

Chemical Analysis Report

SE-DIST-2016-01-21-01

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

Event Description: **SMP_2016 Purple**
Request ID: **RQ-2016-01-18-42**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 15-FEB-2016 15:28

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

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals and Nutrients.

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.

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.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- 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 and/or the analysis did not meet established quality control criteria.
- 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).

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.

Sample Location: N Fork New River @ Structure

Collection Date/Time: 01/20/2016 09:35

Field ID: 42009011-01202016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764140	EPA 180.1 Rev. 2.0	Turbidity	0.45		NTU	P297386	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P297683	
		Sulfate	7.3		mg SO4/L	P297681	
	SM 2120 B	Color (true)	23	A	PCU	P297379	
	SM 2320 B-97	Total Alkalinity	127		mg CaCO3/L	P297521	
	SM 2540 C-97	TDS	209	A	mg/L	P298058	
	SM 2540 D-97	TSS	2	U	mg/L	P297892	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P297515	
1764146	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P297791	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P297535	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P297723	
	EPA 365.1 Rev. 2.0	Total-P	0.01		mg P/L	P297529	
	SM 5310 B-00	Organic Carbon	6.8		mg C/L	P297475	
1764152	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P297390	
1764176	EPA 200.7 Rev. 4.4	Calcium	47.3		mg/L	P297558	
		Iron	30	U	ug/L	P297558	
		Magnesium	4.27		mg/L	P297558	
		Potassium	1.3		mg/L	P297558	
		Sodium	23.2		mg/L	P297558	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P297558	
		Arsenic	0.76		ug/L	P297558	
		Cadmium	0.020	U	ug/L	P297558	
		Chromium	0.16	I	ug/L	P297558	
		Copper	2.67		ug/L	P297558	
		Lead	0.050	U	ug/L	P297558	
		Nickel	0.31		ug/L	P297558	
		Silver	0.0050	U	ug/L	P297558	

Ref. Method and Comment:

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

Sample Location: Tamiami @ Krome Ave

Collection Date/Time: 01/20/2016 10:50

Field ID: 42009019-01202016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764141	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P297386	
	EPA 300.0 Rev. 2.1	Chloride	51		mg Cl/L	P297683	
		Sulfate	0.56		mg SO4/L	P297681	
	SM 2120 B	Color (true)	45		PCU	P297379	
	SM 2320 B-97	Total Alkalinity	187		mg CaCO3/L	P297521	
	SM 2540 C-97	TDS	294		mg/L	P298058	
	SM 2540 D-97	TSS	2	U	mg/L	P297892	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P297515	
1764147	EPA 350.1 Rev. 2.0	Ammonia-N	0.42		mg N/L	P297793	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P297535	

Field ID: 42009019-01202016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764147	EPA 353.2 Rev. 2.0	NO2NO3-N	0.01	I	mg N/L	P297723	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P297529	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P297475	
1764153	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P297390	
1764177	EPA 200.7 Rev. 4.4	Calcium	62.2		mg/L	P297558	
		Iron	220		ug/L	P297558	
		Magnesium	8.77		mg/L	P297558	
		Potassium	2.6		mg/L	P297558	
		Sodium	33.4		mg/L	P297558	
		Zinc	5.0	U	ug/L	P297558	
	EPA 200.8 Rev. 5.4	Arsenic	0.57		ug/L	P297558	
		Cadmium	0.020	U	ug/L	P297558	
		Chromium	0.097	I	ug/L	P297558	
		Copper	0.10	U	ug/L	P297558	
		Lead	0.22		ug/L	P297558	
		Nickel	0.058	I	ug/L	P297558	
		Silver	0.0050	U	ug/L	P297558	

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 iron result was confirmed in the undigested sample on 02/12/2016.

