

Chemical Analysis Report

SE-DIST-2018-10-17-02

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

Event Description: **SMP- Martin Boat**

Request ID: **RQ-2018-10-15-47**

Customer: **SE-DIST**

Project ID: **SMP**

Send Reports to:

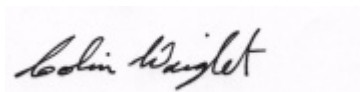
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

For additional information please contact

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Certified by: Colin Wright, Program Administrator

Date Certified: 16-NOV-2018 13:00

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light blue rectangular 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 groups are included in this report: Metals, Nutrients and Pesticides.

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: MANATEE POCKET @ PORT SALERNO

Collection Date/Time: 10/16/2018 11:15

Field ID: G2SE0012

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033514	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P353253	
	SM 2320 B-97	Total Alkalinity	124		mg CaCO3/L	P353815	
	SM 2540 D-97	TSS	5	I	mg/L	P353589	
	SM 4500 F-C-97	Fluoride	1.0		mg F/L	P353818	
2033515	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P353852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P353485	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P353593	
	EPA 365.1 Rev. 2.0	Total-P	0.062		mg P/L	P353292	
	SM 5310 B-00	Organic Carbon	4.3		mg C/L	P353944	
2033516	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P353245	
2033569	EPA 200.7 Rev. 4.4	Iron	120	U	ug/L	P353602	
		Zinc	20	U	ug/L	P353602	
	EPA 200.8 Rev. 5.4	Arsenic	2.67		ug/L	P353602	
		Cadmium	0.080	U	ug/L	P353602	
		Chromium	4.0	U	ug/L	P353602	MS
		Copper	7.2		ug/L	P353602	
		Lead	0.50	U	ug/L	P353602	
		Nickel	0.80	U	ug/L	P353602	
		Silver	0.040	U	ug/L	P353602	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The copper result was confirmed in the undigested sample on 11/14/2018.

Sample Location: GREAT POCKET @ MARKER 8

Collection Date/Time: 10/16/2018 11:35

Field ID: G2SE0033

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033511	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P353253	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P353815	
	SM 2540 D-97	TSS	7	IA	mg/L	P353589	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P353818	
2033512	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P353852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P353485	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P353593	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P353292	
	SM 5310 B-00	Organic Carbon	3.6		mg C/L	P353944	
2033513	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P353245	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: SOUTH FORK SLR @ SW FUGE

Collection Date/Time: 10/16/2018 13:10

Field ID: G2SE0041

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033523	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P353253	
	SM 2320 B-97	Total Alkalinity	139		mg CaCO3/L	P353710	
	SM 2540 D-97	TSS	10		mg/L	P353587	
	SM 4500 F-C-97	Fluoride	0.21		mg F/L	P353713	
2033525	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P353850	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P353610	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P353352	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P353341	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P353621	
2033527	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.072		mg P/L	P353247	
2033570	EPA 200.7 Rev. 4.4	Iron	300		ug/L	P353323	
		Zinc	5.0	U	ug/L	P353323	
	EPA 200.8 Rev. 5.4	Arsenic	2.28		ug/L	P353323	
		Cadmium	0.020	U	ug/L	P353323	
		Chromium	0.73	I	ug/L	P353997	
		Copper	2.07		ug/L	P353323	
		Lead	0.37		ug/L	P353997	
		Nickel	0.50	I	ug/L	P353997	
		Silver	0.010	U	ug/L	P353323	

Sample Location: SOUTH FORK SLR @ ST. LUCIE SETTLEMENT Collection Date/Time: 10/16/2018 13:30

Field ID: G2SE0040

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033524	EPA 180.1 Rev. 2.0	Turbidity	12	A	NTU	P353254	
	SM 2320 B-97	Total Alkalinity	158		mg CaCO3/L	P353710	
	SM 2540 D-97	TSS	15	A	mg/L	P353588	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P353713	
2033526	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P353851	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P353610	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.053		mg N/L	P353352	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P353341	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P353621	
2033528	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.067		mg P/L	P353247	
2033571	EPA 200.7 Rev. 4.4	Iron	370		ug/L	P353323	
		Zinc	5.0	U	ug/L	P353323	
	EPA 200.8 Rev. 5.4	Arsenic	2.42		ug/L	P353323	
		Cadmium	0.020	U	ug/L	P353323	
		Chromium	1.0	I	ug/L	P353997	
		Copper	2.73		ug/L	P353323	
		Lead	0.44		ug/L	P353997	
		Nickel	0.48	I	ug/L	P353997	
		Silver	0.010	U	ug/L	P353323	

