Received: 14.2°C

Receiver's Comments:

RELINQUISHED BY: Signature: <i>Kristy Rasmus</i> Printed Name: Kristy Rasmus Firm: Avison Management Services Date/Time: _____	RECEIVED BY: Signature: <i>Dienelaine Epousal</i> Printed Name: DIENELAINE EPOUSAL Firm: AMEC Date/Time: 8:26 AM 15th AUGUST 2013	RELINQUISHED BY: Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	RECEIVED BY: Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____
--------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

Comments:

1) Please email CoA and results to Bruce Ott (bruce.ott@amec.com) and Raneai Lai (raneai.lai@amec.com)

2) Run a split on one of the samples other than TateIKUZ.

3) Please do a full particle size analysis on one of the replicates and not the lab split.

Final Analytical Report

Attention: Bruce Ott
AMEC Environment & Infrastructure
Suite 600, 4445 Lougheed Highway
Burnaby, BC V5C 0E4

Results for File: EC-65814
Project Number: VE52277.2190.02.200
Project Name: NewGold Blackwater
Date Received: 2013/08/21
Date of Report: 2013/09/05
Sublet Data: Attached

Comments:
Metals analysis was performed on the <63 μm fraction.

Report reviewed by:

A handwritten signature in blue ink, appearing to read "Jesse Dang".

Jesse Dang, B.Sc.
Manager
Laboratory Services

A handwritten signature in blue ink, appearing to read "Kristine Connor".

Kristine Connor
Client Services Representative
Laboratory Services

** All samples will be disposed of after 30 days following analysis. Please contact the lab if you require additional sample storage time. (Samples deemed hazardous will be returned to the client at their own expense or disposal will be arranged.) **

Soil Analysis - Metals

Project No. VE52277.2190.02.200

Final
File No. EC-65814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-9169	13-9170	13-9171	13-9172
					Client ID:	WQ21-1	WQ21-2	WQ21-3	WQ21-4
					Sample Date:	2013/08/18 0:00	2013/08/18 0:00	2013/08/18 0:00	2013/08/18 0:00
					MDL				
SF	2013/08/27	Moisture	%	---	0.5	34.4	26.3	26.6	28.9
LL	2013/09/04	Aluminum	µg/g (ppm)	BCME	5.00	9410	7260	7390	8780
LL	2013/09/04	Antimony	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/09/04	Arsenic	µg/g (ppm)	BCME	0.5	2.7	9.0	6.6	2.7
LL	2013/09/04	Barium	µg/g (ppm)	BCME	1	93	68	73	78
LL	2013/09/04	Beryllium	µg/g (ppm)	BCME	0.1	0.3	0.2	0.2	0.2
LL	2013/09/04	Cadmium	µg/g (ppm)	BCME	0.1	0.2	0.1	0.1	< 0.1
LL	2013/09/04	Calcium	µg/g (ppm)	BCME	5	3880	4470	3720	4390
LL	2013/09/04	Chromium	µg/g (ppm)	BCME	0.5	22.2	20.7	18.6	33.0
LL	2013/09/04	Cobalt	µg/g (ppm)	BCME	0.5	6.4	4.9	4.9	5.4
LL	2013/09/04	Copper	µg/g (ppm)	BCME	0.1	14.1	29.8	18.0	27.5
LL	2013/09/04	Iron	µg/g (ppm)	BCME	5	12600	13200	18000	11300
LL	2013/09/04	Lead	µg/g (ppm)	BCME	0.5	8.7	20.5	10.6	15.4
LL	2013/09/04	Magnesium	µg/g (ppm)	BCME	1	3220	3290	2940	4210
LL	2013/09/04	Manganese	µg/g (ppm)	BCME	0.5	208	237	248	282
LL	2013/09/04	Molybdenum	µg/g (ppm)	BCME	0.5	0.6	1.6	1.5	0.9
LL	2013/09/04	Nickel	µg/g (ppm)	BCME	0.5	13.7	13.4	11.8	18.1
LL	2013/09/04	Phosphorus	µg/g (ppm)	BCME	5	625	767	672	742
LL	2013/09/04	Potassium	µg/g (ppm)	BCME	5	497	480	466	525
LL	2013/09/04	Selenium	µg/g (ppm)	BCME	0.5	< 0.5	0.8	< 0.5	< 0.5
LL	2013/09/04	Silver	µg/g (ppm)	BCME	0.1	0.1	< 0.1	< 0.1	< 0.1
LL	2013/09/04	Sodium	µg/g (ppm)	BCME	0.1	227	249	230	285
LL	2013/09/04	Strontium	µg/g (ppm)	BCME	0.5	30.5	31.3	27.7	35.3
LL	2013/09/04	Thallium	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/09/04	Tin	µg/g (ppm)	BCME	0.5	1.2	21.1	5.0	11.9
LL	2013/09/04	Titanium	µg/g (ppm)	BCME	0.5	1050	789	799	1000
LL	2013/09/04	Uranium	µg/g (ppm)	BCME	15.0	< 15.0	< 15.0	< 15.0	< 15.0
LL	2013/09/04	Vanadium	µg/g (ppm)	BCME	0.2	40.2	29.4	29.5	34.8
LL	2013/09/04	Zinc	µg/g (ppm)	BCME	0.5	59.9	51.9	48.5	64.0
LL	2013/09/04	Mercury (Cold Vapour)	µg/g (ppm)	EPA 7471A	0.02	0.05	0.08	0.16	0.06
SF	2013/08/27	pH (1:1 H2O) BC	pH units	BCME	0.01	6.11	6.04	6.14	6.85

Soil Analysis - Metals

Project No. VE52277.2190.02.200

Final
File No. EC-65814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-9173	13-9174	13-9174-D	13-9175
					Client ID:	WQ21-5	WQ22 (Split Sample)	WQ22 (Split Sample)	WQ23
					Sample Date:	2013/08/18 0:00	2013/08/19 0:00	Lab Duplicate	2013/08/18 0:00
					MDL				
SF	2013/08/27	Moisture	%	---	0.5	19.8	93.3	93.5	90.0
LL	2013/09/04	Aluminum	µg/g (ppm)	BCME	5.00	8220	5510	5490	9610
LL	2013/09/04	Antimony	µg/g (ppm)	BCME	0.5	< 0.5	0.7	0.7	3.1
LL	2013/09/04	Arsenic	µg/g (ppm)	BCME	0.5	3.2	4.3	4.4	13.6
LL	2013/09/04	Barium	µg/g (ppm)	BCME	1	59	59	59	80
LL	2013/09/04	Beryllium	µg/g (ppm)	BCME	0.1	0.2	0.2	0.2	0.9
LL	2013/09/04	Cadmium	µg/g (ppm)	BCME	0.1	< 0.1	0.4	0.4	0.4
LL	2013/09/04	Calcium	µg/g (ppm)	BCME	5	3790	10300	10300	3970
LL	2013/09/04	Chromium	µg/g (ppm)	BCME	0.5	38.8	22.9	22.9	18.3
LL	2013/09/04	Cobalt	µg/g (ppm)	BCME	0.5	5.0	3.2	3.2	2.7
LL	2013/09/04	Copper	µg/g (ppm)	BCME	0.1	54.3	46.9	46.9	20.0
LL	2013/09/04	Iron	µg/g (ppm)	BCME	5	12200	8030	8020	7100
LL	2013/09/04	Lead	µg/g (ppm)	BCME	0.5	38.4	44.5	44.6	16.4
LL	2013/09/04	Magnesium	µg/g (ppm)	BCME	1	4480	2810	2820	1220
LL	2013/09/04	Manganese	µg/g (ppm)	BCME	0.5	347	262	261	158
LL	2013/09/04	Molybdenum	µg/g (ppm)	BCME	0.5	1.6	2.5	2.5	4.8
LL	2013/09/04	Nickel	µg/g (ppm)	BCME	0.5	20.5	15.2	15.0	6.3
LL	2013/09/04	Phosphorus	µg/g (ppm)	BCME	5	795	602	605	615
LL	2013/09/04	Potassium	µg/g (ppm)	BCME	5	697	483	484	529
LL	2013/09/04	Selenium	µg/g (ppm)	BCME	0.5	< 0.5	1.1	1.1	0.9
LL	2013/09/04	Silver	µg/g (ppm)	BCME	0.1	0.1	0.2	0.2	0.3
LL	2013/09/04	Sodium	µg/g (ppm)	BCME	0.1	252	788	793	125
LL	2013/09/04	Strontium	µg/g (ppm)	BCME	0.5	25.7	59.9	59.6	36.4
LL	2013/09/04	Thallium	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5	< 0.5	< 0.5
LL	2013/09/04	Tin	µg/g (ppm)	BCME	0.5	38.3	44.2	44.2	4.6
LL	2013/09/04	Titanium	µg/g (ppm)	BCME	0.5	559	206	204	198
LL	2013/09/04	Uranium	µg/g (ppm)	BCME	15.0	< 15.0	< 15.0	< 15.0	16.6
LL	2013/09/04	Vanadium	µg/g (ppm)	BCME	0.2	32.3	26.6	26.4	21.5
LL	2013/09/04	Zinc	µg/g (ppm)	BCME	0.5	66.2	101	101	76.5
LL	2013/09/04	Mercury (Cold Vapour)	µg/g (ppm)	EPA 7471A	0.02	0.05	0.47	0.44	0.38
SF	2013/08/27	pH (1:1 H2O) BC	pH units	BCME	0.01	6.35	5.91	5.89	5.72

