Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

A3I2049
11/08/2013
Invoice: A325177
Amended Report

Anne Littlejohn
Central Valley RWQCB
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

RE: Report for A3I2049 Evaluation WQ in Ag Dominated Water Bodies

Dear Anne Littlejohn,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 9/25/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an “as received” basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Kasanna Coulter, Quality Assurance Manager

If additional clarification of any information is required, please contact your Project Manager, Stephane Maupas , at (800) 877-8310 or (559) 497-2888 x212.

Case Narrative

Project and Report Details		Invoice Details	
Client:	Central Valley RWQCB	**Invoice To:**	Central Valley RWQCB
Report To:	Anne Littlejohn	**Invoice Attn:**	Joseph McGahan
Project #:	Evaluation WQ in Ag Dominated Water Bodies	**Project PO#:**	11-123-555
Received:	9/25/2013 - 08:30		
Report Due:	10/09/2013		

Sample Receipt Conditions

Cooler: Cooler #2
Temperature on Receipt ºC: 0.8

Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Packing Material - Foam
Sample(s) were received in temperature range.
Initial receipt at BSK-SAC

Cooler: Default Cooler
Temperature on Receipt ºC: 0.3

Containers Intact
COC/Labels Agree
Received On Wet Ice
Packing Material - Bubble Wrap
Packing Material - Foam
Sample(s) were received in temperature range.
Initial receipt at BSK-SAC

Detailed Narrative

Report Amendments

Date: **11/7/2013**

Initials: **KLC**

This amended report supersedes any previous reports issued by the laboratory. Amendments to this report are as follows: BSK discovered that on 10/8/2013 a calibration was performed incorrectly on our 200.8 DRC instrument. This potentially affected results generated between 10/8/2013 and 10/22/2013. We reran all samples that we believed were affected and compared the rerun results to the original results that were reported to you. The results that differed by more than 10% from that which was originally reported have been provided in this report and qualified accordingly.

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

B1.0	Analyte present in method blank above reporting limit.
B1.3	Analyte detected in associated method blank. Reanalysis was not attempted because the reported result was >10x that found in the blank. Sample result may be, in part, attributable to ambient laboratory background.
B2.0	Analyte present in the method blank above the method detection limit (MDL). Laboratory does not determine batch acceptance on detections below the reporting limit (RL).
B2.2	Analyte detected in associated method blank below the reporting limit. Sample result may be attributable to ambient laboratory background.
B2.3	Analyte detected in associated method blank below the reporting limit. Sample result may be, in part, attributable to ambient laboratory background.
B2.4	Analyte detected in associated method blank below the reporting limit. Sample concentration exceeds 10x the amount present and is not materially impacted by this condition.
BS	Blank spike recoveries did not meet acceptance limits.
BS03	BS/BSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
BS06	Blank spike recovery for this analyte was biased high; associated samples were ND.
BS13	Blank spike recovery was below acceptance limits; however, within the NELAP marginal exceedence acceptance criteria of 4 SD.
DL01	Sample required dilution due to matrix or high concentration of non-target analyte.
DL1.0	Sample required a dilution due to the matrix or high concentration of a non-target analyte.
J	Estimated value
MS01	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
MS1.0	Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
RE1.1	Amended Result. See Case Narrative

Report Distribution

Recipient(s)	Report Format
Anne Littlejohn	Final.rpt

Certificate of Analysis

Sample ID: A3I2049-01
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 27

Sample Date - Time: 09/24/13 - 08:00
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**20**	0.45	1.0	mg/L	1	A311257	09/25/13	09/25/13	
Conductivity @ 25C	SM 2510 B	**490**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.27**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**0.40**	0.090	0.22	mg/L	1	A311257	09/25/13 15:06	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311544	10/02/13	10/02/13	
Sulfate as SO4	EPA 300.0	**51**	0.38	2.0	mg/L	1	A311257	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**300**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**3200**	15	25	ug/L	5	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**4.2**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**3.3**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**120**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**170**	4.5	10	ug/L	1	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	**0.029**	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	J
Calcium	EPA 200.7	**33**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**8.7**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**8.1**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**180**		0.41	mg/L					
Iron	EPA 200.8 DRC	**4700**	3.1	50	ug/L	5	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**42**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**1.5**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**23**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**280**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**0.73**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	J
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**11**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.38**	0.14	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**47**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**12**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3, B2.4

Certificate of Analysis

Sample ID: A3I2049-01RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 27

Sample Date - Time: 09/24/13 - 08:00
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**3.5**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-02
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 28

Sample Date - Time: 09/24/13 - 05:30
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	ND	0.45	1.0	mg/L	1	A311257	09/25/13	09/25/13	
Conductivity @ 25C	SM 2510 B	ND		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	ND	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	ND	0.090	0.22	mg/L	1	A311257	09/25/13 15:15	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311544	10/02/13	10/02/13	
Sulfate as SO4	EPA 300.0	ND	0.38	2.0	mg/L	1	A311257	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	ND		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	ND	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Aluminum - Dissolved (1)	EPA 200.8 DRC	ND	2.3	5.0	ug/L	1	A311496	10/01/13	10/03/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	ND	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	ND	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**12**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	ND	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	ND	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**0.26**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	J
Copper	EPA 200.8 DRC	ND	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	ND		0.41	mg/L					
Iron	EPA 200.8 DRC	**7.6**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.3, J
Iron - Dissolved (1)	EPA 200.8 DRC	**6.3**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	J
Lead	EPA 200.8 DRC	**3.4**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	ND	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**0.066**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.2, J
Manganese - Dissolved (1)	EPA 200.8 DRC	ND	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	ND	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.30**	0.14	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	ND	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**0.91**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.2, J

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual

Volatile Organics (Standard List) by GC-MS

Certificate of Analysis

Sample ID: A3I2049-02
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 28

Sample Date - Time: 09/24/13 - 05:30
Matrix: Surface Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,1-Trichloroethane	EPA 8260B	ND	0.046	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	0.056	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 8260B	ND	0.099	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2-Trichloroethane	EPA 8260B	ND	0.12	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloroethane	EPA 8260B	ND	0.065	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloroethene	EPA 8260B	ND	0.067	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloropropene	EPA 8260B	ND	0.078	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,3-Trichlorobenzene	EPA 8260B	ND	0.17	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,3-Trichloropropane	EPA 8260B	ND	0.073	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,4-Trichlorobenzene	EPA 8260B	ND	0.18	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,4-Trimethylbenzene	EPA 8260B	ND	0.093	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dibromoethane (EDB)	EPA 8260B	ND	0.17	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichlorobenzene	EPA 8260B	ND	0.054	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichloroethane	EPA 8260B	ND	0.098	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichloropropane	EPA 8260B	ND	0.060	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,3,5-Trimethylbenzene	EPA 8260B	ND	0.085	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,3-Dichlorobenzene	EPA 8260B	ND	0.059	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,3-Dichloropropane	EPA 8260B	ND	0.13	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,4-Dichlorobenzene	EPA 8260B	ND	0.094	0.50	ug/L	1	A311446	09/27/13	09/27/13	
2,2-Dichloropropane	EPA 8260B	ND	0.077	5.0	ug/L	1	A311446	09/27/13	09/27/13	
2-Butanone	EPA 8260B	ND	0.36	20	ug/L	1	A311446	09/27/13	09/27/13	
2-Chlorotoluene	EPA 8260B	ND	0.060	5.0	ug/L	1	A311446	09/27/13	09/27/13	
2-Hexanone	EPA 8260B	ND	0.34	20	ug/L	1	A311446	09/27/13	09/27/13	
4-Chlorotoluene	EPA 8260B	ND	0.067	5.0	ug/L	1	A311446	09/27/13	09/27/13	
4-Methyl-2-pentanone	EPA 8260B	ND	0.72	20	ug/L	1	A311446	09/27/13	09/27/13	
Acetone	EPA 8260B	ND	1.4	20	ug/L	1	A311446	09/27/13	09/27/13	
Benzene	EPA 8260B	ND	0.065	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromobenzene	EPA 8260B	ND	0.061	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromochloromethane	EPA 8260B	ND	0.065	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Bromodichloromethane	EPA 8260B	ND	0.067	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromoform	EPA 8260B	ND	0.14	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromomethane	EPA 8260B	ND	0.44	1.0	ug/L	1	A311446	09/27/13	09/27/13	
Carbon disulfide	EPA 8260B	ND	2.2	50	ug/L	1	A311446	09/27/13	09/27/13	
Carbon Tetrachloride	EPA 8260B	ND	0.082	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chlorobenzene	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloroethane	EPA 8260B	ND	0.062	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloroform	EPA 8260B	ND	0.077	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloromethane	EPA 8260B	ND	0.080	0.50	ug/L	1	A311446	09/27/13	09/27/13	
cis-1,2-Dichloroethene	EPA 8260B	ND	0.043	0.50	ug/L	1	A311446	09/27/13	09/27/13	
cis-1,3-Dichloropropene	EPA 8260B	ND	0.061	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Dibromochloromethane	EPA 8260B	ND	0.16	0.50	ug/L	1	A311446	09/27/13	09/27/13	

Certificate of Analysis

Sample ID: A3I2049-02
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 28

Sample Date - Time: 09/24/13 - 05:30
Matrix: Surface Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
Dibromochloropropane (DBCP)	EPA 8260B	ND	0.11	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Dibromomethane	EPA 8260B	ND	0.084	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Dichlorodifluoromethane	EPA 8260B	ND	0.074	1.0	ug/L	1	A311446	09/27/13	09/27/13	
Dichloromethane	EPA 8260B	ND	0.13	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Ethylbenzene	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Hexachlorobutadiene	EPA 8260B	ND	0.13	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Hexachloroethane	EPA 8260B	ND	0.70	50	ug/L	1	A311446	09/27/13	09/27/13	
Iodomethane	EPA 8260B	**2.0**	1.3	50	ug/L	1	A311446	09/27/13	09/27/13	J
Isopropylbenzene	EPA 8260B	ND	0.057	5.0	ug/L	1	A311446	09/27/13	09/27/13	
m,p-Xylenes	EPA 8260B	**0.25**	0.22	0.50	ug/L	1	A311446	09/27/13	09/27/13	J
Methyl-t-butyl ether	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Naphthalene	EPA 8260B	ND	0.12	5.0	ug/L	1	A311446	09/27/13	09/27/13	
n-Butylbenzene	EPA 8260B	ND	0.080	5.0	ug/L	1	A311446	09/27/13	09/27/13	
n-Propylbenzene	EPA 8260B	ND	0.069	5.0	ug/L	1	A311446	09/27/13	09/27/13	
o-Xylene	EPA 8260B	ND	0.092	0.50	ug/L	1	A311446	09/27/13	09/27/13	
p-Isopropyltoluene	EPA 8260B	ND	0.062	5.0	ug/L	1	A311446	09/27/13	09/27/13	
sec-Butylbenzene	EPA 8260B	ND	0.095	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Styrene	EPA 8260B	ND	0.067	5.0	ug/L	1	A311446	09/27/13	09/27/13	
tert-Butylbenzene	EPA 8260B	ND	0.084	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Tetrachloroethene (PCE)	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Toluene	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
trans-1,2-Dichloroethene	EPA 8260B	ND	0.059	0.50	ug/L	1	A311446	09/27/13	09/27/13	
trans-1,3-Dichloropropene	EPA 8260B	ND	0.16	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Trichloroethene (TCE)	EPA 8260B	ND	0.057	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Trichlorofluoromethane	EPA 8260B	ND	0.092	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Vinyl Chloride	EPA 8260B	ND	0.062	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Surrogate: 1,2-Dichloroethane-d4	EPA 8260B	96 %		*Acceptable range: 70-130 %*						
Surrogate: Bromofluorobenzene	EPA 8260B	100 %		*Acceptable range: 70-130 %*						
Surrogate: Toluene-d8	EPA 8260B	96 %		*Acceptable range: 70-130 %*						
Total Xylenes, EPA 8260B		ND		0.50	ug/L					

Certificate of Analysis

Sample ID: A3I2049-03
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 29

Sample Date - Time: 09/24/13 - 13:45
Matrix: Surface Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,1-Trichloroethane	EPA 8260B	ND	0.046	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	0.056	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 8260B	ND	0.099	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2-Trichloroethane	EPA 8260B	ND	0.12	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloroethane	EPA 8260B	ND	0.065	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloroethene	EPA 8260B	ND	0.067	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloropropene	EPA 8260B	ND	0.078	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,3-Trichlorobenzene	EPA 8260B	ND	0.17	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,3-Trichloropropane	EPA 8260B	ND	0.073	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,4-Trichlorobenzene	EPA 8260B	ND	0.18	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,4-Trimethylbenzene	EPA 8260B	ND	0.093	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dibromoethane (EDB)	EPA 8260B	ND	0.17	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichlorobenzene	EPA 8260B	ND	0.054	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichloroethane	EPA 8260B	ND	0.098	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichloropropane	EPA 8260B	ND	0.060	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,3,5-Trimethylbenzene	EPA 8260B	ND	0.085	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,3-Dichlorobenzene	EPA 8260B	ND	0.059	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,3-Dichloropropane	EPA 8260B	ND	0.13	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,4-Dichlorobenzene	EPA 8260B	ND	0.094	0.50	ug/L	1	A311446	09/27/13	09/27/13	
2,2-Dichloropropane	EPA 8260B	ND	0.077	5.0	ug/L	1	A311446	09/27/13	09/27/13	
2-Butanone	EPA 8260B	ND	0.36	20	ug/L	1	A311446	09/27/13	09/27/13	
2-Chlorotoluene	EPA 8260B	ND	0.060	5.0	ug/L	1	A311446	09/27/13	09/27/13	
2-Hexanone	EPA 8260B	ND	0.34	20	ug/L	1	A311446	09/27/13	09/27/13	
4-Chlorotoluene	EPA 8260B	ND	0.067	5.0	ug/L	1	A311446	09/27/13	09/27/13	
4-Methyl-2-pentanone	EPA 8260B	ND	0.72	20	ug/L	1	A311446	09/27/13	09/27/13	
Acetone	EPA 8260B	ND	1.4	20	ug/L	1	A311446	09/27/13	09/27/13	
Benzene	EPA 8260B	ND	0.065	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromobenzene	EPA 8260B	ND	0.061	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromochloromethane	EPA 8260B	ND	0.065	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Bromodichloromethane	EPA 8260B	**0.34**	0.067	0.50	ug/L	1	A311446	09/27/13	09/27/13	J
Bromoform	EPA 8260B	ND	0.14	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromomethane	EPA 8260B	ND	0.44	1.0	ug/L	1	A311446	09/27/13	09/27/13	
Carbon disulfide	EPA 8260B	**2.2**	2.2	50	ug/L	1	A311446	09/27/13	09/27/13	J
Carbon Tetrachloride	EPA 8260B	ND	0.082	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chlorobenzene	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloroethane	EPA 8260B	ND	0.062	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloroform	EPA 8260B	**1.1**	0.077	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloromethane	EPA 8260B	**0.25**	0.080	0.50	ug/L	1	A311446	09/27/13	09/27/13	J
cis-1,2-Dichloroethene	EPA 8260B	ND	0.043	0.50	ug/L	1	A311446	09/27/13	09/27/13	
cis-1,3-Dichloropropene	EPA 8260B	ND	0.061	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Dibromochloromethane	EPA 8260B	ND	0.16	0.50	ug/L	1	A311446	09/27/13	09/27/13	

Certificate of Analysis

Sample ID: A3I2049-03
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 29

Sample Date - Time: 09/24/13 - 13:45
Matrix: Surface Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
Dibromochloropropane (DBCP)	EPA 8260B	ND	0.11	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Dibromomethane	EPA 8260B	ND	0.084	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Dichlorodifluoromethane	EPA 8260B	ND	0.074	1.0	ug/L	1	A311446	09/27/13	09/27/13	
Dichloromethane	EPA 8260B	ND	0.13	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Ethylbenzene	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Hexachlorobutadiene	EPA 8260B	ND	0.13	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Hexachloroethane	EPA 8260B	ND	0.70	50	ug/L	1	A311446	09/27/13	09/27/13	
Iodomethane	EPA 8260B	**2.5**	1.3	50	ug/L	1	A311446	09/27/13	09/27/13	J
Isopropylbenzene	EPA 8260B	ND	0.057	5.0	ug/L	1	A311446	09/27/13	09/27/13	
m,p-Xylenes	EPA 8260B	**0.25**	0.22	0.50	ug/L	1	A311446	09/27/13	09/27/13	J
Methyl-t-butyl ether	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Naphthalene	EPA 8260B	ND	0.12	5.0	ug/L	1	A311446	09/27/13	09/27/13	
n-Butylbenzene	EPA 8260B	ND	0.080	5.0	ug/L	1	A311446	09/27/13	09/27/13	
n-Propylbenzene	EPA 8260B	ND	0.069	5.0	ug/L	1	A311446	09/27/13	09/27/13	
o-Xylene	EPA 8260B	ND	0.092	0.50	ug/L	1	A311446	09/27/13	09/27/13	
p-Isopropyltoluene	EPA 8260B	ND	0.062	5.0	ug/L	1	A311446	09/27/13	09/27/13	
sec-Butylbenzene	EPA 8260B	ND	0.095	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Styrene	EPA 8260B	ND	0.067	5.0	ug/L	1	A311446	09/27/13	09/27/13	
tert-Butylbenzene	EPA 8260B	ND	0.084	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Tetrachloroethene (PCE)	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Toluene	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
trans-1,2-Dichloroethene	EPA 8260B	ND	0.059	0.50	ug/L	1	A311446	09/27/13	09/27/13	
trans-1,3-Dichloropropene	EPA 8260B	ND	0.16	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Trichloroethene (TCE)	EPA 8260B	ND	0.057	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Trichlorofluoromethane	EPA 8260B	ND	0.092	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Vinyl Chloride	EPA 8260B	ND	0.062	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Surrogate: 1,2-Dichloroethane-d4	EPA 8260B	98 %		*Acceptable range: 70-130 %*						
Surrogate: Bromofluorobenzene	EPA 8260B	89 %		*Acceptable range: 70-130 %*						
Surrogate: Toluene-d8	EPA 8260B	94 %		*Acceptable range: 70-130 %*						
Total Xylenes, EPA 8260B		ND		0.50	ug/L					

