

Chemical Analysis Report

NW-DIST-2016-07-07-01

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

Event Description: **WBID 351 432 476 445 361 321**

Request ID: **RQ-2016-07-04-35**

Customer: **NW-DIST**

Project ID: **SMP**

Send Reports to:
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160 W Government st
Suite 208A
Pensacola, FL 32502-5794
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 28-JUL-2016 11:05

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

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 group are included in this report: 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: Alaqua Creek above Bob Sikes Road

Collection Date/Time: 07/06/2016 11:05

Field ID: G3NW0108

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814332	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P307534	
	EPA 300.0 Rev. 2.1	Chloride	1.9		mg Cl/L	P308121	
		Sulfate	1.0		mg SO4/L	P308120	
	SM 2120 B	Color (true)	22		PCU	P307509	
	SM 2320 B-97	Total Alkalinity	0.99	I	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	15	U	mg/L	P308244	
	SM 2540 D-97	TSS	4	I	mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814341	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P307841	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	I	mg N/L	P307776	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.079		mg N/L	P307928	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P307723	
	SM 5310 B-00	Organic Carbon	1.5		mg C/L	P308255	
1814350	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307500	

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: Alaqua Creek above Nelson Road

Collection Date/Time: 07/06/2016 11:35

Field ID: G3NW0106

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814333	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P307534	
	EPA 300.0 Rev. 2.1	Chloride	2.0		mg Cl/L	P308121	
		Sulfate	1.0		mg SO4/L	P308120	
	SM 2120 B	Color (true)	34		PCU	P307509	
	SM 2320 B-97	Total Alkalinity	1.3	I	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	15	I	mg/L	P308244	
	SM 2540 D-97	TSS	6	I	mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814342	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P307841	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.17	I	mg N/L	P307776	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.068		mg N/L	P307928	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P307723	
	SM 5310 B-00	Organic Carbon	2.0		mg C/L	P308255	
1814351	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307501	

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: Alaqua Cr @ Eglin 205 AKA JAXGRD # 1103S003

Collection Date/Time: 07/06/2016 12:40

Field ID: g3nw0111

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814334	EPA 180.1 Rev. 2.0	Turbidity	6.1		NTU	P307534	
	EPA 300.0 Rev. 2.1	Chloride	2.2		mg Cl/L	P308121	

Field ID: g3nw0111

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814334	EPA 300.0 Rev. 2.1	Sulfate	0.94		mg SO4/L	P308120	
	SM 2120 B	Color (true)	48		PCU	P307509	
	SM 2320 B-97	Total Alkalinity	2.2	I	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	16	I	mg/L	P308244	
	SM 2540 D-97	TSS	10		mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814343	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P307841	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.24		mg N/L	P307776	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P307928	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P307723	
	SM 5310 B-00	Organic Carbon	2.8		mg C/L	P308255	
1814352	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307501	

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: Little Alaqua Creek above Eglin AFB Road 208 **Collection Date/Time: 07/06/2016 13:05**

Field ID: G3NW0064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814335	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P307534	
	EPA 300.0 Rev. 2.1	Chloride	1.9		mg Cl/L	P308121	
		Sulfate	0.49	I	mg SO4/L	P308547	
	SM 2120 B	Color (true)	22		PCU	P307509	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	15	U	mg/L	P308244	
	SM 2540 D-97	TSS	4	I	mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814344	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P307841	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.12	I	mg N/L	P307776	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.038		mg N/L	P307929	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P307723	
	SM 5310 B-00	Organic Carbon	1.5		mg C/L	P308255	
1814353	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307501	

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: Little Alaqua Creek @ 200/201 Above Bridge **Collection Date/Time: 07/06/2016 13:30**

Field ID: G3NW0063

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814336	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P307534	
	EPA 300.0 Rev. 2.1	Chloride	1.8		mg Cl/L	P308121	
		Sulfate	0.45	I	mg SO4/L	P308547	
	SM 2120 B	Color (true)	16		PCU	P307509	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	15	U	mg/L	P308244	

