

Chemical Analysis Report

WTRSHD-MGT-2013-08-29-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **SPRS1305 - Santa Fe Springs/GW Restoration**
Request ID: **RQ-2013-08-19-37**
Customer: **WTRSHD-MGT**
Project ID: **TMDL**

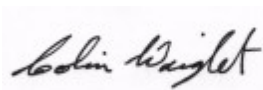
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This Report replaces the previous Report Serial Number: 0068770

Revision certified by: Colin Wright, Environmental Administrator

Date Certified: 16-SEP-2013 15:01



NON-CONFORMANCE REPORT INCLUDED

Report Comments:

Accidentally unauthorized.

Abbreviations and data remark codes

CERT # - NELAP (National Environmental Laboratory Accreditation Program) Certification Number of the laboratory that performed the analysis.

LCS - Laboratory Control Sample; in the QC Failures column, this notation indicates a batch recovery failure.

MS - Matrix Spike; in the QC Failures column, this notation indicates a batch recovery failure.

RPD - Relative Percent Difference; in the QC Failures column, this notation indicates a batch failure for precision.

CCV - Continuing Calibration Verification; in the QC Failures column, this notation indicates a failure of the calibration verification check sample.

SUR - Surrogate; in the QC Failures column, this notation indicates a recovery failure for the associated surrogate.

RSD - Relative Standard Deviation expressed as a percentage.

SMP - Sample.

** - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

A - Value reported is the mean of two or more determinations

B - Results based on colony counts outside the acceptable range.

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J - Estimated value

K - Actual value is known to be less than value given

L - Actual value is known to be greater than value given

N - Presumptive evidence of presence of material.

O - Sampled, but analysis lost or not performed.

Q - Sample held beyond normal holding time.

T - Value reported is less than the criterion of detection.

U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.

V - Analyte was detected in both sample and method blank.

X - Too few individuals to calculate SCI value.

Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate

Z - Colonies were too numerous to count (TNTC).

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example:

1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Precision is reported as relative percent difference unless otherwise noted.

Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published test performance acceptance criteria.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

All sample collection performed by Bureau of Laboratories staff followed the field Standard Operating Procedures adopted by reference in Rule 62-160 FAC unless otherwise noted.

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Results for NELAP accredited tests contained in this report meet the requirements specified by the National Environmental Laboratory Accreditation Conference (NELAC). All samples received were in acceptable condition and met NELAC requirements unless otherwise noted. Results generated in this report pertain to the samples collected and submitted for analysis.

Job: TLH-2013-08-29-46

Job: TLH-2013-08-29-49

Job: TLH-2013-08-29-50

Group: Nutrients

Group: Metals

Group: Pesticides

Sample Location: BLUE SPRING**Collection Date/Time: 08/28/2013 11:11 AM****Field ID: BLUE SPRING****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529939	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257092	
	EPA 300.0	Bromide**	0.028	I	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	6.5		mg Cl/L	P257156	
		Sulfate	13		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257050	
	SM 2320 B-97	Alkalinity	168		mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	197		mg/L	P257232	
	SM 2540 D-97	TSS	2	I	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P257427	
1529950	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P257291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.0		mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P257238	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257174	
1529961	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P257034	
1529977	EPA 200.7 Rev. 4.4	Calcium	68.2		mg/L	P257301	
		Magnesium	7.39		mg/L	P257301	
		Potassium	0.45	I	mg/L	P257301	
		Sodium	3.4		mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	12.1		ug/L	P257249	
1529988	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257138	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: BLUE SPRING**Collection Date/Time: 08/28/2013 11:11 AM****Field ID: BLUE SPRING DUP****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529940	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257092	
	EPA 300.0	Bromide**	0.027	I	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	6.5		mg Cl/L	P257156	
		Sulfate	13		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257050	
	SM 2320 B-97	Alkalinity	168		mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	186		mg/L	P257232	
	SM 2540 D-97	TSS	2	I	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P257427	
1529951	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	I	mg N/L	P257291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.0		mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P257238	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257174	
1529962	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.031		mg P/L	P257034	

