

Chemical Analysis Report

WTRSHD-MGT-2013-08-27-01

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

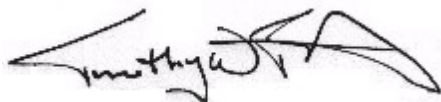
Event Description: **SPRS1305 - Santa Fe Springs/GW Restoration**
Request ID: **RQ-2013-08-19-37**
Customer: **WTRSHD-MGT**
Project ID: **TMDL**

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Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 13-SEP-2013 15:37

A handwritten signature in black ink, appearing to read "Timothy Fitzpatrick", with a stylized flourish at the end.

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-2013-08-27-78

Group: Nutrients

Job: TLH-2013-08-27-79

Group: Metals

Job: TLH-2013-08-27-80

Group: Pesticides

Sample Location: MSFMW #1**Collection Date/Time: 08/26/2013 03:18 PM****Field ID: MSFMW #1****Matrix: W-GROUND**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529167	EPA 180.1 Rev. 2.0	Turbidity	0.30		NTU	P256965	
	EPA 300.0	Bromide**	0.016	U	mg Br/L	P257163	
	EPA 300.0 Rev. 2.1	Chloride	5.4	A	mg Cl/L	P257157	
		Sulfate	1.8	A	mg SO4/L	P257161	
	SM 2120 B	Color (true)	2.5	U	PCU	P256988	
	SM 2320 B-97	Alkalinity	105		mg CaCO3/L	P257077	
	SM 2540 C-97	TDS	118		mg/L	P257256	
	SM 2540 D-97	TSS	2	U	mg/L	P257191	
	SM 4500 F-C-97	Fluoride	0.043	I	mg F/L	P257085	
1529172	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P257008	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.092	I	mg N/L	P257105	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.82		mg N/L	P257212	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P257302	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257033	
1529177	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P256940	
1529182	EPA 200.7 Rev. 4.4	Calcium	40.1		mg/L	P257235	
		Magnesium	1.46		mg/L	P257235	
		Potassium	1.8		mg/L	P257235	
		Sodium	5.4		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	9.5		ug/L	P257134	
1529187	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257015	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

Sample Location: MSFMW #11**Collection Date/Time: 08/26/2013 02:38 PM****Field ID: MSFMW #11****Matrix: W-GROUND**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529166	EPA 180.1 Rev. 2.0	Turbidity	0.25		NTU	P256965	
	EPA 300.0	Bromide**	0.051		mg Br/L	P257163	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P257157	
		Sulfate	8.1		mg SO4/L	P257161	
	SM 2120 B	Color (true)	2.5	U	PCU	P256988	
	SM 2320 B-97	Alkalinity	182		mg CaCO3/L	P257077	
	SM 2540 C-97	TDS	353		mg/L	P257256	
	SM 2540 D-97	TSS	2	U	mg/L	P257191	
	SM 4500 F-C-97	Fluoride	0.049	I	mg F/L	P257085	
1529171	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257008	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P257367	
	EPA 353.2 Rev. 2.0	NO2NO3-N	13		mg N/L	P257212	
	EPA 365.1 Rev. 2.0	Total-P	0.064		mg P/L	P257302	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257033	
1529176	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.060		mg P/L	P256940	

Field ID: MSFMW #11

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529181	EPA 200.7 Rev. 4.4	Calcium	95.4		mg/L	P257235	
		Magnesium	2.94		mg/L	P257235	
		Potassium	2.1		mg/L	P257235	
		Sodium	5.8		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	10.4		ug/L	P257134	
1529186	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257015	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: The PQL was elevated due to high nitrate concentration in the sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

Sample Location: MSFMW #13**Collection Date/Time: 08/26/2013 05:02 PM****Field ID: MSFMW #13**

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529169	EPA 180.1 Rev. 2.0	Turbidity	0.30		NTU	P256965	
	EPA 300.0	Bromide**	0.017	I	mg Br/L	P257163	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P257157	
		Sulfate	6.8		mg SO4/L	P257161	
	SM 2120 B	Color (true)	2.5	U	PCU	P256988	
	SM 2320 B-97	Alkalinity	201		mg CaCO3/L	P257077	
	SM 2540 C-97	TDS	232	A	mg/L	P257256	
	SM 2540 D-97	TSS	3	I	mg/L	P257191	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P257085	
1529174	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257009	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P257105	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.50		mg N/L	P257212	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P257302	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257033	
1529179	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.036		mg P/L	P256991	
1529184	EPA 200.7 Rev. 4.4	Calcium	83.7		mg/L	P257235	
		Magnesium	3.16		mg/L	P257235	
		Potassium	1.7		mg/L	P257235	
		Sodium	4.2		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	8.0	I	ug/L	P257134	
1529189	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257015	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