Sample Location: Tamiami @ Krome Ave (Duplicate)

Collection Date/Time: 01/20/2016 10:55

Field ID: 42009019-01202016 DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764142	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P297386	
	EPA 300.0 Rev. 2.1	Chloride	51		mg Cl/L	P297683	
		Sulfate	0.44	I	mg SO4/L	P297681	
		Color (true)	45		PCU	P297379	
	SM 2320 B-97	Total Alkalinity	185		mg CaCO3/L	P297521	
	SM 2540 C-97	TDS	299		mg/L	P298058	
	SM 2540 D-97	TSS	2	U	mg/L	P297892	
	SM 4500 F-C-97	Fluoride	0.21		mg F/L	P297515	
1764148	EPA 350.1 Rev. 2.0	Ammonia-N	0.42		mg N/L	P297793	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P297535	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P297723	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P297529	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P297475	
1764154	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P297390	
1764178	EPA 200.7 Rev. 4.4	Calcium	62.1		mg/L	P297558	
		Iron	180		ug/L	P297558	
		Magnesium	8.81		mg/L	P297558	
		Potassium	2.6		mg/L	P297558	
		Sodium	33.0		mg/L	P297558	
		Zinc	5.0	U	ug/L	P297558	

Field ID: 42009019-01202016 DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764178	EPA 200.8 Rev. 5.4	Arsenic	0.55		ug/L	P297558	
		Cadmium	0.020	U	ug/L	P297558	
		Chromium	0.074	I	ug/L	P297558	
		Copper	0.10	U	ug/L	P297558	
		Lead	0.17	I	ug/L	P297558	
		Nickel	0.13	I	ug/L	P297558	
		Silver	0.0050	U	ug/L	P297558	

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 iron result was confirmed in the undigested sample on 02/12/2016.

Sample Location: C9-1 Snake Creek Canal (West)

Collection Date/Time: 01/20/2016 11:53

Field ID: G4SE0019-01202016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764143	EPA 180.1 Rev. 2.0	Turbidity	0.60		NTU	P297386	
	EPA 300.0 Rev. 2.1	Chloride	73		mg Cl/L	P297683	
		Sulfate	1.4		mg SO4/L	P297681	
	SM 2120 B	Color (true)	51		PCU	P297379	
	SM 2320 B-97	Total Alkalinity	215		mg CaCO3/L	P297521	
	SM 2540 C-97	TDS	365		mg/L	P298058	
	SM 2540 D-97	TSS	2	U	mg/L	P297892	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P297515	
1764149	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P297793	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P297535	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P297723	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P297529	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P297475	
1764155	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P297390	
1764179	EPA 200.7 Rev. 4.4	Calcium	65.1		mg/L	P297558	
		Iron	120	I	ug/L	P297558	
		Magnesium	12.6		mg/L	P297558	
		Potassium	3.4		mg/L	P297558	
		Sodium	47.7		mg/L	P297558	
		Zinc	5.0	U	ug/L	P297558	
	EPA 200.8 Rev. 5.4	Arsenic	0.71		ug/L	P297558	
		Cadmium	0.020	U	ug/L	P297558	
		Chromium	0.075	I	ug/L	P297558	
		Copper	0.10	U	ug/L	P297558	
		Lead	0.11	I	ug/L	P297558	
		Nickel	0.081	I	ug/L	P297558	
		Silver	0.0050	U	ug/L	P297558	

Ref. Method and Comment:

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

Sample Location: LR-10

Collection Date/Time: 01/20/2016 12:25

Field ID: G4SELR10-01202016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764144	EPA 180.1 Rev. 2.0	Turbidity	1.6	A	NTU	P297386	
	EPA 300.0 Rev. 2.1	Chloride	65		mg Cl/L	P297683	
		Sulfate	4.0		mg SO4/L	P297681	
	SM 2120 B	Color (true)	41		PCU	P297379	
	SM 2320 B-97	Total Alkalinity	207		mg CaCO3/L	P297521	
	SM 2540 C-97	TDS	336		mg/L	P298058	
	SM 2540 D-97	TSS	3	I	mg/L	P297892	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P297515	
1764150	EPA 350.1 Rev. 2.0	Ammonia-N	2.3		mg N/L	P297793	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	3.0		mg N/L	P297535	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P297723	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P297529	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P297475	
1764156	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P297390	
1764180	EPA 200.7 Rev. 4.4	Calcium	63.9		mg/L	P297558	
		Iron	85	I	ug/L	P297558	
		Magnesium	9.70		mg/L	P297558	
		Potassium	4.4		mg/L	P297558	
		Sodium	44.1		mg/L	P297558	
		Zinc	5.0	U	ug/L	P297558	
	EPA 200.8 Rev. 5.4	Arsenic	0.75		ug/L	P297558	
		Cadmium	0.020	U	ug/L	P297558	
		Chromium	0.29		ug/L	P297558	
		Copper	0.14	I	ug/L	P297558	
		Lead	0.14	I	ug/L	P297558	
		Nickel	0.40		ug/L	P297558	
		Silver	0.0050	U	ug/L	P297558	