Sample Location: SOUTH FORK SAINT LUCIE @ MARTIN HWY

Collection Date/Time: 10/16/2018 13:45

Field ID: G2SE0044

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033517	EPA 180.1 Rev. 2.0	Turbidity	9.9		NTU	P353253	
	SM 2320 B-97	Total Alkalinity	130		mg CaCO3/L	P353710	
	SM 2540 D-97	TSS	11		mg/L	P353587	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P353713	
2033519	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P353852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P353485	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P353593	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P353343	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P353621	
2033521	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.092		mg P/L	P353245	
2033556	EPA 8321B	2,4-D	0.059		ug/L	P353225	
		Bentazon	0.010		ug/L	P353225	
		MCP	0.0020	U	ug/L	P353225	
		Triclopyr**	0.0040	U	ug/L	P353225	
		Imidacloprid	0.0061	I	ug/L	P353225	MS
		Diuron	0.0051	I	ug/L	P353225	
		Pyraclostrobin**	0.0020	U	ug/L	P353225	
		Primidone**	0.0040	U	ug/L	P353225	
		Linuron	0.0040	U	ug/L	P353225	
		Acetaminophen**	0.0080	U	ug/L	P353225	
		Fenuron	0.016	U	ug/L	P353225	
		Imazapyr**	0.082		ug/L	P353225	MS
		Carbamazepine**	8.0E-04	U	ug/L	P353225	
		Fluridone**	0.0083		ug/L	P353225	
		Hydrocodone**	8.0E-04	U	ug/L	P353225	
		Naproxen**	0.0080	U	ug/L	P353225	
		Ibuprofen**	0.020	U	ug/L	P353225	
		Sucralose**	0.18		ug/L	P353202	
		Acesulfame K**	0.10	U	ug/L	P353202	

Sample Location: SOUTH PORK SLR @ LEIGHTON PARK

Collection Date/Time: 10/16/2018 13:55

Field ID: G2SE0013

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033518	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P353253	
	SM 2320 B-97	Total Alkalinity	128		mg CaCO3/L	P353815	
	SM 2540 D-97	TSS	16		mg/L	P353589	
	SM 4500 F-C-97	Fluoride	0.44		mg F/L	P353818	
2033520	EPA 350.1 Rev. 2.0	Ammonia-N	0.072		mg N/L	P353852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P353612	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P353593	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P353343	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P353944	
2033522	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P353245	
2033557	EPA 8321B	2,4-D	0.073		ug/L	P353225	
		Bentazon	0.011		ug/L	P353225	
		MCP	0.0020	U	ug/L	P353225	
		Triclopyr**	0.0040	U	ug/L	P353225	
		Imidacloprid	0.0050	I	ug/L	P353225	MS
		Diuron	0.0059	I	ug/L	P353225	
		Pyraclostrobin**	0.0020	U	ug/L	P353225	
		Primidone**	0.0040	U	ug/L	P353225	
		Linuron	0.0040	U	ug/L	P353225	
		Acetaminophen**	0.0080	U	ug/L	P353225	
		Fenuron	0.016	U	ug/L	P353225	
		Imazapyr**	0.098		ug/L	P353225	MS
		Carbamazepine**	8.0E-04	U	ug/L	P353225	
		Fluridone**	0.0082		ug/L	P353225	
		Hydrocodone**	8.0E-04	U	ug/L	P353225	
		Naproxen**	0.0080	U	ug/L	P353225	
		Ibuprofen**	0.020	U	ug/L	P353225	
		Sucralose**	0.18		ug/L	P353202	
		Acesulfame K**	0.10	U	ug/L	P353202	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: NORTH FORK SLR @ VETERANS MEMORIAL PARK **Collection Date/Time: 10/16/2018 14:40**

Field ID: G2SE0007

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033529	EPA 180.1 Rev. 2.0	Turbidity	5.3		NTU	P353254	
	SM 2320 B-97	Total Alkalinity	175		mg CaCO3/L	P353710	
	SM 2540 D-97	TSS	9	I	mg/L	P353588	
	SM 4500 F-C-97	Fluoride	0.35		mg F/L	P353713	
2033531	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P353851	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P353610	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P353352	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P353341	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P353622	
2033533	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.084		mg P/L	P353247	
2033558	EPA 8321B	2,4-D	0.085		ug/L	P353225	
		Bentazon	0.0068		ug/L	P353225	
		MCP	0.0020	U	ug/L	P353225	
		Triclopyr**	0.0040	U	ug/L	P353225	
		Imidacloprid	0.012		ug/L	P353225	MS
		Diuron	0.043		ug/L	P353225	
		Pyraclostrobin**	0.0020	U	ug/L	P353225	
		Primidone**	0.0040	U	ug/L	P353225	
		Linuron	0.0040	U	ug/L	P353225	
		Acetaminophen**	0.0080	U	ug/L	P353225	
		Fenuron	0.016	U	ug/L	P353225	
		Imazapyr**	0.38		ug/L	P353225	MS
		Carbamazepine**	0.0012	I	ug/L	P353225	
		Fluridone**	0.0078		ug/L	P353225	
		Hydrocodone**	8.0E-04	U	ug/L	P353225	
		Naproxen**	0.0080	U	ug/L	P353225	
		Ibuprofen**	0.020	U	ug/L	P353225	
		Sucralose**	0.24		ug/L	P353202	
		Acesulfame K**	0.20	I	ug/L	P353202	
2033572	EPA 200.7 Rev. 4.4	Iron	130		ug/L	P353323	
		Zinc	5.0	U	ug/L	P353323	
	EPA 200.8 Rev. 5.4	Arsenic	2.05		ug/L	P353323	
		Cadmium	0.020	U	ug/L	P353323	
		Chromium	0.40	U	ug/L	P353323	
		Copper	1.52		ug/L	P353323	
		Lead	0.19	I	ug/L	P353997	
		Nickel	0.38	I	ug/L	P353997	
		Silver	0.010	U	ug/L	P353323	