Sample Location: MSFMW #4**Collection Date/Time: 08/26/2013 04:11 PM****Field ID: MSFMW #4**

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529168	EPA 180.1 Rev. 2.0	Turbidity	1.8	A	NTU	P256965	
	EPA 300.0	Bromide**	0.021	I	mg Br/L	P257163	

Field ID: MSFMW #4

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529168	EPA 300.0 Rev. 2.1	Chloride	3.7		mg Cl/L	P257157	
		Sulfate	4.0		mg SO4/L	P257161	
	SM 2120 B	Color (true)	2.5	U	PCU	P256988	
	SM 2320 B-97	Alkalinity	74		mg CaCO3/L	P257077	
	SM 2540 C-97	TDS	128		mg/L	P257256	
	SM 2540 D-97	TSS	2	I	mg/L	P257191	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P257085	
1529173	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P257009	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.096	I	mg N/L	P257105	
	EPA 353.2 Rev. 2.0	NO2NO3-N	3.0		mg N/L	P257212	
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P257302	
	SM 5310 B-00	Organic Carbon	0.53	I	mg C/L	P257033	
1529178	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.013	I	mg P/L	P256991	
1529183	EPA 200.7 Rev. 4.4	Calcium	35.8		mg/L	P257235	
		Magnesium	0.44		mg/L	P257235	
		Potassium	2.1		mg/L	P257235	
		Sodium	3.0		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	9.2		ug/L	P257134	
1529188	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257015	

Ref. Method and Comment:

SM 2540 C-97: The reported result is consistent with the laboratory conductivity, 205 umhos/cm.

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The PQL was elevated due to sample matrix interference.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

Sample Location: MSFMW-FLD-BLANK**Collection Date/Time: 08/26/2013 01:50 PM****Field ID: #1**

Matrix: W-EQPMT-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529165	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P256965	
	EPA 300.0	Bromide**	0.016	U	mg Br/L	P257163	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P257157	
		Sulfate	0.20	U	mg SO4/L	P257161	
	SM 2120 B	Color (true)	2.5	U	PCU	P256988	
	SM 2320 B-97	Alkalinity	0.65	U	mg CaCO3/L	P257077	
	SM 2540 C-97	TDS	15	U	mg/L	P257254	
	SM 2540 D-97	TSS	2	U	mg/L	P257189	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P257085	
1529170	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257008	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P257105	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.027		mg N/L	P257212	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P257302	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257033	
1529175	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P256940	
1529180	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P257235	

Field ID: #1

Matrix: W-EQPMT-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529180	EPA 200.7 Rev. 4.4	Magnesium	0.040	U	mg/L	P257235	
		Potassium	0.30	U	mg/L	P257235	
		Sodium	0.50	U	mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	2.0	U	ug/L	P257134	
1529185	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257015	

Ref. Method and Comment:

EPA 353.2 Rev. 2.0: The result was confirmed on 09/04/2013.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

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

Batch ID: P257015

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P256965

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257235

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: P257134

Component	Result	Code	Units
Boron	2.0	U	ug/L

Reference Method: EPA 300.0

Batch ID: P257163

Component	Result	Code	Units
Bromide	0.016	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257157

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257161

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257008

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257009

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257105

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257367

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257212

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257302

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256940

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256991

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B

Batch ID: P256988

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P257077

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

Reference Method: SM 2540 C-97

Batch ID: P257254

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97

Batch ID: P257256

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97

Batch ID: P257189

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97

Batch ID: P257191

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97

Batch ID: P257085

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00

Batch ID: P257033

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: P257015

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report

Laboratory Control Sample Accuracy

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

Batch ID: P257015

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	72.4	70.0	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257235

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257134

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Boron	98.3		P	85 - 115

Reference Method: EPA 300.0

Batch ID: P257163

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257157

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257008

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257009

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257105

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.6		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257367

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257212

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257302

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256940

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	109		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256991

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.7		P	90 - 110

Reference Method: SM 2320 B-97

Batch ID: P257077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	100		P	85 - 115

Reference Method: SM 4500 F-C-97

Batch ID: P257085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	104		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P257033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