Certificate of Analysis

Sample ID: A3I2049-04
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 30

Sample Date - Time: 09/24/13 - 08:00
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**20**	0.45	1.0	mg/L	1	A311257	09/25/13	09/25/13	
Conductivity @ 25C	SM 2510 B	**490**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.26**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**0.44**	0.090	0.22	mg/L	1	A311257	09/25/13 15:24	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311544	10/02/13	10/02/13	
Sulfate as SO4	EPA 300.0	**51**	0.38	2.0	mg/L	1	A311257	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**290**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**3200**	15	25	ug/L	5	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**4.2**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**3.2**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**120**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**180**	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**33**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**8.2**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**8.0**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**180**		0.41	mg/L					
Iron	EPA 200.8 DRC	**4600**	3.1	50	ug/L	5	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**46**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**1.5**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**23**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**270**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**0.84**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	J
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**10**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.39**	0.14	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**47**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**12**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3, B2.4

Certificate of Analysis

Sample ID: A3I2049-04RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 30

Sample Date - Time: 09/24/13 - 08:00
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**4.4**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-05
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 31

Sample Date - Time: 09/24/13 - 08:21
Matrix: Waste Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**45**	0.89	2.0	mg/L	2	A311257	09/25/13	09/25/13	
Conductivity @ 25C	SM 2510 B	**1000**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.43**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	ND	0.18	0.44	mg/L	2	A311257	09/25/13 15:33	09/25/13	DL01
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311544	10/02/13	10/02/13	
Sulfate as SO4	EPA 300.0	**140**	0.76	4.0	mg/L	2	A311257	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**640**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**2700**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	**0.47**	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	J
Arsenic	EPA 200.8 DRC	**12**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**12**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**120**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**330**	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	**0.032**	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	J
Calcium	EPA 200.7	**60**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**7.2**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**6.6**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**350**		0.41	mg/L					
Iron	EPA 200.8 DRC	**3900**	3.1	50	ug/L	5	A311315	09/26/13	10/01/13	B2.4
Lead	EPA 200.8 DRC	**1.5**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**50**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**350**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**7.7**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**11**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.49**	0.14	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**120**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**11**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3, B2.4

Certificate of Analysis

Sample ID: A3I2049-05RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 31

Sample Date - Time: 09/24/13 - 08:21
Matrix: Waste Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	ND	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1
Iron - Dissolved (1)	EPA 200.8 DRC	**17**	4.5	10	ug/L	1	A311496	10/01/13	11/05/13	RE1.1

Certificate of Analysis

Sample ID: A3I2049-06
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 32

Sample Date - Time: 09/24/13 - 08:47
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**78**	0.89	2.0	mg/L	2	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**860**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.27**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**31**	0.18	0.44	mg/L	2	A311264	09/25/13 16:45	09/25/13	
Perchlorate	EPA 314.0	ND	7.4	20	ug/L	10	A311678	10/03/13	10/03/13	DL01
Sulfate as SO4	EPA 300.0	**40**	0.76	4.0	mg/L	2	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**540**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**17**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Aluminum - Dissolved (1)	EPA 200.8 DRC	**14**	2.3	5.0	ug/L	1	A311496	10/01/13	10/03/13	
Antimony	EPA 200.8 DRC	**0.35**	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	J
Arsenic	EPA 200.8 DRC	**1.3**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**1.5**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**42**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**460**	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**19**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**0.22**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	J
Copper	EPA 200.8 DRC	**4.6**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**98**		0.41	mg/L					
Iron	EPA 200.8 DRC	**32**	0.61	10	ug/L	1	A311639	10/03/13	10/09/13	B2.3
Lead	EPA 200.8 DRC	**0.11**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**12**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**0.71**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.2, J
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**1.7**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.42**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**150**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**29**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-06RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 32

Sample Date - Time: 09/24/13 - 08:47
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Iron - Dissolved (1)	EPA 200.8 DRC	**29**	4.5	10	ug/L	1	A311496	10/01/13	11/05/13	RE1.1
Manganese - Dissolved (1)	EPA 200.8 DRC	**0.74**	0.45	1.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-07
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 33

Sample Date - Time: 09/24/13 - 09:15
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**120**	1.3	3.0	mg/L	3	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**2000**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.38**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	ND	0.27	0.66	mg/L	3	A311264	09/25/13 16:36	09/25/13	DL01
Perchlorate	EPA 314.0	ND	1.5	4.0	ug/L	2	A311678	10/03/13	10/03/13	DL01
Sulfate as SO4	EPA 300.0	**570**	3.8	20	mg/L	10	A311328	09/26/13	09/26/13	
Total Dissolved Solids	SM 2540C	**1400**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**3600**	15	25	ug/L	5	A311315	09/26/13	10/01/13	
Aluminum - Dissolved (1)	EPA 200.8 DRC	**4.8**	2.3	5.0	ug/L	1	A311496	10/01/13	10/03/13	J
Antimony	EPA 200.8 DRC	**0.58**	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**15**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**14**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**87**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**950**	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	**0.043**	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	J
Calcium	EPA 200.7	**67**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**9.4**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**11**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**400**		0.41	mg/L					
Iron	EPA 200.8 DRC	**5500**	3.1	50	ug/L	5	A311315	09/26/13	10/01/13	B2.4
Lead	EPA 200.8 DRC	**3.3**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**56**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**580**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**16**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.57**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**370**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**16**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-07RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 33

Sample Date - Time: 09/24/13 - 09:15
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Iron - Dissolved (1)	EPA 200.8 DRC	**19**	4.5	10	ug/L	1	A311496	10/01/13	11/05/13	RE1.1
Manganese - Dissolved (1)	EPA 200.8 DRC	**2.4**	0.45	1.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1

Certificate of Analysis

Sample ID: A3I2049-08
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 34

Sample Date - Time: 09/24/13 - 09:25
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**47**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**690**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.35**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	ND	0.090	0.22	mg/L	1	A311264	09/25/13 17:21	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311544	10/02/13	10/02/13	
Sulfate as SO4	EPA 300.0	**66**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**450**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**2100**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Aluminum - Dissolved (1)	EPA 200.8 DRC	**16**	2.3	5.0	ug/L	1	A311496	10/01/13	10/03/13	
Antimony	EPA 200.8 DRC	**0.66**	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**12**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**14**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**80**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**350**	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	**0.052**	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	J
Calcium	EPA 200.7	**26**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**5.9**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**8.1**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**150**		0.41	mg/L					
Iron	EPA 200.8 DRC	**2600**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**62**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**1.5**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**21**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**330**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**3.5**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**12**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.51**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**110**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**8.8**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-09
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 35

Sample Date - Time: 09/24/13 - 09:40
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**75**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**830**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.28**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**27**	0.18	0.44	mg/L	2	A311287	09/26/13 01:36	09/26/13	B2.4
Perchlorate	EPA 314.0	ND	7.4	20	ug/L	10	A311678	10/03/13	10/03/13	DL01
Sulfate as SO4	EPA 300.0	**50**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**550**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**990**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Aluminum - Dissolved (1)	EPA 200.8 DRC	**9.3**	2.3	5.0	ug/L	1	A311496	10/01/13	10/03/13	
Antimony	EPA 200.8 DRC	**0.37**	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	J
Arsenic	EPA 200.8 DRC	**3.6**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**3.6**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**51**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**420**	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	**0.027**	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	J
Calcium	EPA 200.7	**20**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**2.8**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**6.7**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**110**		0.41	mg/L					
Iron	EPA 200.8 DRC	**1300**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**29**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.78**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**14**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**87**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**1.4**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**5.6**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.44**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**140**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**28**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-10
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 36

Sample Date - Time: 09/24/13 - 09:55
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**33**	0.89	2.0	mg/L	2	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**840**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.37**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**0.46**	0.18	0.44	mg/L	2	A311264	09/25/13 16:54	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311678	10/03/13	10/03/13	
Sulfate as SO4	EPA 300.0	**97**	0.76	4.0	mg/L	2	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**520**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**1400**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Aluminum - Dissolved (1)	EPA 200.8 DRC	**2.7**	2.3	5.0	ug/L	1	A311496	10/01/13	10/03/13	J
Antimony	EPA 200.8 DRC	**0.36**	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	J
Arsenic	EPA 200.8 DRC	**9.1**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**9.5**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**83**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**320**	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**47**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**3.8**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**3.8**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**270**		0.41	mg/L					
Iron	EPA 200.8 DRC	**1900**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**15**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**1.2**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**38**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**270**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**6.9**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.52**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**110**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**5.6**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-10RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 36

Sample Date - Time: 09/24/13 - 09:55
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Manganese - Dissolved (1)	EPA 200.8 DRC	**0.83**	0.45	1.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-11
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 37

Sample Date - Time: 09/24/13 - 10:07
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**44**	0.89	2.0	mg/L	2	A311257	09/25/13	09/25/13	
Conductivity @ 25C	SM 2510 B	**840**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.35**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**6.5**	0.18	0.44	mg/L	2	A311257	09/25/13 15:42	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311544	10/02/13	10/02/13	
Sulfate as SO4	EPA 300.0	**89**	0.76	4.0	mg/L	2	A311257	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**530**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**1600**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	**0.37**	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	J
Arsenic	EPA 200.8 DRC	**8.1**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**8.1**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**78**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**360**	9.1	20	ug/L	2	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**40**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**4.4**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**5.2**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**230**		0.41	mg/L					
Iron	EPA 200.8 DRC	**2100**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**16**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**1.2**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**32**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**230**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**0.77**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	J
Mercury	EPA 200.8	ND	0.18	0.40	ug/L	2	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**7.6**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.45**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**120**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**11**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-11RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 37

Sample Date - Time: 09/24/13 - 10:07
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**3.4**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-12
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 38

Sample Date - Time: 09/24/13 - 10:30
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**19**	0.45	1.0	mg/L	1	A311257	09/25/13	09/25/13	
Conductivity @ 25C	SM 2510 B	**490**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.26**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**0.41**	0.090	0.22	mg/L	1	A311257	09/25/13 15:51	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311544	10/02/13	10/02/13	
Sulfate as SO4	EPA 300.0	**49**	0.38	2.0	mg/L	1	A311257	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**290**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**1600**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**3.7**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**3.5**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**96**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Boron	EPA 200.8	**180**	4.5	10	ug/L	1	A311283	09/26/13	10/04/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**33**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**4.0**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**4.6**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**170**		0.41	mg/L					
Iron	EPA 200.8 DRC	**2000**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**49**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.68**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**22**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**170**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**2.9**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**5.5**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.38**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**48**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**6.6**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-12RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 38

Sample Date - Time: 09/24/13 - 10:30
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**3.8**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-13
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 39

Sample Date - Time: 09/24/13 - 11:32
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**12**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**260**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.14**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	ND	0.090	0.22	mg/L	1	A311264	09/25/13 17:57	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311544	10/02/13	10/02/13	
Sulfate as SO4	EPA 300.0	**25**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**160**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**860**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**2.2**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**2.2**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**46**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**19**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**2.2**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**3.1**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**89**		0.41	mg/L					
Iron	EPA 200.8 DRC	**1200**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**38**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.45**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**10**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**90**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**16**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**2.8**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.37**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**27**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**4.0**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-13RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 39

Sample Date - Time: 09/24/13 - 11:32
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**3.8**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-14
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 40

Sample Date - Time: 09/24/13 - 11:50
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**8.0**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.3
Conductivity @ 25C	SM 2510 B	**290**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.18**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	ND	0.090	0.22	mg/L	1	A311264	09/25/13 18:42	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311678	10/03/13	10/03/13	
Sulfate as SO4	EPA 300.0	**18**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**180**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**960**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Aluminum - Dissolved (1)	EPA 200.8 DRC	**5.7**	2.3	5.0	ug/L	1	A311496	10/01/13	10/03/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**3.1**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**2.5**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**58**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**18**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**2.6**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**3.4**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**100**		0.41	mg/L					
Iron	EPA 200.8 DRC	**1600**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**150**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.57**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**14**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**140**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**12**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**4.3**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.38**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**27**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**5.9**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-15
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 41

Sample Date - Time: 09/24/13 - 12:28
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**7.0**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.3
Conductivity @ 25C	SM 2510 B	**400**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.17**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**0.23**	0.090	0.22	mg/L	1	A311264	09/25/13 18:51	09/25/13	
Perchlorate	EPA 314.0	ND	7.4	20	ug/L	10	A311924	10/09/13	10/09/13	DL1.0
Sulfate as SO4	EPA 300.0	**10**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**230**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**710**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**3.3**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**3.5**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**140**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**34**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**2.4**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**2.9**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**190**		0.41	mg/L					
Iron	EPA 200.8 DRC	**1200**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**94**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.41**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**25**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**120**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**20**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**4.6**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.33**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**18**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**3.9**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-15RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 41

Sample Date - Time: 09/24/13 - 12:28
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**3.7**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-16
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 42

Sample Date - Time: 09/24/13 - 12:47
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**6.5**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.3
Conductivity @ 25C	SM 2510 B	**320**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.14**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**0.18**	0.090	0.22	mg/L	1	A311264	09/25/13 19:00	09/25/13	J
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311678	10/03/13	10/03/13	
Sulfate as SO4	EPA 300.0	**9.0**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**200**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**420**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**3.1**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**3.2**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**120**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**31**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**1.5**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**2.2**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**160**		0.41	mg/L					
Iron	EPA 200.8 DRC	**700**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**61**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.28**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**19**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**93**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**1.1**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**3.4**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.32**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**15**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**2.3**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-16RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 42

Sample Date - Time: 09/24/13 - 12:47
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**4.5**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-17
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 43

Sample Date - Time: 09/24/13 - 13:07
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**17**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**630**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.48**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**2.3**	0.090	0.22	mg/L	1	A311264	09/25/13 17:39	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311678	10/03/13	10/03/13	
Sulfate as SO4	EPA 300.0	**64**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**380**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**1200**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**3.0**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**2.9**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**83**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**34**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**3.6**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**3.5**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**210**		0.41	mg/L					
Iron	EPA 200.8 DRC	**1400**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**23**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.58**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**30**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**100**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**4.3**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**4.4**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.43**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**71**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**5.6**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-17RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 43

Sample Date - Time: 09/24/13 - 13:07
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**2.5**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-18
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 44

Sample Date - Time: 09/24/13 - 13:27
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**16**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**650**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.51**	0.015	0.10	mg/L	1	A311448	10/01/13	10/01/13	
Nitrate as N	EPA 300.0	**0.88**	0.090	0.22	mg/L	1	A311264	09/25/13 17:30	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311678	10/03/13	10/03/13	
Sulfate as SO4	EPA 300.0	**51**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**400**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**440**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**2.5**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Barium	EPA 200.8 DRC	**99**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**41**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**1.5**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**1.5**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**240**		0.41	mg/L					
Iron	EPA 200.8 DRC	**570**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**14**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.19**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**33**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**85**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**26**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**2.5**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.49**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**67**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**2.3**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Certificate of Analysis

Sample ID: A3I2049-18RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 44

Sample Date - Time: 09/24/13 - 13:27
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**2.3**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J
Arsenic - Dissolved (1)	EPA 200.8 DRC	**2.5**	0.045	0.10	ug/L	1	A311496	10/01/13	11/04/13	RE1.1

Certificate of Analysis

Sample ID: A3I2049-19
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 45

Sample Date - Time: 09/24/13 - 13:45
Matrix: Surface Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**24**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**620**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.40**	0.015	0.10	mg/L	1	A311580	10/02/13	10/02/13	
Nitrate as N	EPA 300.0	**5.2**	0.090	0.22	mg/L	1	A311264	09/25/13 17:12	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311678	10/03/13	10/03/13	
Sulfate as SO4	EPA 300.0	**54**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**390**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**370**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Antimony	EPA 200.8 DRC	ND	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**2.5**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**2.6**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**79**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**34**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**1.6**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**2.1**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**200**		0.41	mg/L					
Iron	EPA 200.8 DRC	**490**	0.61	10	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Iron - Dissolved (1)	EPA 200.8 DRC	**16**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.29**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	
Magnesium	EPA 200.7	**28**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**50**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.4
Manganese - Dissolved (1)	EPA 200.8 DRC	**19**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**2.4**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.41**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**69**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**5.3**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,1-Trichloroethane	EPA 8260B	ND	0.046	0.50	ug/L	1	A311446	09/27/13	09/27/13	

Certificate of Analysis

Sample ID: A3I2049-19
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 45

Sample Date - Time: 09/24/13 - 13:45
Matrix: Surface Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	0.056	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 8260B	ND	0.099	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2-Trichloroethane	EPA 8260B	ND	0.12	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloroethane	EPA 8260B	ND	0.065	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloroethene	EPA 8260B	ND	0.067	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloropropene	EPA 8260B	ND	0.078	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,3-Trichlorobenzene	EPA 8260B	ND	0.17	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,3-Trichloropropane	EPA 8260B	ND	0.073	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,4-Trichlorobenzene	EPA 8260B	ND	0.18	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,4-Trimethylbenzene	EPA 8260B	ND	0.093	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dibromoethane (EDB)	EPA 8260B	ND	0.17	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichlorobenzene	EPA 8260B	ND	0.054	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichloroethane	EPA 8260B	ND	0.098	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichloropropane	EPA 8260B	ND	0.060	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,3,5-Trimethylbenzene	EPA 8260B	ND	0.085	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,3-Dichlorobenzene	EPA 8260B	ND	0.059	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,3-Dichloropropane	EPA 8260B	ND	0.13	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,4-Dichlorobenzene	EPA 8260B	ND	0.094	0.50	ug/L	1	A311446	09/27/13	09/27/13	
2,2-Dichloropropane	EPA 8260B	ND	0.077	5.0	ug/L	1	A311446	09/27/13	09/27/13	
2-Butanone	EPA 8260B	ND	0.36	20	ug/L	1	A311446	09/27/13	09/27/13	
2-Chlorotoluene	EPA 8260B	ND	0.060	5.0	ug/L	1	A311446	09/27/13	09/27/13	
2-Hexanone	EPA 8260B	ND	0.34	20	ug/L	1	A311446	09/27/13	09/27/13	
4-Chlorotoluene	EPA 8260B	ND	0.067	5.0	ug/L	1	A311446	09/27/13	09/27/13	
4-Methyl-2-pentanone	EPA 8260B	ND	0.72	20	ug/L	1	A311446	09/27/13	09/27/13	
Acetone	EPA 8260B	ND	1.4	20	ug/L	1	A311446	09/27/13	09/27/13	
Benzene	EPA 8260B	ND	0.065	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromobenzene	EPA 8260B	ND	0.061	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromochloromethane	EPA 8260B	ND	0.065	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Bromodichloromethane	EPA 8260B	**0.23**	0.067	0.50	ug/L	1	A311446	09/27/13	09/27/13	J
Bromoform	EPA 8260B	ND	0.14	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromomethane	EPA 8260B	ND	0.44	1.0	ug/L	1	A311446	09/27/13	09/27/13	
Carbon disulfide	EPA 8260B	ND	2.2	50	ug/L	1	A311446	09/27/13	09/27/13	
Carbon Tetrachloride	EPA 8260B	ND	0.082	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chlorobenzene	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloroethane	EPA 8260B	ND	0.062	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloroform	EPA 8260B	**1.0**	0.077	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloromethane	EPA 8260B	ND	0.080	0.50	ug/L	1	A311446	09/27/13	09/27/13	
cis-1,2-Dichloroethene	EPA 8260B	ND	0.043	0.50	ug/L	1	A311446	09/27/13	09/27/13	
cis-1,3-Dichloropropene	EPA 8260B	ND	0.061	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Dibromochloromethane	EPA 8260B	ND	0.16	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Dibromochloropropane (DBCP)	EPA 8260B	ND	0.11	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Dibromomethane	EPA 8260B	ND	0.084	0.50	ug/L	1	A311446	09/27/13	09/27/13	