Field ID: BLUE SPRING DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529978	EPA 200.7 Rev. 4.4	Calcium	68.2		mg/L	P257301	
		Magnesium	7.41		mg/L	P257301	
		Potassium	0.42	I	mg/L	P257301	
		Sodium	3.4		mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	11.8		ug/L	P257249	
1529989	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257138	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: DEVILS EYE**Collection Date/Time: 08/28/2013 12:17 PM****Field ID: DEVILS EYE**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529941	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257092	
	EPA 300.0	Bromide**	0.027	I	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	8.3		mg Cl/L	P257156	
		Sulfate	14		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257050	
	SM 2320 B-97	Alkalinity	176		mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	204		mg/L	P257232	
	SM 2540 D-97	TSS	2	U	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P257427	
1529952	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P257291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.4		mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P257238	
	SM 5310 B-00	Organic Carbon	0.62	I	mg C/L	P257174	
1529963	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.044		mg P/L	P257039	
1529979	EPA 200.7 Rev. 4.4	Calcium	71.3		mg/L	P257301	
		Magnesium	7.55		mg/L	P257301	
		Potassium	0.43	I	mg/L	P257301	
		Sodium	4.7		mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	14.5		ug/L	P257249	
1529990	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.043	I	ug/L	P257138	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: GINNIE SPRING**Collection Date/Time: 08/28/2013 01:01 PM****Field ID: GINNIE SPRING**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529942	EPA 180.1 Rev. 2.0	Turbidity	0.10		NTU	P257092	
	EPA 300.0	Bromide**	0.023	I	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	5.9		mg Cl/L	P257156	
		Sulfate	12		mg SO4/L	P257160	

Field ID: GINNIE SPRING

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529942	SM 2120 B	Color (true)	2.5	U	PCU	P257050	
	SM 2320 B-97	Alkalinity	152		mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	180		mg/L	P257232	
	SM 2540 D-97	TSS	2	U	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.096	I	mg F/L	P257427	
1529953	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.099	I	mg N/L	P257292	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.5		mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.035		mg P/L	P257238	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257174	
1529964	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P257039	
1529980	EPA 200.7 Rev. 4.4	Calcium	63.1		mg/L	P257301	
		Magnesium	6.51		mg/L	P257301	
		Potassium	0.34	I	mg/L	P257301	
		Sodium	3.2		mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	13.0		ug/L	P257249	
1529991	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257138	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: SANTA FE @ 47 BRIDGE**Collection Date/Time: 08/28/2013 04:10 PM****Field ID: SANTA FE @ 47 BRIDGE**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529948	EPA 180.1 Rev. 2.0	Turbidity	2.0	A	NTU	P257093	
	EPA 300.0	Bromide**	0.043	A	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	11	A	mg Cl/L	P257156	
		Sulfate	19	A	mg SO4/L	P257160	
	SM 2120 B	Color (true)	280		PCU	P257051	
	SM 2320 B-97	Alkalinity	87		mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	179		mg/L	P257232	
	SM 2540 D-97	TSS	4	I	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P257428	
1529959	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P257102	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P257292	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.40		mg N/L	P257315	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P257239	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P257198	
1529970	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P257034	
1529986	EPA 200.7 Rev. 4.4	Calcium	40.9		mg/L	P257301	
		Magnesium	5.72		mg/L	P257301	
		Potassium	0.91	I	mg/L	P257301	
		Sodium	5.9		mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	19.8		ug/L	P257249	

Field ID: SANTA FE @ 47 BRIDGE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529997	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.056		ug/L	P257138	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: SPRING EQ BLANK**Collection Date/Time: 08/28/2013 10:30 AM****Field ID: #1**