**Sample Location: NORTH FORK ST. LUCIE RIVER JUST
DOWNSTREAM C24**

Collection Date/Time: 10/16/2018 15:00

Field ID: G2SE0045

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2033530	EPA 180.1 Rev. 2.0	Turbidity	6.0		NTU	P353254	
	SM 2320 B-97	Total Alkalinity	158		mg CaCO3/L	P353710	
	SM 2540 D-97	TSS	10		mg/L	P353588	
	SM 4500 F-C-97	Fluoride	0.35		mg F/L	P353713	
2033532	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P353852	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P353612	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P353593	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P353343	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P353622	
2033534	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.096		mg P/L	P353245	
2033559	EPA 8321B	2,4-D	0.073		ug/L	P353225	
		Bentazon	0.0080		ug/L	P353225	
		MCP	0.0020	U	ug/L	P353225	
		Triclopyr**	0.0040	U	ug/L	P353225	
		Imidacloprid	0.010		ug/L	P353225	MS
		Diuron	0.021		ug/L	P353225	
		Pyraclostrobin**	0.0020	U	ug/L	P353225	
		Primidone**	0.0040	U	ug/L	P353225	
		Linuron	0.0040	U	ug/L	P353225	
		Acetaminophen**	0.0080	U	ug/L	P353225	
		Fenuron	0.016	U	ug/L	P353225	
		Imazapyr**	0.30		ug/L	P353225	MS
		Carbamazepine**	0.0011	I	ug/L	P353225	
		Fluridone**	0.0096		ug/L	P353225	
		Hydrocodone**	8.0E-04	U	ug/L	P353225	
		Naproxen**	0.0080	U	ug/L	P353225	
		Ibuprofen**	0.020	U	ug/L	P353225	
		Sucralose**	0.26		ug/L	P353202	
		Acesulfame K**	0.19	I	ug/L	P353202	
2033573	EPA 200.7 Rev. 4.4	Iron	110	I	ug/L	P353323	
		Zinc	5.0	U	ug/L	P353323	
	EPA 200.8 Rev. 5.4	Arsenic	2.40		ug/L	P353323	
		Cadmium	0.020	U	ug/L	P353323	
		Chromium	0.40	U	ug/L	P353323	
		Copper	1.61		ug/L	P353323	
		Lead	0.18	I	ug/L	P353997	
		Nickel	0.40	I	ug/L	P353997	
		Silver	0.010	U	ug/L	P353323	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353253

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353254

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353323

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353602

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353323

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353997

Component	Result	Code	Units
Chromium	0.40	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353850

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353851

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353852

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353485

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353610

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353612

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353593

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353292

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353341

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353343

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353245

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353247

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

Reference Method: EPA 8321B
Batch ID: P353202

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P353225

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P353710

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

Reference Method: SM 2320 B-97
Batch ID: P353815

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

Reference Method: SM 2540 D-97
Batch ID: P353587

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P353588

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P353589

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P353818

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P353621

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

Reference Method: SM 5310 B-00
Batch ID: P353622

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P353944

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: P353323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	93.6		P	85 - 115
Zinc	90.2		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	108		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.9		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	101		P	85 - 115
Copper	105		P	85 - 115
Silver	94.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	106		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	104		P	85 - 115
Copper	104		P	85 - 115
Lead	96.3		P	85 - 115
Nickel	103		P	85 - 115
Silver	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353997

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	102		P	85 - 115
Lead	104		P	85 - 115
Nickel	106		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353850

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.1		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353485

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: P353610

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353612

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353593

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353292

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353341

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.1		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353343

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353245

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353247

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

Reference Method: EPA 8321B
Batch ID: P353202

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	107		P	40 - 150
Sucralose	84.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353225

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	92.7		P	40 - 150
Acetaminophen	148		P	30 - 150
Bentazon	94.1		P	30 - 150
Carbamazepine	98.8		P	40 - 150
Diuron	101		P	40 - 150
Fenuron	139		P	40 - 150
Fluridone	115		P	40 - 150
Hydrocodone	131		P	40 - 150
Ibuprofen	57.2		P	40 - 150
Imazapyr	108		P	40 - 150
Imidacloprid	123		P	40 - 160
Linuron	86.5		P	40 - 150
MCPP	88.0		P	40 - 150
Naproxen	57.6		P	40 - 150
Primidone	129		P	40 - 150
Pyraclostrobin	78.1		P	40 - 150
Triclopyr	85.3		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P353710

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P353815

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.6		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P353818

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.8		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P353621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.3		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P353622

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.8		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P353944

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033418	Iron	93.5	93.1	P/P	80 - 120
2033418	Zinc	90.0	89.9	P/P	80 - 120
2033544	Iron	91.6		P	80 - 120
2033544	Zinc	88.3		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353602

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033818	Iron	104	99.8	P/P	80 - 120
2033818	Zinc	99.5	96.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033418	Arsenic	104	104	P/P	80 - 120
2033418	Cadmium	108	109	P/P	80 - 120
2033418	Chromium	102	102	P/P	80 - 120
2033418	Copper	101	101	P/P	80 - 120
2033418	Silver	94.8	96.4	P/P	80 - 120
2033544	Arsenic	107		P	80 - 120
2033544	Cadmium	115		P	80 - 120
2033544	Chromium	108		P	80 - 120
2033544	Copper	106		P	80 - 120
2033544	Silver	99.1		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033818	Arsenic	109	110	P/P	70 - 130
2033818	Cadmium	98.8	99.9	P/P	70 - 130
2033818	Chromium	112	132	P/F	80 - 120
2033818	Copper	94.3	93.4	P/P	70 - 130
2033818	Lead	101	106	P/P	80 - 120
2033818	Nickel	87.6	86.7	P/P	70 - 130
2033818	Silver	90.4	91.1	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353997