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

Batch ID: P257015

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report

Matrix Spike Accuracy

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

Batch ID: P257015

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1528808	Sucralose	46.7	43.1	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529181	Magnesium	104	104	P/P	80 - 120
1529181	Potassium	106	105	P/P	80 - 120
1529181	Sodium	100		P	80 - 120
1529657	Magnesium	99.7		P	80 - 120
1529657	Potassium	108		P	80 - 120
1529657	Sodium	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529181	Boron	93.0	94.3	P/P	80 - 120
1529657	Boron	93.4		P	80 - 120

Reference Method: EPA 300.0

Batch ID: P257163

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529167	Bromide	96.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257157

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529167	Chloride	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529167	Sulfate	96.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257008

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529027	Ammonia-N	97.8	98.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257009

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529173	Ammonia-N	98.3	97.9	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257105

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529171	Kjeldahl Nitrogen	104	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1531588	Kjeldahl Nitrogen	96.6	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257212

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529033	NO2NO3-N	95.0	93.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529221	Total-P	104	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256940

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529029	O-Phosphate-P	98.0	98.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529179	O-Phosphate-P	97.3	98.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Batch ID: P257085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529204	Fluoride	101	99.5	P/P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P257033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529171	Organic Carbon	92.2	92.4	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

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

Batch ID: P257015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1528808	Sucralose	4.83	Spike	P	0 - 30
LFB	Sucralose	3.37	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P256965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529168	Turbidity	6.16	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529181	Calcium	1.23	Spike	P	0 - 20
1529181	Magnesium	0.171	Spike	P	0 - 20
1529181	Potassium	0.612	Spike	P	0 - 20
1529181	Sodium	0.940	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529181	Boron	1.24	Spike	P	0 - 20

Reference Method: EPA 300.0

Batch ID: P257163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529167	Bromide	0.108	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257157

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529167	Chloride	0.739	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529167	Sulfate	2.36	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257008

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529027	Ammonia-N	0.290	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257009

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529173	Ammonia-N	0.296	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257105

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529171	Kjeldahl Nitrogen	3.07	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257367

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1531588	Kjeldahl Nitrogen	2.48	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257212

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529033	NO2NO3-N	1.70	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257302

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529221	Total-P	3.80	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256940

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529029	O-Phosphate-P	0.102	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256991

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529179	O-Phosphate-P	1.03	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B

Batch ID: P256988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529204	Color (true)	16.3	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P257077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529204	Alkalinity	0.179	Sample	P	0 - 20
1529205	Alkalinity	0.693	Sample	P	0 - 20

Reference Method: SM 2540 C-97

Batch ID: P257254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1528793	TDS	2.03	Sample	P	0 - 10

Reference Method: SM 2540 C-97

Batch ID: P257256

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529169	TDS	4.73	Sample	P	0 - 10

Reference Method: SM 2540 D-97

Batch ID: P257189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1528793	TSS	6.25	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97

Batch ID: P257085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529204	Fluoride	0.993	Spike	P	0 - 20

Reference Method: SM 5310 B-00

Batch ID: P257033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529171	Organic Carbon	0.271	Spike	P	0 - 20

* 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

Quality Assurance Report Surrogates

Lab Sample ID: 1529185

Field Sample ID: #1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	80.2	P	40 - 150

Lab Sample ID: 1529186

Field Sample ID: MSFMW #11

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	62.3	P	40 - 150

Lab Sample ID: 1529187

Field Sample ID: MSFMW #1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	61.7	P	40 - 150

Lab Sample ID: 1529188

Field Sample ID: MSFMW #4

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	73.0	P	40 - 150

Lab Sample ID: 1529189

Field Sample ID: MSFMW #13

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	76.8	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A52142

Included Lab Sample IDs: 1529175, 1529176, 1529177

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	98.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A52158

Included Lab Sample IDs: 1529165, 1529166, 1529167, 1529168, 1529169

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

Reference Method: SM 2120 B

Run ID: A52164

Included Lab Sample IDs: 1529165, 1529166, 1529167, 1529168, 1529169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	98.3	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A52166

Included Lab Sample IDs: 1529178, 1529179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.4	99.1	P/P	90 - 110
O-Phosphate-P	98.1	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A52172

Included Lab Sample IDs: 1529170, 1529171, 1529172, 1529173, 1529174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.9	P/P	90 - 110
Ammonia-N	99.6	100	P/P	90 - 110