Matrix: W-EQPMT-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529938	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257092	
	EPA 300.0	Bromide**	0.016	U	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P257156	
		Sulfate	0.20	U	mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257050	
	SM 2320 B-97	Alkalinity	0.65	U	mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	15	U	mg/L	P257228	
	SM 2540 D-97	TSS	2	U	mg/L	P257337	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P257427	
1529949	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P257291	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P257238	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257174	
1529960	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P257034	
	dissolved						
1529976	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P257301	
		Magnesium	0.040	U	mg/L	P257301	
		Potassium	0.30	U	mg/L	P257301	
		Sodium	0.50	U	mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	2.0	U	ug/L	P257249	
1529987	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.011	U	ug/L	P257138	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: SPRING FLD-BLANK**Collection Date/Time: 08/28/2013 01:24 PM****Field ID: SPRING FLD-BLANK**

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529943	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257092	
	EPA 300.0	Bromide**	0.016	U	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P257156	
		Sulfate	0.20	U	mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257050	
	SM 2320 B-97	Alkalinity	0.65	U	mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	15	U	mg/L	P257228	
	SM 2540 D-97	TSS	2	U	mg/L	P257337	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P257428	

Field ID: SPRING FLD-BLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529954	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	UY	mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	UY	mg N/L	P257292	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	UY	mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.002	UY	mg P/L	P257238	
	SM 5310 B-00	Organic Carbon	0.50	UY	mg C/L	P257174	
1529965	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P257039	
1529981	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P257301	
		Magnesium	0.040	U	mg/L	P257301	
		Potassium	0.30	U	mg/L	P257301	
		Sodium	0.50	U	mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	2.0	U	ug/L	P257249	
1529992	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.0097	U	ug/L	P257138	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 351.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 353.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 365.1 Rev. 2.0: Total-P: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

SM 5310 B-00: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: STAE FE@ FTW USES

Collection Date/Time: 08/28/2013 03:25 PM

Field ID: STATE FE@ FTW USES

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529946	EPA 180.1 Rev. 2.0	Turbidity	1.9	A	NTU	P257092	
	EPA 300.0	Bromide**	0.038	I	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P257156	
		Sulfate	19		mg SO4/L	P257160	
	SM 2120 B	Color (true)	270	A	PCU	P257051	
	SM 2320 B-97	Alkalinity	88	A	mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	187		mg/L	P257232	
	SM 2540 D-97	TSS	4	I	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P257428	
1529957	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P257292	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.45		mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P257239	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P257198	
1529968	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P257039	
1529984	EPA 200.7 Rev. 4.4	Calcium	41.8		mg/L	P257301	
		Magnesium	5.88		mg/L	P257301	
		Potassium	0.96	I	mg/L	P257301	
		Sodium	6.1		mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	19.8		ug/L	P257249	
1529995	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.053		ug/L	P257138	

Field ID: STATE FE@ FTW USES

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
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Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes. Sucralose result confirmed in re-extraction.

Sample Location: SW BLANK 1**Collection Date/Time: 08/28/2013 03:00 PM****Field ID: SW BLANK 1**

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529945	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257092	
	EPA 300.0	Bromide**	0.016	U	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P257156	
		Sulfate	0.20	U	mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257051	
	SM 2320 B-97	Alkalinity	0.65	U	mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	15	U	mg/L	P257232	
	SM 2540 D-97	TSS	2	U	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P257428	
1529956	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P257292	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P257238	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257198	
1529967	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P257039	
1529983	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P257301	
		Magnesium	0.040	U	mg/L	P257301	
		Potassium	0.30	U	mg/L	P257301	
		Sodium	0.50	U	mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	2.0	U	ug/L	P257249	
1529994	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.0096	U	ug/L	P257138	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: SW BLANK 2**Collection Date/Time: 08/28/2013 04:00 PM****Field ID: SW BLANK 2**

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529947	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257092	
	EPA 300.0	Bromide**	0.016	U	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P257156	
		Sulfate	0.20	U	mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257051	
	SM 2320 B-97	Alkalinity	0.65	U	mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	15	U	mg/L	P257232	
	SM 2540 D-97	TSS	2	U	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P257428	
1529958	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257102	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P257292	