Soil Analysis - Metals

Project No. VE52277.2190.02.200

Final
File No. EC-65814

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	Lab #:	13-9176	13-9177
					Client ID:	WQ24	WQ25
					Sample Date:	2013/08/18 0:00	2013/08/18 0:00
					MDL		
SF	2013/08/27	Moisture	%	---	0.5	89.3	88.1
LL	2013/09/04	Aluminum	µg/g (ppm)	BCME	5.00	12400	8970
LL	2013/09/04	Antimony	µg/g (ppm)	BCME	0.5	1.4	0.6
LL	2013/09/04	Arsenic	µg/g (ppm)	BCME	0.5	18.0	4.1
LL	2013/09/04	Barium	µg/g (ppm)	BCME	1	83	96
LL	2013/09/04	Beryllium	µg/g (ppm)	BCME	0.1	1.1	0.7
LL	2013/09/04	Cadmium	µg/g (ppm)	BCME	0.1	0.6	0.4
LL	2013/09/04	Calcium	µg/g (ppm)	BCME	5	3450	3510
LL	2013/09/04	Chromium	µg/g (ppm)	BCME	0.5	14.3	9.2
LL	2013/09/04	Cobalt	µg/g (ppm)	BCME	0.5	3.0	2.7
LL	2013/09/04	Copper	µg/g (ppm)	BCME	0.1	28.2	17.5
LL	2013/09/04	Iron	µg/g (ppm)	BCME	5	9630	6730
LL	2013/09/04	Lead	µg/g (ppm)	BCME	0.5	23.0	18.1
LL	2013/09/04	Magnesium	µg/g (ppm)	BCME	1	1350	764
LL	2013/09/04	Manganese	µg/g (ppm)	BCME	0.5	254	464
LL	2013/09/04	Molybdenum	µg/g (ppm)	BCME	0.5	7.3	3.5
LL	2013/09/04	Nickel	µg/g (ppm)	BCME	0.5	7.3	5.7
LL	2013/09/04	Phosphorus	µg/g (ppm)	BCME	5	733	962
LL	2013/09/04	Potassium	µg/g (ppm)	BCME	5	492	347
LL	2013/09/04	Selenium	µg/g (ppm)	BCME	0.5	0.8	< 0.5
LL	2013/09/04	Silver	µg/g (ppm)	BCME	0.1	0.3	0.2
LL	2013/09/04	Sodium	µg/g (ppm)	BCME	0.1	102	79.6
LL	2013/09/04	Strontium	µg/g (ppm)	BCME	0.5	35.0	44.8
LL	2013/09/04	Thallium	µg/g (ppm)	BCME	0.5	< 0.5	< 0.5
LL	2013/09/04	Tin	µg/g (ppm)	BCME	0.5	3.4	19.0
LL	2013/09/04	Titanium	µg/g (ppm)	BCME	0.5	157	97.4
LL	2013/09/04	Uranium	µg/g (ppm)	BCME	15.0	25.5	< 15.0
LL	2013/09/04	Vanadium	µg/g (ppm)	BCME	0.2	26.0	16.4
LL	2013/09/04	Zinc	µg/g (ppm)	BCME	0.5	93.8	140
LL	2013/09/04	Mercury (Cold Vapour)	µg/g (ppm)	EPA 7471A	0.02	0.36	0.29
SF	2013/08/27	pH (1:1 H2O) BC	pH units	BCME	0.01	5.52	5.84

Quality Control Standard

Project No. VE52277.2190.02.200

File No. EC-65814

Soil Analysis - Metals

Analyst	Date of Analysis (yyyy/m/d)	Analytical Parameter	Units	Reference Method	MDL	Analyzed Value	Advisory Range	Target Value	Reference No.
LL	2013/09/04	Aluminum	µg/g (ppm)	EPA 3050/6010	5.00	10300	4400-16800	10600.00	ERA D073-540
LL	2013/09/04	Antimony	µg/g (ppm)	EPA 3050/6010	0.1	126	0.5-269	120.0	ERA D073-540
LL	2013/09/04	Arsenic	µg/g (ppm)	EPA 3050/6010	0.5	106	96.7-151	124.0	ERA D073-540
LL	2013/09/04	Barium	µg/g (ppm)	EPA 3050/6010	1	322	252-380	316	ERA D073-540
LL	2013/09/04	Beryllium	µg/g (ppm)	EPA 3050/6010	0.1	51.5	45-55	50.0	CCV-MS
LL	2013/09/04	Cadmium	µg/g (ppm)	EPA 3050/6010	0.1	105	93.6-138	116.0	ERA D073-540
LL	2013/09/04	Calcium	µg/g (ppm)	EPA 3050/6010	5	10500	8610-13200	10900	ERA D073-540
LL	2013/09/04	Chromium	µg/g (ppm)	EPA 3050/6010	0.5	91.9	73.6-118	95.9	ERA D073-540
LL	2013/09/04	Cobalt	µg/g (ppm)	EPA 3050/6010	0.5	132	111-164	138.0	ERA D073-540
LL	2013/09/04	Copper	µg/g (ppm)	EPA 3050/6010	0.1	69.1	64.2-101	82.8	ERA D073-540
LL	2013/09/04	Iron	µg/g (ppm)	EPA 3050/6010	5	15700	9220-27200	18200	ERA D073-540
LL	2013/09/04	Lead	µg/g (ppm)	EPA 3050/6010	0.5	141	106-168	137.0	ERA D073-540
LL	2013/09/04	Magnesium	µg/g (ppm)	EPA 3050/6010	1	2780	1960-4130	3040	ERA D073-540
LL	2013/09/04	Manganese	µg/g (ppm)	EPA 3050/6010	0.5	541	449-708	578.0	ERA D073-540
LL	2013/09/04	Molybdenum	µg/g (ppm)	EPA 3050/6010	0.5	83.0	67.7-109	88.6	ERA D073-540
LL	2013/09/04	Nickel	µg/g (ppm)	EPA 3050/6010	0.5	101	96.3-145	121.0	ERA D073-540
LL	2013/09/04	Phosphorus	mg/L (ppm)	EPA 6010	5	262	225-275	250	CCV-Soils
LL	2013/09/04	Potassium	µg/g (ppm)	EPA 3050/6010	5	1520	1290-2450	1870	ERA D073-540
LL	2013/09/04	Selenium	µg/g (ppm)	EPA 3050/6010	0.5	185	155-248	202.0	ERA D073-540
LL	2013/09/04	Silver	µg/g (ppm)	EPA 3050/6010	0.1	49.7	35.5-71.6	53.5	ERA D073-540
LL	2013/09/04	Sodium	µg/g (ppm)	EPA 3050/6010	1.0	698	512-939	726.0	ERA D073-540
LL	2013/09/04	Strontium	µg/g (ppm)	EPA 3050/6010	0.5	63.1	59.2-87.2	73.2	ERA D073-540
LL	2013/09/04	Thallium	µg/g (ppm)	EPA 3050/6010	0.5	223	174-287	231.0	ERA D073-540
LL	2013/09/04	Tin	µg/g (ppm)	EPA 3050/6010	0.5	127	98.3-166	132.0	ERA D073-540
LL	2013/09/04	Titanium	µg/g (ppm)	EPA 3050/6010	0.5	375	51.7-667	359.0	ERA D073-540
LL	2013/09/04	Uranium	µg/g (ppm)	EPA 3050/6010	15.0	173	127-237	182.0	SQC071
LL	2013/09/04	Vanadium	µg/g (ppm)	EPA 3050/6010	0.2	97.8	78.6-129	104.0	ERA D073-540
LL	2013/09/04	Zinc	µg/g (ppm)	EPA 3050/6010	0.5	254	216-334	275.0	ERA D073-540
LL	2013/09/04	Mercury (Cold Vapour)	µg/g (ppm)	EPA 7471A	0.00	15	10.9-19.5	15.20	ERA D073-540
SF	2013/08/27	pH (1:1 H2O) BC	pH Units	McKeague 4.11	0.01	7.07	6.91-7.33	7.12	SS#18

Analytical Comments

Project No. VE52277.2190.02.200

File No. EC-65814

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All Analytical results pertain to samples analyzed as received.

BCME (Metals): British Columbia Ministry of Environment - Contaminated Sites Regulation, SALM Analytical Method 8, v1.0, 2001

BCME (pH1:1): British Columbia Ministry of Environment - Contaminated Sites Regulation, pH (1:1H₂O), Method PHSED, v1.0, 2000

MDL - Method Detection Limit

Metals analysis was performed on the <63 µm fraction.



AMEC EARTH & ENVIRONMENTAL
ATTN: JESSE DANG
5667 70 Street
EDMONTON AB T6B 3P6

Date Received: 24-AUG-11
Report Date: 31-AUG-11 12:37 (MT)
Version: FINAL

Client Phone: 780-940-4147

Certificate of Analysis

Lab Work Order #: L1049240
Project P.O. #: P.O.#305817
Job Reference: EC-61555
C of C Numbers: L1049240
Legal Site Desc:

ANDREW BROWN
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1049240-3 WQ4 11-10920 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Particle size - Sieve and Pipette							
% Sand (2.00mm - 1.00mm)	3.60		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (1.00mm - 0.50mm)	14.8		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (0.50mm - 0.25mm)	12.7		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (0.25mm - 0.125mm)	13.3		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (0.125mm - 0.063mm)	4.41		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Silt (0.063mm - 0.0312mm)	19.0		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Silt (0.0312mm - 0.004mm)	23.9		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Clay (<4um)	8.40		0.10	%	25-AUG-11	29-AUG-11	R2242501
L1049240-4 WQ5 11-10921 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241907
Total Organic Carbon	1.33		0.10	%	27-AUG-11	27-AUG-11	R2241907
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241907
Total Carbon by combustion method							
Total Carbon by Combustion	1.3		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (2.00mm - 1.00mm)	10.7		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (1.00mm - 0.50mm)	35.2		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (0.50mm - 0.25mm)	16.8		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (0.25mm - 0.125mm)	17.4		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Sand (0.125mm - 0.063mm)	9.95		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Silt (0.063mm - 0.0312mm)	5.15		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Silt (0.0312mm - 0.004mm)	3.81		0.10	%	25-AUG-11	29-AUG-11	R2242501
% Clay (<4um)	0.91		0.10	%	25-AUG-11	29-AUG-11	R2242501
L1049240-5 WQ6 11-10922 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241907
Total Organic Carbon	3.63		0.10	%	27-AUG-11	27-AUG-11	R2241907
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241907
Total Carbon by combustion method							
Total Carbon by Combustion	3.6		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	9.12		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	22.8		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	12.9		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	15.4		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	8.12		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	13.4		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	14.8		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	3.43		0.10	%	25-AUG-11	30-AUG-11	R2242951

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1049240-8 WQ7 SPLIT11-10925 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Particle size - Sieve and Pipette							
% Sand (2.00mm - 1.00mm)	3.15		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	21.9		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	23.8		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	30.5		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	8.08		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	4.33		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	4.65		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	3.62		0.10	%	25-AUG-11	30-AUG-11	R2242951
L1049240-9 WQ8 11-10926 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	1.95		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method							
Total Carbon by Combustion	1.9		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	6.93		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	23.5		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	23.3		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	33.4		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	7.02		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	3.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	1.86		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	0.92		0.10	%	25-AUG-11	30-AUG-11	R2242951
L1049240-10 WQ9 11-10927 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	0.99		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method							
Total Carbon by Combustion	1.0		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	2.47		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	12.9		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	12.2		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	41.4		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	11.6		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	8.93		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	8.49		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	1.97		0.10	%	25-AUG-11	30-AUG-11	R2242951