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033543	Chromium	98.6	97.2	P/P	80 - 120
2033543	Lead	103	103	P/P	80 - 120
2033543	Nickel	101	98.0	P/P	80 - 120
2033820	Chromium	102		P	80 - 120
2033820	Lead	106		P	80 - 120
2033820	Nickel	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033470	Ammonia-N	97.8	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033811	Ammonia-N	97.8	99.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033512	Ammonia-N	98.0	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353485

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032853	Kjeldahl Nitrogen	90.8	94.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353610

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033778	Kjeldahl Nitrogen	97.6	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033775	Kjeldahl Nitrogen	107	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033531	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033133	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032861	Total-P	100	95.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353341

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033784	Total-P	96.9	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033781	Total-P	94.8	97.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353245

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033135	O-Phosphate-P	99.2	98.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033527	O-Phosphate-P	96.8	98.6	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P353202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033274	Acesulfame K	59.0	62.3	P/P	40 - 150
2033274	Sucralose	81.3	93.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033801	2,4-D	126	139	P/P	40 - 150
2033801	Acetaminophen	131	140	P/P	30 - 150
2033801	Bentazon	52.6	60.3	P/P	30 - 150
2033801	Carbamazepine	80.7	81.8	P/P	40 - 150
2033801	Diuron	72.7	71.9	P/P	40 - 150
2033801	Fenuron	110	113	P/P	40 - 150
2033801	Fluridone	106	110	P/P	40 - 150
2033801	Hydrocodone	108	116	P/P	40 - 150
2033801	Ibuprofen	52.2	65.2	P/P	40 - 150
2033801	Imazapyr	148	161	P/F	40 - 150
2033801	Imidacloprid	189	182	F/F	40 - 160
2033801	Linuron	73.3	76.8	P/P	40 - 150
2033801	MCP	132	137	P/P	40 - 150
2033801	Naproxen	60.2	71.8	P/P	40 - 150
2033801	Primidone	111	110	P/P	40 - 150
2033801	Pyraclostrobin	88.8	86.8	P/P	40 - 150
2033801	Triclopyr	124	140	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033469	Fluoride	97.3	96.6	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P353818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2034476	Fluoride	96.7	96.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P353621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033367	Organic Carbon	97.6	96.5	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P353622

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033531	Organic Carbon	95.2	94.9	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P353944

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033515	Organic Carbon	93.6	94.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353253

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033453	Turbidity	0.671	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033524	Turbidity	2.58	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033418	Iron	0.426	Spike	P	0 - 20
2033418	Zinc	0.0408	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033818	Iron	4.12	Spike	P	0 - 20
2033818	Zinc	2.78	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033418	Arsenic	0.0553	Spike	P	0 - 20
2033418	Cadmium	1.25	Spike	P	0 - 20
2033418	Chromium	0.499	Spike	P	0 - 20
2033418	Copper	0.0637	Spike	P	0 - 20
2033418	Silver	1.68	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033818	Arsenic	0.904	Spike	P	0 - 20
2033818	Cadmium	1.16	Spike	P	0 - 20
2033818	Chromium	16.8	Spike	P	0 - 20
2033818	Copper	0.650	Spike	P	0 - 20
2033818	Lead	4.90	Spike	P	0 - 20
2033818	Nickel	0.990	Spike	P	0 - 20
2033818	Silver	0.834	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033543	Chromium	1.35	Spike	P	0 - 20
2033543	Lead	0.457	Spike	P	0 - 20
2033543	Nickel	2.89	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353850

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033470	Ammonia-N	0.506	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033811	Ammonia-N	1.37	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033512	Ammonia-N	1.38	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353485

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032853	Kjeldahl Nitrogen	3.75	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353610

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033778	Kjeldahl Nitrogen	0.720	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033775	Kjeldahl Nitrogen	1.52	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033531	NO2NO3-N	0.995	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033133	NO2NO3-N	1.20	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353292

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032861	Total-P	4.38	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033784	Total-P	2.10	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033781	Total-P	2.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353245

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033135	O-Phosphate-P	0.286	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P353247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033527	O-Phosphate-P	1.06	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P353202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033274	Acesulfame K	5.51	Spike	P	0 - 30
2033274	Sucralose	11.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P353225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033801	2,4-D	9.52	Spike	P	0 - 30
2033801	Acetaminophen	6.29	Spike	P	0 - 30
2033801	Bentazon	9.84	Spike	P	0 - 30
2033801	Carbamazepine	1.38	Spike	P	0 - 30
2033801	Diuron	0.794	Spike	P	0 - 30
2033801	Fenuron	2.64	Spike	P	0 - 30
2033801	Fluridone	4.07	Spike	P	0 - 30
2033801	Hydrocodone	6.88	Spike	P	0 - 30
2033801	Ibuprofen	22.2	Spike	P	0 - 30
2033801	Imazapyr	3.26	Spike	P	0 - 30
2033801	Imidacloprid	4.05	Spike	P	0 - 30
2033801	Linuron	4.71	Spike	P	0 - 30
2033801	MCPP	3.58	Spike	P	0 - 30
2033801	Naproxen	17.6	Spike	P	0 - 30
2033801	Primidone	0.709	Spike	P	0 - 30
2033801	Pyraclostrobin	2.36	Spike	P	0 - 30
2033801	Triclopyr	12.2	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P353710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033469	Total Alkalinity	0.283	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P353815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034476	Total Alkalinity	0.598	Sample	P	0 - 1.6