Field ID: SW BLANK 2

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529958	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P257315	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P257239	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257198	
1529969	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P257034	
1529985	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P257301	
		Magnesium	0.040	U	mg/L	P257301	
		Potassium	0.30	U	mg/L	P257301	
		Sodium	0.50	U	mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	2.0	U	ug/L	P257249	
1529996	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.0096	U	ug/L	P257138	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: TWIN SPRING**Collection Date/Time: 08/28/2013 01:52 PM****Field ID: TWIN SPRING**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529944	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257092	
	EPA 300.0	Bromide**	0.020	I	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P257156	
		Sulfate	10		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257050	
	SM 2320 B-97	Alkalinity	129		mg CaCO3/L	P257180	
	SM 2540 C-97	TDS	164		mg/L	P257232	
	SM 2540 D-97	TSS	2	U	mg/L	P257341	
	SM 4500 F-C-97	Fluoride	0.077	I	mg F/L	P257428	
1529955	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257101	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P257292	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.2		mg N/L	P257314	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P257238	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257174	
1529966	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P257039	
1529982	EPA 200.7 Rev. 4.4	Calcium	55.6		mg/L	P257301	
		Magnesium	4.54		mg/L	P257301	
		Potassium	0.31	I	mg/L	P257301	
		Sodium	2.6		mg/L	P257301	
	EPA 200.8 Rev. 5.4	Boron**	11.0		ug/L	P257249	
1529993	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257138	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Non-Conformance Report**NCR ID: 4599****Event(s)****Job(s)****Sample(s)****Test(s)**

Non-Conformance Report

NCR ID: 4599

Event(s)

WTRSHD-MGT-2013-08-29-01

Job(s)

TLH-2013-08-29-46

Sample(s)

1529954

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Receiving

Observation: Sample 1529954 was not acidified.

Resolution: Acidified sample 1529954 in lab 8/29/2013 at 12:40 pm.

Authorised by/Date: Kathy Lurding 9/13/2013

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry Tim Fitzpatrick (850) 245-8085
Biology David D. Whiting (850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P257138

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P257092

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P257093

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257301

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257249

Component	Result	Code	Units
Boron	2.0	U	ug/L

Reference Method: EPA 300.0

Batch ID: P257162

Component	Result	Code	Units
Bromide	0.016	U	mg Br/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257156

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257160

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257101

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257102

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257291

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257292

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257314

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257315

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257238

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257239

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P257034

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P257039

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: SM 2120 B

Batch ID: P257050

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B

Batch ID: P257051

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P257180

Component	Result	Code	Units
Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-97

Batch ID: P257228

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97

Batch ID: P257232

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97

Batch ID: P257337

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97

Batch ID: P257341

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97

Batch ID: P257427

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97

Batch ID: P257428

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00

Batch ID: P257174

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-00

Batch ID: P257198

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P257138

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	60.4	64.8	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257301

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	105		P	85 - 115
Sodium	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257249

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Boron	108		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0

Batch ID: P257162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	97.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257156

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257102

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257291

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	103		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257292

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	102		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	103		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257238

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257239

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	107		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P257034

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P257039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	101		P	90 - 110

Reference Method: SM 2320 B-97

Batch ID: P257180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	97.8		P	85 - 115

Reference Method: SM 4500 F-C-97

Batch ID: P257427

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.2		P	85 - 115

Reference Method: SM 4500 F-C-97

Batch ID: P257428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P257174

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.4		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P257198

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.1		P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257301

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529979	Calcium	102		P	80 - 120
1529979	Magnesium	104		P	80 - 120
1529979	Potassium	109	110	P/P	80 - 120
1529979	Sodium	102		P	80 - 120
1529982	Calcium	105		P	80 - 120
1529982	Magnesium	103		P	80 - 120
1529982	Potassium	107		P	80 - 120
1529982	Sodium	105		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257249