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1049240-11 WQ10 11-10928 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	0.48		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method Total Carbon by Combustion	0.5		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette % Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	3.72		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	26.5		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	25.8		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	29.2		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	6.51		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	3.60		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	3.05		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	1.67		0.10	%	25-AUG-11	30-AUG-11	R2242951
L1049240-12 WQ11 11-10929 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	3.84		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method Total Carbon by Combustion	3.8		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette % Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	23.1		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	28.8		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	16.8		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	11.3		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	2.96		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	7.73		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	8.05		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	1.26		0.10	%	25-AUG-11	30-AUG-11	R2242951
L1049240-13 WQ12 11-10930 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	2.07		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method Total Carbon by Combustion	2.1		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette % Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1049240-13 WQ12 11-10930 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Particle size - Sieve and Pipette							
% Sand (2.00mm - 1.00mm)	2.99		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	13.4		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	18.2		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	32.7		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	11.2		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	10.2		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	9.08		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	2.18		0.10	%	25-AUG-11	30-AUG-11	R2242951
L1049240-14 WQ12 SPLIT 11-10931 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	1.28		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method							
Total Carbon by Combustion	1.3		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	2.90		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	18.7		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	26.8		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	33.7		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	7.79		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	4.13		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	3.49		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	2.53		0.10	%	25-AUG-11	30-AUG-11	R2242951
L1049240-15 WQ13 11-10932 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	0.95		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method							
Total Carbon by Combustion	1.0		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	3.55		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	17.9		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	19.0		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	35.1		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	11.9		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	5.01		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	4.69		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	2.94		0.10	%	25-AUG-11	30-AUG-11	R2242951

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1049240-18 WQ14 REP 3 11-10935 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Particle size - Sieve and Pipette							
% Sand (2.00mm - 1.00mm)	5.54		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	12.2		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	9.51		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	9.59		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	5.84		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	28.0		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	27.7		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	1.59		0.10	%	25-AUG-11	30-AUG-11	R2242951
L1049240-19 WQ14 REP 4 11-10936 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	0.11		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	8.14		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	0.95		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method							
Total Carbon by Combustion	8.3		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	4.03		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	9.13		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	5.70		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	8.85		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	4.93		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	32.5		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	33.0		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	1.92		0.10	%	25-AUG-11	30-AUG-11	R2242951
L1049240-20 WQ14 REP 5 11-10937 Sampled By: CLIENT on 15-AUG-11 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	0.11		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	5.85		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	0.88		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method							
Total Carbon by Combustion	6.0		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	2.60		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	11.2		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	7.69		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	10.6		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	4.27		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	27.0		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	31.3		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	5.35		0.10	%	25-AUG-11	30-AUG-11	R2242951

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1049240-21 WQ1 11-10917							
Sampled By: CLIENT on 15-AUG-11							
Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	27-AUG-11	27-AUG-11	R2241909
Total Organic Carbon	4.09		0.10	%	27-AUG-11	27-AUG-11	R2241909
CaCO3 Equivalent	<0.70		0.70	%	27-AUG-11	27-AUG-11	R2241909
Total Carbon by combustion method							
Total Carbon by Combustion	4.1		0.1	%	26-AUG-11	26-AUG-11	R2241908
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (2.00mm - 1.00mm)	0.61		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (1.00mm - 0.50mm)	11.0		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.50mm - 0.25mm)	17.5		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.25mm - 0.125mm)	29.9		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Sand (0.125mm - 0.063mm)	8.90		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.063mm - 0.0312mm)	13.8		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Silt (0.0312mm - 0.004mm)	13.2		0.10	%	25-AUG-11	30-AUG-11	R2242951
% Clay (<4um)	5.15		0.10	%	25-AUG-11	30-AUG-11	R2242951

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
C-INORG-ORG-SK	Soil	Inorganic and Organic Carbon	SSSA (1996) P455-456
<p>When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO₂ loss is proportional to the carbonate content of the soil.</p> <p>Reference: Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5</p>			
C-TOT-LECO-SK	Soil	Total Carbon by combustion method	SSSA (1996) P. 973-974
<p>The sample is introduced into a quartz tube where it undergoes combustion at 900 C in the presence of oxygen. Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen. This mixture of N₂, CO₂, and H₂O is then passed through an absorber column containing magnesium perchlorate to remove water. N₂ and CO₂ gases are then separated in a gas chromatographic column and detected by thermal conductivity.</p> <p>Reference: Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 973-974 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5</p>			
PSA-PIPET-DETAIL-SK	Soil	Particle size - Sieve and Pipette	SSIR-51 METHOD 3.2.1
<p>Particle size distribution is determined by a combination of techniques. Dry sieving is performed for coarse particles, wet sieving for sand particles and the pipette sedimentation method for clay particles.</p> <p>Reference: Burt, R. (2009). Soil Survey Field and Laboratory Methods Manual. Soil Survey Investigations Report No. 5. Method 3.2.1.2.2. United States Department of Agriculture Natural Resources Conservation Service.</p>			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
SK	ALS ENVIRONMENTAL - SASKATOON, SASKATCHEWAN, CANADA

Chain of Custody Numbers:

L1049240

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1049240

Report Date: 31-AUG-11

Page 1 of 3

Client: AMEC EARTH & ENVIRONMENTAL
5667 70 Street
EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-INORG-ORG-SK								
	Soil							
Batch	R2241907							
WG1336592-1	DUP	L1048151-11						
Inorganic Carbon		0.14	0.16		%	11	30	27-AUG-11
CaCO3 Equivalent		1.17	1.30		%	11	25	27-AUG-11
WG1336592-2	IRM	0.4%IC						
Inorganic Carbon			0.44		%		0.28-0.52	27-AUG-11
CaCO3 Equivalent			3.67		%		2.33-4.33	27-AUG-11
WG1336592-3	MB							
Inorganic Carbon			<0.10		%		0.1	27-AUG-11
CaCO3 Equivalent			<0.70		%		1	27-AUG-11
Batch	R2241909							
WG1336593-1	DUP	L1049240-16						
Inorganic Carbon		<0.10	<0.10	RPD-NA	%	N/A	30	27-AUG-11
CaCO3 Equivalent		0.78	0.74		%	5.2	25	27-AUG-11
WG1336593-2	IRM	0.4%IC						
Inorganic Carbon			0.39		%		0.28-0.52	27-AUG-11
CaCO3 Equivalent			3.25		%		2.33-4.33	27-AUG-11
WG1336593-3	MB							
Inorganic Carbon			<0.10		%		0.1	27-AUG-11
CaCO3 Equivalent			<0.70		%		1	27-AUG-11
C-TOT-LECO-SK								
	Soil							
Batch	R2241908							
WG1336556-1	DUP	L1049240-5						
Total Carbon by Combustion		3.6	3.7		%	1.3	10	26-AUG-11
WG1336556-2	IRM	08-109_SOIL						
Total Carbon by Combustion			1.3		%		1.1-1.7	26-AUG-11
WG1336556-3	MB							
Total Carbon by Combustion			<0.1		%		0.102	26-AUG-11
PSA-PIPET-DETAIL-SK								
	Soil							
Batch	R2242501							
WG1336539-1	DUP	L1047937-8						
% Gravel (>2mm)		13.9	13.9		%	0.0	25	29-AUG-11
% Sand (2.00mm - 1.00mm)		26.0	25.9	J	%	0.09	5	29-AUG-11
% Sand (1.00mm - 0.50mm)		15.1	14.6	J	%	0.52	5	29-AUG-11
% Sand (0.50mm - 0.25mm)		6.66	6.92	J	%	0.26	5	29-AUG-11
% Sand (0.25mm - 0.125mm)		8.25	9.18	J	%	0.93	5	29-AUG-11
% Sand (0.125mm - 0.063mm)		4.51	5.07	J	%	0.56	5	29-AUG-11



Quality Control Report

Workorder: L1049240

Report Date: 31-AUG-11

Page 2 of 3

Client: AMEC EARTH & ENVIRONMENTAL
5667 70 Street
EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PSA-PIPET-DETAIL-SK Soil								
Batch R2242501								
WG1336539-1 DUP		L1047937-8						
% Silt (0.063mm - 0.0312mm)		11.5	10.5	J	%	0.99	5	29-AUG-11
% Silt (0.0312mm - 0.004mm)		12.6	10.4	J	%	2.15	5	29-AUG-11
% Clay (<4um)		1.64	3.62	J	%	1.98	5	29-AUG-11
WG1336539-2 IRM		FARM2009						
% Sand (2.00mm - 1.00mm)			3.48		%		0-6	29-AUG-11
% Sand (1.00mm - 0.50mm)			8.86		%		2-12	29-AUG-11
% Sand (0.50mm - 0.25mm)			4.86		%		1-11	29-AUG-11
% Sand (0.25mm - 0.125mm)			17.1		%		12-22	29-AUG-11
% Sand (0.125mm - 0.063mm)			11.0		%		7-17	29-AUG-11
% Silt (0.063mm - 0.0312mm)			12.7		%		10-20	29-AUG-11
% Silt (0.0312mm - 0.004mm)			20.7		%		19-29	29-AUG-11
% Clay (<4um)			21.3		%		13-23	29-AUG-11
Batch R2242951								
WG1336542-1 DUP		L1049240-20						
% Gravel (>2mm)		<0.10	<0.10	RPD-NA	%	N/A	25	30-AUG-11
% Sand (2.00mm - 1.00mm)		2.60	2.59	J	%	0.01	5	30-AUG-11
% Sand (1.00mm - 0.50mm)		11.2	11.6	J	%	0.37	5	30-AUG-11
% Sand (0.50mm - 0.25mm)		7.69	7.97	J	%	0.28	5	30-AUG-11
% Sand (0.25mm - 0.125mm)		10.6	10.7	J	%	0.10	5	30-AUG-11
% Sand (0.125mm - 0.063mm)		4.27	4.34	J	%	0.07	5	30-AUG-11
% Silt (0.063mm - 0.0312mm)		27.0	25.1	J	%	1.88	5	30-AUG-11
% Silt (0.0312mm - 0.004mm)		31.3	31.5	J	%	0.18	5	30-AUG-11
% Clay (<4um)		5.35	6.25	J	%	0.90	5	30-AUG-11
WG1336542-2 IRM		FARM2009						
% Sand (2.00mm - 1.00mm)			4.01		%		0-6	30-AUG-11
% Sand (1.00mm - 0.50mm)			8.53		%		2-12	30-AUG-11
% Sand (0.50mm - 0.25mm)			5.05		%		1-11	30-AUG-11
% Sand (0.25mm - 0.125mm)			17.4		%		12-22	30-AUG-11
% Sand (0.125mm - 0.063mm)			9.98		%		7-17	30-AUG-11
% Silt (0.063mm - 0.0312mm)			11.0		%		10-20	30-AUG-11
% Silt (0.0312mm - 0.004mm)			22.4		%		19-29	30-AUG-11
% Clay (<4um)			21.6		%		13-23	30-AUG-11