Reference Method: SM 2540 D-97
Batch ID: P353587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033858	TSS	6.19	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P353588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033524	TSS	5.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P353713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033469	Fluoride	0.470	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P353818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2034476	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P353621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033367	Organic Carbon	0.637	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P353622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033531	Organic Carbon	0.154	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P353944

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033515	Organic Carbon	1.00	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

Lab Sample ID: 2033556
Field Sample ID: G2SE0044

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	130	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.1	P	30 - 160
EPA 8321B	Diuron-d6	73.8	P	30 - 160
EPA 8321B	Endothall-d6	59.6	P	40 - 160
EPA 8321B	Ibuprofen-d3	69.0	P	30 - 160
EPA 8321B	Primidone-d5	112	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	40 - 160

Lab Sample ID: 2033557
Field Sample ID: G2SE0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160
EPA 8321B	Acetaminophen-d4	122	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.0	P	30 - 160
EPA 8321B	Diuron-d6	69.5	P	30 - 160
EPA 8321B	Endothall-d6	58.4	P	40 - 160
EPA 8321B	Ibuprofen-d3	70.0	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	40 - 160

Lab Sample ID: 2033558
Field Sample ID: G2SE0007

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	144	P	30 - 160
EPA 8321B	Acetaminophen-d4	131	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.4	P	30 - 160
EPA 8321B	Diuron-d6	66.7	P	30 - 160
EPA 8321B	Endothall-d6	75.5	P	40 - 160
EPA 8321B	Ibuprofen-d3	73.3	P	30 - 160
EPA 8321B	Primidone-d5	120	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	40 - 160

Lab Sample ID: 2033559
Field Sample ID: G2SE0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	122	P	30 - 160
EPA 8321B	Acetaminophen-d4	126	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.0	P	30 - 160
EPA 8321B	Diuron-d6	70.5	P	30 - 160
EPA 8321B	Endothall-d6	74.5	P	40 - 160
EPA 8321B	Ibuprofen-d3	56.9	P	30 - 160
EPA 8321B	Primidone-d5	118	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A87103

Included Lab Sample IDs: 2033513, 2033516, 2033521, 2033522, 2033527, 2033528, 2033533, 2033534

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.7	99.1	P/P	90 - 110
O-Phosphate-P	99.1	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A87106

Included Lab Sample IDs: 2033511, 2033514, 2033517, 2033518, 2033523, 2033524, 2033529, 2033530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A87135

Included Lab Sample IDs: 2033556, 2033557, 2033558, 2033559

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	94.4	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87160

Included Lab Sample IDs: 2033525, 2033526, 2033531

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

Reference Method: EPA 8321B

Run ID: A87174

Included Lab Sample IDs: 2033556, 2033557, 2033558, 2033559

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	82.4	87.1	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87180

Included Lab Sample IDs: 2033512, 2033515

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87192

Included Lab Sample IDs: 2033519, 2033520, 2033525, 2033526, 2033531, 2033532

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87246

Included Lab Sample IDs: 2033512, 2033515, 2033519

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87255

Included Lab Sample IDs: 2033512, 2033515, 2033519, 2033520, 2033532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A87260

Included Lab Sample IDs: 2033519, 2033525, 2033526, 2033531, 2033532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	98.3	P/P	90 - 110
Organic Carbon	98.3	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87281

Included Lab Sample IDs: 2033525, 2033526, 2033531

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87284

Included Lab Sample IDs: 2033520, 2033532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.8	99.2	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A87299

Included Lab Sample IDs: 2033517, 2033523, 2033524, 2033529, 2033530

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

Reference Method: SM 4500 F-C-97

Run ID: A87299

Included Lab Sample IDs: 2033517, 2033523, 2033524, 2033529, 2033530

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87312

Included Lab Sample IDs: 2033570, 2033571, 2033572

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.7	95.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87312

Included Lab Sample IDs: 2033570, 2033571, 2033572

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	104	104	P/P	90 - 110
Chromium	100	101	P/P	90 - 110
Silver	96.1	95.7	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87337

Included Lab Sample IDs: 2033570, 2033571, 2033572, 2033573

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	91.4	92.8	P/P	90 - 110
Zinc	94.2	95.0	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A87344

Included Lab Sample IDs: 2033511, 2033514, 2033518

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: A87344

Included Lab Sample IDs: 2033511, 2033514, 2033518

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87350

Included Lab Sample IDs: 2033570, 2033571, 2033572, 2033573

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	98.7	98.9	P/P	90 - 110
Cadmium	103	102	P/P	90 - 110
Chromium	100	99.5	P/P	90 - 110
Copper	99.0	100	P/P	90 - 110
Silver	93.9	93.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87363

Included Lab Sample IDs: 2033512, 2033515, 2033519, 2033520, 2033525, 2033526, 2033531, 2033532