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529979	Boron	104	105	P/P	80 - 120
1529982	Boron	102		P	80 - 120

Reference Method: EPA 300.0

Batch ID: P257162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529628	Bromide	98.4		P	90 - 110
1529948	Bromide	93.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529628	Chloride	96.9		P	90 - 110
1529948	Chloride	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529628	Sulfate	94.2		P	90 - 110
1529948	Sulfate	97.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529937	Ammonia-N	97.0	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257102

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529959	Ammonia-N	98.9	99.6	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529920	Kjeldahl Nitrogen	94.3	98.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529953	Kjeldahl Nitrogen	108	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529937	NO2NO3-N	100	97.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1530800	NO2NO3-N	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257238

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529914	Total-P	106	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257239

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529957	Total-P	107	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P257034

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529745	O-Phosphate-P	98.9	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P257039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529963	O-Phosphate-P	99.8	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Batch ID: P257427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529628	Fluoride	98.8	98.8	P/P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97

Batch ID: P257428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1531160	Fluoride	98.3	101	P/P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P257174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529848	Organic Carbon	91.8	94.0	P/P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P257198

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1530931	Organic Carbon	95.6	96.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P257138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Sucralose	7.03	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P257092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529946	Turbidity	2.70	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P257093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529948	Turbidity	1.48	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257301

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529979	Calcium	0.524	Spike	P	0 - 20
1529979	Magnesium	1.03	Spike	P	0 - 20
1529979	Potassium	0.512	Spike	P	0 - 20
1529979	Sodium	0.0838	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257249

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529979	Boron	1.23	Spike	P	0 - 20

Reference Method: EPA 300.0

Batch ID: P257162

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529948	Bromide	5.50	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257156

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529948	Chloride	0.0194	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257160

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529948	Sulfate	1.16	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257101

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529937	Ammonia-N	0.399	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257102

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529959	Ammonia-N	0.609	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257291

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529920	Kjeldahl Nitrogen	2.84	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257292

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529953	Kjeldahl Nitrogen	0.0858	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257314

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529937	NO2NO3-N	2.27	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257315

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1530800	NO2NO3-N	1.21	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257238

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529914	Total-P	0.888	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257239

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529957	Total-P	2.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P257034

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529745	O-Phosphate-P	1.07	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P257039

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529963	O-Phosphate-P	1.52	Spike	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P257050

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529919	Color (true)	0.350	Sample	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P257051

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529946	Color (true)	0.170	Sample	P	0 - 20

Quality Assurance Report

Precision

Reference Method: SM 2320 B-97

Batch ID: P257180

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529847	Alkalinity	0.0313	Sample	P	0 - 20
1529946	Alkalinity	0.0462	Sample	P	0 - 20

Reference Method: SM 2540 C-97

Batch ID: P257228

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529205	TDS	5.08	Sample	P	0 - 10

Reference Method: SM 2540 C-97

Batch ID: P257232

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529919	TDS	2.51	Sample	P	0 - 10

Reference Method: SM 2540 D-97

Batch ID: P257341

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529919	TSS	5.56	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97

Batch ID: P257427

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529628	Fluoride	0.0	Spike	P	0 - 20

Reference Method: SM 4500 F-C-97

Batch ID: P257428

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1531160	Fluoride	2.40	Spike	P	0 - 20

Reference Method: SM 5310 B-00

Batch ID: P257174

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529848	Organic Carbon	1.31	Spike	P	0 - 20

Reference Method: SM 5310 B-00

Batch ID: P257198

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1530931	Organic Carbon	0.181	Spike	P	0 - 20

Quality Assurance Report Precision

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 1529987

Field Sample ID: #1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	49.9	P	40 - 150

Lab Sample ID: 1529988

Field Sample ID: BLUE SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	61.5	P	40 - 150

Lab Sample ID: 1529989

Field Sample ID: BLUE SPRING DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	65.3	P	40 - 150