Ref. Method and Comment:

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

Sample Location: C9 @ NW 57th Ave

Collection Date/Time: 01/20/2016 13:00

Field ID: G4SE0075-01202016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764145	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P297386	
	EPA 300.0 Rev. 2.1	Chloride	71		mg Cl/L	P297683	
		Sulfate	3.4		mg SO4/L	P297681	
	SM 2120 B	Color (true)	49		PCU	P297379	
	SM 2320 B-97	Total Alkalinity	257		mg CaCO3/L	P297521	
	SM 2540 C-97	TDS	378		mg/L	P298058	
	SM 2540 D-97	TSS	2	I	mg/L	P297892	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P297515	
1764151	EPA 350.1 Rev. 2.0	Ammonia-N	3.4		mg N/L	P297935	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	4.4		mg N/L	P297536	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.056		mg N/L	P297723	

Field ID: G4SE0075-01202016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1764151	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P297529	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P297475	
1764157	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P297390	
1764181	EPA 200.7 Rev. 4.4	Calcium	73.6		mg/L	P297558	
		Iron	410		ug/L	P297558	
		Magnesium	11.2		mg/L	P297558	
		Potassium	5.1		mg/L	P297558	
		Sodium	48.9		mg/L	P297558	
		Zinc	5.0	U	ug/L	P297558	
	EPA 200.8 Rev. 5.4	Arsenic	1.06		ug/L	P297558	
		Cadmium	0.020	U	ug/L	P297558	
		Chromium	0.30		ug/L	P297558	
		Copper	0.17	I	ug/L	P297558	
		Lead	0.058	I	ug/L	P297558	
		Nickel	0.45		ug/L	P297558	
		Silver	0.0050	U	ug/L	P297558	

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: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P297386

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P297558

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P297558

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.050	U	ug/L
Silver	0.0050	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297681

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297683

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297791

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297793

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297935

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297535

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297536

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297723

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297529

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 dissolved
Batch ID: P297390

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

Reference Method: SM 2120 B
Batch ID: P297379

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P297521

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97
Batch ID: P298058

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P297892

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P297515

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P297475

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P297558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	103		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	108		P	85 - 115
Sodium	106		P	85 - 115
Zinc	97.6		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P297558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.4		P	85 - 115
Cadmium	95.9		P	85 - 115
Chromium	97.7		P	85 - 115
Copper	96.4		P	85 - 115
Lead	90.4		P	85 - 115
Nickel	97.8		P	85 - 115
Silver	98.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297681

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297683

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297791

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297793

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297535

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297536

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.0		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297723

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: P297529

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297390

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

Reference Method: SM 2320 B-97
Batch ID: P297521

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P297515

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P297475

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P297558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764126	Calcium	105	105	P/P	80 - 120
1764126	Iron	103	103	P/P	80 - 120
1764126	Magnesium	108	108	P/P	80 - 120
1764126	Potassium	107	106	P/P	80 - 120
1764126	Sodium	101	102	P/P	80 - 120
1764126	Zinc	97.3	97.5	P/P	80 - 120
1764176	Calcium	99.8		P	80 - 120
1764176	Iron	100		P	80 - 120
1764176	Magnesium	99.7		P	80 - 120
1764176	Potassium	105		P	80 - 120
1764176	Sodium	104		P	80 - 120
1764176	Zinc	97.7		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P297558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764126	Arsenic	98.2	99.1	P/P	80 - 120
1764126	Cadmium	96.0	98.0	P/P	80 - 120
1764126	Chromium	96.3	97.8	P/P	80 - 120
1764126	Copper	96.0	95.7	P/P	80 - 120
1764126	Lead	90.6	90.7	P/P	80 - 120
1764126	Nickel	96.6	97.7	P/P	80 - 120
1764126	Silver	97.7	97.9	P/P	80 - 120
1764176	Arsenic	102		P	80 - 120
1764176	Cadmium	98.4		P	80 - 120
1764176	Chromium	96.6		P	80 - 120
1764176	Copper	94.4		P	80 - 120
1764176	Lead	92.1		P	80 - 120
1764176	Nickel	96.2		P	80 - 120
1764176	Silver	97.4		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764067	Sulfate	101		P	90 - 110
1764068	Sulfate	95.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297683