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87399

Included Lab Sample IDs: 2033569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	105	99.3	P/P	90 - 110
Zinc	97.6	97.4	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A87403

Included Lab Sample IDs: 2033512, 2033515, 2033520

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

Reference Method: EPA 8321B

Run ID: A87443

Included Lab Sample IDs: 2033556, 2033557, 2033558, 2033559

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.5	107	P/P	50 - 150
Acetaminophen	129	115	P/P	60 - 160
Bentazon	111	117	P/P	50 - 160
Carbamazepine	130	134	P/P	60 - 160
Diuron	136	143	P/P	60 - 150
Fenuron	123	135	P/P	60 - 150
Fluridone	120	124	P/P	60 - 160
Hydrocodone	121	128	P/P	60 - 150
Ibuprofen	72.0	63.1	P/P	50 - 160
Imazapyr	116	113	P/P	50 - 150
Imidacloprid	120	138	P/P	60 - 150
Linuron	126	137	P/P	60 - 150
MCPP	101	108	P/P	50 - 150
Naproxen	95.7	98.6	P/P	50 - 160
Primidone	135	130	P/P	60 - 150
Pyraclostrobin	123	130	P/P	60 - 150
Triclopyr	111	103	P/P	50 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87582

Included Lab Sample IDs: 2033570, 2033571, 2033572, 2033573

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	102	102	P/P	90 - 110
Lead	104	102	P/P	90 - 110
Nickel	102	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87648

Included Lab Sample IDs: 2033569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	103	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Copper	101	99.2	P/P	90 - 110
Nickel	100	97.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87648

Included Lab Sample IDs: 2033569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	95.4	94.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87705

Included Lab Sample IDs: 2033569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	103	103	P/P	90 - 110
Lead	104	104	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						0.671	
	Turbidity						2.58	
EPA 200.7 Rev. 4.4	Iron	93.6	93.5	93.1	91.6			0.426
	Iron	108	104	99.8				4.12
	Zinc	90.2	90.0	89.9	88.3			0.0408
	Zinc	101	99.5	96.6				2.78
EPA 200.8 Rev. 5.4	Arsenic	99.9	104	104	107			0.0553
	Arsenic	106	109	110				0.904
	Cadmium	104	108	109	115			1.25
	Cadmium	102	98.8	99.9				1.16
	Chromium	101	102	102	108			0.499
	Chromium	104	112	132				16.8
	Chromium	102	98.6	97.2	102			1.35
	Copper	105	101	101	106			0.0637
	Copper	104	94.3	93.4				0.650
	Lead	96.3	101	106				4.90
	Lead	104	103	103	106			0.457
	Nickel	103	87.6	86.7				0.990
	Nickel	106	101	98.0	102			2.89
	Silver	94.3	94.8	96.4	99.1			1.68
	Silver	101	90.4	91.1				0.834
EPA 350.1 Rev. 2.0	Ammonia-N	98.7	97.8	98.8				0.506
	Ammonia-N	98.1	97.8	99.3				1.37
	Ammonia-N	96.7	98.0	99.8				1.38
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.2	90.8	94.9				3.75
	Kjeldahl Nitrogen	101	97.6	98.8				0.720
	Kjeldahl Nitrogen	97.7	107	105				1.52
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	101				0.995
	NO2NO3-N	99.5	100	102				1.20
EPA 365.1 Rev. 2.0	Total-P	102	100	95.6				4.38
	Total-P	99.1	96.9	99.0				2.10
	Total-P	101	94.8	97.3				2.46
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.5	99.2	98.7				0.286
	O-Phosphate-P	98.9	96.8	98.6				1.06
EPA 8321B	2,4-D	92.7	126	139				9.52
	Acesulfame K	107	59.0	62.3				5.51
	Acetaminophen	148	131	140				6.29
	Bentazon	94.1	52.6	60.3				9.84
	Carbamazepine	98.8	80.7	81.8				1.38
	Diuron	101	72.7	71.9				0.794
	Fenuron	139	110	113				2.64
	Fluridone	115	106	110				4.07
	Hydrocodone	131	108	116				6.88
	Ibuprofen	57.2	52.2	65.2				22.2
	Imazapyr	108	148	161				3.26
	Imidacloprid	123	189	182				4.05
	Linuron	86.5	73.3	76.8				4.71
	MCP	88.0	132	137				3.58
	Naproxen	57.6	60.2	71.8				17.6
	Primidone	129	111	110				0.709
	Pyraclostrobin	78.1	88.8	86.8				2.36
	Sucralose	84.4	81.3	93.2				11.7
	Triclopyr	85.3	124	140				12.2
SM 2320 B-97	Total Alkalinity	101					0.283	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2320 B-97	Total Alkalinity	103			0.598	
SM 2540 D-97	TSS				6.19	
	TSS				5.41	
SM 4500 F-C-97	Fluoride	96.6	97.3	96.6		0.470
	Fluoride	96.8	96.7	96.7		0.0
SM 5310 B-00	Organic Carbon	96.3	97.6	96.5		0.637
	Organic Carbon	96.8	95.2	94.9		0.154
	Organic Carbon	93.2	93.6	94.6		1.00