Lab Sample ID: 1529990

Field Sample ID: DEVILS EYE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	65.3	P	40 - 150

Lab Sample ID: 1529991

Field Sample ID: GINNIE SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	73.9	P	40 - 150

Lab Sample ID: 1529992

Field Sample ID: SPRING FLD-BLANK

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	67.5	P	40 - 150

Lab Sample ID: 1529993

Field Sample ID: TWIN SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	54.0	P	40 - 150

Lab Sample ID: 1529994

Field Sample ID: SW BLANK 1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	80.6	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1529995

Field Sample ID: STATE FE@ FTW USES

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	72.6	P	40 - 150

Lab Sample ID: 1529996

Field Sample ID: SW BLANK 2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	72.9	P	40 - 150

Lab Sample ID: 1529997

Field Sample ID: SANTA FE @ 47 BRIDGE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	69.1	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A52181

Included Lab Sample IDs: 1529960, 1529961, 1529962, 1529969, 1529970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.2	98.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A52187

Included Lab Sample IDs: 1529963, 1529964, 1529965, 1529966, 1529967, 1529968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.9	99.1	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A52192

Included Lab Sample IDs: 1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.6	98.0	P/P	85 - 115
Color (true)	98.0	99.4	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A52206

Included Lab Sample IDs: 1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	100	100	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A52211

Included Lab Sample IDs: 1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	101	P/P	90 - 110
Ammonia-N	101	103	P/P	90 - 110
Ammonia-N	102	101	P/P	90 - 110

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Run ID: A52231

Included Lab Sample IDs: 1529987, 1529988, 1529989, 1529990, 1529991, 1529992, 1529993, 1529994, 1529995, 1529996, 1529997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	98.8	P/P	70 - 150
Sucralose	116	108	P/P	70 - 150
Sucralose	98.8	116	P/P	70 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A52243

Included Lab Sample IDs: 1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.2	99.4	P/P	90 - 110
Chloride	98.7	99.8	P/P	90 - 110
Chloride	99.4	98.7	P/P	90 - 110
Sulfate	95.5	98.3	P/P	90 - 110
Sulfate	96.9	98.3	P/P	90 - 110
Sulfate	98.3	95.5	P/P	90 - 110

Reference Method: EPA 300.0

Run ID: A52244

Included Lab Sample IDs: 1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	92.4	97.9	P/P	90 - 110
Bromide	93.5	97.2	P/P	90 - 110
Bromide	97.2	92.4	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A52249

Included Lab Sample IDs: 1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	98.9	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A52250

Included Lab Sample IDs: 1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	96.7	96.3	P/P	85 - 115
Alkalinity	97.3	96.7	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A52257

Included Lab Sample IDs: 1529956, 1529957, 1529958, 1529959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.0	94.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A52273

Included Lab Sample IDs: 1529957, 1529959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	102	P/P	90 - 110
Total-P	102	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A52293

Included Lab Sample IDs: 1529949, 1529950, 1529951, 1529952

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	104	P/P	90 - 110
Kjeldahl Nitrogen	107	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A52294

Included Lab Sample IDs: 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	102	P/P	90 - 110
Kjeldahl Nitrogen	109	105	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A52297

Included Lab Sample IDs: 1529976, 1529977, 1529978, 1529979, 1529980, 1529981, 1529982, 1529983, 1529984, 1529985, 1529986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Calcium	102	101	P/P	90 - 110
Calcium	102	102	P/P	90 - 110
Magnesium	103	103	P/P	90 - 110
Magnesium	103	103	P/P	90 - 110
Magnesium	103	103	P/P	90 - 110
Potassium	101	102	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	101	99.9	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Sodium	99.9	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A52298

Included Lab Sample IDs: 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	99.8	100	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A52299

Included Lab Sample IDs: 1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529958

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.5	99.0	P/P	90 - 110
Total-P	96.8	96.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A52343