Certificate of Analysis

Sample ID: A3I2049-19
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 45

Sample Date - Time: 09/24/13 - 13:45
Matrix: Surface Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
Dichlorodifluoromethane	EPA 8260B	ND	0.074	1.0	ug/L	1	A311446	09/27/13	09/27/13	
Dichloromethane	EPA 8260B	ND	0.13	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Ethylbenzene	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Hexachlorobutadiene	EPA 8260B	ND	0.13	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Hexachloroethane	EPA 8260B	ND	0.70	50	ug/L	1	A311446	09/27/13	09/27/13	
Iodomethane	EPA 8260B	ND	1.3	50	ug/L	1	A311446	09/27/13	09/27/13	
Isopropylbenzene	EPA 8260B	ND	0.057	5.0	ug/L	1	A311446	09/27/13	09/27/13	
m,p-Xylenes	EPA 8260B	**0.24**	0.22	0.50	ug/L	1	A311446	09/27/13	09/27/13	J
Methyl-t-butyl ether	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Naphthalene	EPA 8260B	ND	0.12	5.0	ug/L	1	A311446	09/27/13	09/27/13	
n-Butylbenzene	EPA 8260B	ND	0.080	5.0	ug/L	1	A311446	09/27/13	09/27/13	
n-Propylbenzene	EPA 8260B	ND	0.069	5.0	ug/L	1	A311446	09/27/13	09/27/13	
o-Xylene	EPA 8260B	ND	0.092	0.50	ug/L	1	A311446	09/27/13	09/27/13	
p-Isopropyltoluene	EPA 8260B	ND	0.062	5.0	ug/L	1	A311446	09/27/13	09/27/13	
sec-Butylbenzene	EPA 8260B	ND	0.095	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Styrene	EPA 8260B	ND	0.067	5.0	ug/L	1	A311446	09/27/13	09/27/13	
tert-Butylbenzene	EPA 8260B	ND	0.084	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Tetrachloroethene (PCE)	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Toluene	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
trans-1,2-Dichloroethene	EPA 8260B	ND	0.059	0.50	ug/L	1	A311446	09/27/13	09/27/13	
trans-1,3-Dichloropropene	EPA 8260B	ND	0.16	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Trichloroethene (TCE)	EPA 8260B	ND	0.057	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Trichlorofluoromethane	EPA 8260B	ND	0.092	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Vinyl Chloride	EPA 8260B	ND	0.062	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Surrogate: 1,2-Dichloroethane-d4	EPA 8260B	97 %		*Acceptable range: 70-130 %*						
Surrogate: Bromofluorobenzene	EPA 8260B	97 %		*Acceptable range: 70-130 %*						
Surrogate: Toluene-d8	EPA 8260B	95 %		*Acceptable range: 70-130 %*						
Total Xylenes, EPA 8260B		ND		0.50	ug/L					

Certificate of Analysis

Sample ID: A3I2049-19RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 45

Sample Date - Time: 09/24/13 - 13:45
Matrix: Surface Water
Sample Type: Grab

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum - Dissolved (1)	EPA 200.8 DRC	**2.6**	2.3	5.0	ug/L	1	A311496	10/01/13	11/05/13	RE1.1, J

Certificate of Analysis

Sample ID: A3I2049-20
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 46

Sample Date - Time: 09/24/13 - 14:09
Matrix: Waste Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chloride	EPA 300.0	**51**	0.45	1.0	mg/L	1	A311264	09/25/13	09/25/13	B2.4
Conductivity @ 25C	SM 2510 B	**750**		1.0	umhos/cm	1	A311277	09/25/13	09/25/13	
Fluoride	EPA 300.0	**0.37**	0.015	0.10	mg/L	1	A311580	10/02/13	10/02/13	
Nitrate as N	EPA 300.0	**22**	0.090	0.22	mg/L	1	A311264	09/25/13 17:48	09/25/13	
Perchlorate	EPA 314.0	ND	0.74	2.0	ug/L	1	A311678	10/03/13	10/03/13	
Sulfate as SO4	EPA 300.0	**66**	0.38	2.0	mg/L	1	A311264	09/25/13	09/25/13	
Total Dissolved Solids	SM 2540C	**490**		5.0	mg/L	1	A311502	10/01/13	10/04/13	

Metals

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.8 DRC	**18**	2.9	5.0	ug/L	1	A311315	09/26/13	10/01/13	
Aluminum - Dissolved (1)	EPA 200.8 DRC	**11**	2.3	5.0	ug/L	1	A311496	10/01/13	10/03/13	
Antimony	EPA 200.8 DRC	**0.64**	0.34	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Arsenic	EPA 200.8 DRC	**1.7**	0.041	0.10	ug/L	1	A311315	09/26/13	10/02/13	
Arsenic - Dissolved (1)	EPA 200.8 DRC	**2.0**	0.045	0.10	ug/L	1	A311496	10/01/13	10/08/13	
Barium	EPA 200.8 DRC	**65**	0.33	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Beryllium	EPA 200.8 DRC	ND	0.36	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Cadmium	EPA 200.8 DRC	ND	0.025	0.25	ug/L	1	A311315	09/26/13	10/02/13	
Calcium	EPA 200.7	**27**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Chromium	EPA 200.8 DRC	**1.6**	0.17	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Copper	EPA 200.8 DRC	**3.8**	0.33	0.50	ug/L	1	A311315	09/26/13	10/01/13	
Hardness as CaCO3	SM 2340B	**180**		0.41	mg/L					
Iron	EPA 200.8 DRC	**32**	0.61	10	ug/L	1	A311639	10/03/13	10/09/13	B2.3
Iron - Dissolved (1)	EPA 200.8 DRC	**17**	4.5	10	ug/L	1	A311496	10/01/13	10/03/13	
Lead	EPA 200.8 DRC	**0.087**	0.034	0.10	ug/L	1	A311315	09/26/13	10/01/13	J
Magnesium	EPA 200.7	**26**	0.046	0.10	mg/L	1	A311283	09/26/13	10/03/13	
Manganese	EPA 200.8 DRC	**0.70**	0.033	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.2, J
Manganese - Dissolved (1)	EPA 200.8 DRC	**0.66**	0.45	1.0	ug/L	1	A311496	10/01/13	10/03/13	J
Mercury	EPA 200.8	ND	0.091	0.20	ug/L	1	A311283	09/26/13	10/04/13	
Nickel	EPA 200.8 DRC	**1.4**	0.050	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Selenium	EPA 200.8 DRC	**0.47**	0.14	1.0	ug/L	1	A311315	09/26/13	10/03/13	B2.2, J
Silver	EPA 200.8 DRC	ND	0.20	0.25	ug/L	1	A311315	09/26/13	10/01/13	
Sodium	EPA 200.7	**93**	0.45	1.0	mg/L	1	A311283	09/26/13	10/03/13	
Thallium	EPA 200.8 DRC	ND	0.21	1.0	ug/L	1	A311315	09/26/13	10/01/13	
Zinc	EPA 200.8 DRC	**21**	0.45	1.0	ug/L	1	A311315	09/26/13	10/01/13	B2.3

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	

Certificate of Analysis

Sample ID: A3I2049-20
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 46

Sample Date - Time: 09/24/13 - 14:09
Matrix: Waste Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
1,1,1-Trichloroethane	EPA 8260B	ND	0.046	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	0.056	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 8260B	ND	0.099	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,1,2-Trichloroethane	EPA 8260B	ND	0.12	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloroethane	EPA 8260B	ND	0.065	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloroethene	EPA 8260B	ND	0.067	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,1-Dichloropropene	EPA 8260B	ND	0.078	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,3-Trichlorobenzene	EPA 8260B	ND	0.17	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,3-Trichloropropane	EPA 8260B	ND	0.073	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,4-Trichlorobenzene	EPA 8260B	ND	0.18	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2,4-Trimethylbenzene	EPA 8260B	ND	0.093	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dibromoethane (EDB)	EPA 8260B	ND	0.17	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichlorobenzene	EPA 8260B	ND	0.054	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichloroethane	EPA 8260B	ND	0.098	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,2-Dichloropropane	EPA 8260B	ND	0.060	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,3,5-Trimethylbenzene	EPA 8260B	ND	0.085	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,3-Dichlorobenzene	EPA 8260B	ND	0.059	0.50	ug/L	1	A311446	09/27/13	09/27/13	
1,3-Dichloropropane	EPA 8260B	ND	0.13	5.0	ug/L	1	A311446	09/27/13	09/27/13	
1,4-Dichlorobenzene	EPA 8260B	ND	0.094	0.50	ug/L	1	A311446	09/27/13	09/27/13	
2,2-Dichloropropane	EPA 8260B	ND	0.077	5.0	ug/L	1	A311446	09/27/13	09/27/13	
2-Butanone	EPA 8260B	**0.84**	0.36	20	ug/L	1	A311446	09/27/13	09/27/13	J
2-Chlorotoluene	EPA 8260B	ND	0.060	5.0	ug/L	1	A311446	09/27/13	09/27/13	
2-Hexanone	EPA 8260B	ND	0.34	20	ug/L	1	A311446	09/27/13	09/27/13	
4-Chlorotoluene	EPA 8260B	ND	0.067	5.0	ug/L	1	A311446	09/27/13	09/27/13	
4-Methyl-2-pentanone	EPA 8260B	ND	0.72	20	ug/L	1	A311446	09/27/13	09/27/13	
Acetone	EPA 8260B	ND	1.4	20	ug/L	1	A311446	09/27/13	09/27/13	
Benzene	EPA 8260B	ND	0.065	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromobenzene	EPA 8260B	ND	0.061	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromochloromethane	EPA 8260B	ND	0.065	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Bromodichloromethane	EPA 8260B	**16**	0.067	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromoform	EPA 8260B	ND	0.14	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Bromomethane	EPA 8260B	ND	0.44	1.0	ug/L	1	A311446	09/27/13	09/27/13	
Carbon disulfide	EPA 8260B	**2.6**	2.2	50	ug/L	1	A311446	09/27/13	09/27/13	J
Carbon Tetrachloride	EPA 8260B	ND	0.082	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chlorobenzene	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloroethane	EPA 8260B	ND	0.062	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Chloromethane	EPA 8260B	**0.48**	0.080	0.50	ug/L	1	A311446	09/27/13	09/27/13	J
cis-1,2-Dichloroethene	EPA 8260B	ND	0.043	0.50	ug/L	1	A311446	09/27/13	09/27/13	
cis-1,3-Dichloropropene	EPA 8260B	ND	0.061	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Dibromochloromethane	EPA 8260B	**2.8**	0.16	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Dibromochloropropane (DBCP)	EPA 8260B	ND	0.11	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Dibromomethane	EPA 8260B	ND	0.084	0.50	ug/L	1	A311446	09/27/13	09/27/13	

Certificate of Analysis

Sample ID: A3I2049-20
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 46

Sample Date - Time: 09/24/13 - 14:09
Matrix: Waste Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
Dichlorodifluoromethane	EPA 8260B	ND	0.074	1.0	ug/L	1	A311446	09/27/13	09/27/13	
Dichloromethane	EPA 8260B	ND	0.13	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Ethylbenzene	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Hexachlorobutadiene	EPA 8260B	ND	0.13	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Hexachloroethane	EPA 8260B	ND	0.70	50	ug/L	1	A311446	09/27/13	09/27/13	
Iodomethane	EPA 8260B	**5.9**	1.3	50	ug/L	1	A311446	09/27/13	09/27/13	J
Isopropylbenzene	EPA 8260B	ND	0.057	5.0	ug/L	1	A311446	09/27/13	09/27/13	
m,p-Xylenes	EPA 8260B	**0.26**	0.22	0.50	ug/L	1	A311446	09/27/13	09/27/13	J
Methyl-t-butyl ether	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Naphthalene	EPA 8260B	ND	0.12	5.0	ug/L	1	A311446	09/27/13	09/27/13	
n-Butylbenzene	EPA 8260B	ND	0.080	5.0	ug/L	1	A311446	09/27/13	09/27/13	
n-Propylbenzene	EPA 8260B	ND	0.069	5.0	ug/L	1	A311446	09/27/13	09/27/13	
o-Xylene	EPA 8260B	ND	0.092	0.50	ug/L	1	A311446	09/27/13	09/27/13	
p-Isopropyltoluene	EPA 8260B	ND	0.062	5.0	ug/L	1	A311446	09/27/13	09/27/13	
sec-Butylbenzene	EPA 8260B	ND	0.095	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Styrene	EPA 8260B	ND	0.067	5.0	ug/L	1	A311446	09/27/13	09/27/13	
tert-Butylbenzene	EPA 8260B	ND	0.084	5.0	ug/L	1	A311446	09/27/13	09/27/13	
Tetrachloroethene (PCE)	EPA 8260B	ND	0.10	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Toluene	EPA 8260B	ND	0.090	0.50	ug/L	1	A311446	09/27/13	09/27/13	
trans-1,2-Dichloroethene	EPA 8260B	ND	0.059	0.50	ug/L	1	A311446	09/27/13	09/27/13	
trans-1,3-Dichloropropene	EPA 8260B	ND	0.16	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Trichloroethene (TCE)	EPA 8260B	ND	0.057	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Trichlorofluoromethane	EPA 8260B	ND	0.092	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Vinyl Chloride	EPA 8260B	ND	0.062	0.50	ug/L	1	A311446	09/27/13	09/27/13	
Surrogate: 1,2-Dichloroethane-d4	EPA 8260B	101 %		*Acceptable range: 70-130 %*						
Surrogate: Bromofluorobenzene	EPA 8260B	90 %		*Acceptable range: 70-130 %*						
Surrogate: Toluene-d8	EPA 8260B	96 %		*Acceptable range: 70-130 %*						
Total Xylenes, EPA 8260B		ND		0.50	ug/L					

Certificate of Analysis

Sample ID: A3I2049-20RE1
Sampled By: Cindy Av Yeung
Sample Description: AWL130924 - 46

Sample Date - Time: 09/24/13 - 14:09
Matrix: Waste Water
Sample Type: Grab

Organics

Analyte	Method	Result	MDL	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics (Standard List) by GC-MS										
Chloroform	EPA 8260B	**44**	0.15	1.0	ug/L	2	A311456	09/30/13	09/30/13	
Surrogate: 1,2-Dichloroethane-d4	EPA 8260B	104 %		*Acceptable range:*		*70-130 %*				
Surrogate: Bromofluorobenzene	EPA 8260B	104 %		*Acceptable range:*		*70-130 %*				
Surrogate: Toluene-d8	EPA 8260B	99 %		*Acceptable range:*		*70-130 %*				

General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control												
Batch: A311257											Prepared: 9/25/2013	
Prep Method: Method Specific Preparation											Analyst: AJT	
Blank (A311257-BLK1)												
Chloride	ND	0.45	1.0	mg/L							09/25/13	
Nitrate as N	ND	0.090	0.22	mg/L							09/25/13	
Sulfate as SO4	ND	0.38	2.0	mg/L							09/25/13	
Blank Spike (A311257-BS1)												
Chloride	52	0.45	1.0	mg/L	50		103	90-110			09/25/13	
Nitrate as N	12	0.090	0.22	mg/L	11		102	90-110			09/25/13	
Sulfate as SO4	52	0.38	2.0	mg/L	50		103	90-110			09/25/13	
Blank Spike Dup (A311257-BSD1)												
Chloride	52	0.45	1.0	mg/L	50		103	90-110	0	20	09/25/13	
Nitrate as N	12	0.090	0.22	mg/L	11		102	90-110	1	20	09/25/13	
Sulfate as SO4	51	0.38	2.0	mg/L	50		103	90-110	0	20	09/25/13	
Matrix Spike (A311257-MS1), Source: A3I1966-57												
Chloride	110	0.89	2.0	mg/L	100	6.3	101	80-120			09/25/13	
Nitrate as N	28	0.18	0.44	mg/L	23	5.6	100	80-120			09/25/13	
Sulfate as SO4	120	0.76	4.0	mg/L	100	19	101	80-120			09/25/13	
Matrix Spike (A311257-MS2), Source: A3I2030-03												
Chloride	100	0.89	2.0	mg/L	100	3.6	98	80-120			09/25/13	
Nitrate as N	23	0.18	0.44	mg/L	23	0.83	98	80-120			09/25/13	
Sulfate as SO4	100	0.76	4.0	mg/L	100	4.1	98	80-120			09/25/13	
Matrix Spike Dup (A311257-MSD1), Source: A3I1966-57												
Chloride	110	0.89	2.0	mg/L	100	6.3	99	80-120	1	20	09/25/13	
Nitrate as N	28	0.18	0.44	mg/L	23	5.6	98	80-120	1	20	09/25/13	
Sulfate as SO4	120	0.76	4.0	mg/L	100	19	100	80-120	1	20	09/25/13	
Matrix Spike Dup (A311257-MSD2), Source: A3I2030-03												
Chloride	100	0.89	2.0	mg/L	100	3.6	96	80-120	2	20	09/25/13	
Nitrate as N	22	0.18	0.44	mg/L	23	0.83	96	80-120	2	20	09/25/13	
Sulfate as SO4	100	0.76	4.0	mg/L	100	4.1	97	80-120	1	20	09/25/13	
EPA 300.0 - Quality Control												
Batch: A311264											Prepared: 9/25/2013	
Prep Method: Method Specific Preparation											Analyst: AJT	
Blank (A311264-BLK1)												
Chloride	0.67	0.45	1.0	mg/L							09/25/13	B2.0, J
Nitrate as N	ND	0.090	0.22	mg/L							09/25/13	
Sulfate as SO4	ND	0.38	2.0	mg/L							09/25/13	
Blank Spike (A311264-BS1)												
Chloride	50	0.45	1.0	mg/L	50		100	90-110			09/25/13	