Quality Control Report

Workorder: L1049240

Report Date: 31-AUG-11

Page 3 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



FileNbr	SampleName	LabNbr	DateSampled	Descript
EC-61555	WQ3	11-10918-	3/16 4:25:00 PM	Soil
EC-61555	WQ3 Split	11-10919-	3/16 4:25:00 PM	Soil
EC-61555	WQ4	11-10920-	3/16 4:25:00 PM	Soil
EC-61555	WQ5	11-10921-	3/16 4:25:00 PM	Soil
EC-61555	WQ6	11-10922-	3/16 4:25:00 PM	Soil
EC-61555	WQ6 Split	11-10923-	3/16 4:25:00 PM	Soil
EC-61555	WQ7	11-10924-	3/16 4:25:00 PM	Soil
EC-61555	WQ7 Split	11-10925-	3/16 4:25:00 PM	Soil
EC-61555	WQ8	11-10926-	3/16 4:25:00 PM	Soil
EC-61555	WQ9	11-10927-	3/16 4:25:00 PM	Soil
EC-61555	WQ10	11-10928-	3/16 4:25:00 PM	Soil
EC-61555	WQ11	11-10929-	3/16 4:25:00 PM	Soil
EC-61555	WQ12	11-10930-	3/16 4:25:00 PM	Soil
EC-61555	WQ12 Split	11-10931-	3/16 4:25:00 PM	Soil
EC-61555	WQ13	11-10932-	3/16 4:25:00 PM	Soil
EC-61555	WQ14 Rep1	11-10933-	3/16 4:25:00 PM	Soil
EC-61555	WQ14 Rep2	11-10934-	3/16 4:25:00 PM	Soil
EC-61555	WQ14 Rep3	11-10935-	3/16 4:25:00 PM	Soil
EC-61555	WQ14 Rep4	11-10936-	3/16 4:25:00 PM	Soil
EC-61555	WQ14 Rep5	11-10937-	3/16 4:25:00 PM	Soil
EC-61555	WQ1	11-10917-	3/16 4:25:00 PM	Soil

BON DE COMMANDE
PURCHASE ORDER

A TO ALS
 ADRESSE ADDRESS



305817

CE NUMÉRO DOIT APPARAÎTRE SUR
TOUT COLIS, FACTURE, ETC.

THIS NUMBER MUST APPEAR ON
ALL INVOICES, PACKAGES, ETC.

EXPÉDIER À SHIP TO AMEC

N° DEM. OU SERV. REQ. NO. OR DEPT. 2220

ADRESSE ADDRESS

DATE 18 Aug 11

POUR FOR EC-61555

QUANTITÉ QUANTITY	DESCRIPTION	PRIX PRICE	UNITÉ UNIT	MONTANT AMOUNT
1 <u>21</u>	<u>Soil samples for</u>			
2				
3	<u>TOC and PSA - Pipet - Detail - SK</u>			
4				
5				
6	<u>See attached.</u>			
7				
8				
9				
10				

DATE REQUISE - DATE REQUIRED
31 Aug 11

VIA

VEUILLEZ ENVOYER
PLEASE SEND

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COPY(IES) OF YOUR INVOICE.

CONDITIONS TERMS
Please list both IDs on results.

ACHETEUR - PURCHASING AGENT
[Signature]

VEUILLEZ NOUS AVISER IMMÉDIATEMENT S'IL EST IMPOSSIBLE D'EXPÉDIER LA COMMANDE COMPLÈTE À LA DATE SPÉCIFIÉE.
PLEASE NOTIFY US IMMEDIATELY IF YOU ARE UNABLE TO SHIP COMPLETE ORDER BY DATE SPECIFIED.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: JESSE DANG
5667 - 70 STREET
EDMONTON AB T6B 3P6

Date Received: 22-AUG-12
Report Date: 29-AUG-12 11:31 (MT)
Version: FINAL

Client Phone: 780-436-2152

Certificate of Analysis

Lab Work Order #: L1198011
Project P.O. #: PO 2220
Job Reference: EC-63759
C of C Numbers: L1198011
Legal Site Desc:

Brian Morgan
Account Manager

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ADDRESS: #819-58th St E., Saskatoon, SK S7K 6X5 Canada | Phone: +1 306 668 8370 | Fax: +1 306 668 8383
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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-1 EC-63759 WQ1 12-9675 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion	<0.10 2.86 <0.80 2.9		0.10 0.10 0.80 0.1	% % % %	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	R2423990 R2423990 R2423990 R2423993
Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	<0.10 0.77 13.6 22.3 30.6 7.01 10.6 11.3 3.88 Loamy sand		0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10	% % % % % % % % %	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12	R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730
L1198011-2 EC-63759 WQ3-S1 12-9676 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion	<0.10 2.38 <0.80 2.4		0.10 0.10 0.80 0.1	% % % %	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	R2423990 R2423990 R2423990 R2423993
Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	<0.10 0.44 10.7 18.1 35.2 10.7 11.6 10.9 2.38 Loamy sand		0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10	% % % % % % % % %	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12 27-AUG-12	R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730
L1198011-3 EC-63759 WQ3-S2 12-9677 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion	<0.10 2.14 <0.80 2.1		0.10 0.10 0.80 0.1	% % % %	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	R2423990 R2423990 R2423990 R2423993

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-3 EC-63759 WQ3-S2 12-9677 Sampled By: CLIENT Matrix: SOIL Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (2.00mm - 1.00mm)	1.18		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (1.00mm - 0.50mm)	16.2		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.50mm - 0.25mm)	21.5		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.25mm - 0.125mm)	32.4		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.125mm - 0.063mm)	9.35		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Silt (0.063mm - 0.0312mm)	8.95		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Silt (0.0312mm - 0.004mm)	8.14		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Clay (<4um)	2.29		0.10	%	24-AUG-12	27-AUG-12	R2424730
Texture	Loamy sand				24-AUG-12	27-AUG-12	R2424730
L1198011-4 EC-63759 WQ4-S1 12-9678 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	6.78		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	6.8		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (2.00mm - 1.00mm)	2.18		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (1.00mm - 0.50mm)	10.7		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.50mm - 0.25mm)	11.9		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.25mm - 0.125mm)	10.4		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.125mm - 0.063mm)	3.31		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Silt (0.063mm - 0.0312mm)	18.3		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Silt (0.0312mm - 0.004mm)	26.1		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Clay (<4um)	17.1		0.10	%	24-AUG-12	27-AUG-12	R2424730
Texture	Loam				24-AUG-12	27-AUG-12	R2424730
L1198011-5 EC-63759 WQ4-S2 12-9679 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	8.04		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	8.0		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (2.00mm - 1.00mm)	2.28		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (1.00mm - 0.50mm)	10.4		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.50mm - 0.25mm)	10.6		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.25mm - 0.125mm)	10.6		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.125mm - 0.063mm)	3.32		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Silt (0.063mm - 0.0312mm)	21.6		0.10	%	24-AUG-12	27-AUG-12	R2424730

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-5 EC-63759 WQ4-S2 12-9679 Sampled By: CLIENT Matrix: SOIL Particle size - Sieve and Pipette % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	28.8 12.4 Silt loam		0.10 0.10	% %	24-AUG-12 24-AUG-12 24-AUG-12	27-AUG-12 27-AUG-12 27-AUG-12	R2424730 R2424730 R2424730
L1198011-6 EC-63759 WQ5 12-9680 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	<0.10 0.95 <0.80 0.9 <0.10 3.68 36.2 17.8 20.5 8.96 6.39 5.20 1.33 Sand		0.10 0.10 0.80 0.1	% % % %	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	R2423990 R2423990 R2423990 R2423993 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730
L1198011-7 EC-63759 WQ6 12-9681 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	<0.10 4.37 <0.80 4.4 <0.10 0.74 5.31 7.49 23.2 12.2 22.1 23.5 5.46 Sandy loam		0.10 0.10 0.80 0.1	% % % %	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12 24-AUG-12	R2423990 R2423990 R2423990 R2423993 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730 R2424730
L1198011-8 EC-63759 WQ7-S1 12-9682 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-8 EC-63759 WQ7-S1 12-9682 Sampled By: CLIENT Matrix: SOIL							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	0.42		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	0.4		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (2.00mm - 1.00mm)	0.22		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (1.00mm - 0.50mm)	11.2		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.50mm - 0.25mm)	20.3		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.25mm - 0.125mm)	50.0		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Sand (0.125mm - 0.063mm)	7.47		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Silt (0.063mm - 0.0312mm)	4.75		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Silt (0.0312mm - 0.004mm)	3.99		0.10	%	24-AUG-12	27-AUG-12	R2424730
% Clay (<4um)	2.15		0.10	%	24-AUG-12	27-AUG-12	R2424730
Texture	Sand				24-AUG-12	27-AUG-12	R2424730
L1198011-9 EC-63759 WQ7-S2 12-9683 Sampled By: CLIENT Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	0.42		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	0.4		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	0.56		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	15.5		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	28.2		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	39.9		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	7.35		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	3.55		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	3.17		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	1.79		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Sand				23-AUG-12	24-AUG-12	R2423762
L1198011-10 EC-63759 WQ8 12-9684 Sampled By: CLIENT Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	5.41		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	5.4		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-10 EC-63759 WQ8 12-9684 Sampled By: CLIENT Matrix: SOIL Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	7.35		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	14.7		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	13.2		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	32.9		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	9.65		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	10.2		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	10.1		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	2.03		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Loamy sand				23-AUG-12	24-AUG-12	R2423762
L1198011-11 EC-63759 WQ9 12-9685 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	3.38		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	3.4		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	1.93		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	7.18		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	8.89		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	25.8		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	12.8		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	17.2		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	21.2		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	4.95		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Sandy loam				23-AUG-12	24-AUG-12	R2423762
L1198011-12 EC-63759 WQ10 12-9686 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	1.20		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	1.2		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	8.12		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	25.6		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	20.6		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	25.9		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	7.80		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	3.74		0.10	%	23-AUG-12	24-AUG-12	R2423762