Included Lab Sample IDs: 1529949

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A52356

Included Lab Sample IDs: 1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	P/P	85 - 115
Fluoride	99.1	99.5	P/P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A52377

Included Lab Sample IDs: 1529976, 1529977, 1529978, 1529979, 1529980, 1529981, 1529982, 1529983, 1529984, 1529985, 1529986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	100	101	P/P	90 - 110
Boron	101	97.6	P/P	90 - 110
Boron	98.8	100	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report

Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose	60.4	64.8				7.03		
EPA 180.1 Rev. 2.0	Turbidity							2.70	
	Turbidity							1.48	
EPA 200.7 Rev. 4.4	Calcium	104		102	105				0.524
	Magnesium	104		104	103				1.03
	Potassium	105		109	110	107			0.512
	Sodium	102		102	105				0.0838
EPA 200.8 Rev. 5.4	Boron	108		104	105	102			1.23
EPA 300.0	Bromide	97.5		93.0	98.4			5.50	
EPA 300.0 Rev. 2.1	Chloride	97.4		96.8	96.9			0.0194	
	Sulfate	95.6		97.5	94.2			1.16	
EPA 350.1 Rev. 2.0	Ammonia-N	98.7		97.0	97.6				0.399
	Ammonia-N	98.5		98.9	99.6				0.609

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	94.3	98.9			2.84
	Kjeldahl Nitrogen	103	108	108			0.0858
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	97.5			2.27
	NO2NO3-N	103	103	101			1.21
EPA 365.1 Rev. 2.0	Total-P	106	106	107			0.888
	Total-P	107	107	103			2.54
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.9	100			1.07
	O-Phosphate-P	101	99.8	102			1.52
SM 2120 B	Color (true)					0.350	
	Color (true)					0.170	
SM 2320 B-97	Alkalinity	97.8				0.0313	
						0.0462	
SM 2540 C-97	TDS					5.08	
	TDS					2.51	
SM 2540 D-97	TSS					5.56	
SM 4500 F-C-97	Fluoride	99.2	98.8	98.8			0.0
	Fluoride	102	98.3	101			2.40
SM 5310 B-00	Organic Carbon	95.4	91.8	94.0			1.31
	Organic Carbon	93.1	95.6	96.0			0.181

Reference Method Descriptions

Method / NELAC Cert. #	Description	Associated Samples
DEP SOP: LC-001-2 (based on EPA 8321B) / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1529987, 1529988, 1529989, 1529990, 1529991, 1529992, 1529993, 1529994, 1529995, 1529996, 1529997
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1529976, 1529977, 1529978, 1529979, 1529980, 1529981, 1529982, 1529983, 1529984, 1529985, 1529986
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1529976, 1529977, 1529978, 1529979, 1529980, 1529981, 1529982, 1529983, 1529984, 1529985, 1529986
EPA 300.0 / E31780	Bromide in aqueous matrices	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959