General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control												
Batch: A311264											Prepared: 9/25/2013	
Prep Method: Method Specific Preparation											Analyst: AJT	
Blank Spike (A311264-BS1)												
Nitrate as N	11	0.090	0.22	mg/L	11		99	90-110			09/25/13	
Sulfate as SO4	49	0.38	2.0	mg/L	50		99	90-110			09/25/13	
Blank Spike Dup (A311264-BSD1)												
Chloride	50	0.45	1.0	mg/L	50		99	90-110	1	20	09/25/13	
Nitrate as N	11	0.090	0.22	mg/L	11		98	90-110	0	20	09/25/13	
Sulfate as SO4	50	0.38	2.0	mg/L	50		99	90-110	1	20	09/25/13	
Matrix Spike (A311264-MS1), Source: A3I2049-13												
Chloride	110	0.89	2.0	mg/L	100	12	100	80-120			09/25/13	
Nitrate as N	23	0.18	0.44	mg/L	23	ND	100	80-120			09/25/13	
Sulfate as SO4	130	0.76	4.0	mg/L	100	25	101	80-120			09/25/13	
Matrix Spike (A311264-MS2), Source: A3I2049-16												
Chloride	110	0.89	2.0	mg/L	100	6.5	104	80-120			09/25/13	
Nitrate as N	23	0.18	0.44	mg/L	23	0.18	102	80-120			09/25/13	
Sulfate as SO4	110	0.76	4.0	mg/L	100	9.0	105	80-120			09/25/13	
Matrix Spike Dup (A311264-MSD1), Source: A3I2049-13												
Chloride	110	0.89	2.0	mg/L	100	12	98	80-120	1	20	09/25/13	
Nitrate as N	22	0.18	0.44	mg/L	23	ND	98	80-120	2	20	09/25/13	
Sulfate as SO4	120	0.76	4.0	mg/L	100	25	100	80-120	1	20	09/25/13	
Matrix Spike Dup (A311264-MSD2), Source: A3I2049-16												
Chloride	110	0.89	2.0	mg/L	100	6.5	100	80-120	4	20	09/25/13	
Nitrate as N	22	0.18	0.44	mg/L	23	0.18	98	80-120	4	20	09/25/13	
Sulfate as SO4	110	0.76	4.0	mg/L	100	9.0	102	80-120	3	20	09/25/13	
EPA 300.0 - Quality Control												
Batch: A311287											Prepared: 9/26/2013	
Prep Method: Method Specific Preparation											Analyst: AJT	
Blank (A311287-BLK1)												
Nitrate as N	0.14	0.090	0.22	mg/L							09/26/13	B2.0, J
Blank Spike (A311287-BS1)												
Nitrate as N	11	0.090	0.22	mg/L	11		99	90-110			09/26/13	
Blank Spike Dup (A311287-BSD1)												
Nitrate as N	11	0.090	0.22	mg/L	11		99	90-110	0	20	09/26/13	
Matrix Spike (A311287-MS1), Source: A3I2103-01												
Nitrate as N	25	0.18	0.44	mg/L	23	2.0	102	80-120			09/26/13	
Matrix Spike (A311287-MS2), Source: A3I2101-17												

General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control												
Batch: A311287											Prepared: 9/26/2013	
Prep Method: Method Specific Preparation											Analyst: AJT	
Matrix Spike (A311287-MS2), Source: A3I2101-17												
Nitrate as N	28	0.18	0.44	mg/L	23	4.5	105	80-120			09/26/13	
Matrix Spike Dup (A311287-MSD1), Source: A3I2103-01												
Nitrate as N	25	0.18	0.44	mg/L	23	2.0	100	80-120	1	20	09/26/13	
Matrix Spike Dup (A311287-MSD2), Source: A3I2101-17												
Nitrate as N	28	0.18	0.44	mg/L	23	4.5	104	80-120	1	20	09/26/13	
EPA 300.0 - Quality Control												
Batch: A311328											Prepared: 9/26/2013	
Prep Method: Method Specific Preparation											Analyst: AJT	
Blank (A311328-BLK1)												
Sulfate as SO4	ND	0.38	2.0	mg/L							09/26/13	
Blank Spike (A311328-BS1)												
Sulfate as SO4	52	0.38	2.0	mg/L	50		103	90-110			09/26/13	
Blank Spike Dup (A311328-BSD1)												
Sulfate as SO4	52	0.38	2.0	mg/L	50		104	90-110	1	20	09/26/13	
Matrix Spike (A311328-MS1), Source: A3I2168-05												
Sulfate as SO4	130	0.76	4.0	mg/L	100	24	101	80-120			09/26/13	
Matrix Spike (A311328-MS2), Source: A3I2168-01												
Sulfate as SO4	130	0.76	4.0	mg/L	100	24	102	80-120			09/26/13	
Matrix Spike Dup (A311328-MSD1), Source: A3I2168-05												
Sulfate as SO4	120	0.76	4.0	mg/L	100	24	100	80-120	1	20	09/26/13	
Matrix Spike Dup (A311328-MSD2), Source: A3I2168-01												
Sulfate as SO4	120	0.76	4.0	mg/L	100	24	97	80-120	4	20	09/26/13	
EPA 300.0 - Quality Control												
Batch: A311448											Prepared: 10/1/2013	
Prep Method: Method Specific Preparation											Analyst: n.a.	
Blank (A311448-BLK1)												
Fluoride	ND	0.015	0.10	mg/L							10/01/13	
Blank Spike (A311448-BS1)												
Fluoride	0.50	0.015	0.10	mg/L	0.50		100	90-110			10/01/13	
Blank Spike Dup (A311448-BSD1)												
Fluoride	0.50	0.015	0.10	mg/L	0.50		101	90-110	1	10	10/01/13	

General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control												
Batch: A311448											Prepared: 10/1/2013	
Prep Method: Method Specific Preparation											Analyst: n.a.	
Matrix Spike (A311448-MS1), Source: A3I2049-11												
Fluoride	1.4	0.031	0.20	mg/L	1.0	0.35	103	80-120			10/01/13	
Matrix Spike Dup (A311448-MSD1), Source: A3I2049-11												
Fluoride	1.4	0.031	0.20	mg/L	1.0	0.35	105	80-120	1	10	10/01/13	
EPA 300.0 - Quality Control												
Batch: A311580											Prepared: 10/2/2013	
Prep Method: Method Specific Preparation											Analyst: AJT	
Blank (A311580-BLK1)												
Fluoride	ND	0.015	0.10	mg/L							10/02/13	
Blank Spike (A311580-BS1)												
Fluoride	0.48	0.015	0.10	mg/L	0.50		96	90-110			10/02/13	
Blank Spike Dup (A311580-BSD1)												
Fluoride	0.49	0.015	0.10	mg/L	0.50		98	90-110	2	10	10/02/13	
Matrix Spike (A311580-MS1), Source: A3I2049-19												
Fluoride	1.4	0.031	0.20	mg/L	1.0	0.40	96	80-120			10/02/13	
Matrix Spike (A311580-MS2), Source: A3I2049-20												
Fluoride	1.3	0.031	0.20	mg/L	1.0	0.37	97	80-120			10/02/13	
Matrix Spike Dup (A311580-MSD1), Source: A3I2049-19												
Fluoride	1.4	0.031	0.20	mg/L	1.0	0.40	97	80-120	1	10	10/02/13	
Matrix Spike Dup (A311580-MSD2), Source: A3I2049-20												
Fluoride	1.3	0.031	0.20	mg/L	1.0	0.37	97	80-120	1	10	10/02/13	
EPA 314.0 - Quality Control												
Batch: A311544											Prepared: 10/1/2013	
Prep Method: Method Specific Preparation											Analyst: RCN	
Blank (A311544-BLK1)												
Perchlorate	ND	0.74	2.0	ug/L							10/01/13	
Blank Spike (A311544-BS1)												
Perchlorate	25	0.74	2.0	ug/L	25		102	85-115			10/01/13	
Blank Spike Dup (A311544-BSD1)												
Perchlorate	26	0.74	2.0	ug/L	25		102	85-115	1	15	10/01/13	
Matrix Spike (A311544-MS1), Source: A3I1874-01												
Perchlorate	15	0.74	2.0	ug/L	15	ND	97	80-120			10/01/13	

General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 314.0 - Quality Control												
Batch: A311544											Prepared: 10/1/2013	
Prep Method: Method Specific Preparation											Analyst: RCN	
Matrix Spike Dup (A311544-MSD1), Source: A3I1874-01												
Perchlorate	15	0.74	2.0	ug/L	15	ND	98	80-120	1	15	10/01/13	
EPA 314.0 - Quality Control												
Batch: A311678											Prepared: 10/3/2013	
Prep Method: Method Specific Preparation											Analyst: RCN	
Blank (A311678-BLK1)												
Perchlorate	ND	0.74	2.0	ug/L							10/03/13	
Blank Spike (A311678-BS1)												
Perchlorate	27	0.74	2.0	ug/L	25		106	85-115			10/03/13	
Blank Spike Dup (A311678-BSD1)												
Perchlorate	27	0.74	2.0	ug/L	25		110	85-115	3	15	10/03/13	
Matrix Spike (A311678-MS1), Source: A3I2003-01												
Perchlorate	21	0.74	2.0	ug/L	15	5.9	98	80-120			10/03/13	
Matrix Spike (A311678-MS2), Source: A3I1883-01												
Perchlorate	23	1.5	4.0	ug/L	15	8.8	97	80-120			10/03/13	
Matrix Spike Dup (A311678-MSD1), Source: A3I2003-01												
Perchlorate	20	0.74	2.0	ug/L	15	5.9	95	80-120	2	15	10/03/13	
Matrix Spike Dup (A311678-MSD2), Source: A3I1883-01												
Perchlorate	25	1.5	4.0	ug/L	15	8.8	109	80-120	7	15	10/03/13	
EPA 314.0 - Quality Control												
Batch: A311924											Prepared: 10/9/2013	
Prep Method: Method Specific Preparation											Analyst: RCN	
Blank (A311924-BLK1)												
Perchlorate	ND	0.74	2.0	ug/L							10/09/13	
Blank Spike (A311924-BS1)												
Perchlorate	27	0.74	2.0	ug/L	25		109	85-115			10/09/13	
Blank Spike Dup (A311924-BSD1)												
Perchlorate	26	0.74	2.0	ug/L	25		106	85-115	3	15	10/09/13	
Matrix Spike (A311924-MS1), Source: A3I2246-15												
Perchlorate	160	7.4	20	ug/L	150	ND	105	80-120			10/09/13	
Matrix Spike Dup (A311924-MSD1), Source: A3I2246-15												
Perchlorate	170	7.4	20	ug/L	150	ND	110	80-120	4	15	10/09/13	

General Chemistry Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
SM 2510 B - Quality Control												
Batch: A311277											Prepared: 9/25/2013	
Prep Method: Method Specific Preparation											Analyst: CEG	
Blank (A311277-BLK1)												
Conductivity @ 25C	ND		1.0	umhos/cm							09/25/13	
Duplicate (A311277-DUP1), Source: A3I2049-10												
Conductivity @ 25C	830		1.0	umhos/cm		840			1	20	09/25/13	
Duplicate (A311277-DUP2), Source: A3I2049-20												
Conductivity @ 25C	760		1.0	umhos/cm		750			1	20	09/25/13	
SM 2540C - Quality Control												
Batch: A311502											Prepared: 10/1/2013	
Prep Method: Method Specific Preparation											Analyst: DEH	
Blank (A311502-BLK1)												
Total Dissolved Solids	ND		5.0	mg/L							10/04/13	
Blank Spike (A311502-BS1)												
Total Dissolved Solids	1000		5.0	mg/L	1000		100	70-130			10/04/13	
Duplicate (A311502-DUP1), Source: A3I2049-01												
Total Dissolved Solids	290		5.0	mg/L		300			2	20	10/04/13	

Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.7 - Quality Control												
Batch: A311283											Prepared: 9/26/2013	
Prep Method: EPA 200.2											Analyst: NRE	
Blank (A311283-BLK2)												
Calcium	ND	0.046	0.10	mg/L							10/03/13	
Magnesium	ND	0.046	0.10	mg/L							10/03/13	
Sodium	ND	0.45	1.0	mg/L							10/03/13	
Blank Spike (A311283-BS2)												
Calcium	10	0.046	0.10	mg/L	10		102	85-115			10/03/13	
Magnesium	10	0.046	0.10	mg/L	10		100	85-115			10/03/13	
Sodium	10	0.45	1.0	mg/L	10		103	85-115			10/03/13	
Blank Spike Dup (A311283-BSD2)												
Calcium	10	0.046	0.10	mg/L	10		102	85-115	0	20	10/03/13	
Magnesium	10	0.046	0.10	mg/L	10		100	85-115	1	20	10/03/13	
Sodium	10	0.45	1.0	mg/L	10		103	85-115	0	20	10/03/13	
Matrix Spike (A311283-MS3), Source: A3I2049-01												
Calcium	44	0.046	0.10	mg/L	10	33	104	70-130			10/03/13	
Magnesium	34	0.046	0.10	mg/L	10	23	106	70-130			10/03/13	
Sodium	58	0.45	1.0	mg/L	10	47	108	70-130			10/03/13	
Matrix Spike (A311283-MS4), Source: A3I2049-12												
Calcium	42	0.046	0.10	mg/L	10	33	90	70-130			10/03/13	
Magnesium	32	0.046	0.10	mg/L	10	22	93	70-130			10/03/13	
Sodium	56	0.45	1.0	mg/L	10	48	87	70-130			10/03/13	
Matrix Spike Dup (A311283-MSD3), Source: A3I2049-01												
Calcium	44	0.046	0.10	mg/L	10	33	108	70-130	1	20	10/03/13	
Magnesium	34	0.046	0.10	mg/L	10	23	107	70-130	0	20	10/03/13	
Sodium	57	0.45	1.0	mg/L	10	47	102	70-130	1	20	10/03/13	
Matrix Spike Dup (A311283-MSD4), Source: A3I2049-12												
Calcium	43	0.046	0.10	mg/L	10	33	103	70-130	3	20	10/03/13	
Magnesium	33	0.046	0.10	mg/L	10	22	103	70-130	3	20	10/03/13	
Sodium	58	0.45	1.0	mg/L	10	48	107	70-130	4	20	10/03/13	
EPA 200.8 - Quality Control												
Batch: A311283											Prepared: 9/26/2013	
Prep Method: EPA 200.2											Analyst: MAS	
Blank (A311283-BLK1)												
Boron	ND	4.5	10	ug/L							10/04/13	
Mercury	ND	0.091	0.20	ug/L							10/04/13	
Blank Spike (A311283-BS1)												
Boron	580	4.5	10	ug/L	600		97	85-115			10/04/13	
Mercury	5.2	0.091	0.20	ug/L	5.0		104	85-115			10/04/13	

Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.8 - Quality Control												
Batch: A311283											Prepared: 9/26/2013	
Prep Method: EPA 200.2											Analyst: MAS	
Blank Spike Dup (A311283-BSD1)												
Boron	570	4.5	10	ug/L	600		95	85-115	2	20	10/04/13	
Mercury	5.0	0.091	0.20	ug/L	5.0		100	85-115	3	20	10/04/13	
Matrix Spike (A311283-MS1), Source: A3I2049-01												
Boron	760	4.5	10	ug/L	600	170	99	70-130			10/04/13	
Mercury	5.1	0.091	0.20	ug/L	5.0	ND	102	70-130			10/04/13	
Matrix Spike (A311283-MS2), Source: A3I2049-12												
Boron	720	4.5	10	ug/L	600	180	91	70-130			10/04/13	
Mercury	5.3	0.091	0.20	ug/L	5.0	ND	107	70-130			10/04/13	
Matrix Spike Dup (A311283-MSD1), Source: A3I2049-01												
Boron	750	4.5	10	ug/L	600	170	97	70-130	2	20	10/04/13	
Mercury	5.2	0.091	0.20	ug/L	5.0	ND	104	70-130	2	20	10/04/13	
Matrix Spike Dup (A311283-MSD2), Source: A3I2049-12												
Boron	740	4.5	10	ug/L	600	180	94	70-130	2	20	10/04/13	
Mercury	4.7	0.091	0.20	ug/L	5.0	ND	94	70-130	13	20	10/04/13	
EPA 200.8 DRC - Quality Control												
Batch: A311315											Prepared: 9/26/2013	
Prep Method: EPA 200.2 DRC											Analyst: PSK	
Blank (A311315-BLK1)												
Aluminum	ND	2.9	5.0	ug/L							10/01/13	
Antimony	ND	0.34	0.50	ug/L							10/01/13	
Barium	ND	0.33	1.0	ug/L							10/01/13	
Beryllium	ND	0.36	0.50	ug/L							10/01/13	
Chromium	ND	0.17	0.50	ug/L							10/01/13	
Copper	ND	0.33	0.50	ug/L							10/01/13	
Iron	5.8	0.61	10	ug/L							10/01/13	B1.3, J
Lead	ND	0.034	0.10	ug/L							10/01/13	
Manganese	0.038	0.033	1.0	ug/L							10/01/13	B2.0, B2.3, J
Nickel	ND	0.050	1.0	ug/L							10/01/13	
Selenium	0.21	0.14	1.0	ug/L							10/01/13	B2.0, J
Silver	ND	0.20	0.25	ug/L							10/01/13	
Thallium	ND	0.21	1.0	ug/L							10/01/13	
Zinc	0.70	0.45	1.0	ug/L							10/01/13	B2.0, B2.3, J
Blank (A311315-BLK2)												
Arsenic	ND	0.041	0.10	ug/L							10/02/13	
Cadmium	ND	0.025	0.25	ug/L							10/02/13	