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-12 EC-63759 WQ10 12-9686 Sampled By: CLIENT Matrix: SOIL Particle size - Sieve and Pipette							
% Silt (0.0312mm - 0.004mm)	4.34		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	3.92		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Sand				23-AUG-12	24-AUG-12	R2423762
L1198011-13 EC-63759 WQ11 12-9687 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	4.20		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	4.2		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	30.1		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	22.1		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	8.73		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	8.18		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	2.16		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	12.3		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	14.1		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	2.33		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Sandy loam / Loamy sand				23-AUG-12	24-AUG-12	R2423762
L1198011-14 EC-63759 WQ12-S1 12-9688 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	2.16		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	2.2		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	1.89		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	16.1		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	25.3		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	25.7		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	8.56		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	9.13		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	10.4		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	3.02		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Loamy sand				23-AUG-12	24-AUG-12	R2423762
L1198011-15 EC-63759 WQ12-S2 12-9689 Sampled By: CLIENT Matrix: SOIL							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-17 EC-63759 WQ14-S1 12-9691 Sampled By: CLIENT Matrix: SOIL Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	5.29		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	8.41		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	4.50		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	5.33		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	3.58		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	29.0		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	36.6		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	7.33		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Silt loam				23-AUG-12	24-AUG-12	R2423762
L1198011-18 EC-63759 WQ14-S2 12-9692 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	8.06		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	8.1		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	9.69		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	11.3		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	5.30		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	6.47		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	5.02		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	24.5		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	30.9		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	6.87		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Silt loam				23-AUG-12	24-AUG-12	R2423762
L1198011-19 EC-63759 WQ14-R1 12-9693 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	6.51		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	6.5		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	7.91		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	10.1		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	4.98		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	8.45		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	5.69		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	22.9		0.10	%	23-AUG-12	24-AUG-12	R2423762

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-19 EC-63759 WQ14-R1 12-9693 Sampled By: CLIENT Matrix: SOIL Particle size - Sieve and Pipette							
% Silt (0.0312mm - 0.004mm)	30.6		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	9.43		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Silt loam				23-AUG-12	24-AUG-12	R2423762
L1198011-20 EC-63759 WQ14-R2 12-9694 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2423990
Total Organic Carbon	6.38		0.10	%	24-AUG-12	24-AUG-12	R2423990
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2423990
Total Carbon by combustion method							
Total Carbon by Combustion	6.4		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	8.32		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	11.4		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	6.57		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	8.50		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	5.54		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	27.0		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	29.2		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	3.37		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Silt loam				23-AUG-12	24-AUG-12	R2423762
L1198011-21 EC-63759 WQ14-R3 12-9695 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2424001
Total Organic Carbon	8.53		0.10	%	24-AUG-12	24-AUG-12	R2424001
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2424001
Total Carbon by combustion method							
Total Carbon by Combustion	8.5		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	1.29		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	4.18		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	2.45		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	4.79		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	4.88		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	30.9		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	40.3		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	11.2		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Silt loam				23-AUG-12	24-AUG-12	R2423762
L1198011-22 EC-63759 WQ14-R4 12-9696 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-22 EC-63759 WQ14-R4 12-9696 Sampled By: CLIENT Matrix: SOIL							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2424001
Total Organic Carbon	6.22		0.10	%	24-AUG-12	24-AUG-12	R2424001
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2424001
Total Carbon by combustion method							
Total Carbon by Combustion	6.2		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	3.36		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	22.6		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	6.00		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	3.83		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	3.01		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	18.7		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	28.9		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	13.7		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Silt loam / Loam				23-AUG-12	24-AUG-12	R2423762
L1198011-23 EC-63759 WQ17 12-9697 Sampled By: CLIENT Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2424001
Total Organic Carbon	0.66		0.10	%	24-AUG-12	24-AUG-12	R2424001
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2424001
Total Carbon by combustion method							
Total Carbon by Combustion	0.7		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	10.0		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	35.4		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	24.5		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	16.8		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	5.20		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	2.76		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	3.50		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	1.92		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Sand				23-AUG-12	24-AUG-12	R2423762
L1198011-24 EC-63759 WQ18 12-9698 Sampled By: CLIENT Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2424001
Total Organic Carbon	0.44		0.10	%	24-AUG-12	24-AUG-12	R2424001
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2424001
Total Carbon by combustion method							
Total Carbon by Combustion	0.4		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1198011-24 EC-63759 WQ18 12-9698 Sampled By: CLIENT Matrix: SOIL Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	1.05		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	16.7		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	22.1		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	37.5		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	8.05		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	3.90		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	5.06		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	5.61		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Loamy sand				23-AUG-12	24-AUG-12	R2423762
L1198011-25 EC-63759 WQ19 12-9699 Sampled By: CLIENT Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	24-AUG-12	24-AUG-12	R2424001
Total Organic Carbon	3.10		0.10	%	24-AUG-12	24-AUG-12	R2424001
CaCO3 Equivalent	<0.80		0.80	%	24-AUG-12	24-AUG-12	R2424001
Total Carbon by combustion method							
Total Carbon by Combustion	3.1		0.1	%	24-AUG-12	24-AUG-12	R2423993
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (2.00mm - 1.00mm)	19.8		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (1.00mm - 0.50mm)	30.6		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.50mm - 0.25mm)	21.0		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.25mm - 0.125mm)	12.3		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Sand (0.125mm - 0.063mm)	3.73		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.063mm - 0.0312mm)	4.66		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Silt (0.0312mm - 0.004mm)	5.43		0.10	%	23-AUG-12	24-AUG-12	R2423762
% Clay (<4um)	2.39		0.10	%	23-AUG-12	24-AUG-12	R2423762
Texture	Sand				23-AUG-12	24-AUG-12	R2423762

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
C-INORG-ORG-SK	Soil	Inorganic and Organic Carbon	SSSA (1996) P455-456
When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO ₂ loss is proportional to the carbonate content of the soil.			
Reference: Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5			
C-TOT-LECO-SK	Soil	Total Carbon by combustion method	SSSA (1996) P. 973-974
The sample is ignited in a combustion analyzer where carbon in the reduced CO ₂ gas is determined using a thermal conductivity detector.			
PSA-PIPET-DETAIL-SK	Soil	Particle size - Sieve and Pipette	SSIR-51 METHOD 3.2.1
Particle size distribution is determined by a combination of techniques. Dry sieving is performed for coarse particles, wet sieving for sand particles and the pipette sedimentation method for clay particles.			
Reference: Burt, R. (2009). Soil Survey Field and Laboratory Methods Manual. Soil Survey Investigations Report No. 5. Method 3.2.1.2.2. United States Department of Agriculture Natural Resources Conservation Service.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
SK	ALS ENVIRONMENTAL - SASKATOON, SASKATCHEWAN, CANADA

Chain of Custody Numbers:

L1198011

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

*mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.*

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1198011

Report Date: 29-AUG-12

Page 1 of 4

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-INORG-ORG-SK								
	Soil							
Batch	R2423990							
WG1532113-1	DUP	L1198011-12						
Inorganic Carbon		<0.10	<0.10	RPD-NA	%	N/A	20	24-AUG-12
CaCO3 Equivalent		<0.80	<0.80	RPD-NA	%	N/A	25	24-AUG-12
WG1532113-2	IRM	0.1%IC						
Inorganic Carbon			72.8		%		60-140	24-AUG-12
CaCO3 Equivalent			73.1		%		60-140	24-AUG-12
WG1532113-3	IRM	0.4%IC						
Inorganic Carbon			104.0		%		80-120	24-AUG-12
CaCO3 Equivalent			104.1		%		80-120	24-AUG-12
WG1532113-4	MB							
Inorganic Carbon			<0.10		%		0.1	24-AUG-12
CaCO3 Equivalent			<0.80		%		0.8	24-AUG-12
Batch	R2424001							
WG1532115-1	DUP	L1198042-5						
Inorganic Carbon		8.01	7.82		%	2.4	20	24-AUG-12
CaCO3 Equivalent		66.8	65.2		%	2.4	25	24-AUG-12
WG1532115-2	IRM	0.1%IC						
Inorganic Carbon			108.8		%		60-140	24-AUG-12
CaCO3 Equivalent			109.3		%		60-140	24-AUG-12
WG1532115-3	IRM	0.4%IC						
Inorganic Carbon			100.5		%		80-120	24-AUG-12
CaCO3 Equivalent			100.7		%		80-120	24-AUG-12
WG1532115-4	MB							
Inorganic Carbon			<0.10		%		0.1	24-AUG-12
CaCO3 Equivalent			<0.80		%		0.8	24-AUG-12
C-TOT-LECO-SK								
	Soil							
Batch	R2423993							
WG1532098-1	DUP	L1198011-8						
Total Carbon by Combustion		0.4	0.4		%	12	20	24-AUG-12
WG1532098-2	IRM	08-109_SOIL						
Total Carbon by Combustion			101.0		%		80-120	24-AUG-12
WG1532098-3	MB							
Total Carbon by Combustion			<0.1		%		0.1	24-AUG-12
PSA-PIPET-DETAIL-SK								
	Soil							



Quality Control Report

Workorder: L1198011

Report Date: 29-AUG-12

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PSA-PIPET-DETAIL-SK Soil								
Batch R2423762								
WG1532009-1 DUP		L1198011-18						
% Gravel (>2mm)		<0.10	<0.10	RPD-NA	%	N/A	25	24-AUG-12
% Sand (2.00mm - 1.00mm)		9.69	7.54	J	%	2.15	5	24-AUG-12
% Sand (1.00mm - 0.50mm)		11.3	9.99	J	%	1.28	5	24-AUG-12
% Sand (0.50mm - 0.25mm)		5.30	4.77	J	%	0.53	5	24-AUG-12
% Sand (0.25mm - 0.125mm)		6.47	6.12	J	%	0.35	5	24-AUG-12
% Sand (0.125mm - 0.063mm)		5.02	4.45	J	%	0.57	5	24-AUG-12
% Silt (0.063mm - 0.0312mm)		24.5	25.9	J	%	1.34	5	24-AUG-12
% Silt (0.0312mm - 0.004mm)		30.9	33.2	J	%	2.37	5	24-AUG-12
% Clay (<4um)		6.87	8.04	J	%	1.17	5	24-AUG-12
WG1532009-2 IRM		FARM2009						
% Sand (2.00mm - 1.00mm)			3.43		%		0-6	24-AUG-12
% Sand (1.00mm - 0.50mm)			7.68		%		2-12	24-AUG-12
% Sand (0.50mm - 0.25mm)			4.89		%		1-11	24-AUG-12
% Sand (0.25mm - 0.125mm)			18.7		%		12-22	24-AUG-12
% Sand (0.125mm - 0.063mm)			10.9		%		7-17	24-AUG-12
% Silt (0.063mm - 0.0312mm)			11.2		%		10-20	24-AUG-12
% Silt (0.0312mm - 0.004mm)			21.7		%		19-29	24-AUG-12
% Clay (<4um)			21.6		%		13-23	24-AUG-12
Batch R2424730								
WG1532005-1 DUP		L1198011-1						
% Gravel (>2mm)		<0.10	<0.10	RPD-NA	%	N/A	25	27-AUG-12
% Sand (2.00mm - 1.00mm)		0.77	1.04	J	%	0.27	5	27-AUG-12
% Sand (1.00mm - 0.50mm)		13.6	13.0	J	%	0.58	5	27-AUG-12
% Sand (0.50mm - 0.25mm)		22.3	20.2	J	%	2.13	5	27-AUG-12
% Sand (0.25mm - 0.125mm)		30.6	33.7	J	%	3.10	5	27-AUG-12
% Sand (0.125mm - 0.063mm)		7.01	7.11	J	%	0.10	5	27-AUG-12
% Silt (0.063mm - 0.0312mm)		10.6	10.3	J	%	0.28	5	27-AUG-12
% Silt (0.0312mm - 0.004mm)		11.3	11.0	J	%	0.31	5	27-AUG-12
% Clay (<4um)		3.88	3.70	J	%	0.18	5	27-AUG-12
WG1532005-2 IRM		FARM2009						
% Sand (2.00mm - 1.00mm)			4.56		%		0-6	27-AUG-12
% Sand (1.00mm - 0.50mm)			8.42		%		2-12	27-AUG-12
% Sand (0.50mm - 0.25mm)			5.68		%		1-11	27-AUG-12
% Sand (0.25mm - 0.125mm)			17.4		%		12-22	27-AUG-12