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764067	Chloride	104		P	90 - 110
1764068	Chloride	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297791

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764146	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297793

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764358	Ammonia-N	108	109	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764765	Ammonia-N	99.1	97.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764081	Kjeldahl Nitrogen	101	105	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P297723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764146	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P297529

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764136	Total-P	101	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P297390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764152	O-Phosphate-P	99.1	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Batch ID: P297515

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764135	Fluoride	95.6	97.7	P/P	94 - 107

Reference Method: SM 5310 B-00
 Batch ID: P297475

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1764137	Organic Carbon	90.2	90.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P297386

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764144	Turbidity	8.97	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P297558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764126	Calcium	0.152	Spike	P	0 - 20
1764126	Iron	0.655	Spike	P	0 - 20
1764126	Magnesium	0.375	Spike	P	0 - 20
1764126	Potassium	0.881	Spike	P	0 - 20
1764126	Sodium	0.323	Spike	P	0 - 20
1764126	Zinc	0.225	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P297558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764126	Arsenic	0.939	Spike	P	0 - 20
1764126	Cadmium	2.11	Spike	P	0 - 20
1764126	Chromium	1.54	Spike	P	0 - 20
1764126	Copper	0.359	Spike	P	0 - 20
1764126	Lead	0.165	Spike	P	0 - 20
1764126	Nickel	1.10	Spike	P	0 - 20
1764126	Silver	0.241	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764067	Sulfate	4.84	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P297683

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764067	Chloride	0.0907	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297791

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764146	Ammonia-N	1.06	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297793

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764358	Ammonia-N	0.767	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P297935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764765	Ammonia-N	0.893	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764081	Kjeldahl Nitrogen	3.22	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P297536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764151	Kjeldahl Nitrogen	5.61	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P297723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764146	NO2NO3-N	0.491	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P297529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764136	Total-P	1.71	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P297390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764152	O-Phosphate-P	1.90	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P297379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764140	Color (true)	0.568	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P297521

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764135	Total Alkalinity	0.838	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P298058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764140	TDS	0.957	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P297515

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764135	Fluoride	2.00	Spike	P	0 - 3.7

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P297475

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1764137	Organic Carbon	0.268	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 Calibration Verification

Reference Method: SM 2120 B
Run ID: A67199
Included Lab Sample IDs: 1764140, 1764141, 1764142, 1764143, 1764144, 1764145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A67200
Included Lab Sample IDs: 1764152, 1764153, 1764154, 1764155, 1764156, 1764157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.1	P/P	90 - 110
O-Phosphate-P	99.8	99.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A67201
Included Lab Sample IDs: 1764140, 1764141, 1764142, 1764143, 1764144, 1764145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: SM 5310 B-00
Run ID: A67237
Included Lab Sample IDs: 1764146, 1764147, 1764148, 1764149, 1764150, 1764151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.6	92.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A67252
Included Lab Sample IDs: 1764140, 1764141, 1764142, 1764143, 1764144, 1764145

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

Reference Method: SM 2320 B-97
Run ID: A67254
Included Lab Sample IDs: 1764140, 1764141, 1764142, 1764143, 1764144, 1764145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.5	99.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A67254

Included Lab Sample IDs: 1764140, 1764141, 1764142, 1764143, 1764144, 1764145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	98.4	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A67286