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

Run ID: A52175

Included Lab Sample IDs: 1529185, 1529186, 1529187, 1529188, 1529189

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	102	P/P	70 - 150
Sucralose	102	103	P/P	70 - 150

Reference Method: SM 5310 B-00

Run ID: A52180

Included Lab Sample IDs: 1529170, 1529171, 1529172, 1529173, 1529174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.2	94.8	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A52201

Included Lab Sample IDs: 1529165, 1529166, 1529167, 1529168, 1529169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	98.0	99.5	P/P	85 - 115

Reference Method: SM 4500 F-C-97

Run ID: A52201

Included Lab Sample IDs: 1529165, 1529166, 1529167, 1529168, 1529169

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A52212

Included Lab Sample IDs: 1529170, 1529172, 1529173, 1529174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	107	P/P	90 - 110
Kjeldahl Nitrogen	103	108	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A52227

Included Lab Sample IDs: 1529181, 1529182, 1529183, 1529184

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	93.9	92.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A52243

Included Lab Sample IDs: 1529165, 1529166, 1529167, 1529168, 1529169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.7	99.8	P/P	90 - 110
Chloride	99.8	98.9	P/P	90 - 110
Sulfate	95.5	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: 1529165, 1529167, 1529168, 1529169

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	92.4	97.9	P/P	90 - 110
Bromide	97.9	96.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A52258

Included Lab Sample IDs: 1529180

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	93.9	95.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A52264

Included Lab Sample IDs: 1529170, 1529171, 1529172, 1529173, 1529174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A52272

Included Lab Sample IDs: 1529180, 1529181, 1529182, 1529183, 1529184

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	101	P/P	90 - 110
Calcium	101	99.3	P/P	90 - 110
Calcium	102	100	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Sodium	102	100	P/P	90 - 110
Sodium	100	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A52300

Included Lab Sample IDs: 1529171, 1529172

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A52307

Included Lab Sample IDs: 1529170, 1529173, 1529174

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.5	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A52325

Included Lab Sample IDs: 1529171

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	105	P/P	90 - 110

Reference Method: EPA 300.0

Run ID: A52337

Included Lab Sample IDs: 1529166

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	96.4	97.4	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	72.4	70.0	46.7	43.1		3.37		4.83
EPA 180.1 Rev. 2.0	Turbidity							6.16	
EPA 200.7 Rev. 4.4	Calcium	102							1.23
	Magnesium	104		104	104	99.7			0.171
	Potassium	104		106	105	108			0.612
	Sodium	102		100	103				0.940
EPA 200.8 Rev. 5.4	Boron	98.3		93.0	94.3	93.4			1.24
EPA 300.0	Bromide	98.2		96.3				0.108	
EPA 300.0 Rev. 2.1	Chloride	97.9		97.9				0.739	
	Sulfate	95.5		96.1				2.36	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0		97.8	98.2				0.290
	Ammonia-N	98.2		98.3	97.9				0.296
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.6		104	107				3.07
	Kjeldahl Nitrogen	99.5		96.6	100				2.48
EPA 353.2 Rev. 2.0	NO2NO3-N	102		95.0	93.0				1.70
EPA 365.1 Rev. 2.0	Total-P	105		104	108				3.80
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	109		98.0	98.1				0.102

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 365.1 Rev. 2.0 dissolved SM 2120 B	O-Phosphate-P Color (true)	99.7	97.3	98.5		16.3	1.03
SM 2320 B-97	Alkalinity	100				0.179	
						0.693	
SM 2540 C-97	TDS					2.03	
	TDS					4.73	
SM 2540 D-97	TSS					6.25	
SM 4500 F-C-97	Fluoride	104	101	99.5			0.993
SM 5310 B-00	Organic Carbon	92.0	92.2	92.4			0.271