Quality Control Report

Workorder: L1198011

Report Date: 29-AUG-12

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 - 70 STREET
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PSA-PIPET-DETAIL-SK	Soil							
Batch	R2424730							
WG1532005-2	IRM	FARM2009						
% Sand (0.125mm - 0.063mm)			9.25		%		7-17	27-AUG-12
% Silt (0.063mm - 0.0312mm)			10.3		%		10-20	27-AUG-12
% Silt (0.0312mm - 0.004mm)			22.8		%		19-29	27-AUG-12
% Clay (<4um)			21.6		%		13-23	27-AUG-12

Quality Control Report

Workorder: L1198011

Report Date: 29-AUG-12

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 STREET
EDMONTON AB T6B 3P6
Contact: JESSE DANG

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Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



FileNbr	SampleName	LabNbr	DateSampled	Description
EC-63759	WQ1	12-9675-	2012/08/13	Soil
EC-63759	WQ3-S1	12-9676-	2012/08/14	Soil
EC-63759	WQ3-S2	12-9677-	2012/08/14	Soil
EC-63759	WQ4-S1	12-9678-	2012/08/13	Soil
EC-63759	WQ4-S2	12-9679-	2012/08/13	Soil
EC-63759	WQ5	12-9680-	2012/08/14	Soil
EC-63759	WQ6	12-9681-	2012/08/13	Soil
EC-63759	WQ7-S1	12-9682-	2012/08/13	Soil
EC-63759	WQ7 S2	12-9683-	2012/08/13	Soil
EC-63759	WQ8	12-9684-	2012/08/13	Soil
EC-63759	WQ9	12-9685-	2012/08/13	Soil
EC-63759	WQ10	12-9686-	2012/08/14	Soil
EC-63759	WQ11	12-9687-	2012/08/13	Soil
EC-63759	WQ12-S1	12-9688-	2012/08/13	Soil
EC-63759	WQ12-S2	12-9689-	2012/08/13	Soil
EC-63759	WQ13	12-9690-	2012/08/13	Soil
EC-63759	WQ14-S1	12-9691-	2012/08/13	Soil
EC-63759	WQ14-S2	12-9692-	2012/08/13	Soil
EC-63759	WQ14-R1	12-9693-	2012/08/13	Soil
EC-63759	WQ14-R2	12-9694-	2012/08/13	Soil
EC-63759	WQ14 R3	12-9695-	2012/08/13	Soil
EC-63759	WQ14-R4	12-9696-	2012/08/13	Soil
EC-63759	WQ17	12-9697-	2012/08/13	Soil
EC-63759	WQ18	12-9698-	2012/08/13	Soil
EC-63759	WQ19	12-9699-	2012/08/13	Soil



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: JESSE DANG
5667 70 Street NW
EDMONTON AB T6B 3P6

Date Received: 19-AUG-13
Report Date: 23-AUG-13 13:01 (MT)
Version: FINAL

Client Phone: 780-940-4147

Certificate of Analysis

Lab Work Order #: L1349440
Project P.O. #: NOT SUBMITTED
Job Reference: EC-65783
C of C Numbers:
Legal Site Desc:

Brian Morgan
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349440-1 WQ15 (13-8887) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	0.16 9.53 1.34 9.7 5.07 4.21 5.30 13.3 23.8 8.41 17.5 19.0 3.42 Sandy loam		0.10 0.10 0.80 0.1 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10	% % % % % % % % % % % % % %	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13	R2677181 R2677181 R2677181 R2677180 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547
L1349440-2 WQ16 (13-8888) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	<0.10 2.97 <0.80 3.0 7.71 14.1 17.8 19.7 11.9 5.38 8.10 10.4 5.03 Loamy sand		0.10 0.10 0.80 0.1 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10	% % % % % % % % % % % % % %	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13	R2677181 R2677181 R2677181 R2677180 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547
L1349440-3 TATELKUZ REP 1 (13-8889) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion	<0.10 0.67 <0.80 0.7		0.10 0.10 0.80 0.1	% % % %	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13	R2677181 R2677181 R2677181 R2677180

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349440-3 TATELKUZ REP 1 (13-8889) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Particle size - Sieve and Pipette							
% Gravel (>2mm)	12.0		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (2.00mm - 1.00mm)	11.9		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (1.00mm - 0.50mm)	15.8		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (0.50mm - 0.25mm)	32.9		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (0.25mm - 0.125mm)	14.3		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (0.125mm - 0.063mm)	7.19		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Silt (0.063mm - 0.0312mm)	3.59		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Silt (0.0312mm - 0.004mm)	2.22		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Clay (<4um)	0.13		0.10	%	20-AUG-13	21-AUG-13	R2677547
Texture	Sand				20-AUG-13	21-AUG-13	R2677547
L1349440-4 TATELKUZ REP 2 (13-8890) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	0.19		0.10	%	21-AUG-13	21-AUG-13	R2677181
Total Organic Carbon	1.24		0.10	%	21-AUG-13	21-AUG-13	R2677181
CaCO3 Equivalent	1.60		0.80	%	21-AUG-13	21-AUG-13	R2677181
Total Carbon by combustion method							
Total Carbon by Combustion	1.4		0.1	%	20-AUG-13	20-AUG-13	R2677180
L1349440-5 TATELKUZ REP 3 (13-8891) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	0.17		0.10	%	21-AUG-13	21-AUG-13	R2677181
Total Organic Carbon	1.36		0.10	%	21-AUG-13	21-AUG-13	R2677181
CaCO3 Equivalent	1.38		0.80	%	21-AUG-13	21-AUG-13	R2677181
Total Carbon by combustion method							
Total Carbon by Combustion	1.5		0.1	%	20-AUG-13	20-AUG-13	R2677180
L1349440-6 TATELKUZ REP 4 (13-8892) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	0.20		0.10	%	21-AUG-13	21-AUG-13	R2677181
Total Organic Carbon	1.42		0.10	%	21-AUG-13	21-AUG-13	R2677181
CaCO3 Equivalent	1.69		0.80	%	21-AUG-13	21-AUG-13	R2677181
Total Carbon by combustion method							
Total Carbon by Combustion	1.6		0.1	%	20-AUG-13	20-AUG-13	R2677180
L1349440-7 TATELKUZ REP 5 (13-8893) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	21-AUG-13	21-AUG-13	R2677181
Total Organic Carbon	0.83		0.10	%	21-AUG-13	21-AUG-13	R2677181
CaCO3 Equivalent	<0.80		0.80	%	21-AUG-13	21-AUG-13	R2677181

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349440-7 TATELKUZ REP 5 (13-8893) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Carbon by combustion method Total Carbon by Combustion	0.8		0.1	%	20-AUG-13	20-AUG-13	R2677180
L1349440-8 LAKE 1682 WQ23 (13-8894) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	<0.10 0.48 <0.80 0.5 54.5 13.9 15.8 9.77 3.82 0.73 0.59 0.76 0.16 Sand		0.10 0.10 0.80 0.1 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10	% % % % % % % % % % % % % %	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13	R2677181 R2677181 R2677181 R2677180 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547
L1349440-9 LAKE 1538 WQ24 (13-8895) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	<0.10 0.50 <0.80 0.5 33.8 12.6 16.6 16.9 12.9 3.05 2.29 1.79 0.15 Sand		0.10 0.10 0.80 0.1 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10	% % % % % % % % % % % % % %	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13 20-AUG-13	21-AUG-13 21-AUG-13 21-AUG-13 20-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13 21-AUG-13	R2677181 R2677181 R2677181 R2677180 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547 R2677547
L1349440-10 LAKE 1428 WQ25 (13-8896) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349440-10 LAKE 1428 WQ25 (13-8896) Sampled By: CLIENT on 16-AUG-13 @ 12:00 Matrix: SOIL							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	21-AUG-13	21-AUG-13	R2677181
Total Organic Carbon	0.53		0.10	%	21-AUG-13	21-AUG-13	R2677181
CaCO3 Equivalent	<0.80		0.80	%	21-AUG-13	21-AUG-13	R2677181
Total Carbon by combustion method							
Total Carbon by Combustion	0.5		0.1	%	20-AUG-13	20-AUG-13	R2677180
Particle size - Sieve and Pipette							
% Gravel (>2mm)	55.2		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (2.00mm - 1.00mm)	15.6		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (1.00mm - 0.50mm)	9.55		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (0.50mm - 0.25mm)	7.56		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (0.25mm - 0.125mm)	5.23		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Sand (0.125mm - 0.063mm)	2.28		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Silt (0.063mm - 0.0312mm)	2.34		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Silt (0.0312mm - 0.004mm)	2.20		0.10	%	20-AUG-13	21-AUG-13	R2677547
% Clay (<4um)	0.13		0.10	%	20-AUG-13	21-AUG-13	R2677547
Texture	Sand				20-AUG-13	21-AUG-13	R2677547

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
C-INORG-ORG-SK	Soil	Inorganic and Organic Carbon	SSSA (1996) P455-456
When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO ₂ loss is proportional to the carbonate content of the soil.			
Reference: Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5			
C-TOT-LECO-SK	Soil	Total Carbon by combustion method	SSSA (1996) P. 973-974
The sample is ignited in a combustion analyzer where carbon in the reduced CO ₂ gas is determined using a thermal conductivity detector.			
PSA-PIPET-DETAIL-SK	Soil	Particle size - Sieve and Pipette	SSIR-51 METHOD 3.2.1
Particle size distribution is determined by a combination of techniques. Dry sieving is performed for coarse particles, wet sieving for sand particles and the pipette sedimentation method for clay particles.			
Reference: Burt, R. (2009). Soil Survey Field and Laboratory Methods Manual. Soil Survey Investigations Report No. 5. Method 3.2.1.2.2. United States Department of Agriculture Natural Resources Conservation Service.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
SK	ALS ENVIRONMENTAL - SASKATOON, SASKATCHEWAN, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1349440