Metals Quality Control Report

EPA 200.8 DRC - Quality Control

Batch: A311315 Prepared: 9/26/2013

Prep Method: EPA 200.2 DRC Analyst: PSK

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Blank Spike (A311315-BS1)												
Aluminum	53	2.9	5.0	ug/L	50		107	85-115			10/01/13	
Antimony	48	0.34	0.50	ug/L	50		96	85-115			10/01/13	
Barium	49	0.33	1.0	ug/L	50		97	85-115			10/01/13	
Beryllium	52	0.36	0.50	ug/L	50		103	85-115			10/01/13	
Chromium	52	0.17	0.50	ug/L	50		105	85-115			10/01/13	
Copper	49	0.33	0.50	ug/L	50		98	85-115			10/01/13	
Iron	55	0.61	10	ug/L	50		111	85-115			10/01/13	
Lead	50	0.034	0.10	ug/L	50		100	85-115			10/01/13	
Manganese	51	0.033	1.0	ug/L	50		103	85-115			10/01/13	
Nickel	49	0.050	1.0	ug/L	50		99	85-115			10/01/13	
Selenium	44	0.14	1.0	ug/L	50		87	85-115			10/01/13	
Silver	49	0.20	0.25	ug/L	50		98	85-115			10/01/13	
Thallium	50	0.21	1.0	ug/L	50		101	85-115			10/01/13	
Zinc	46	0.45	1.0	ug/L	50		92	85-115			10/01/13	
Blank Spike (A311315-BS2)												
Arsenic	48	0.041	0.10	ug/L	50		96	85-115			10/02/13	
Cadmium	48	0.025	0.25	ug/L	50		96	85-115			10/02/13	
Blank Spike Dup (A311315-BSD1)												
Aluminum	54	2.9	5.0	ug/L	50		108	85-115	1	20	10/01/13	
Antimony	49	0.34	0.50	ug/L	50		98	85-115	2	20	10/01/13	
Barium	50	0.33	1.0	ug/L	50		99	85-115	2	20	10/01/13	
Beryllium	53	0.36	0.50	ug/L	50		105	85-115	2	20	10/01/13	
Chromium	53	0.17	0.50	ug/L	50		106	85-115	1	20	10/01/13	
Copper	50	0.33	0.50	ug/L	50		100	85-115	2	20	10/01/13	
Iron	56	0.61	10	ug/L	50		112	85-115	1	20	10/01/13	
Lead	51	0.034	0.10	ug/L	50		102	85-115	1	20	10/01/13	
Manganese	52	0.033	1.0	ug/L	50		104	85-115	1	20	10/01/13	
Nickel	50	0.050	1.0	ug/L	50		100	85-115	1	20	10/01/13	
Selenium	45	0.14	1.0	ug/L	50		89	85-115	2	20	10/01/13	
Silver	50	0.20	0.25	ug/L	50		101	85-115	2	20	10/01/13	
Thallium	51	0.21	1.0	ug/L	50		102	85-115	1	20	10/01/13	
Zinc	48	0.45	1.0	ug/L	50		96	85-115	5	20	10/01/13	
Blank Spike Dup (A311315-BSD2)												
Arsenic	49	0.041	0.10	ug/L	50		98	85-115	2	20	10/02/13	
Cadmium	48	0.025	0.25	ug/L	50		97	85-115	1	20	10/02/13	
Matrix Spike (A311315-MS1), Source: A3I2049-02												
Aluminum	54	2.9	5.0	ug/L	50	ND	109	70-130			10/01/13	
Antimony	49	0.34	0.50	ug/L	50	ND	97	70-130			10/01/13	
Barium	50	0.33	1.0	ug/L	50	12	77	70-130			10/01/13	
Beryllium	51	0.36	0.50	ug/L	50	ND	102	70-130			10/01/13	
Chromium	53	0.17	0.50	ug/L	50	0.26	106	70-130			10/01/13	
Copper	50	0.33	0.50	ug/L	50	ND	99	70-130			10/01/13	

Metals Quality Control Report

EPA 200.8 DRC - Quality Control

Batch: A311315 Prepared: 9/26/2013

Prep Method: EPA 200.2 DRC Analyst: PSK

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Matrix Spike (A311315-MS1), Source: A3I2049-02												
Iron	58	0.61	10	ug/L	50	7.6	101	70-130			10/01/13	
Lead	51	0.034	0.10	ug/L	50	3.4	94	70-130			10/01/13	
Manganese	52	0.033	1.0	ug/L	50	0.066	104	70-130			10/01/13	
Nickel	50	0.050	1.0	ug/L	50	ND	100	70-130			10/01/13	
Selenium	44	0.14	1.0	ug/L	50	0.30	88	70-130			10/01/13	
Silver	50	0.20	0.25	ug/L	50	ND	100	70-130			10/01/13	
Thallium	51	0.21	1.0	ug/L	50	ND	102	70-130			10/01/13	
Zinc	47	0.45	1.0	ug/L	50	0.91	92	70-130			10/01/13	
Matrix Spike (A311315-MS2), Source: A3I2049-13												
Aluminum	1000	2.9	5.0	ug/L	50	860	273	70-130			10/01/13	MS01 ***High***
Antimony	47	0.34	0.50	ug/L	50	ND	94	70-130			10/01/13	
Barium	95	0.33	1.0	ug/L	50	46	98	70-130			10/01/13	
Beryllium	46	0.36	0.50	ug/L	50	ND	93	70-130			10/01/13	
Chromium	51	0.17	0.50	ug/L	50	2.2	98	70-130			10/01/13	
Copper	47	0.33	0.50	ug/L	50	3.1	88	70-130			10/01/13	
Iron	1300	0.61	10	ug/L	50	1200	177	70-130			10/01/13	MS01 ***High***
Lead	53	0.034	0.10	ug/L	50	0.45	105	70-130			10/01/13	
Manganese	140	0.033	1.0	ug/L	50	90	97	70-130			10/01/13	
Nickel	47	0.050	1.0	ug/L	50	2.8	89	70-130			10/01/13	
Selenium	41	0.14	1.0	ug/L	50	0.37	81	70-130			10/01/13	
Silver	47	0.20	0.25	ug/L	50	ND	93	70-130			10/01/13	
Thallium	53	0.21	1.0	ug/L	50	ND	106	70-130			10/01/13	
Zinc	47	0.45	1.0	ug/L	50	4.0	86	70-130			10/01/13	
Matrix Spike (A311315-MS3), Source: A3I2049-02												
Arsenic	49	0.041	0.10	ug/L	50	ND	97	70-130			10/02/13	
Cadmium	48	0.025	0.25	ug/L	50	ND	96	70-130			10/02/13	
Matrix Spike (A311315-MS4), Source: A3I2049-13												
Arsenic	48	0.041	0.10	ug/L	50	2.2	92	70-130			10/02/13	
Cadmium	46	0.025	0.25	ug/L	50	ND	91	70-130			10/02/13	
Matrix Spike Dup (A311315-MSD1), Source: A3I2049-02												
Aluminum	53	2.9	5.0	ug/L	50	ND	106	70-130	2	20	10/01/13	
Antimony	48	0.34	0.50	ug/L	50	ND	96	70-130	2	20	10/01/13	
Barium	49	0.33	1.0	ug/L	50	12	74	70-130	2	20	10/01/13	
Beryllium	50	0.36	0.50	ug/L	50	ND	99	70-130	3	20	10/01/13	
Chromium	52	0.17	0.50	ug/L	50	0.26	104	70-130	2	20	10/01/13	
Copper	49	0.33	0.50	ug/L	50	ND	98	70-130	2	20	10/01/13	
Iron	56	0.61	10	ug/L	50	7.6	97	70-130	3	20	10/01/13	
Lead	50	0.034	0.10	ug/L	50	3.4	92	70-130	2	20	10/01/13	
Manganese	51	0.033	1.0	ug/L	50	0.066	102	70-130	2	20	10/01/13	
Nickel	49	0.050	1.0	ug/L	50	ND	99	70-130	2	20	10/01/13	
Selenium	42	0.14	1.0	ug/L	50	0.30	84	70-130	5	20	10/01/13	
Silver	49	0.20	0.25	ug/L	50	ND	99	70-130	2	20	10/01/13	

Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.8 DRC - Quality Control												
Batch: A311315											Prepared: 9/26/2013	
Prep Method: EPA 200.2 DRC											Analyst: PSK	
Matrix Spike Dup (A311315-MSD1), Source: A3I2049-02												
Thallium	50	0.21	1.0	ug/L	50	ND	100	70-130	2	20	10/01/13	
Zinc	46	0.45	1.0	ug/L	50	0.91	90	70-130	2	20	10/01/13	
Matrix Spike Dup (A311315-MSD2), Source: A3I2049-13												
Aluminum	1000	2.9	5.0	ug/L	50	860	374	70-130	5	20	10/01/13	MS01 ***High***
Antimony	47	0.34	0.50	ug/L	50	ND	94	70-130	0	20	10/01/13	
Barium	98	0.33	1.0	ug/L	50	46	105	70-130	3	20	10/01/13	
Beryllium	47	0.36	0.50	ug/L	50	ND	94	70-130	2	20	10/01/13	
Chromium	52	0.17	0.50	ug/L	50	2.2	100	70-130	2	20	10/01/13	
Copper	48	0.33	0.50	ug/L	50	3.1	89	70-130	1	20	10/01/13	
Iron	1300	0.61	10	ug/L	50	1200	257	70-130	3	20	10/01/13	MS01 ***High***
Lead	53	0.034	0.10	ug/L	50	0.45	106	70-130	1	20	10/01/13	
Manganese	140	0.033	1.0	ug/L	50	90	109	70-130	4	20	10/01/13	
Nickel	48	0.050	1.0	ug/L	50	2.8	91	70-130	2	20	10/01/13	
Selenium	43	0.14	1.0	ug/L	50	0.37	85	70-130	4	20	10/01/13	
Silver	47	0.20	0.25	ug/L	50	ND	95	70-130	2	20	10/01/13	
Thallium	53	0.21	1.0	ug/L	50	ND	107	70-130	1	20	10/01/13	
Zinc	48	0.45	1.0	ug/L	50	4.0	88	70-130	2	20	10/01/13	
Matrix Spike Dup (A311315-MSD3), Source: A3I2049-02												
Arsenic	48	0.041	0.10	ug/L	50	ND	96	70-130	1	20	10/02/13	
Cadmium	48	0.025	0.25	ug/L	50	ND	97	70-130	1	20	10/02/13	
Matrix Spike Dup (A311315-MSD4), Source: A3I2049-13												
Arsenic	49	0.041	0.10	ug/L	50	2.2	94	70-130	2	20	10/02/13	
Cadmium	46	0.025	0.25	ug/L	50	ND	93	70-130	1	20	10/02/13	
EPA 200.8 DRC - Quality Control												
Batch: A311496											Prepared: 10/1/2013	
Prep Method: EPA 200.2 DRC - Filtration											Analyst: PSK	
Blank (A311496-BLK1)												
Aluminum - Dissolved (1)	ND	2.3	5.0	ug/L							10/03/13	
Iron - Dissolved (1)	5.9	4.5	10	ug/L							10/03/13	J
Manganese - Dissolved (1)	ND	0.45	1.0	ug/L							10/03/13	
Blank (A311496-BLK2)												
Arsenic - Dissolved (1)	ND	0.045	0.10	ug/L							10/08/13	
Blank (A311496-BLK3)												
Arsenic - Dissolved (1)	ND	0.045	0.10	ug/L							11/04/13	
Blank (A311496-BLK4)												
Aluminum - Dissolved (1)	ND	2.3	5.0	ug/L							11/05/13	
Iron - Dissolved (1)	5.9	4.5	10	ug/L							11/05/13	J
Manganese - Dissolved (1)	ND	0.45	1.0	ug/L							11/05/13	

Metals Quality Control Report

EPA 200.8 DRC - Quality Control

Batch: A311496 Prepared: 10/1/2013

Prep Method: EPA 200.2 DRC - Filtration Analyst: PSK

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Blank Spike (A311496-BS1)												
Aluminum - Dissolved (1)	220	2.3	5.0	ug/L	200		109	85-115			10/03/13	
Iron - Dissolved (1)	1800	4.5	10	ug/L	2000		91	85-115			10/03/13	
Manganese - Dissolved (1)	190	0.45	1.0	ug/L	200		96	85-115			10/03/13	
Blank Spike (A311496-BS2)												
Arsenic - Dissolved (1)	220	0.045	0.10	ug/L	200		111	85-115			10/08/13	
Blank Spike (A311496-BS3)												
Arsenic - Dissolved (1)	190	0.045	0.10	ug/L	200		95	85-115			11/04/13	
Blank Spike (A311496-BS4)												
Aluminum - Dissolved (1)	210	2.3	5.0	ug/L	200		104	85-115			11/05/13	
Iron - Dissolved (1)	2000	4.5	10	ug/L	2000		99	85-115			11/05/13	
Manganese - Dissolved (1)	200	0.45	1.0	ug/L	200		99	85-115			11/05/13	
Blank Spike Dup (A311496-BSD1)												
Aluminum - Dissolved (1)	220	2.3	5.0	ug/L	200		110	85-115	1	20	10/03/13	
Iron - Dissolved (1)	1900	4.5	10	ug/L	2000		93	85-115	2	20	10/03/13	
Manganese - Dissolved (1)	190	0.45	1.0	ug/L	200		97	85-115	1	20	10/03/13	
Blank Spike Dup (A311496-BSD2)												
Arsenic - Dissolved (1)	230	0.045	0.10	ug/L	200		113	85-115	1	20	10/08/13	
Blank Spike Dup (A311496-BSD3)												
Arsenic - Dissolved (1)	200	0.045	0.10	ug/L	200		98	85-115	3	20	11/04/13	
Blank Spike Dup (A311496-BSD4)												
Aluminum - Dissolved (1)	210	2.3	5.0	ug/L	200		107	85-115	2	20	11/05/13	
Iron - Dissolved (1)	2000	4.5	10	ug/L	2000		100	85-115	1	20	11/05/13	
Manganese - Dissolved (1)	200	0.45	1.0	ug/L	200		100	85-115	1	20	11/05/13	
Matrix Spike (A311496-MS1), Source: A3I2049-02												
Aluminum - Dissolved (1)	220	2.3	5.0	ug/L	200	ND	110	70-130			10/03/13	
Iron - Dissolved (1)	1800	4.5	10	ug/L	2000	6.3	92	70-130			10/03/13	
Manganese - Dissolved (1)	190	0.45	1.0	ug/L	200	ND	97	70-130			10/03/13	
Matrix Spike (A311496-MS2), Source: A3I2049-20												
Aluminum - Dissolved (1)	210	2.3	5.0	ug/L	200	11	100	70-130			10/03/13	
Iron - Dissolved (1)	1700	4.5	10	ug/L	2000	17	82	70-130			10/03/13	
Manganese - Dissolved (1)	170	0.45	1.0	ug/L	200	0.66	84	70-130			10/03/13	
Matrix Spike (A311496-MS3), Source: A3I2049-02												
Arsenic - Dissolved (1)	220	0.045	0.10	ug/L	200	ND	112	70-130			10/08/13	
Matrix Spike (A311496-MS4), Source: A3I2049-20												
Arsenic - Dissolved (1)	220	0.045	0.10	ug/L	200	2.0	107	70-130			10/08/13	

Metals Quality Control Report

EPA 200.8 DRC - Quality Control

Batch: A311496 Prepared: 10/1/2013

Prep Method: EPA 200.2 DRC - Filtration Analyst: PSK

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Matrix Spike (A311496-MS5), Source: A3I2049-02RE1												
Arsenic - Dissolved (1)	200	0.045	0.10	ug/L	200	ND	98	70-130			11/04/13	
Matrix Spike (A311496-MS6), Source: A3I2049-20RE1												
Arsenic - Dissolved (1)	190	0.045	0.10	ug/L	200	2.0	95	70-130			11/04/13	
Matrix Spike (A311496-MS7), Source: A3I2049-02RE1												
Aluminum - Dissolved (1)	220	2.3	5.0	ug/L	200	ND	109	70-130			11/05/13	
Iron - Dissolved (1)	2000	4.5	10	ug/L	2000	5.9	101	70-130			11/05/13	
Manganese - Dissolved (1)	200	0.45	1.0	ug/L	200	ND	101	70-130			11/05/13	
Matrix Spike (A311496-MS8), Source: A3I2049-20RE1												
Aluminum - Dissolved (1)	210	2.3	5.0	ug/L	200	11	97	70-130			11/05/13	
Iron - Dissolved (1)	1800	4.5	10	ug/L	2000	17	92	70-130			11/05/13	
Manganese - Dissolved (1)	180	0.45	1.0	ug/L	200	0.71	91	70-130			11/05/13	
Matrix Spike Dup (A311496-MSD1), Source: A3I2049-02												
Aluminum - Dissolved (1)	200	2.3	5.0	ug/L	200	ND	102	70-130	8	20	10/03/13	
Iron - Dissolved (1)	1700	4.5	10	ug/L	2000	6.3	86	70-130	6	20	10/03/13	
Manganese - Dissolved (1)	180	0.45	1.0	ug/L	200	ND	91	70-130	6	20	10/03/13	
Matrix Spike Dup (A311496-MSD2), Source: A3I2049-20												
Aluminum - Dissolved (1)	210	2.3	5.0	ug/L	200	11	101	70-130	1	20	10/03/13	
Iron - Dissolved (1)	1700	4.5	10	ug/L	2000	17	85	70-130	2	20	10/03/13	
Manganese - Dissolved (1)	170	0.45	1.0	ug/L	200	0.66	86	70-130	2	20	10/03/13	
Matrix Spike Dup (A311496-MSD3), Source: A3I2049-02												
Arsenic - Dissolved (1)	210	0.045	0.10	ug/L	200	ND	107	70-130	5	20	10/08/13	
Matrix Spike Dup (A311496-MSD4), Source: A3I2049-20												
Arsenic - Dissolved (1)	220	0.045	0.10	ug/L	200	2.0	110	70-130	2	20	10/08/13	
Matrix Spike Dup (A311496-MSD5), Source: A3I2049-02RE1												
Arsenic - Dissolved (1)	190	0.045	0.10	ug/L	200	ND	94	70-130	4	20	11/04/13	
Matrix Spike Dup (A311496-MSD6), Source: A3I2049-20RE1												
Arsenic - Dissolved (1)	200	0.045	0.10	ug/L	200	2.0	97	70-130	2	20	11/04/13	
Matrix Spike Dup (A311496-MSD7), Source: A3I2049-02RE1												
Aluminum - Dissolved (1)	210	2.3	5.0	ug/L	200	ND	105	70-130	4	20	11/05/13	
Iron - Dissolved (1)	2000	4.5	10	ug/L	2000	5.9	98	70-130	4	20	11/05/13	
Manganese - Dissolved (1)	190	0.45	1.0	ug/L	200	ND	97	70-130	4	20	11/05/13	
Matrix Spike Dup (A311496-MSD8), Source: A3I2049-20RE1												
Aluminum - Dissolved (1)	210	2.3	5.0	ug/L	200	11	99	70-130	2	20	11/05/13	
Iron - Dissolved (1)	1900	4.5	10	ug/L	2000	17	94	70-130	3	20	11/05/13	
Manganese - Dissolved (1)	180	0.45	1.0	ug/L	200	0.71	92	70-130	1	20	11/05/13	