Included Lab Sample IDs: 1764140, 1764141, 1764142, 1764143, 1764144, 1764145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	106	P/P	90 - 110
Chloride	104	104	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110
Sulfate	99.5	98.3	P/P	90 - 110
Sulfate	99.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A67300

Included Lab Sample IDs: 1764146, 1764147, 1764148, 1764149, 1764150, 1764151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.9	97.8	P/P	90 - 110
Kjeldahl Nitrogen	98.8	95.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A67329

Included Lab Sample IDs: 1764146, 1764147, 1764148, 1764149, 1764150, 1764151

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A67332

Included Lab Sample IDs: 1764146, 1764147, 1764148, 1764149, 1764150, 1764151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.2	98.8	P/P	90 - 110
Total-P	97.8	96.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A67333

Included Lab Sample IDs: 1764176, 1764177, 1764178, 1764179, 1764180, 1764181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.0	102	P/P	90 - 110
Calcium	99.5	98.0	P/P	90 - 110
Iron	98.7	101	P/P	90 - 110
Iron	99.5	98.7	P/P	90 - 110
Magnesium	99.0	103	P/P	90 - 110
Magnesium	99.1	99.0	P/P	90 - 110
Potassium	101	102	P/P	90 - 110
Potassium	102	101	P/P	90 - 110
Sodium	101	103	P/P	90 - 110
Sodium	103	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A67333

Included Lab Sample IDs: 1764176, 1764177, 1764178, 1764179, 1764180, 1764181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	98.2	98.4	P/P	90 - 110
Zinc	98.4	105	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A67344

Included Lab Sample IDs: 1764176, 1764177, 1764178, 1764179, 1764180, 1764181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	103	102	P/P	90 - 110
Arsenic	103	103	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	100	100	P/P	90 - 110
Chromium	101	100	P/P	90 - 110
Copper	101	99.1	P/P	90 - 110
Copper	102	101	P/P	90 - 110
Lead	95.8	96.6	P/P	90 - 110
Lead	96.6	96.5	P/P	90 - 110
Nickel	101	99.6	P/P	90 - 110
Nickel	99.6	98.1	P/P	90 - 110
Silver	99.3	99.7	P/P	90 - 110
Silver	99.5	99.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A67351

Included Lab Sample IDs: 1764146, 1764147, 1764148, 1764149, 1764150

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	102	P/P	90 - 110
Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A67407

Included Lab Sample IDs: 1764151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	102	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			Precision	
				LCS			SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						8.97	
EPA 200.7 Rev. 4.4	Calcium	106	105	105	99.8			0.152
	Iron	103	103	103	100			0.655

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision	
			LCS	SMP	MS		
EPA 200.7 Rev. 4.4	Magnesium	111	108	108	99.7		0.375
	Potassium	108	107	106	105		0.881
	Sodium	106	101	102	104		0.323
	Zinc	97.6	97.3	97.5	97.7		0.225
EPA 200.8 Rev. 5.4	Arsenic	99.4	98.2	99.1	102		0.939
	Cadmium	95.9	96.0	98.0	98.4		2.11
	Chromium	97.7	96.3	97.8	96.6		1.54
	Copper	96.4	96.0	95.7	94.4		0.359
	Lead	90.4	90.6	90.7	92.1		0.165
	Nickel	97.8	96.6	97.7	96.2		1.10
	Silver	98.3	97.7	97.9	97.4		0.241
EPA 300.0 Rev. 2.1	Chloride	103	104	104		0.0907	
	Sulfate	93.9	101	95.5		4.84	
EPA 350.1 Rev. 2.0	Ammonia-N	98.3	100	101			1.06
	Ammonia-N	100	108	109			0.767
	Ammonia-N	96.5	99.1	97.3			0.893
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.2	101	105			3.22
	Kjeldahl Nitrogen	99.0					5.61
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	102			0.491
EPA 365.1 Rev. 2.0	Total-P	97.8	101	103			1.71
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	99.1	101			1.90
SM 2120 B	Color (true)					0.568	
SM 2320 B-97	Total Alkalinity	102				0.838	
SM 2540 C-97	TDS					0.957	
SM 4500 F-C-97	Fluoride	96.5	95.6	97.7			2.00
SM 5310 B-00	Organic Carbon	92.6	90.2	90.4			0.268