Reference Method Descriptions

Method / NELAC Cert. #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1529960, 1529961, 1529962, 1529963, 1529964, 1529965, 1529966, 1529967, 1529968, 1529969, 1529970
SM 2120 B / E31780	True Color measured at 450 nm	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: LC-001-2 (based on EPA 8321B)	08/29/2013	08/30/2013	Hoor Shaik	08/30/2013	S. M. Reddy	1529987, 1529988, 1529989, 1529990, 1529991, 1529992, 1529993, 1529994, 1529995, 1529996, 1529997
EPA 180.1 Rev. 2.0	08/29/2013			08/29/2013 15:09	Blanca Fach	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
EPA 200.7 Rev. 4.4	08/29/2013	09/03/2013	Elliott D. Healy	09/05/2013	Joshua Ayres	1529976, 1529977, 1529978, 1529979, 1529980, 1529981, 1529982, 1529983, 1529984, 1529985, 1529986
EPA 200.8 Rev. 5.4	08/29/2013	09/03/2013	Elliott D. Healy	09/10/2013	Charles J. Peterson	1529976, 1529977, 1529978, 1529979, 1529980, 1529981, 1529982, 1529983, 1529984, 1529985, 1529986
EPA 300.0	08/29/2013			08/30/2013	Gary Dearman	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
EPA 300.0 Rev. 2.1	08/29/2013			08/30/2013	Gary Dearman	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
EPA 350.1 Rev. 2.0	08/29/2013			08/30/2013	Diana M. Turner	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959
EPA 351.2 Rev. 2.0	08/29/2013	09/04/2013	Christopher Armour	09/05/2013	Bryan A. Werth	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959
EPA 353.2 Rev. 2.0	08/29/2013			09/05/2013	Sima Feizi	1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529957, 1529958, 1529959
EPA 365.1 Rev. 2.0	08/29/2013			09/09/2013	Sima Feizi	1529949
	08/29/2013	09/04/2013	Christopher Armour	09/04/2013	Peter D. Kaus	1529957, 1529959
	08/29/2013	09/04/2013	Christopher Armour	09/05/2013	Pallavi R. Gadwal	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955, 1529956, 1529958
EPA 365.1 Rev. 2.0 dissolved	08/29/2013			08/29/2013 11:11	Bryan A. Werth	1529961, 1529962
	08/29/2013			08/29/2013 11:12	Bryan A. Werth	1529960
	08/29/2013			08/29/2013 11:13	Bryan A. Werth	1529970
	08/29/2013			08/29/2013 11:14	Bryan A. Werth	1529969
	08/29/2013			08/29/2013 13:43	Bryan A. Werth	1529963
	08/29/2013			08/29/2013 13:46	Bryan A. Werth	1529964, 1529965
	08/29/2013			08/29/2013 13:47	Bryan A. Werth	1529966
	08/29/2013			08/29/2013 13:48	Bryan A. Werth	1529967
	08/29/2013			08/29/2013 13:49	Bryan A. Werth	1529968
SM 2120 B	08/29/2013			08/29/2013 14:20	Rochelle Y Jackson	1529938
	08/29/2013			08/29/2013 14:21	Rochelle Y Jackson	1529939
	08/29/2013			08/29/2013 14:22	Rochelle Y Jackson	1529940

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	08/29/2013			08/29/2013 14:23	Rochelle Y Jackson	1529941
	08/29/2013			08/29/2013 14:24	Rochelle Y Jackson	1529942
	08/29/2013			08/29/2013 14:25	Rochelle Y Jackson	1529943
	08/29/2013			08/29/2013 14:26	Rochelle Y Jackson	1529944
	08/29/2013			08/29/2013 14:30	Rochelle Y Jackson	1529945
	08/29/2013			08/29/2013 14:33	Rochelle Y Jackson	1529946
	08/29/2013			08/29/2013 14:34	Rochelle Y Jackson	1529947
	08/29/2013			08/29/2013 14:36	Rochelle Y Jackson	1529948
SM 2320 B-97	08/29/2013			09/03/2013	Dale L. Simmons	1529946
	08/29/2013			09/04/2013	Dale L. Simmons	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529947, 1529948
SM 2540 C-97	08/29/2013			08/30/2013	Yijie Li	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
SM 2540 D-97	08/29/2013			08/30/2013	Yijie Li	1529938, 1529939, 1529940, 1529941, 1529942, 1529943, 1529944, 1529945, 1529946, 1529947, 1529948
SM 4500 F-C-97	08/29/2013			09/06/2013	Dale L. Simmons	1529938, 1529939, 1529940, 1529941, 1529942
	08/29/2013			09/07/2013	Dale L. Simmons	1529943, 1529944, 1529945, 1529946, 1529947, 1529948
SM 5310 B-00	08/29/2013			09/03/2013	Rochelle Y Jackson	1529949, 1529950, 1529951, 1529952, 1529953, 1529954, 1529955
	08/29/2013			09/04/2013	Rochelle Y Jackson	1529956, 1529957, 1529958, 1529959