Field ID: G3NW0063

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814336	SM 2540 D-97	TSS	4	I	mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814345	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P307841	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P307776	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.037		mg N/L	P307929	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P307723	
	SM 5310 B-00	Organic Carbon	1.3		mg C/L	P308255	
1814354	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307501	

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: Open Branch Above ER214/374 C-72

Collection Date/Time: 07/06/2016 14:10

Field ID: G3NW0105

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814337	EPA 180.1 Rev. 2.0	Turbidity	1.2	A	NTU	P307535	
	EPA 300.0 Rev. 2.1	Chloride	1.6		mg Cl/L	P308121	
		Sulfate	0.51		mg SO4/L	P308547	
	SM 2120 B	Color (true)	14		PCU	P307509	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	15	U	mg/L	P308244	
	SM 2540 D-97	TSS	2	I	mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814346	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P307841	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P307776	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P307929	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P307723	
	SM 5310 B-00	Organic Carbon	1.6		mg C/L	P308255	
1814355	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307501	

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: Rocky Cr @ Eglin 214/374 AKA JAXGRD # 0804S004

Collection Date/Time: 07/06/2016 14:25

Field ID: G3NW0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814338	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P307535	
	EPA 300.0 Rev. 2.1	Chloride	1.8		mg Cl/L	P308541	
		Sulfate	0.68		mg SO4/L	P308547	
	SM 2120 B	Color (true)	18		PCU	P307510	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	15	U	mg/L	P308244	
	SM 2540 D-97	TSS	8	I	mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814347	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P307841	

Field ID: G3NW0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814347	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.26		mg N/L	P307776	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.081		mg N/L	P307929	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P307723	
	SM 5310 B-00	Organic Carbon	1.8		mg C/L	P308255	
1814356	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307501	

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: Rocky Cr at 200/201

Collection Date/Time: 07/06/2016 14:45

Field ID: G3NW0059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814339	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P307535	
	EPA 300.0 Rev. 2.1	Chloride	2.1		mg Cl/L	P308541	
		Sulfate	0.60		mg SO4/L	P308547	
	SM 2120 B	Color (true)	15		PCU	P307510	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	15	U	mg/L	P308244	
	SM 2540 D-97	TSS	2	I	mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814348	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P307841	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.13	I	mg N/L	P307777	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P307929	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P307724	
	SM 5310 B-00	Organic Carbon	1.2		mg C/L	P308255	
1814357	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307501	

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: Titi Creek above SR 285

Collection Date/Time: 07/06/2016 15:20

Field ID: g4nw0365

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814340	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P307535	
	EPA 300.0 Rev. 2.1	Chloride	1.9		mg Cl/L	P308541	
		Sulfate	0.79		mg SO4/L	P308547	
	SM 2120 B	Color (true)	51	A	PCU	P307510	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P307894	
	SM 2540 C-97	TDS	15	U	mg/L	P308244	
	SM 2540 D-97	TSS	2	U	mg/L	P308175	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307897	
1814349	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P307841	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P307777	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.055		mg N/L	P307929	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P307724	
	SM 5310 B-00	Organic Carbon	3.1		mg C/L	P308256	

Field ID: g4nw0365

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1814358	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P307501	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P307534

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P307535

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P308120

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P308121

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P308541

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P308547

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P307841

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P307776

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P307777

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P307928

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: P307929

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: P307723

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P307724

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P307500

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P307501

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

Reference Method: SM 2120 B
Batch ID: P307509

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P307510

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P307894

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

Reference Method: SM 2540 C-97
Batch ID: P308244

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P308175

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P307897

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P308255

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

Reference Method: SM 5310 B-00
Batch ID: P308256

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308120

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308121

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308541

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308541

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308547

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P307841

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P307776

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P307777

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P307928

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P307929

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: P307723

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P307724

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.6		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P307500

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P307501

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

Reference Method: SM 2320 B-97
Batch ID: P307894

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P307897

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P308255

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

Reference Method: SM 5310 B-00
Batch ID: P308256

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308120

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814175	Sulfate	99.1		P	90 - 110
1814176	Sulfate	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814175	Chloride	98.8		P	90 - 110
1814176	Chloride	98.5		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814391	Chloride	97.8		P	90 - 110
1814392	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308547