Report Date: 23-AUG-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 70 Street NW
EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-INORG-ORG-SK								
	Soil							
Batch	R2677181							
WG1728491-5	DUP	L1349440-4						
Inorganic Carbon		0.19	0.16		%	19	20	21-AUG-13
CaCO3 Equivalent		1.60	1.32		%	19	25	21-AUG-13
WG1728491-6	IRM	0.1%IC						
Inorganic Carbon			125.3		%		60-140	21-AUG-13
CaCO3 Equivalent			125.8		%		60-140	21-AUG-13
WG1728491-7	IRM	0.4%IC						
Inorganic Carbon			110.9		%		80-120	21-AUG-13
CaCO3 Equivalent			111.1		%		80-120	21-AUG-13
WG1728491-8	MB							
Inorganic Carbon			<0.10		%		0.1	21-AUG-13
CaCO3 Equivalent			<0.80		%		0.8	21-AUG-13
C-TOT-LECO-SK								
	Soil							
Batch	R2677180							
WG1728483-4	DUP	L1349440-4						
Total Carbon by Combustion		1.4	1.4		%	0.8	20	20-AUG-13
WG1728483-5	IRM	08-109_SOIL						
Total Carbon by Combustion			106.7		%		80-120	20-AUG-13
WG1728483-6	MB							
Total Carbon by Combustion			<0.1		%		0.1	20-AUG-13
PSA-PIPET-DETAIL-SK								
	Soil							
Batch	R2677547							
WG1729612-1	DUP	L1349440-3						
% Gravel (>2mm)		12.0	12.0		%	0.0	25	21-AUG-13
% Sand (2.00mm - 1.00mm)		11.9	11.0	J	%	0.94	5	21-AUG-13
% Sand (1.00mm - 0.50mm)		15.8	16.6	J	%	0.74	5	21-AUG-13
% Sand (0.50mm - 0.25mm)		32.9	33.3	J	%	0.47	5	21-AUG-13
% Sand (0.25mm - 0.125mm)		14.3	14.7	J	%	0.35	5	21-AUG-13
% Sand (0.125mm - 0.063mm)		7.19	6.77	J	%	0.42	5	21-AUG-13
% Silt (0.063mm - 0.0312mm)		3.59	3.44	J	%	0.15	5	21-AUG-13
% Silt (0.0312mm - 0.004mm)		2.22	2.15	J	%	0.07	5	21-AUG-13
% Clay (<4um)		0.13	0.14	J	%	0.01	5	21-AUG-13
WG1729612-2	IRM	FARM2010						
% Sand (2.00mm - 1.00mm)			1.26		%		0-6	21-AUG-13
% Sand (1.00mm - 0.50mm)			2.70		%		0-10	21-AUG-13
% Sand (0.50mm - 0.25mm)			4.98		%		0-10	21-AUG-13



Quality Control Report

Workorder: L1349440

Report Date: 23-AUG-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
 5667 70 Street NW
 EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PSA-PIPET-DETAIL-SK	Soil							
Batch	R2677547							
WG1729612-2	IRM	FARM2010						
% Sand (0.25mm - 0.125mm)			13.2		%		9-19	21-AUG-13
% Sand (0.125mm - 0.063mm)			11.8		%		6-16	21-AUG-13
% Silt (0.063mm - 0.0312mm)			14.6		%		9-19	21-AUG-13
% Silt (0.0312mm - 0.004mm)			26.3		%		21-31	21-AUG-13
% Clay (<4um)			25.2		%		22-32	21-AUG-13

Quality Control Report

Workorder: L1349440

Report Date: 23-AUG-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 70 Street NW
EDMONTON AB T6B 3P6
Contact: JESSE DANG

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Legend:

Limit ALS Control Limit (Data Quality Objectives)
DUP Duplicate
RPD Relative Percent Difference
N/A Not Available
LCS Laboratory Control Sample
SRM Standard Reference Material
MS Matrix Spike
MSD Matrix Spike Duplicate
ADE Average Desorption Efficiency
MB Method Blank
IRM Internal Reference Material
CRM Certified Reference Material
CCV Continuing Calibration Verification
CVS Calibration Verification Standard
LCSD Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



AMEC ENVIRONMENT &
INFRASTRUCTURE
ATTN: JESSE DANG
5667 - 70 Street NW
EDMONTON AB T6B 3P6

Date Received: 23-AUG-13
Report Date: 30-AUG-13 08:53 (MT)
Version: FINAL

Client Phone: 780-989-4580

Certificate of Analysis

Lab Work Order #: L1352303
Project P.O. #: NOT SUBMITTED
Job Reference: EC-65814
C of C Numbers:
Legal Site Desc:

Brian Morgan
Account Manager

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ADDRESS: #819-58th St E., Saskatoon, SK S7K 6X5 Canada | Phone: +1 306 668 8370 | Fax: +1 306 668 8383
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1352303-1 WQ21-1 (13-9169) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion	<0.10 0.96 <0.80 1.0		0.10 0.10 0.80 0.1	% % % %	26-AUG-13 26-AUG-13 26-AUG-13 26-AUG-13	26-AUG-13 26-AUG-13 26-AUG-13 26-AUG-13	R2682128 R2682128 R2682128 R2682130
Particle size - Sieve and Pipette % Gravel (>2mm) % Sand (2.00mm - 1.00mm) % Sand (1.00mm - 0.50mm) % Sand (0.50mm - 0.25mm) % Sand (0.25mm - 0.125mm) % Sand (0.125mm - 0.063mm) % Silt (0.063mm - 0.0312mm) % Silt (0.0312mm - 0.004mm) % Clay (<4um) Texture	1.50 2.24 3.76 12.6 40.0 11.4 11.7 13.6 3.30 Loamy sand		0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10	% % % % % % % % %	27-AUG-13 27-AUG-13 27-AUG-13 27-AUG-13 27-AUG-13 27-AUG-13 27-AUG-13 27-AUG-13 27-AUG-13	29-AUG-13 29-AUG-13 29-AUG-13 29-AUG-13 29-AUG-13 29-AUG-13 29-AUG-13 29-AUG-13 29-AUG-13	R2682672 R2682672 R2682672 R2682672 R2682672 R2682672 R2682672 R2682672 R2682672
L1352303-2 WQ21-2 (13-9170) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion	<0.10 0.55 <0.80 0.5		0.10 0.10 0.80 0.1	% % % %	26-AUG-13 26-AUG-13 26-AUG-13 26-AUG-13	26-AUG-13 26-AUG-13 26-AUG-13 26-AUG-13	R2682128 R2682128 R2682128 R2682130
L1352303-3 WQ21-3 (13-9171) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion	<0.10 0.71 <0.80 0.7		0.10 0.10 0.80 0.1	% % % %	26-AUG-13 26-AUG-13 26-AUG-13 26-AUG-13	26-AUG-13 26-AUG-13 26-AUG-13 26-AUG-13	R2682128 R2682128 R2682128 R2682130
L1352303-4 WQ21-4 (13-9172) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion	<0.10 0.32 <0.80 0.3		0.10 0.10 0.80 0.1	% % % %	26-AUG-13 26-AUG-13 26-AUG-13 26-AUG-13	26-AUG-13 26-AUG-13 26-AUG-13 26-AUG-13	R2682128 R2682128 R2682128 R2682130

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1352303-4 WQ21-4 (13-9172) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL							
L1352303-5 WQ21-5 (13-9173) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	26-AUG-13	26-AUG-13	R2682128
Total Organic Carbon	0.52		0.10	%	26-AUG-13	26-AUG-13	R2682128
CaCO3 Equivalent	<0.80		0.80	%	26-AUG-13	26-AUG-13	R2682128
Total Carbon by combustion method							
Total Carbon by Combustion	0.5		0.1	%	26-AUG-13	26-AUG-13	R2682130
L1352303-6 WQ22 (SPLIT SAMPLE) (13-9174) Sampled By: CLIENT on 19-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	26-AUG-13	26-AUG-13	R2682128
Total Organic Carbon	27.3		0.10	%	26-AUG-13	26-AUG-13	R2682128
CaCO3 Equivalent	<0.80		0.80	%	26-AUG-13	26-AUG-13	R2682128
Total Carbon by combustion method							
Total Carbon by Combustion	27.3		0.1	%	26-AUG-13	26-AUG-13	R2682130
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (2.00mm - 1.00mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (1.00mm - 0.50mm)	0.19		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.50mm - 0.25mm)	0.29		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.25mm - 0.125mm)	0.91		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.125mm - 0.063mm)	2.76		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Silt (0.063mm - 0.0312mm)	39.4		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Silt (0.0312mm - 0.004mm)	47.5		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Clay (<4um)	8.87		0.10	%	27-AUG-13	29-AUG-13	R2682672
Texture	Silt				27-AUG-13	29-AUG-13	R2682672
L1352303-7 WQ23 (13-9175) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	26-AUG-13	26-AUG-13	R2682128
Total Organic Carbon	12.7		0.10	%	26-AUG-13	26-AUG-13	R2682128
CaCO3 Equivalent	<0.80		0.80	%	26-AUG-13	26-AUG-13	R2682128
Total Carbon by combustion method							
Total Carbon by Combustion	12.7		0.1	%	26-AUG-13	26-AUG-13	R2682130
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (2.00mm - 1.00mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (1.00mm - 0.50mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.50mm - 0.25mm)	0.12		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.25mm - 0.125mm)	0.47		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.125mm - 0.063mm)	1.64		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Silt (0.063mm - 0.0312mm)	31.7		0.10	%	27-AUG-13	29-AUG-13	R2682672