Metals Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.8 DRC - Quality Control												
Batch: A311496											Prepared: 10/1/2013	
Prep Method: EPA 200.2 DRC - Filtration											Analyst: PSK	
EPA 200.8 DRC - Quality Control												
Batch: A311639											Prepared: 10/3/2013	
Prep Method: EPA 200.2 DRC											Analyst: PSK	
Blank (A311639-BLK2)												
Iron	3.8	0.61	10	ug/L							10/09/13	B1.0, J
Blank (A311639-BLK3)												
Iron	6.1	0.61	10	ug/L							10/31/13	B1.0, J
Blank Spike (A311639-BS2)												
Iron	54	0.61	10	ug/L	50		108	85-115			10/09/13	
Blank Spike (A311639-BS3)												
Iron	54	0.61	10	ug/L	50		107	85-115			10/31/13	
Blank Spike Dup (A311639-BSD2)												
Iron	55	0.61	10	ug/L	50		110	85-115	1	20	10/09/13	
Blank Spike Dup (A311639-BSD3)												
Iron	55	0.61	10	ug/L	50		110	85-115	2	20	10/31/13	
Matrix Spike (A311639-MS3), Source: A3I2246-02												
Iron	790	0.61	10	ug/L	50	780	10	70-130			10/09/13	MS1.0 ***Low***
Matrix Spike (A311639-MS4), Source: A3I2246-10												
Iron	91	0.61	10	ug/L	50	32	119	70-130			10/09/13	
Matrix Spike (A311639-MS5), Source: A3I2246-02RE1												
Iron	810	0.61	10	ug/L	50	780	65	70-130			10/31/13	MS1.0 ***Low***
Matrix Spike (A311639-MS6), Source: A3I2246-10RE1												
Iron	81	0.61	10	ug/L	50	32	99	70-130			10/31/13	
Matrix Spike Dup (A311639-MSD3), Source: A3I2246-02												
Iron	800	0.61	10	ug/L	50	780	30	70-130	1	20	10/09/13	MS1.0 ***Low***
Matrix Spike Dup (A311639-MSD4), Source: A3I2246-10												
Iron	94	0.61	10	ug/L	50	32	124	70-130	3	20	10/09/13	
Matrix Spike Dup (A311639-MSD5), Source: A3I2246-02RE1												
Iron	800	0.61	10	ug/L	50	780	44	70-130	1	20	10/31/13	MS1.0 ***Low***
Matrix Spike Dup (A311639-MSD6), Source: A3I2246-10RE1												
Iron	82	0.61	10	ug/L	50	32	101	70-130	1	20	10/31/13	

Organics Quality Control Report

EPA 8260B - Quality Control

Batch: A311446 Prepared: 9/27/2013

Prep Method: no prep-volatiles Analyst: AMN

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Blank (A311446-BLK1)												
1,1,1,2-Tetrachloroethane	ND	0.090	0.50	ug/L							09/27/13	
1,1,1-Trichloroethane	ND	0.046	0.50	ug/L							09/27/13	
1,1,2,2-Tetrachloroethane	ND	0.056	0.50	ug/L							09/27/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.099	5.0	ug/L							09/27/13	
1,1,2-Trichloroethane	ND	0.12	0.50	ug/L							09/27/13	
1,1-Dichloroethane	ND	0.065	0.50	ug/L							09/27/13	
1,1-Dichloroethene	ND	0.067	0.50	ug/L							09/27/13	
1,1-Dichloropropene	ND	0.078	5.0	ug/L							09/27/13	
1,2,3-Trichlorobenzene	ND	0.17	5.0	ug/L							09/27/13	
1,2,3-Trichloropropane	ND	0.073	5.0	ug/L							09/27/13	
1,2,4-Trichlorobenzene	ND	0.18	5.0	ug/L							09/27/13	
1,2,4-Trimethylbenzene	ND	0.093	5.0	ug/L							09/27/13	
1,2-Dibromoethane (EDB)	ND	0.17	0.50	ug/L							09/27/13	
1,2-Dichlorobenzene	ND	0.054	0.50	ug/L							09/27/13	
1,2-Dichloroethane	ND	0.098	0.50	ug/L							09/27/13	
1,2-Dichloropropane	ND	0.060	0.50	ug/L							09/27/13	
1,3,5-Trimethylbenzene	ND	0.085	5.0	ug/L							09/27/13	
1,3-Dichlorobenzene	ND	0.059	0.50	ug/L							09/27/13	
1,3-Dichloropropane	ND	0.13	5.0	ug/L							09/27/13	
1,4-Dichlorobenzene	ND	0.094	0.50	ug/L							09/27/13	
2,2-Dichloropropane	ND	0.077	5.0	ug/L							09/27/13	
2-Butanone	ND	0.36	20	ug/L							09/27/13	
2-Chlorotoluene	ND	0.060	5.0	ug/L							09/27/13	
2-Hexanone	ND	0.34	20	ug/L							09/27/13	
4-Chlorotoluene	ND	0.067	5.0	ug/L							09/27/13	
4-Methyl-2-pentanone	0.76	0.72	20	ug/L							09/27/13	J
Acetone	ND	1.4	20	ug/L							09/27/13	
Benzene	ND	0.065	0.50	ug/L							09/27/13	
Bromobenzene	ND	0.061	0.50	ug/L							09/27/13	
Bromochloromethane	ND	0.065	5.0	ug/L							09/27/13	
Bromodichloromethane	ND	0.067	0.50	ug/L							09/27/13	
Bromoform	ND	0.14	0.50	ug/L							09/27/13	
Bromomethane	ND	0.44	1.0	ug/L							09/27/13	
Carbon disulfide	2.3	2.2	50	ug/L							09/27/13	J
Carbon Tetrachloride	ND	0.082	0.50	ug/L							09/27/13	
Chlorobenzene	ND	0.10	0.50	ug/L							09/27/13	
Chloroethane	ND	0.062	0.50	ug/L							09/27/13	
Chloroform	ND	0.077	0.50	ug/L							09/27/13	
Chloromethane	ND	0.080	0.50	ug/L							09/27/13	
cis-1,2-Dichloroethene	ND	0.043	0.50	ug/L							09/27/13	
cis-1,3-Dichloropropene	0.20	0.061	0.50	ug/L							09/27/13	J
Dibromochloromethane	ND	0.16	0.50	ug/L							09/27/13	
Dibromochloropropane (DBCP)	ND	0.11	5.0	ug/L							09/27/13	
Dibromomethane	0.20	0.084	0.50	ug/L							09/27/13	J
Dichlorodifluoromethane	ND	0.074	1.0	ug/L							09/27/13	
Dichloromethane	ND	0.13	0.50	ug/L							09/27/13	

Organics Quality Control Report

EPA 8260B - Quality Control

Batch: A311446 Prepared: 9/27/2013

Prep Method: no prep-volatiles Analyst: AMN

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Blank (A311446-BLK1)												
Ethylbenzene	ND	0.090	0.50	ug/L							09/27/13	
Hexachlorobutadiene	0.16	0.13	5.0	ug/L							09/27/13	J
Hexachloroethane	ND	0.70	50	ug/L							09/27/13	
Iodomethane	ND	1.3	50	ug/L							09/27/13	
Isopropylbenzene	ND	0.057	5.0	ug/L							09/27/13	
m,p-Xylenes	0.30	0.22	0.50	ug/L							09/27/13	J
Methyl-t-butyl ether	ND	0.10	0.50	ug/L							09/27/13	
Naphthalene	0.51	0.12	5.0	ug/L							09/27/13	J
n-Butylbenzene	ND	0.080	5.0	ug/L							09/27/13	
n-Propylbenzene	ND	0.069	5.0	ug/L							09/27/13	
o-Xylene	0.15	0.092	0.50	ug/L							09/27/13	J
p-Isopropyltoluene	0.23	0.062	5.0	ug/L							09/27/13	J
sec-Butylbenzene	0.21	0.095	5.0	ug/L							09/27/13	J
Styrene	0.23	0.067	5.0	ug/L							09/27/13	J
tert-Butylbenzene	ND	0.084	5.0	ug/L							09/27/13	
Tetrachloroethene (PCE)	ND	0.10	0.50	ug/L							09/27/13	
Toluene	ND	0.090	0.50	ug/L							09/27/13	
trans-1,2-Dichloroethene	ND	0.059	0.50	ug/L							09/27/13	
trans-1,3-Dichloropropene	0.23	0.16	0.50	ug/L							09/27/13	J
Trichloroethene (TCE)	ND	0.057	0.50	ug/L							09/27/13	
Trichlorofluoromethane	ND	0.092	0.50	ug/L							09/27/13	
Vinyl Chloride	ND	0.062	0.50	ug/L							09/27/13	
Surrogate: 1,2-Dichloroethane-d4	*9.3*				*10*		*93*	*70-130*			09/27/13	
Surrogate: Bromofluorobenzene	*10*				*10*		*105*	*70-130*			09/27/13	
Surrogate: Toluene-d8	*10*				*10*		*102*	*70-130*			09/27/13	
Blank Spike (A311446-BS1)												
1,1,1,2-Tetrachloroethane	10	0.090	0.50	ug/L	10		101	78-127			09/27/13	
1,1,1-Trichloroethane	9.2	0.046	0.50	ug/L	10		92	71-132			09/27/13	
1,1,2,2-Tetrachloroethane	9.1	0.056	0.50	ug/L	10		91	72-130			09/27/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.4	0.099	5.0	ug/L	10		94	68-144			09/27/13	
1,1,2-Trichloroethane	9.3	0.12	0.50	ug/L	10		93	79-123			09/27/13	
1,1-Dichloroethane	8.2	0.065	0.50	ug/L	10		82	69-129			09/27/13	
1,1-Dichloroethene	9.6	0.067	0.50	ug/L	10		96	72-133			09/27/13	
1,1-Dichloropropene	8.7	0.078	5.0	ug/L	10		87	73-130			09/27/13	
1,2,3-Trichlorobenzene	11	0.17	5.0	ug/L	10		110	53-187			09/27/13	
1,2,3-Trichloropropane	10	0.073	5.0	ug/L	10		102	74-129			09/27/13	
1,2,4-Trichlorobenzene	9.9	0.18	5.0	ug/L	10		99	85-139			09/27/13	
1,2,4-Trimethylbenzene	10	0.093	5.0	ug/L	10		100	79-125			09/27/13	
1,2-Dibromoethane (EDB)	9.7	0.17	0.50	ug/L	10		97	76-128			09/27/13	
1,2-Dichlorobenzene	9.4	0.054	0.50	ug/L	10		94	84-126			09/27/13	
1,2-Dichloroethane	8.5	0.098	0.50	ug/L	10		85	66-127			09/27/13	
1,2-Dichloropropane	8.8	0.060	0.50	ug/L	10		88	74-125			09/27/13	
1,3,5-Trimethylbenzene	9.8	0.085	5.0	ug/L	10		98	79-128			09/27/13	
1,3-Dichlorobenzene	10	0.059	0.50	ug/L	10		101	83-126			09/27/13	
1,3-Dichloropropane	9.4	0.13	5.0	ug/L	10		94	79-118			09/27/13	

Organics Quality Control Report

EPA 8260B - Quality Control

Batch: A311446 Prepared: 9/27/2013

Prep Method: no prep-volatiles Analyst: AMN

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Blank Spike (A311446-BS1)												
1,4-Dichlorobenzene	10	0.094	0.50	ug/L	10		101	83-124			09/27/13	
2,2-Dichloropropane	9.6	0.077	5.0	ug/L	10		96	69-133			09/27/13	
2-Butanone	9.6	0.36	5.0	ug/L	10		96	50-142			09/27/13	
2-Chlorotoluene	9.7	0.060	5.0	ug/L	10		97	79-126			09/27/13	
2-Hexanone	11	0.34	20	ug/L	10		110	56-143			09/27/13	J
4-Chlorotoluene	9.4	0.067	5.0	ug/L	10		94	76-124			09/27/13	
4-Methyl-2-pentanone	11	0.72	20	ug/L	10		109	61-131			09/27/13	J
Acetone	7.9	1.4	5.0	ug/L	10		79	10-198			09/27/13	
Benzene	9.0	0.065	0.50	ug/L	10		90	75-126			09/27/13	
Bromobenzene	9.7	0.061	0.50	ug/L	10		97	75-125			09/27/13	
Bromochloromethane	8.5	0.065	5.0	ug/L	10		85	66-127			09/27/13	
Bromodichloromethane	9.6	0.067	0.50	ug/L	10		96	71-131			09/27/13	
Bromoform	9.6	0.14	0.50	ug/L	10		96	74-141			09/27/13	
Bromomethane	7.3	0.44	1.0	ug/L	10		73	41-179			09/27/13	
Carbon disulfide	8.4	2.2	50	ug/L	10		84	67-140			09/27/13	J
Carbon Tetrachloride	8.9	0.082	0.50	ug/L	10		89	69-140			09/27/13	
Chlorobenzene	9.7	0.10	0.50	ug/L	10		97	81-126			09/27/13	
Chloroethane	9.1	0.062	0.50	ug/L	10		91	62-130			09/27/13	
Chloroform	8.6	0.077	0.50	ug/L	10		86	72-128			09/27/13	
Chloromethane	8.7	0.080	0.50	ug/L	10		87	50-138			09/27/13	
cis-1,2-Dichloroethene	9.3	0.043	0.50	ug/L	10		93	70-126			09/27/13	
cis-1,3-Dichloropropene	9.1	0.061	0.50	ug/L	10		91	74-126			09/27/13	
Dibromochloromethane	10	0.16	0.50	ug/L	10		102	76-133			09/27/13	
Dibromochloropropane (DBCP)	9.7	0.11	5.0	ug/L	10		97	63-141			09/27/13	
Dibromomethane	9.1	0.084	0.50	ug/L	10		91	74-127			09/27/13	
Dichlorodifluoromethane	8.7	0.074	1.0	ug/L	10		87	59-135			09/27/13	
Dichloromethane	9.2	0.13	0.50	ug/L	10		92	68-133			09/27/13	
Ethylbenzene	9.6	0.090	0.50	ug/L	10		96	82-123			09/27/13	
Hexachlorobutadiene	9.5	0.13	5.0	ug/L	10		95	61-204			09/27/13	
Hexachloroethane	11	0.70	50	ug/L	10		109	78-145			09/27/13	J
Iodomethane	15	1.3	50	ug/L	10		154	35-169			09/27/13	J
Isopropylbenzene	10	0.057	5.0	ug/L	10		102	77-131			09/27/13	
m,p-Xylenes	19	0.22	0.50	ug/L	20		95	79-126			09/27/13	
Methyl-t-butyl ether	19	0.10	0.50	ug/L	20		96	73-124			09/27/13	
Naphthalene	11	0.12	5.0	ug/L	10		109	57-168			09/27/13	
n-Butylbenzene	7.9	0.080	5.0	ug/L	10		79	80-130			09/27/13	BS13 ***Low***
n-Propylbenzene	9.7	0.069	5.0	ug/L	10		97	77-132			09/27/13	
o-Xylene	9.8	0.092	0.50	ug/L	10		98	79-127			09/27/13	
p-Isopropyltoluene	10	0.062	5.0	ug/L	10		102	83-127			09/27/13	
sec-Butylbenzene	9.9	0.095	5.0	ug/L	10		99	79-131			09/27/13	
Styrene	9.9	0.067	5.0	ug/L	10		99	80-129			09/27/13	
tert-Butylbenzene	10	0.084	5.0	ug/L	10		104	73-137			09/27/13	
Tetrachloroethene (PCE)	8.6	0.10	0.50	ug/L	10		86	70-149			09/27/13	
Toluene	9.6	0.090	0.50	ug/L	10		96	78-124			09/27/13	
trans-1,2-Dichloroethene	8.5	0.059	0.50	ug/L	10		85	70-127			09/27/13	
trans-1,3-Dichloropropene	10	0.16	0.50	ug/L	10		100	69-126			09/27/13	

Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A311446											Prepared: 9/27/2013	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank Spike (A311446-BS1)												
Trichloroethene (TCE)	9.9	0.057	0.50	ug/L	10		99	79-133			09/27/13	
Trichlorofluoromethane	10	0.092	0.50	ug/L	10		100	61-137			09/27/13	
Vinyl Chloride	9.4	0.062	0.50	ug/L	10		94	62-137			09/27/13	
Surrogate: 1,2-Dichloroethane-d4	*9.9*				*10*		*99*	*70-130*			09/27/13	
Surrogate: Bromofluorobenzene	*11*				*10*		*106*	*70-130*			09/27/13	
Surrogate: Toluene-d8	*10*				*10*		*101*	*70-130*			09/27/13	
Blank Spike Dup (A311446-BSD1)												
1,1,1,2-Tetrachloroethane	10	0.090	0.50	ug/L	10		102	78-127	1	30	09/27/13	
1,1,1-Trichloroethane	8.1	0.046	0.50	ug/L	10		81	71-132	12	30	09/27/13	
1,1,2,2-Tetrachloroethane	9.2	0.056	0.50	ug/L	10		92	72-130	1	30	09/27/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.4	0.099	5.0	ug/L	10		84	68-144	11	30	09/27/13	
1,1,2-Trichloroethane	9.7	0.12	0.50	ug/L	10		97	79-123	4	30	09/27/13	
1,1-Dichloroethane	7.9	0.065	0.50	ug/L	10		79	69-129	4	30	09/27/13	
1,1-Dichloroethene	9.2	0.067	0.50	ug/L	10		92	72-133	4	30	09/27/13	
1,1-Dichloropropene	9.0	0.078	5.0	ug/L	10		90	73-130	3	30	09/27/13	
1,2,3-Trichlorobenzene	10	0.17	5.0	ug/L	10		102	53-187	7	30	09/27/13	
1,2,3-Trichloropropane	10	0.073	5.0	ug/L	10		103	74-129	1	30	09/27/13	
1,2,4-Trichlorobenzene	8.2	0.18	5.0	ug/L	10		82	85-139	19	30	09/27/13	BS13 ***Low***
1,2,4-Trimethylbenzene	9.6	0.093	5.0	ug/L	10		96	79-125	4	30	09/27/13	
1,2-Dibromoethane (EDB)	10	0.17	0.50	ug/L	10		103	76-128	6	30	09/27/13	
1,2-Dichlorobenzene	9.4	0.054	0.50	ug/L	10		94	84-126	0	30	09/27/13	
1,2-Dichloroethane	8.3	0.098	0.50	ug/L	10		83	66-127	3	30	09/27/13	
1,2-Dichloropropane	8.6	0.060	0.50	ug/L	10		86	74-125	2	30	09/27/13	
1,3,5-Trimethylbenzene	9.3	0.085	5.0	ug/L	10		93	79-128	6	30	09/27/13	
1,3-Dichlorobenzene	9.9	0.059	0.50	ug/L	10		99	83-126	2	30	09/27/13	
1,3-Dichloropropane	9.6	0.13	5.0	ug/L	10		96	79-118	2	30	09/27/13	
1,4-Dichlorobenzene	9.9	0.094	0.50	ug/L	10		99	83-124	2	30	09/27/13	
2,2-Dichloropropane	8.5	0.077	5.0	ug/L	10		85	69-133	11	30	09/27/13	
2-Butanone	10	0.36	5.0	ug/L	10		104	50-142	7	30	09/27/13	
2-Chlorotoluene	8.7	0.060	5.0	ug/L	10		87	79-126	10	30	09/27/13	
2-Hexanone	12	0.34	20	ug/L	10		123	56-143	11	30	09/27/13	J
4-Chlorotoluene	8.9	0.067	5.0	ug/L	10		89	76-124	6	30	09/27/13	
4-Methyl-2-pentanone	12	0.72	20	ug/L	10		118	61-131	9	30	09/27/13	J
Acetone	8.1	1.4	5.0	ug/L	10		81	10-198	1	30	09/27/13	
Benzene	9.0	0.065	0.50	ug/L	10		90	75-126	1	30	09/27/13	
Bromobenzene	8.9	0.061	0.50	ug/L	10		89	75-125	9	30	09/27/13	
Bromochloromethane	6.9	0.065	5.0	ug/L	10		69	66-127	21	30	09/27/13	
Bromodichloromethane	9.3	0.067	0.50	ug/L	10		93	71-131	3	30	09/27/13	
Bromoform	9.6	0.14	0.50	ug/L	10		96	74-141	1	30	09/27/13	
Bromomethane	5.2	0.44	1.0	ug/L	10		52	41-179	34	30	09/27/13	BS03
Carbon disulfide	7.9	2.2	50	ug/L	10		79	67-140	6	30	09/27/13	J
Carbon Tetrachloride	8.3	0.082	0.50	ug/L	10		83	69-140	7	30	09/27/13	
Chlorobenzene	9.8	0.10	0.50	ug/L	10		98	81-126	1	30	09/27/13	
Chloroethane	8.1	0.062	0.50	ug/L	10		81	62-130	11	30	09/27/13	
Chloroform	8.1	0.077	0.50	ug/L	10		81	72-128	7	30	09/27/13	