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1764176, 1764177, 1764178, 1764179, 1764180, 1764181
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1764176, 1764177, 1764178, 1764179, 1764180, 1764181
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1764146, 1764147, 1764148, 1764149, 1764150, 1764151
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1764146, 1764147, 1764148, 1764149, 1764150, 1764151
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1764146, 1764147, 1764148, 1764149, 1764150, 1764151
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1764146, 1764147, 1764148, 1764149, 1764150, 1764151
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1764152, 1764153, 1764154, 1764155, 1764156, 1764157
SM 2120 B / E31780	True Color measured at 450 nm	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1764140, 1764141, 1764142, 1764143, 1764144, 1764145

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1764146, 1764147, 1764148, 1764149, 1764150, 1764151

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	01/21/2016			01/21/2016 13:04	Sima Feizi	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
EPA 200.7 Rev. 4.4	01/21/2016	01/26/2016	Elliott D. Healy	01/28/2016	Joshua Ayres	1764176, 1764177, 1764178, 1764179, 1764180, 1764181
EPA 200.8 Rev. 5.4	01/21/2016	01/26/2016	Elliott D. Healy	01/28/2016	Charles J. Peterson	1764176, 1764177, 1764178, 1764179, 1764180, 1764181
EPA 300.0 Rev. 2.1	01/21/2016			01/28/2016	Ping Hua	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
	01/21/2016			01/29/2016	Ping Hua	1764141, 1764142
EPA 350.1 Rev. 2.0	01/21/2016			01/28/2016	Diana M. Turner	1764146, 1764147, 1764148, 1764149, 1764150
	01/21/2016			02/02/2016	Diana M. Turner	1764151
EPA 351.2 Rev. 2.0	01/21/2016	01/26/2016	Christopher Armour	01/27/2016	Bryan A. Werth	1764146, 1764147, 1764148, 1764149, 1764150, 1764151
EPA 353.2 Rev. 2.0	01/21/2016			01/28/2016	Peter D. Kaus	1764146, 1764147, 1764148, 1764149, 1764150, 1764151
EPA 365.1 Rev. 2.0	01/21/2016	01/26/2016	Christopher Armour	01/28/2016	Lipi Saha	1764146, 1764147, 1764148, 1764149, 1764150, 1764151
EPA 365.1 Rev. 2.0 dissolved	01/21/2016			01/21/2016 14:42	Julia Storbeck	1764152
	01/21/2016			01/21/2016 15:21	Julia Storbeck	1764153
	01/21/2016			01/21/2016 15:22	Julia Storbeck	1764154
	01/21/2016			01/21/2016 15:23	Julia Storbeck	1764155
	01/21/2016			01/21/2016 15:24	Julia Storbeck	1764156
	01/21/2016			01/21/2016 15:25	Julia Storbeck	1764157
SM 2120 B	01/21/2016			01/21/2016 14:48	Rochelle Y Jackson	1764140
	01/21/2016			01/21/2016 14:49	Rochelle Y Jackson	1764141
	01/21/2016			01/21/2016 14:50	Rochelle Y Jackson	1764142, 1764143
	01/21/2016			01/21/2016 14:51	Rochelle Y Jackson	1764144
	01/21/2016			01/21/2016 14:52	Rochelle Y Jackson	1764145
SM 2320 B-97	01/21/2016			01/25/2016	Dale L. Simmons	1764140, 1764141, 1764142, 1764143, 1764144
	01/21/2016			01/26/2016	Dale L. Simmons	1764145
SM 2540 C-97	01/21/2016			01/26/2016	Sima Feizi	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
SM 2540 D-97	01/21/2016			01/26/2016	Sima Feizi	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
SM 4500 F-C-97	01/21/2016			01/25/2016	Dale L. Simmons	1764140, 1764141, 1764142, 1764143, 1764144, 1764145
SM 5310 B-00	01/21/2016			01/23/2016	Sofia Elnemr	1764146, 1764147, 1764148, 1764149, 1764150, 1764151