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1352303-7 WQ23 (13-9175) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL							
Particle size - Sieve and Pipette							
% Silt (0.0312mm - 0.004mm)	50.6		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Clay (<4um)	15.4		0.10	%	27-AUG-13	29-AUG-13	R2682672
Texture	Silt				27-AUG-13	29-AUG-13	R2682672
L1352303-8 WQ24 (13-9176) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	26-AUG-13	26-AUG-13	R2682128
Total Organic Carbon	11.1		0.10	%	26-AUG-13	26-AUG-13	R2682128
CaCO3 Equivalent	<0.80		0.80	%	26-AUG-13	26-AUG-13	R2682128
Total Carbon by combustion method							
Total Carbon by Combustion	11.1		0.1	%	26-AUG-13	26-AUG-13	R2682130
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (2.00mm - 1.00mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (1.00mm - 0.50mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.50mm - 0.25mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.25mm - 0.125mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.125mm - 0.063mm)	0.39		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Silt (0.063mm - 0.0312mm)	23.1		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Silt (0.0312mm - 0.004mm)	56.0		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Clay (<4um)	20.3		0.10	%	27-AUG-13	29-AUG-13	R2682672
Texture	Silt loam				27-AUG-13	29-AUG-13	R2682672
L1352303-9 WQ25 (13-9177) Sampled By: CLIENT on 18-AUG-13 @ 12:00 Matrix: SOIL							
Total Organic Carbon -Inorg & Total C							
Inorganic and Organic Carbon							
Inorganic Carbon	<0.10		0.10	%	26-AUG-13	26-AUG-13	R2682128
Total Organic Carbon	10.4		0.10	%	26-AUG-13	26-AUG-13	R2682128
CaCO3 Equivalent	<0.80		0.80	%	26-AUG-13	26-AUG-13	R2682128
Total Carbon by combustion method							
Total Carbon by Combustion	10.4		0.1	%	26-AUG-13	26-AUG-13	R2682130
Particle size - Sieve and Pipette							
% Gravel (>2mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (2.00mm - 1.00mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (1.00mm - 0.50mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.50mm - 0.25mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.25mm - 0.125mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Sand (0.125mm - 0.063mm)	<0.10		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Silt (0.063mm - 0.0312mm)	27.8		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Silt (0.0312mm - 0.004mm)	51.3		0.10	%	27-AUG-13	29-AUG-13	R2682672
% Clay (<4um)	20.8		0.10	%	27-AUG-13	29-AUG-13	R2682672
Texture	Silt loam				27-AUG-13	29-AUG-13	R2682672

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
C-INORG-ORG-SK	Soil	Inorganic and Organic Carbon	SSSA (1996) P455-456
When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO ₂ loss is proportional to the carbonate content of the soil.			
Reference: Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5			
C-TOT-LECO-SK	Soil	Total Carbon by combustion method	SSSA (1996) P. 973-974
The sample is ignited in a combustion analyzer where carbon in the reduced CO ₂ gas is determined using a thermal conductivity detector.			
PSA-PIPET-DETAIL-SK	Soil	Particle size - Sieve and Pipette	SSIR-51 METHOD 3.2.1
Particle size distribution is determined by a combination of techniques. Dry sieving is performed for coarse particles, wet sieving for sand particles and the pipette sedimentation method for clay particles.			
Reference: Burt, R. (2009). Soil Survey Field and Laboratory Methods Manual. Soil Survey Investigations Report No. 5. Method 3.2.1.2.2. United States Department of Agriculture Natural Resources Conservation Service.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
SK	ALS ENVIRONMENTAL - SASKATOON, SASKATCHEWAN, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1352303

Report Date: 30-AUG-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 Street NW
EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-INORG-ORG-SK								
	Soil							
Batch	R2682128							
WG1733306-1	DUP	L1350190-20						
Inorganic Carbon		<0.10	<0.10	RPD-NA	%	N/A	20	26-AUG-13
CaCO3 Equivalent		<0.80	<0.80	RPD-NA	%	N/A	25	26-AUG-13
WG1733306-5	DUP	L1352303-8						
Inorganic Carbon		<0.10	0.11	RPD-NA	%	N/A	20	26-AUG-13
CaCO3 Equivalent		<0.80	0.88	RPD-NA	%	N/A	25	26-AUG-13
WG1733306-2	IRM	0.1%IC						
Inorganic Carbon			119.8		%		60-140	26-AUG-13
CaCO3 Equivalent			120.3		%		60-140	26-AUG-13
WG1733306-3	IRM	0.4%IC						
Inorganic Carbon			108.4		%		80-120	26-AUG-13
CaCO3 Equivalent			108.6		%		80-120	26-AUG-13
WG1733306-6	IRM	0.1%IC						
Inorganic Carbon			84.1		%		60-140	26-AUG-13
CaCO3 Equivalent			84.4		%		60-140	26-AUG-13
WG1733306-7	IRM	0.4%IC						
Inorganic Carbon			102.6		%		80-120	26-AUG-13
CaCO3 Equivalent			102.7		%		80-120	26-AUG-13
WG1733306-4	MB							
Inorganic Carbon			<0.10		%		0.1	26-AUG-13
CaCO3 Equivalent			<0.80		%		0.8	26-AUG-13
WG1733306-8	MB							
Inorganic Carbon			<0.10		%		0.1	26-AUG-13
CaCO3 Equivalent			<0.80		%		0.8	26-AUG-13
C-TOT-LECO-SK								
	Soil							
Batch	R2682130							
WG1733304-1	DUP	L1350190-18						
Total Carbon by Combustion		1.2	1.3		%	1.8	20	26-AUG-13
WG1733304-4	DUP	L1352303-7						
Total Carbon by Combustion		12.7	12.7		%	0.2	20	26-AUG-13
WG1733304-2	IRM	08-109_SOIL						
Total Carbon by Combustion			101.1		%		80-120	26-AUG-13
WG1733304-5	IRM	08-109_SOIL						
Total Carbon by Combustion			102.6		%		80-120	26-AUG-13
WG1733304-3	MB							
Total Carbon by Combustion			<0.1		%		0.1	26-AUG-13
WG1733304-6	MB							



Quality Control Report

Workorder: L1352303

Report Date: 30-AUG-13

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Client: AMEC ENVIRONMENT & INFRASTRUCTURE
5667 - 70 Street NW
EDMONTON AB T6B 3P6

Contact: JESSE DANG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-TOT-LECO-SK								
	Soil							
Batch	R2682130							
WG1733304-6	MB							
Total Carbon by Combustion			<0.1		%		0.1	26-AUG-13
PSA-PIPET-DETAIL-SK								
	Soil							
Batch	R2682672							
WG1733417-1	DUP	L1352303-1						
% Gravel (>2mm)		1.50	1.50		%	0.0	25	29-AUG-13
% Sand (2.00mm - 1.00mm)		2.24	3.22	J	%	0.98	5	29-AUG-13
% Sand (1.00mm - 0.50mm)		3.76	3.45	J	%	0.31	5	29-AUG-13
% Sand (0.50mm - 0.25mm)		12.6	9.70	J	%	2.86	5	29-AUG-13
% Sand (0.25mm - 0.125mm)		40.0	42.6	J	%	2.66	5	29-AUG-13
% Sand (0.125mm - 0.063mm)		11.4	11.1	J	%	0.30	5	29-AUG-13
% Silt (0.063mm - 0.0312mm)		11.7	11.8	J	%	0.09	5	29-AUG-13
% Silt (0.0312mm - 0.004mm)		13.6	13.4	J	%	0.24	5	29-AUG-13
% Clay (<4um)		3.30	3.29	J	%	0.01	5	29-AUG-13
WG1733417-2	IRM	FARM2010						
% Sand (2.00mm - 1.00mm)			1.16		%		0-6	29-AUG-13
% Sand (1.00mm - 0.50mm)			2.45		%		0-10	29-AUG-13
% Sand (0.50mm - 0.25mm)			4.79		%		0-10	29-AUG-13
% Sand (0.25mm - 0.125mm)			13.1		%		9-19	29-AUG-13
% Sand (0.125mm - 0.063mm)			11.3		%		6-16	29-AUG-13
% Silt (0.063mm - 0.0312mm)			13.6		%		9-19	29-AUG-13
% Silt (0.0312mm - 0.004mm)			28.2		%		21-31	29-AUG-13
% Clay (<4um)			25.5		%		22-32	29-AUG-13

Quality Control Report

Workorder: L1352303

Report Date: 30-AUG-13

Client: AMEC ENVIRONMENT & INFRASTRUCTURE

5667 - 70 Street NW

EDMONTON AB T6B 3P6

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Contact: JESSE DANG

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Environmental Division

L1352303-COFC

Report to:		Report For:		Service Requested:																	
Company: AMEC Earth & Environmental, Chemistry Dept.		<input type="checkbox"/> Standard <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Regular Service (Default)																	
Contact: Kristine Connor		<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Excel <input type="checkbox"/> Fax		<input type="checkbox"/> Rush Service (2-3 Days)																	
Address: 5667-70 Street, Edmonton, AB T6B 3P6		Email 1: kristine.connor@amec.com		<input type="checkbox"/> Priority Service (1 Day or ASAP)																	
		Email 2: charlene.rollheiser@amec.com		<input type="checkbox"/> Emergency Service (<1 Day / Wkend) - Contact ALS																	
Phone: (780) 989-4580 Fax: (780) 377-3600				Analysis Request																	
Invoice To: <input checked="" type="checkbox"/> Same as Report				Indicate Bottles: Filtered / Preserved (F/P) ---																	
Company: Same		Client / Project Information:		TOC PSA-PIPET-DETAIL-SK Hazardous? Highly Contaminated? Number of Containers																	
Contact:		Job #: EC-65814																			
Address:		PO/AFE:																			
Sample		Legal Site Description:																			
Phone: Fax:		Quote #:																			
Lab Work Order # (lab use only)		ALS Contact: Maureen Olinek		Sampler (Initials):																	
Sample #	Sample Identification (This description will appear on the report)	Date dd-mmm-yy	Time hh:mm	Sample Type (Select from drop-down list)	TOC	PSA-PIPET-DETAIL-SK															
	WQ21-1 (13-9169)	18-Aug-13		Soil	X	x															x
	WQ21-2 (13-9170)	18-Aug-13		Soil	X																X
	WQ21-3 (13-9171)	18-Aug-13		Soil	X																X
	WQ21-4 (13-9172)	18-Aug-13		Soil	X																X
	WQ21-5 (13-9173)	18-Aug-13		Soil	X																X
	WQ22 (Split Sample) (13-9174)	19-Aug-13		Soil	X	x															X
	WQ23 (13-9175)	18-Aug-13		Soil	X	x															X
	WQ24 (13-9176)	18-Aug-13		Soil	X	x															X
	WQ25 (13-9177)	18-Aug-13		Soil	X	x															X
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the adjacent worksheet.																					
Relinquished By:	jeffery connor	Date & Time:	21-Aug-13	Received By:	<i>JB</i>	Date & Time:	23-8-13 @ 9:05	Sample Condition (lab use only):													
Relinquished By:		Date & Time:		Received By:	<i>JB</i>	Date & Time:	11 11 20	Temperature Samples Received in Good Condition? Y / N (if no provided details)													