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	1529185, 1529186, 1529187, 1529188, 1529189
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1529165, 1529166, 1529167, 1529168, 1529169
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1529180, 1529181, 1529182, 1529183, 1529184
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1529180, 1529181, 1529182, 1529183, 1529184
EPA 300.0 / E31780	Bromide in aqueous matrices	1529165, 1529166, 1529167, 1529168, 1529169
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1529165, 1529166, 1529167, 1529168, 1529169
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1529165, 1529166, 1529167, 1529168, 1529169
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1529170, 1529171, 1529172, 1529173, 1529174
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1529170, 1529171, 1529172, 1529173, 1529174
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1529170, 1529171, 1529172, 1529173, 1529174
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1529170, 1529171, 1529172, 1529173, 1529174
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1529175, 1529176, 1529177, 1529178, 1529179
SM 2120 B / E31780	True Color measured at 450 nm	1529165, 1529166, 1529167, 1529168, 1529169
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1529165, 1529166, 1529167, 1529168, 1529169
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1529165, 1529166, 1529167, 1529168, 1529169
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1529165, 1529166, 1529167, 1529168, 1529169
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1529165, 1529166, 1529167, 1529168, 1529169
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1529170, 1529171, 1529172, 1529173, 1529174

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)	08/27/2013	08/28/2013	Juyoug Kim	08/29/2013	S. M. Reddy	1529185, 1529186, 1529187, 1529188, 1529189
EPA 180.1 Rev. 2.0	08/27/2013			08/27/2013 16:44	Blanca Fach	1529165, 1529166, 1529167, 1529168, 1529169
EPA 200.7 Rev. 4.4	08/27/2013	08/29/2013	Elliott D. Healy	09/04/2013	Joshua Ayres	1529180, 1529181, 1529182, 1529183, 1529184
EPA 200.8 Rev. 5.4	08/27/2013	08/29/2013	Elliott D. Healy	08/30/2013	Charles J. Peterson	1529181, 1529182, 1529183, 1529184
	08/27/2013	08/29/2013	Elliott D. Healy	09/03/2013	Charles J. Peterson	1529180
EPA 300.0	08/27/2013			08/30/2013	Gary Dearman	1529165, 1529167, 1529168, 1529169
	08/27/2013			09/05/2013	Gary Dearman	1529166
EPA 300.0 Rev. 2.1	08/27/2013			08/30/2013	Gary Dearman	1529165, 1529166, 1529167, 1529168, 1529169
EPA 350.1 Rev. 2.0	08/27/2013			08/28/2013	Diana M. Turner	1529170, 1529171, 1529172, 1529173, 1529174
EPA 351.2 Rev. 2.0	08/27/2013	08/29/2013	Christopher Armour	08/30/2013	Bryan A. Werth	1529170, 1529172, 1529173, 1529174
	08/27/2013	09/06/2013	Christopher Armour	09/09/2013	Bryan A. Werth	1529171
EPA 353.2 Rev. 2.0	08/27/2013			09/04/2013	Sima Feizi	1529170, 1529171, 1529172, 1529173, 1529174
EPA 365.1 Rev. 2.0	08/27/2013	09/05/2013	Christopher Armour	09/05/2013	Peter D. Kaus	1529171, 1529172
	08/27/2013	09/05/2013	Christopher Armour	09/06/2013	Pallavi R. Gadwal	1529170, 1529173, 1529174
EPA 365.1 Rev. 2.0 dissolved	08/27/2013			08/27/2013 16:18	Bryan A. Werth	1529175
	08/27/2013			08/27/2013 16:19	Bryan A. Werth	1529176
	08/27/2013			08/27/2013 16:20	Bryan A. Werth	1529177
	08/27/2013			08/28/2013 14:06	Bryan A. Werth	1529179
	08/27/2013			08/28/2013 14:57	Bryan A. Werth	1529178
SM 2120 B	08/27/2013			08/28/2013 13:18	Rochelle Y Jackson	1529165
	08/27/2013			08/28/2013 13:19	Rochelle Y Jackson	1529166
	08/27/2013			08/28/2013 13:20	Rochelle Y Jackson	1529167
	08/27/2013			08/28/2013 13:21	Rochelle Y Jackson	1529168
	08/27/2013			08/28/2013 13:22	Rochelle Y Jackson	1529169
SM 2320 B-97	08/27/2013			08/29/2013	Dale L. Simmons	1529165, 1529166, 1529167, 1529168, 1529169
SM 2540 C-97	08/27/2013			08/29/2013	Yijie Li	1529165, 1529166, 1529167, 1529168, 1529169
SM 2540 D-97	08/27/2013			08/29/2013	Yijie Li	1529165, 1529166, 1529167, 1529168, 1529169
SM 4500 F-C-97	08/27/2013			08/29/2013	Dale L. Simmons	1529165, 1529166, 1529167, 1529168, 1529169
SM 5310 B-00	08/27/2013			08/29/2013	Rochelle Y Jackson	1529170, 1529171, 1529172, 1529173, 1529174