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814391	Sulfate	95.9		P	90 - 110
1814392	Sulfate	96.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P307841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814324	Ammonia-N	100	99.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P307776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814296	Kjeldahl Nitrogen	84.8	87.1	F/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P307777

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814403	Kjeldahl Nitrogen	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P307928

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814287	NO2NO3-N	104	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P307929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814344	NO2NO3-N	98.0	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P307723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814342	Total-P	92.2	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P307724

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814398	Total-P	99.8	99.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P307500

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814198	O-Phosphate-P	94.3	95.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P307501

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814351	O-Phosphate-P	99.5	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P307897

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814395	Fluoride	98.7	100	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P308255

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814178	Organic Carbon	91.8	88.4	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P308256

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1814349	Organic Carbon	91.5	93.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P307534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814286	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P307535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814337	Turbidity	3.42	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308120

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814175	Sulfate	0.456	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814175	Chloride	0.861	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814391	Chloride	0.0254	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P308547

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814391	Sulfate	0.964	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P307841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814324	Ammonia-N	0.375	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P307776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814296	Kjeldahl Nitrogen	1.38	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P307777

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814403	Kjeldahl Nitrogen	1.10	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P307928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814287	NO2NO3-N	1.91	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P307929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814344	NO2NO3-N	1.69	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P307723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814342	Total-P	4.14	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P307724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814398	Total-P	0.523	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P307500

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814198	O-Phosphate-P	0.861	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P307501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814351	O-Phosphate-P	1.00	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P307509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814293	Color (true)	0.661	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P307510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814340	Color (true)	0.819	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P307894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814395	Total Alkalinity	0.425	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P308244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814323	TDS	2.12	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P307897

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814395	Fluoride	0.933	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P308255

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814178	Organic Carbon	1.79	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P308256

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1814349	Organic Carbon	1.85	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: EPA 365.1 Rev. 2.0 dissolved
Run ID: A70438
Included Lab Sample IDs: 1814350, 1814351, 1814352, 1814353, 1814354, 1814355, 1814356, 1814357, 1814358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.8	98.0	P/P	90 - 110
O-Phosphate-P	98.0	98.4	P/P	90 - 110
O-Phosphate-P	98.7	101	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A70439
Included Lab Sample IDs: 1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	91.8	94.2	P/P	90 - 115
Color (true)	94.2	93.0	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A70445
Included Lab Sample IDs: 1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A70530

Included Lab Sample IDs: 1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A70540

Included Lab Sample IDs: 1814332, 1814333, 1814334, 1814335, 1814336, 1814337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.7	99.2	P/P	90 - 110
Sulfate	94.8	99.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A70542

Included Lab Sample IDs: 1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A70542

Included Lab Sample IDs: 1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A70548

Included Lab Sample IDs: 1814348, 1814349

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A70551

Included Lab Sample IDs: 1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A70552

Included Lab Sample IDs: 1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	106	P/P	90 - 110
Kjeldahl Nitrogen	104	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A70568

Included Lab Sample IDs: 1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110
Total-P	99.2	100	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A70641

Included Lab Sample IDs: 1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	95.0	P/P	90 - 110
Organic Carbon	95.4	95.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A70731