Organics Quality Control Report

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8260B - Quality Control												
Batch: A311446											Prepared: 9/27/2013	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank Spike Dup (A311446-BSD1)												
Chloromethane	7.9	0.080	0.50	ug/L	10		79	50-138	10	30	09/27/13	
cis-1,2-Dichloroethene	8.8	0.043	0.50	ug/L	10		88	70-126	5	30	09/27/13	
cis-1,3-Dichloropropene	9.1	0.061	0.50	ug/L	10		91	74-126	0	30	09/27/13	
Dibromochloromethane	10	0.16	0.50	ug/L	10		102	76-133	0	30	09/27/13	
Dibromochloropropane (DBCP)	10	0.11	5.0	ug/L	10		102	63-141	5	30	09/27/13	
Dibromomethane	9.0	0.084	0.50	ug/L	10		90	74-127	1	30	09/27/13	
Dichlorodifluoromethane	7.3	0.074	1.0	ug/L	10		73	59-135	17	30	09/27/13	
Dichloromethane	8.6	0.13	0.50	ug/L	10		86	68-133	7	30	09/27/13	
Ethylbenzene	9.4	0.090	0.50	ug/L	10		94	82-123	1	30	09/27/13	
Hexachlorobutadiene	9.2	0.13	5.0	ug/L	10		92	61-204	3	30	09/27/13	
Hexachloroethane	10	0.70	50	ug/L	10		104	78-145	5	30	09/27/13	J
Iodomethane	14	1.3	50	ug/L	10		143	35-169	7	30	09/27/13	J
Isopropylbenzene	9.2	0.057	5.0	ug/L	10		92	77-131	10	30	09/27/13	
m,p-Xylenes	19	0.22	0.50	ug/L	20		93	79-126	2	30	09/27/13	
Methyl-t-butyl ether	20	0.10	0.50	ug/L	20		98	73-124	2	30	09/27/13	
Naphthalene	10	0.12	5.0	ug/L	10		104	57-168	5	30	09/27/13	
n-Butylbenzene	8.1	0.080	5.0	ug/L	10		81	80-130	3	30	09/27/13	
n-Propylbenzene	9.0	0.069	5.0	ug/L	10		90	77-132	7	30	09/27/13	
o-Xylene	9.7	0.092	0.50	ug/L	10		97	79-127	1	30	09/27/13	
p-Isopropyltoluene	10	0.062	5.0	ug/L	10		101	83-127	2	30	09/27/13	
sec-Butylbenzene	9.5	0.095	5.0	ug/L	10		95	79-131	4	30	09/27/13	
Styrene	10	0.067	5.0	ug/L	10		102	80-129	3	30	09/27/13	
tert-Butylbenzene	9.9	0.084	5.0	ug/L	10		99	73-137	5	30	09/27/13	
Tetrachloroethene (PCE)	8.8	0.10	0.50	ug/L	10		88	70-149	2	30	09/27/13	
Toluene	9.6	0.090	0.50	ug/L	10		96	78-124	0	30	09/27/13	
trans-1,2-Dichloroethene	8.1	0.059	0.50	ug/L	10		81	70-127	6	30	09/27/13	
trans-1,3-Dichloropropene	10	0.16	0.50	ug/L	10		102	69-126	2	30	09/27/13	
Trichloroethene (TCE)	9.8	0.057	0.50	ug/L	10		98	79-133	0	30	09/27/13	
Trichlorofluoromethane	10	0.092	0.50	ug/L	10		103	61-137	2	30	09/27/13	
Vinyl Chloride	8.8	0.062	0.50	ug/L	10		88	62-137	7	30	09/27/13	
Surrogate: 1,2-Dichloroethane-d4	*9.5*				*10*		*95*	*70-130*			09/27/13	
Surrogate: Bromofluorobenzene	*9.5*				*10*		*95*	*70-130*			09/27/13	
Surrogate: Toluene-d8	*10*				*10*		*103*	*70-130*			09/27/13	
EPA 8260B - Quality Control												
Batch: A311456											Prepared: 9/30/2013	
Prep Method: no prep-volatiles											Analyst: AMN	
Blank (A311456-BLK1)												
1,1,1,2-Tetrachloroethane	ND	0.090	0.50	ug/L							09/30/13	
1,1,1-Trichloroethane	ND	0.046	0.50	ug/L							09/30/13	
1,1,2,2-Tetrachloroethane	ND	0.056	0.50	ug/L							09/30/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.099	5.0	ug/L							09/30/13	
1,1,2-Trichloroethane	ND	0.12	0.50	ug/L							09/30/13	
1,1-Dichloroethane	ND	0.065	0.50	ug/L							09/30/13	
1,1-Dichloroethene	ND	0.067	0.50	ug/L							09/30/13	

Organics Quality Control Report

EPA 8260B - Quality Control

Batch: A311456 Prepared: 9/30/2013

Prep Method: no prep-volatiles Analyst: AMN

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Blank (A311456-BLK1)												
1,1-Dichloropropene	ND	0.078	5.0	ug/L							09/30/13	
1,2,3-Trichlorobenzene	0.25	0.17	5.0	ug/L							09/30/13	J
1,2,3-Trichloropropane	ND	0.073	5.0	ug/L							09/30/13	
1,2,4-Trichlorobenzene	0.29	0.18	5.0	ug/L							09/30/13	J
1,2,4-Trimethylbenzene	ND	0.093	5.0	ug/L							09/30/13	
1,2-Dibromoethane (EDB)	ND	0.17	0.50	ug/L							09/30/13	
1,2-Dichlorobenzene	ND	0.054	0.50	ug/L							09/30/13	
1,2-Dichloroethane	ND	0.098	0.50	ug/L							09/30/13	
1,2-Dichloropropane	ND	0.060	0.50	ug/L							09/30/13	
1,3,5-Trimethylbenzene	ND	0.085	5.0	ug/L							09/30/13	
1,3-Dichlorobenzene	0.20	0.059	0.50	ug/L							09/30/13	J
1,3-Dichloropropane	ND	0.13	5.0	ug/L							09/30/13	
1,4-Dichlorobenzene	ND	0.094	0.50	ug/L							09/30/13	
2,2-Dichloropropane	ND	0.077	5.0	ug/L							09/30/13	
2-Butanone	ND	0.36	20	ug/L							09/30/13	
2-Chlorotoluene	ND	0.060	5.0	ug/L							09/30/13	
2-Hexanone	ND	0.34	20	ug/L							09/30/13	
4-Chlorotoluene	ND	0.067	5.0	ug/L							09/30/13	
4-Methyl-2-pentanone	ND	0.72	20	ug/L							09/30/13	
Acetone	ND	1.4	20	ug/L							09/30/13	
Benzene	ND	0.065	0.50	ug/L							09/30/13	
Bromobenzene	ND	0.061	0.50	ug/L							09/30/13	
Bromochloromethane	ND	0.065	5.0	ug/L							09/30/13	
Bromodichloromethane	ND	0.067	0.50	ug/L							09/30/13	
Bromoform	ND	0.14	0.50	ug/L							09/30/13	
Bromomethane	ND	0.44	1.0	ug/L							09/30/13	
Carbon disulfide	2.3	2.2	50	ug/L							09/30/13	J
Carbon Tetrachloride	ND	0.082	0.50	ug/L							09/30/13	
Chlorobenzene	ND	0.10	0.50	ug/L							09/30/13	
Chloroethane	ND	0.062	0.50	ug/L							09/30/13	
Chloroform	ND	0.077	0.50	ug/L							09/30/13	
Chloromethane	ND	0.080	0.50	ug/L							09/30/13	
cis-1,2-Dichloroethene	ND	0.043	0.50	ug/L							09/30/13	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L							09/30/13	
Dibromochloromethane	ND	0.16	0.50	ug/L							09/30/13	
Dibromochloropropane (DBCP)	ND	0.11	5.0	ug/L							09/30/13	
Dibromomethane	ND	0.084	0.50	ug/L							09/30/13	
Dichlorodifluoromethane	ND	0.074	1.0	ug/L							09/30/13	
Dichloromethane	ND	0.13	0.50	ug/L							09/30/13	
Ethylbenzene	ND	0.090	0.50	ug/L							09/30/13	
Hexachlorobutadiene	ND	0.13	5.0	ug/L							09/30/13	
Hexachloroethane	ND	0.70	50	ug/L							09/30/13	
Iodomethane	ND	1.3	50	ug/L							09/30/13	
Isopropylbenzene	ND	0.057	5.0	ug/L							09/30/13	
m,p-Xylenes	0.27	0.22	0.50	ug/L							09/30/13	J
Methyl-t-butyl ether	ND	0.10	0.50	ug/L							09/30/13	

Organics Quality Control Report

EPA 8260B - Quality Control

Batch: A311456 Prepared: 9/30/2013

Prep Method: no prep-volatiles Analyst: AMN

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Blank (A311456-BLK1)												
Naphthalene	0.49	0.12	5.0	ug/L							09/30/13	J
n-Butylbenzene	ND	0.080	5.0	ug/L							09/30/13	
n-Propylbenzene	ND	0.069	5.0	ug/L							09/30/13	
o-Xylene	ND	0.092	0.50	ug/L							09/30/13	
p-Isopropyltoluene	ND	0.062	5.0	ug/L							09/30/13	
sec-Butylbenzene	ND	0.095	5.0	ug/L							09/30/13	
Styrene	0.20	0.067	5.0	ug/L							09/30/13	J
tert-Butylbenzene	ND	0.084	5.0	ug/L							09/30/13	
Tetrachloroethene (PCE)	ND	0.10	0.50	ug/L							09/30/13	
Toluene	ND	0.090	0.50	ug/L							09/30/13	
trans-1,2-Dichloroethene	ND	0.059	0.50	ug/L							09/30/13	
trans-1,3-Dichloropropene	ND	0.16	0.50	ug/L							09/30/13	
Trichloroethene (TCE)	ND	0.057	0.50	ug/L							09/30/13	
Trichlorofluoromethane	ND	0.092	0.50	ug/L							09/30/13	
Vinyl Chloride	ND	0.062	0.50	ug/L							09/30/13	
Surrogate: 1,2-Dichloroethane-d4	*9.9*				*10*		*99*	*70-130*			09/30/13	
Surrogate: Bromofluorobenzene	*10*				*10*		*105*	*70-130*			09/30/13	
Surrogate: Toluene-d8	*9.7*				*10*		*97*	*70-130*			09/30/13	
Blank Spike (A311456-BS1)												
1,1,1,2-Tetrachloroethane	10	0.090	0.50	ug/L	10		103	78-127			09/30/13	
1,1,1-Trichloroethane	11	0.046	0.50	ug/L	10		107	71-132			09/30/13	
1,1,2,2-Tetrachloroethane	7.9	0.056	0.50	ug/L	10		79	72-130			09/30/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	13	0.099	5.0	ug/L	10		131	68-144			09/30/13	
1,1,2-Trichloroethane	8.9	0.12	0.50	ug/L	10		89	79-123			09/30/13	
1,1-Dichloroethane	10	0.065	0.50	ug/L	10		103	69-129			09/30/13	
1,1-Dichloroethene	13	0.067	0.50	ug/L	10		129	72-133			09/30/13	
1,1-Dichloropropene	10	0.078	5.0	ug/L	10		101	73-130			09/30/13	
1,2,3-Trichlorobenzene	7.6	0.17	5.0	ug/L	10		76	53-187			09/30/13	
1,2,3-Trichloropropane	8.7	0.073	5.0	ug/L	10		87	74-129			09/30/13	
1,2,4-Trichlorobenzene	9.6	0.18	5.0	ug/L	10		96	85-139			09/30/13	
1,2,4-Trimethylbenzene	9.9	0.093	5.0	ug/L	10		99	79-125			09/30/13	
1,2-Dibromoethane (EDB)	9.4	0.17	0.50	ug/L	10		94	76-128			09/30/13	
1,2-Dichlorobenzene	10	0.054	0.50	ug/L	10		101	84-126			09/30/13	
1,2-Dichloroethane	9.9	0.098	0.50	ug/L	10		99	66-127			09/30/13	
1,2-Dichloropropane	9.5	0.060	0.50	ug/L	10		95	74-125			09/30/13	
1,3,5-Trimethylbenzene	10	0.085	5.0	ug/L	10		103	79-128			09/30/13	
1,3-Dichlorobenzene	10	0.059	0.50	ug/L	10		100	83-126			09/30/13	
1,3-Dichloropropane	9.2	0.13	5.0	ug/L	10		92	79-118			09/30/13	
1,4-Dichlorobenzene	10	0.094	0.50	ug/L	10		101	83-124			09/30/13	
2,2-Dichloropropane	11	0.077	5.0	ug/L	10		113	69-133			09/30/13	
2-Butanone	8.0	0.36	5.0	ug/L	10		80	50-142			09/30/13	
2-Chlorotoluene	10	0.060	5.0	ug/L	10		100	79-126			09/30/13	
2-Hexanone	6.9	0.34	20	ug/L	10		69	56-143			09/30/13	J
4-Chlorotoluene	10	0.067	5.0	ug/L	10		100	76-124			09/30/13	
4-Methyl-2-pentanone	7.4	0.72	20	ug/L	10		74	61-131			09/30/13	J

Organics Quality Control Report

EPA 8260B - Quality Control

Batch: A311456 Prepared: 9/30/2013

Prep Method: no prep-volatiles Analyst: AMN

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
Blank Spike (A311456-BS1)													
Acetone	12	1.4	5.0	ug/L	10		121	10-198			09/30/13		
Benzene	9.7	0.065	0.50	ug/L	10		97	75-126			09/30/13		
Bromobenzene	11	0.061	0.50	ug/L	10		107	75-125			09/30/13		
Bromochloromethane	11	0.065	5.0	ug/L	10		105	66-127			09/30/13		
Bromodichloromethane	11	0.067	0.50	ug/L	10		106	71-131			09/30/13		
Bromoform	9.4	0.14	0.50	ug/L	10		94	74-141			09/30/13		
Bromomethane	11	0.44	1.0	ug/L	10		113	41-179			09/30/13		
Carbon disulfide	12	2.2	50	ug/L	10		122	67-140			09/30/13	J	
Carbon Tetrachloride	11	0.082	0.50	ug/L	10		108	69-140			09/30/13		
Chlorobenzene	10	0.10	0.50	ug/L	10		101	81-126			09/30/13		
Chloroethane	12	0.062	0.50	ug/L	10		118	62-130			09/30/13		
Chloroform	10	0.077	0.50	ug/L	10		103	72-128			09/30/13		
Chloromethane	15	0.080	0.50	ug/L	10		150	50-138			09/30/13	BS	***High***
cis-1,2-Dichloroethene	11	0.043	0.50	ug/L	10		111	70-126			09/30/13		
cis-1,3-Dichloropropene	9.3	0.061	0.50	ug/L	10		93	74-126			09/30/13		
Dibromochloromethane	9.9	0.16	0.50	ug/L	10		99	76-133			09/30/13		
Dibromochloropropane (DBCP)	8.0	0.11	5.0	ug/L	10		80	63-141			09/30/13		
Dibromomethane	9.3	0.084	0.50	ug/L	10		93	74-127			09/30/13		
Dichlorodifluoromethane	16	0.074	1.0	ug/L	10		162	59-135			09/30/13	BS06	***High***
Dichloromethane	11	0.13	0.50	ug/L	10		110	68-133			09/30/13		
Ethylbenzene	10	0.090	0.50	ug/L	10		102	82-123			09/30/13		
Hexachlorobutadiene	12	0.13	5.0	ug/L	10		122	61-204			09/30/13		
Hexachloroethane	12	0.70	50	ug/L	10		122	78-145			09/30/13	J	
Iodomethane	16	1.3	50	ug/L	10		163	35-169			09/30/13	J	
Isopropylbenzene	11	0.057	5.0	ug/L	10		109	77-131			09/30/13		
m,p-Xylenes	21	0.22	0.50	ug/L	20		103	79-126			09/30/13		
Methyl-t-butyl ether	17	0.10	0.50	ug/L	20		83	73-124			09/30/13		
Naphthalene	6.8	0.12	5.0	ug/L	10		68	57-168			09/30/13		
n-Butylbenzene	9.2	0.080	5.0	ug/L	10		92	80-130			09/30/13		
n-Propylbenzene	11	0.069	5.0	ug/L	10		108	77-132			09/30/13		
o-Xylene	10	0.092	0.50	ug/L	10		101	79-127			09/30/13		
p-Isopropyltoluene	10	0.062	5.0	ug/L	10		104	83-127			09/30/13		
sec-Butylbenzene	11	0.095	5.0	ug/L	10		106	79-131			09/30/13		
Styrene	10	0.067	5.0	ug/L	10		104	80-129			09/30/13		
tert-Butylbenzene	11	0.084	5.0	ug/L	10		109	73-137			09/30/13		
Tetrachloroethene (PCE)	10	0.10	0.50	ug/L	10		103	70-149			09/30/13		
Toluene	10	0.090	0.50	ug/L	10		103	78-124			09/30/13		
trans-1,2-Dichloroethene	11	0.059	0.50	ug/L	10		107	70-127			09/30/13		
trans-1,3-Dichloropropene	9.4	0.16	0.50	ug/L	10		94	69-126			09/30/13		
Trichloroethene (TCE)	10	0.057	0.50	ug/L	10		101	79-133			09/30/13		
Trichlorofluoromethane	13	0.092	0.50	ug/L	10		133	61-137			09/30/13		
Vinyl Chloride	13	0.062	0.50	ug/L	10		131	62-137			09/30/13		
Surrogate: 1,2-Dichloroethane-d4	*11*				*10*		*108*	*70-130*			09/30/13		
Surrogate: Bromofluorobenzene	*11*				*10*		*107*	*70-130*			09/30/13		
Surrogate: Toluene-d8	*10*				*10*		*102*	*70-130*			09/30/13		