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2033511, 2033514, 2033517, 2033518, 2033523, 2033524, 2033529, 2033530
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2033569, 2033570, 2033571, 2033572, 2033573
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2033569, 2033570, 2033571, 2033572, 2033573
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2033512, 2033515, 2033519, 2033520, 2033525, 2033526, 2033531, 2033532
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2033512, 2033515, 2033519, 2033520, 2033525, 2033526, 2033531, 2033532
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2033512, 2033515, 2033519, 2033520, 2033525, 2033526, 2033531, 2033532
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2033512, 2033515, 2033519, 2033520, 2033525, 2033526, 2033531, 2033532
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2033513, 2033516, 2033521, 2033522, 2033527, 2033528, 2033533, 2033534
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2033556, 2033557, 2033558, 2033559
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2033511, 2033514, 2033517, 2033518, 2033523, 2033524, 2033529, 2033530
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2033511, 2033514, 2033517, 2033518, 2033523, 2033524, 2033529, 2033530
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2033511, 2033514, 2033517, 2033518, 2033523, 2033524, 2033529, 2033530
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2033512, 2033515, 2033519, 2033520, 2033525, 2033526, 2033531, 2033532

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	10/17/2018			10/17/2018 16:15	Megan Treadwell	2033511, 2033514, 2033517, 2033518, 2033523, 2033524, 2033529, 2033530
EPA 200.7 Rev. 4.4	10/17/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:06	Betina Topolski	2033570
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:12	Betina Topolski	2033571
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:18	Betina Topolski	2033572
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:24	Betina Topolski	2033573
	10/17/2018	10/24/2018 15:15	Elliott D. Healy	10/30/2018 16:41	Betina Topolski	2033569
EPA 200.8 Rev. 5.4	10/17/2018	10/19/2018 11:53	Devin Thornton	10/25/2018 20:24	Allison Taylor	2033570
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/25/2018 20:34	Allison Taylor	2033571
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/25/2018 20:44	Allison Taylor	2033572
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:01	Allison Taylor	2033570
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:11	Allison Taylor	2033571
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:20	Allison Taylor	2033572
	10/17/2018	10/19/2018 11:53	Devin Thornton	10/26/2018 21:30	Allison Taylor	2033573
	10/17/2018	10/24/2018 15:15	Elliott D. Healy	11/08/2018 22:18	Robert K Palmer	2033569
	10/17/2018	10/24/2018 15:15	Elliott D. Healy	11/09/2018 16:56	Allison Taylor	2033569
	10/17/2018	10/31/2018 15:35	Elliott D. Healy	11/06/2018 01:36	Allison Taylor	2033570
	10/17/2018	10/31/2018 15:35	Elliott D. Healy	11/06/2018 01:46	Allison Taylor	2033571
	10/17/2018	10/31/2018 15:35	Elliott D. Healy	11/06/2018 01:56	Allison Taylor	2033572
	10/17/2018	10/31/2018 15:35	Elliott D. Healy	11/06/2018 02:05	Allison Taylor	2033573
EPA 350.1 Rev. 2.0	10/17/2018			10/29/2018 14:17	Julia Storbeck	2033525
	10/17/2018			10/29/2018 14:33	Julia Storbeck	2033526
	10/17/2018			10/29/2018 14:35	Julia Storbeck	2033531
	10/17/2018			10/29/2018 14:56	Julia Storbeck	2033512
	10/17/2018			10/29/2018 15:04	Julia Storbeck	2033515
	10/17/2018			10/29/2018 15:05	Julia Storbeck	2033519
	10/17/2018			10/29/2018 15:13	Julia Storbeck	2033520
	10/17/2018			10/29/2018 15:14	Julia Storbeck	2033532
EPA 351.2 Rev. 2.0	10/17/2018	10/23/2018 09:00	Adrian Shelby	10/24/2018 09:47	Joseph Suarez	2033512
	10/17/2018	10/23/2018 09:00	Adrian Shelby	10/24/2018 09:48	Joseph Suarez	2033515
	10/17/2018	10/23/2018 09:00	Adrian Shelby	10/24/2018 09:50	Joseph Suarez	2033519
	10/17/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 10:00	Joseph Suarez	2033525
	10/17/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 10:01	Joseph Suarez	2033526
	10/17/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 10:03	Joseph Suarez	2033531
	10/17/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 13:30	Joseph Suarez	2033520
	10/17/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 13:32	Joseph Suarez	2033532
EPA 353.2 Rev. 2.0	10/17/2018			10/19/2018 12:52	Lauren Bottorf	2033531
	10/17/2018			10/19/2018 12:58	Lauren Bottorf	2033525
	10/17/2018			10/19/2018 13:00	Lauren Bottorf	2033526
	10/17/2018			10/24/2018 12:12	Lauren Bottorf	2033512