Included Lab Sample IDs: 1814338, 1814339, 1814340

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	99.4	P/P	90 - 110
Sulfate	100	98.4	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
EPA 180.1 Rev. 2.0	Turbidity				0.0	
	Turbidity				3.42	
EPA 300.0 Rev. 2.1	Chloride	98.0	98.8 98.5		0.861	
	Chloride	98.5	97.8 97.6		0.0254	
	Sulfate	97.7	99.1 98.2		0.456	
	Sulfate	97.4	95.9 96.6		0.964	
EPA 350.1 Rev. 2.0	Ammonia-N	101	100 99.7			0.375
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	84.8 87.1			1.38
	Kjeldahl Nitrogen	101	100 102			1.10
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	104 106			1.91
	NO ₂ NO ₃ -N	102	98.0 100			1.69
EPA 365.1 Rev. 2.0	Total-P	98.3	92.2 96.2			4.14
	Total-P	97.6	99.8 99.2			0.523
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	94.3 95.2			0.861
	O-Phosphate-P	101	99.5 100			1.00
SM 2120 B	Color (true)				0.661	
	Color (true)				0.819	
SM 2320 B-97	Total Alkalinity	103			0.425	
SM 2540 C-97	TDS				2.12	
SM 4500 F-C-97	Fluoride	98.3	98.7 100			0.933
SM 5310 B-00	Organic Carbon	92.4	91.8 88.4			1.79
	Organic Carbon	94.8	91.5 93.5			1.85

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1814350, 1814351, 1814352, 1814353, 1814354, 1814355, 1814356, 1814357, 1814358
SM 2120 B / E31780	True Color measured at 450 nm	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349

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	07/07/2016			07/07/2016 15:16	Sima Feizi	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
EPA 300.0 Rev. 2.1	07/07/2016			07/16/2016	Ping Hua	1814332, 1814333, 1814334
	07/07/2016			07/22/2016	Ping Hua	1814335, 1814336, 1814337, 1814338, 1814339, 1814340
EPA 350.1 Rev. 2.0	07/07/2016			07/13/2016	Julie Michelle Frank	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349
EPA 351.2 Rev. 2.0	07/07/2016	07/13/2016	Sofia Elnemr	07/14/2016	Christopher Armour	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349
EPA 353.2 Rev. 2.0	07/07/2016			07/14/2016	Beverly Y. Sanders	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349
EPA 365.1 Rev. 2.0	07/07/2016	07/12/2016	Vijayalakshmi Reddy	07/13/2016	Lipi Saha	1814348, 1814349
	07/07/2016	07/12/2016	Vijayalakshmi Reddy	07/14/2016	Lipi Saha	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347
EPA 365.1 Rev. 2.0 dissolved	07/07/2016			07/07/2016 14:53	Julia Storbeck	1814351
	07/07/2016			07/07/2016 16:11	Julia Storbeck	1814350
	07/07/2016			07/07/2016 16:12	Julia Storbeck	1814352
	07/07/2016			07/07/2016 16:13	Julia Storbeck	1814353
	07/07/2016			07/07/2016 16:14	Julia Storbeck	1814354
	07/07/2016			07/07/2016 16:15	Julia Storbeck	1814355
	07/07/2016			07/07/2016 16:16	Julia Storbeck	1814356
	07/07/2016			07/07/2016 16:21	Julia Storbeck	1814357, 1814358
SM 2120 B	07/07/2016			07/07/2016 17:57	Rochelle Y Jackson	1814332
	07/07/2016			07/07/2016 17:58	Rochelle Y Jackson	1814333
	07/07/2016			07/07/2016 17:59	Rochelle Y Jackson	1814334
	07/07/2016			07/07/2016 18:00	Rochelle Y Jackson	1814335, 1814336
	07/07/2016			07/07/2016 18:01	Rochelle Y Jackson	1814337
	07/07/2016			07/07/2016 18:04	Rochelle Y Jackson	1814338
	07/07/2016			07/07/2016 18:05	Rochelle Y Jackson	1814339
	07/07/2016			07/07/2016 18:06	Rochelle Y Jackson	1814340
SM 2320 B-97	07/07/2016			07/13/2016	Dale L. Simmons	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
SM 2540 C-97	07/07/2016			07/11/2016	Sima Feizi	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
SM 2540 D-97	07/07/2016			07/11/2016	Sima Feizi	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	07/07/2016			07/13/2016	Dale L. Simmons	1814332, 1814333, 1814334, 1814335, 1814336, 1814337, 1814338, 1814339, 1814340
SM 5310 B-00	07/07/2016			07/18/2016	Sofia Elnemr	1814341, 1814342, 1814343, 1814344, 1814345, 1814346, 1814347, 1814348, 1814349