Organics Quality Control Report

EPA 8260B - Quality Control

Batch: A311456 Prepared: 9/30/2013

Prep Method: no prep-volatiles Analyst: AMN

Blank Spike Dup (A311456-BSD1)

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
1,1,1,2-Tetrachloroethane	10	0.090	0.50	ug/L	10		102	78-127	1	30	09/30/13		
1,1,1-Trichloroethane	10	0.046	0.50	ug/L	10		100	71-132	6	30	09/30/13		
1,1,2,2-Tetrachloroethane	10	0.056	0.50	ug/L	10		100	72-130	23	30	09/30/13		
1,1,2-Trichloro-1,2,2-trifluoroethane	12	0.099	5.0	ug/L	10		118	68-144	10	30	09/30/13		
1,1,2-Trichloroethane	9.5	0.12	0.50	ug/L	10		95	79-123	6	30	09/30/13		
1,1-Dichloroethane	9.3	0.065	0.50	ug/L	10		93	69-129	9	30	09/30/13		
1,1-Dichloroethene	12	0.067	0.50	ug/L	10		118	72-133	9	30	09/30/13		
1,1-Dichloropropene	10	0.078	5.0	ug/L	10		103	73-130	2	30	09/30/13		
1,2,3-Trichlorobenzene	10	0.17	5.0	ug/L	10		100	53-187	27	30	09/30/13		
1,2,3-Trichloropropane	9.9	0.073	5.0	ug/L	10		99	74-129	13	30	09/30/13		
1,2,4-Trichlorobenzene	9.8	0.18	5.0	ug/L	10		98	85-139	2	30	09/30/13		
1,2,4-Trimethylbenzene	10	0.093	5.0	ug/L	10		100	79-125	1	30	09/30/13		
1,2-Dibromoethane (EDB)	10	0.17	0.50	ug/L	10		100	76-128	6	30	09/30/13		
1,2-Dichlorobenzene	9.6	0.054	0.50	ug/L	10		96	84-126	5	30	09/30/13		
1,2-Dichloroethane	9.3	0.098	0.50	ug/L	10		93	66-127	6	30	09/30/13		
1,2-Dichloropropane	9.4	0.060	0.50	ug/L	10		94	74-125	1	30	09/30/13		
1,3,5-Trimethylbenzene	10	0.085	5.0	ug/L	10		100	79-128	3	30	09/30/13		
1,3-Dichlorobenzene	9.8	0.059	0.50	ug/L	10		98	83-126	2	30	09/30/13		
1,3-Dichloropropane	9.9	0.13	5.0	ug/L	10		99	79-118	8	30	09/30/13		
1,4-Dichlorobenzene	10	0.094	0.50	ug/L	10		100	83-124	1	30	09/30/13		
2,2-Dichloropropane	11	0.077	5.0	ug/L	10		111	69-133	2	30	09/30/13		
2-Butanone	12	0.36	5.0	ug/L	10		116	50-142	37	30	09/30/13	BS03	
2-Chlorotoluene	9.6	0.060	5.0	ug/L	10		96	79-126	4	30	09/30/13		
2-Hexanone	11	0.34	20	ug/L	10		114	56-143	49	30	09/30/13	BS03, J	
4-Chlorotoluene	9.5	0.067	5.0	ug/L	10		95	76-124	5	30	09/30/13		
4-Methyl-2-pentanone	11	0.72	20	ug/L	10		111	61-131	40	30	09/30/13	BS03, J	
Acetone	12	1.4	5.0	ug/L	10		119	10-198	1	30	09/30/13		
Benzene	9.7	0.065	0.50	ug/L	10		97	75-126	0	30	09/30/13		
Bromobenzene	9.7	0.061	0.50	ug/L	10		97	75-125	10	30	09/30/13		
Bromochloromethane	9.9	0.065	5.0	ug/L	10		99	66-127	6	30	09/30/13		
Bromodichloromethane	10	0.067	0.50	ug/L	10		101	71-131	4	30	09/30/13		
Bromoform	11	0.14	0.50	ug/L	10		106	74-141	11	30	09/30/13		
Bromomethane	9.8	0.44	1.0	ug/L	10		98	41-179	14	30	09/30/13		
Carbon disulfide	11	2.2	50	ug/L	10		106	67-140	14	30	09/30/13	J	
Carbon Tetrachloride	10	0.082	0.50	ug/L	10		103	69-140	5	30	09/30/13		
Chlorobenzene	9.9	0.10	0.50	ug/L	10		99	81-126	2	30	09/30/13		
Chloroethane	11	0.062	0.50	ug/L	10		109	62-130	9	30	09/30/13		
Chloroform	9.5	0.077	0.50	ug/L	10		95	72-128	8	30	09/30/13		
Chloromethane	12	0.080	0.50	ug/L	10		121	50-138	22	30	09/30/13		
cis-1,2-Dichloroethene	10	0.043	0.50	ug/L	10		104	70-126	6	30	09/30/13		
cis-1,3-Dichloropropene	9.1	0.061	0.50	ug/L	10		91	74-126	2	30	09/30/13		
Dibromochloromethane	10	0.16	0.50	ug/L	10		100	76-133	1	30	09/30/13		
Dibromochloropropane (DBCP)	12	0.11	5.0	ug/L	10		121	63-141	41	30	09/30/13	BS03	
Dibromomethane	9.6	0.084	0.50	ug/L	10		96	74-127	3	30	09/30/13		
Dichlorodifluoromethane	15	0.074	1.0	ug/L	10		146	59-135	10	30	09/30/13	BS06	***High***

Organics Quality Control Report

EPA 8260B - Quality Control

Batch: A311456 Prepared: 9/30/2013

Prep Method: no prep-volatiles Analyst: AMN

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Blank Spike Dup (A311456-BSD1)												
Dichloromethane	9.9	0.13	0.50	ug/L	10		99	68-133	11	30	09/30/13	
Ethylbenzene	9.9	0.090	0.50	ug/L	10		99	82-123	3	30	09/30/13	
Hexachlorobutadiene	11	0.13	5.0	ug/L	10		107	61-204	13	30	09/30/13	
Hexachloroethane	11	0.70	50	ug/L	10		115	78-145	6	30	09/30/13	J
Iodomethane	15	1.3	50	ug/L	10		149	35-169	9	30	09/30/13	J
Isopropylbenzene	11	0.057	5.0	ug/L	10		106	77-131	2	30	09/30/13	
m,p-Xylenes	20	0.22	0.50	ug/L	20		98	79-126	5	30	09/30/13	
Methyl-t-butyl ether	20	0.10	0.50	ug/L	20		98	73-124	16	30	09/30/13	
Naphthalene	10	0.12	5.0	ug/L	10		102	57-168	40	30	09/30/13	BS03
n-Butylbenzene	8.7	0.080	5.0	ug/L	10		87	80-130	6	30	09/30/13	
n-Propylbenzene	11	0.069	5.0	ug/L	10		105	77-132	3	30	09/30/13	
o-Xylene	9.7	0.092	0.50	ug/L	10		97	79-127	4	30	09/30/13	
p-Isopropyltoluene	11	0.062	5.0	ug/L	10		106	83-127	2	30	09/30/13	
sec-Butylbenzene	10	0.095	5.0	ug/L	10		104	79-131	2	30	09/30/13	
Styrene	9.9	0.067	5.0	ug/L	10		99	80-129	5	30	09/30/13	
tert-Butylbenzene	11	0.084	5.0	ug/L	10		108	73-137	0	30	09/30/13	
Tetrachloroethene (PCE)	10	0.10	0.50	ug/L	10		100	70-149	3	30	09/30/13	
Toluene	10	0.090	0.50	ug/L	10		100	78-124	3	30	09/30/13	
trans-1,2-Dichloroethene	9.9	0.059	0.50	ug/L	10		99	70-127	7	30	09/30/13	
trans-1,3-Dichloropropene	9.8	0.16	0.50	ug/L	10		98	69-126	4	30	09/30/13	
Trichloroethene (TCE)	9.7	0.057	0.50	ug/L	10		97	79-133	4	30	09/30/13	
Trichlorofluoromethane	12	0.092	0.50	ug/L	10		124	61-137	7	30	09/30/13	
Vinyl Chloride	12	0.062	0.50	ug/L	10		118	62-137	10	30	09/30/13	
Surrogate: 1,2-Dichloroethane-d4	*10*				*10*		*101*	*70-130*			09/30/13	
Surrogate: Bromofluorobenzene	*10*				*10*		*103*	*70-130*			09/30/13	
Surrogate: Toluene-d8	*10*				*10*		*100*	*70-130*			09/30/13	

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certificattion.**

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWTPH	4021

BSK is not accredited under the NELAC program for the following parameters:

A3I2049

Central Valley RWQCB

centr4730

09252013

Turnaround: Standard

Due Date: 10/9/2013

BSK Associates
Engineers & Laboratories
1414 Stanislaus St., Fresno, CA 93706
(559) 497-2888 Fax (559) 497-2893
www.bskassociates.com

A3I2049
centr4730

09/25/2010

*Required Fields

Temp: 0.3/0.8

Company/Client Name*:	Report Attention*:	Invoice To*:	Phone*:	Fax*:
Central Valley Regional Water Quality Control Board	Anne Littlejohn Additional cc's:	Joseph C. McGahan PO#: 11-123-555	916-464-4840 E-mail*: alittlejohn@waterboards.ca.gov; jmcgahan@summerseng.com	

Address*:	City*:	State*:	Zip*:
11020 Sun Center Dr #200	Rancho Cordova	CA	95670

Project: Eval WQ in Ag Dominated Water Bodies

Project #:

Regulatory Carbon Copies: CDPH ☐ Fresno Co ☐ Merced Co ☐ Tulare Co ☐ Madera Co ☐ Other: _____

Reporting Options: ☒ Trace (J-Flag) ☐ Swamp ☐ EDD Type: _____

How would you like your completed results sent?* ☒ E-Mail ☐ Fax ☐ Mail

Regulatory Compliance: ☐ EDT to California DPH System Number*: _____ ☐ Geotracker #: _____

Sampler Name (Printed/Signature)*: Cindy Au Yeung

TAT* **Surcharge: ☒ Standard - 10 Business Days ☐ **Rush: Date Needed _____

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled* Date	Sampled* Time	Matrix*	Comments / Station Code / WTRAX	Na, Nitrate, TDS, Perchlorate, Chloride	Sulfate, Hardness, Total: Sb, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se	Total: Ag, Tl, Fluoride, Zn, Hg	Total and Dissolved: Al, As, Fe, Mn	VOC: 8260	Boron			
1	AWL130924 - 27	9/24/13	8:00	SW		X	X	X	X		X			
2	AWL130924 - 28	9/24/13	5:30	SW		X	X	X	X	X	X			
3	AWL130924 - 29	9/24/13	13:45	SW						X				
4	AWL130924 - 30	9/24/13	8:00	SW		X	X	X	X		X			
5	AWL130924 - 31	9/24/13	8:21	WW		X	X	X	X		X			
6	AWL130924 - 32	9/24/13	8:47	SW		X	X	X	X		X			
7	AWL130924 - 33	9/24/13	9:15	SW		X	X	X	X		X			
8	AWL130924 - 34	9/24/13	9:25	SW		X	X	X	X		X			
9	AWL130924 - 35	9/24/13	9:40	SW		X	X	X	X		X			
10	AWL130924 - 36	9/24/13	9:55	SW		X	X	X	X		X			
11	AWL130924 - 37	9/24/13	10:07	SW		X	X	X	X		X			
12	AWL130924 - 38	9/24/13	10:30	SW		X	X	X	X		X			
13	AWL130924 - 39	9/24/13	11:32	SW		X	X	X	X					
14	AWL130924 - 40	9/24/13	11:50	SW		X	X	X	X					

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Cindy Au Yeung	SVRWQCB	9-24-13	16:[illegible]	[illegible]	BSK
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Received for Lab by: (Signature and Printed Name)		Date	Time	Payment Received at Delivery: Date: Amount: PIA#:	Check / Cash Init.
[illegible]	BSK	9/25/13	0830		

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier: _____ Custody Seal: Y/N

Cooling Method: Wet Blue None Chilling Process Begun: Y/N

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

BSK Associates
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(559) 497-2888 Fax (559) 497-2893
www.bskassociates.com

A3I2049
centr4730

09/25/2013
10

*Required Fields

Temp 0.3, 0.8

Company/Client Name*:	Report Attention*:	Invoice To*:	Phone*: / Fax*:
Central Valley Regional Water Quality Control Board	Anne Littlejohn Additional cc's:	Joseph C. McGahan PO#: 11-123-555	916-464-4840 E-mail*: alittlejohn@waterboards.ca.gov; jmcgahan@summerseng.com

Address*:	City*:	State*:	Zip*:
11020 Sun Center Dr #200	Rancho Cordova	CA	95670

Project: Eval WQ in Ag Dominated Water Bodies

Project #:

Regulatory Carbon Copies: CDPH ☐ ☐ Fresno Co; Merced Co ☐ ☐ Tulare Co; Madera Co ☐ ☐ Other: _____

Reporting Options: ☒ Trace (J-Flag) ☐ Swamp ☐ EDD Type: _____

How would you like your completed results sent?: ☒ E-Mail ☐ Fax ☐ Mail

Regulatory Compliance: ☐ EDT to California DPH; System Number*: _____; ☐ Geotracker #: _____

Sampler Name (Printed/Signature)*: cindy Au yeung

TAT* (**Surcharge): ☒ Standard - 10 Business Days; ☐ **Rush: Date Needed _____

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled* Date	Sampled* Time	Matrix*	Comments / Station Code / WTRAX	Na, Nitrate, TDS, Perchlorate, Chloride	Sulfate, Hardness, Total: Sb, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se	Total: Ag, Tl, Fluoride, Zn, Hg	Total and Dissolved: Al, As, Fe, Mn	VOC: 8260				
15	AWL130924 - 41	9/24/13	12:28	SW		X	X	X	X					
16	AWL130924 - 42	9/24/13	12:47	SW		X	X	X	X					
17	AWL130924 - 43	9/24/13	13:07	SW		X	X	X	X					
18	AWL130924 - 44	9/24/13	13:27	SW		X	X	X	X					
19	AWL130924 - 45	9/24/13	13:45	SW		X	X	X	X	X				
20	AWL130924 - 46	9/24/13	14:09	WW		X	X	X	X	X				

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
cindy Au yeung	CVRWQCB	9/24/13	15:[illegible]	L Brewson	BSK Sac
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Received for Lab by: (Signature and Printed Name)		Date	Time	Payment Received at Delivery: Date:	Check / Cash
	BSK	9/25/13	0830	Amount: PO#:	Init.

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier: _____

Cooling Method: Wet Blue None

Custody Seal: Y N

Chilling Process Begun: Y N

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info

Was temperature within range? Chemistry ≤ 6°C Micro < 10°C 0.3, 0.8	Yes No NA	Were correct containers and preservatives received for the tests requested?	Yes No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No NA	Were there bubbles in the VOA vials? (Volatiles Only)	Yes No NA
Did all bottles arrive unbroken and intact?	Yes No	Was a sufficient amount of sample received?	Yes No
Did all bottle labels agree with COC?	Yes No	Do samples have a hold time <72 hours?	Yes No
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No NA	Was PM notified of discrepancies? PM: By/Time:	Yes No NA

Bottles Received — "—" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1	2	3	4-18	19-20	
Bacti $Na_2S_2O_3$	—	—						
None (P) White Cap	—	—	1C	1C		1C	1C	
Cr6 Buffer (P) Blue Cap	pH 9-9.5	Y N						
HNO_3 (P) Red Cap	—	—	1B	1B		1B	1B	
H_2SO_4 (P) Yellow Cap	pH ≤ 2	Y N						
NaOH (P) Green Cap	Cl, pH ≥12	Y N						
NaOH + ZnAc (P)	pH ≥ 9	Y N						
Dissolved Oxygen 300ml (g)	—	—						
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—						
H_2SO_4 (AG) Yellow Label O&G, Diesel	—	—						
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—						
$Na_2S_2O_3$ (AG) Blue Label 547, 515, 525, 548	—	—						
$Na_2S_2O_3$ (AG) Blue Label THMs 524.2 or 524.3	—	—						
$Na_2S_2O_3$ (CG) Blue Label 504, 505	—	—						
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH = 3	Y N						
NH_4Cl (AG) Purple Label 552	—	—						
EDA (AG) Brown Label DBPs	—	—						
Ascorbic + Maleic (AG) Lt Green Label 524.3	—	—						
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—		3V	3V		3V	
Buffer pH 4 (CG)	—	—						
None (CG)	—	—						
H_3PO_4 (CG) Salmon Label	—	—						
Other:								
Asbestos 1Liter Plastic w/ Foil	—	—						
Low Level Hg / Metals Double Baggie	—	—						
Bottled Water	—	—						
Clear Glass Jar: 250 / 500 / 1 Liter	—	—						
Soil Tube Brass / Steel / Plastic	—	—						
Tedlar Bag / Plastic Bag	—	—						

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
S P				S P			
S P				S P			

Comments

Labeled by: OAJ @ 1314 Labels checked by: AR @ 1333 RUSH Paged by: @