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	10/17/2018			10/24/2018 12:13	Lauren Bottorf	2033515
	10/17/2018			10/24/2018 12:14	Lauren Bottorf	2033519
	10/17/2018			10/24/2018 12:16	Lauren Bottorf	2033520
	10/17/2018			10/24/2018 12:17	Lauren Bottorf	2033532
EPA 365.1 Rev. 2.0	10/17/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 13:31	Beverly Y. Sanders	2033512
	10/17/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 13:32	Beverly Y. Sanders	2033515
	10/17/2018	10/19/2018 12:10	Sima Feizi	10/22/2018 09:57	Beverly Y. Sanders	2033525
	10/17/2018	10/19/2018 12:10	Sima Feizi	10/22/2018 09:58	Beverly Y. Sanders	2033526
	10/17/2018	10/19/2018 12:10	Sima Feizi	10/22/2018 10:00	Beverly Y. Sanders	2033531
	10/17/2018	10/19/2018 12:10	Sima Feizi	10/22/2018 10:29	Beverly Y. Sanders	2033519
	10/17/2018	10/19/2018 12:10	Sima Feizi	10/22/2018 10:30	Beverly Y. Sanders	2033520
	10/17/2018	10/19/2018 12:10	Sima Feizi	10/22/2018 10:31	Beverly Y. Sanders	2033532
EPA 365.1 Rev. 2.0 dissolved	10/17/2018			10/17/2018 16:29	Anthony C. Onicha	2033527
	10/17/2018			10/17/2018 16:31	Anthony C. Onicha	2033513
	10/17/2018			10/17/2018 16:32	Anthony C. Onicha	2033516
	10/17/2018			10/17/2018 17:20	Anthony C. Onicha	2033521
	10/17/2018			10/17/2018 17:21	Anthony C. Onicha	2033522, 2033528
	10/17/2018			10/17/2018 17:22	Anthony C. Onicha	2033533
	10/17/2018			10/17/2018 17:23	Anthony C. Onicha	2033534
	10/17/2018			10/19/2018 04:38	Rebecca Ware	2033556
EPA 8321B	10/17/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 04:52	Rebecca Ware	2033557
	10/17/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 05:07	Rebecca Ware	2033558
	10/17/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 05:22	Rebecca Ware	2033559
	10/17/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 23:36	Mohammad Ghaffari	2033556
	10/17/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 23:50	Mohammad Ghaffari	2033557
	10/17/2018	10/18/2018 16:00	Rebecca Ware	10/20/2018 00:05	Mohammad Ghaffari	2033558
	10/17/2018	10/18/2018 16:00	Rebecca Ware	10/20/2018 00:20	Mohammad Ghaffari	2033559
	10/17/2018	10/22/2018 10:00	Hoor Shaik	10/23/2018 22:31	Juyoung Kim	2033556
	10/17/2018	10/22/2018 10:00	Hoor Shaik	10/23/2018 23:06	Juyoung Kim	2033557
	10/17/2018	10/22/2018 10:00	Hoor Shaik	10/23/2018 23:40	Juyoung Kim	2033558
	10/17/2018	10/22/2018 10:00	Hoor Shaik	10/24/2018 00:15	Juyoung Kim	2033559
	10/17/2018	10/22/2018 10:00	Hoor Shaik	10/25/2018 15:37	Juyoung Kim	2033556
	10/17/2018	10/22/2018 10:00	Hoor Shaik	10/25/2018 16:12	Juyoung Kim	2033557
	10/17/2018	10/22/2018 10:00	Hoor Shaik	10/25/2018 16:46	Juyoung Kim	2033558
	10/17/2018	10/22/2018 10:00	Hoor Shaik	10/25/2018 17:21	Juyoung Kim	2033559
SM 2320 B-97	10/17/2018			10/24/2018 09:42	Dale L. Simmons	2033524
	10/17/2018			10/24/2018 09:52	Dale L. Simmons	2033523
	10/17/2018			10/24/2018 10:03	Dale L. Simmons	2033529
	10/17/2018			10/24/2018 10:25	Dale L. Simmons	2033530
	10/17/2018			10/24/2018 10:49	Dale L. Simmons	2033517

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	10/17/2018			10/26/2018 11:44	Dale L. Simmons	2033518
	10/17/2018			10/26/2018 12:25	Dale L. Simmons	2033511
	10/17/2018			10/26/2018 12:34	Dale L. Simmons	2033514
SM 2540 D-97	10/17/2018			10/19/2018 15:48	Yijie Li	2033511, 2033514, 2033517, 2033518, 2033523, 2033524, 2033529, 2033530
SM 4500 F-C-97	10/17/2018			10/24/2018 09:42	Dale L. Simmons	2033524
	10/17/2018			10/24/2018 09:52	Dale L. Simmons	2033523
	10/17/2018			10/24/2018 10:03	Dale L. Simmons	2033529
	10/17/2018			10/24/2018 10:25	Dale L. Simmons	2033530
	10/17/2018			10/24/2018 10:49	Dale L. Simmons	2033517
	10/17/2018			10/26/2018 09:50	Dale L. Simmons	2033518
	10/17/2018			10/26/2018 10:05	Dale L. Simmons	2033511
	10/17/2018			10/26/2018 10:09	Dale L. Simmons	2033514
SM 5310 B-00	10/17/2018			10/24/2018 01:58	Megan Treadwell	2033519
	10/17/2018			10/24/2018 02:11	Megan Treadwell	2033525
	10/17/2018			10/24/2018 02:24	Megan Treadwell	2033526
	10/17/2018			10/24/2018 03:06	Megan Treadwell	2033531
	10/17/2018			10/24/2018 04:38	Megan Treadwell	2033532
	10/17/2018			10/30/2018 15:40	Megan Treadwell	2033515
	10/17/2018			10/30/2018 16:38	Megan Treadwell	2033512
	10/17/2018			10/30/2018 17:04	Megan Treadwell	2033520