

Chemical Analysis Report

WAS-SECT-2018-03-15-01

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

Event Description: **Swamp, Salem, Caney, Harbiwood, Ocklock**

Request ID: **RQ-2018-03-12-53**

Customer: **WAS-SECT**

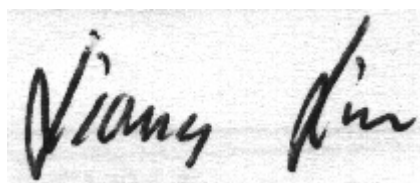
Project ID: **SMP**

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For additional information please contact
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 23-APR-2018 15:36

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 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: Ochlockonee River Downstream of Tower Rd **Collection Date/Time: 03/15/2018 12:00**

Field ID: G1WA0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975280	EPA 180.1 Rev. 2.0	Turbidity	17		NTU	P341638	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P342128	
		Sulfate	5.1		mg SO4/L	P342132	
	SM 2120 B	Color (true)	65		PCU	P341643	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P341963	
	SM 2540 C-97	TDS	85		mg/L	P342233	
	SM 2540 D-97	TSS	17		mg/L	P341766	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P341966	
1975287	EPA 350.1 Rev. 2.0	Ammonia-N	0.098		mg N/L	P342299	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P341915	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.62		mg N/L	P341736	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P341746	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P342275	
1975294	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.074		mg P/L	P341702	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Ochlockonee River Downstream of Tower Rd **Collection Date/Time: 03/15/2018 12:00**

Field ID: G1WA0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975320	EPA 200.7 Rev. 4.4	Calcium	7.28		mg/L	P341768	
		Iron	2.24E+03		ug/L	P341768	
		Magnesium	3.56		mg/L	P341768	
		Potassium	3.1		mg/L	P341768	
		Sodium	6.8		mg/L	P341768	
		Zinc	5.0	U	ug/L	P341768	
	EPA 200.8 Rev. 5.4	Arsenic	0.99		ug/L	P341768	
		Cadmium	0.020	U	ug/L	P341768	
		Chromium	1.3	I	ug/L	P341768	
		Copper	0.96		ug/L	P341768	
		Lead	0.84		ug/L	P343020	
		Nickel	0.53	I	ug/L	P341768	
		Silver	0.010	U	ug/L	P341768	

Sample Location: Harbinwood Estates Drain

Collection Date/Time: 03/15/2018 09:50

Field ID: G1WA0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975281	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P341638	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P342128	
		Sulfate	1.1		mg SO4/L	P342132	
	SM 2120 B	Color (true)	39	A	PCU	P341644	
	SM 2320 B-97	Total Alkalinity	44		mg CaCO3/L	P341963	

Field ID: G1WA0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975281	SM 2540 C-97	TDS	70		mg/L	P342233	
	SM 2540 D-97	TSS	2	I	mg/L	P341767	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P341966	
1975288	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P342200	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.32		mg N/L	P341915	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P341736	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P341746	
	SM 5310 B-00	Organic Carbon	5.0		mg C/L	P342275	
1975295	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.070		mg P/L	P341702	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Harbinwood Estates Drain

Collection Date/Time: 03/15/2018 09:50

Field ID: G1WA0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975321	EPA 200.7 Rev. 4.4	Calcium	11.8		mg/L	P341768	
		Iron	560		ug/L	P341768	
		Magnesium	4.41		mg/L	P341768	
		Potassium	1.8		mg/L	P341768	
		Sodium	5.9		mg/L	P341768	
		Zinc	5.0	U	ug/L	P341768	
	EPA 200.8 Rev. 5.4	Arsenic	0.65		ug/L	P341768	
		Cadmium	0.020	U	ug/L	P341768	
		Chromium	0.40	U	ug/L	P341768	
		Copper	0.59	I	ug/L	P341768	
		Lead	0.16	I	ug/L	P343020	
		Nickel	0.20	U	ug/L	P341768	
		Silver	0.010	U	ug/L	P341768	

Sample Location: Harbinwood Estates Drain

Collection Date/Time: 03/15/2018 09:50

Field ID: G1WA0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975318	EPA 8321B	2,4-D	0.0020	U	ug/L	P341599	
		Sucralose**	0.56		ug/L	P341684	
		Bentazon	8.0E-04	U	ug/L	P341599	
		MCP	0.0020	U	ug/L	P341599	
		Triclopyr**	0.0040	U	ug/L	P341599	
		Imidacloprid	0.014		ug/L	P341599	
		Diuron	0.0020	U	ug/L	P341599	
		Pyraclostrobin**	0.0020	U	ug/L	P341599	
		Primidone**	0.0040	U	ug/L	P341599	
		Linuron	0.0040	U	ug/L	P341599	
		Acetaminophen**	0.0080	U	ug/L	P341599	
		Fenuron	0.016	U	ug/L	P341599	

MS

Field ID: G1WA0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975318	EPA 8321B	Imazapyr**	5.3		ug/L	P341599	
		Carbamazepine**	4.0E-04	U	ug/L	P341599	
		Fluridone**	8.0E-04	U	ug/L	P341599	

Ref. Method and Comment:

EPA 8321B: Insufficient sample to perform duplicate matrix spikes.

Sample Location: Ochlockonee River Upstream of US 90

Collection Date/Time: 03/15/2018 13:30

Field ID: G1WA0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975282	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P341638	
	EPA 300.0 Rev. 2.1	Chloride	12	A	mg Cl/L	P342129	
		Sulfate	5.9	A	mg SO4/L	P342133	
	SM 2120 B	Color (true)	120		PCU	P341644	
	SM 2320 B-97	Total Alkalinity	23		mg CaCO3/L	P341963	
	SM 2540 C-97	TDS	86		mg/L	P342233	
	SM 2540 D-97	TSS	8	I	mg/L	P341767	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P341966	
1975289	EPA 350.1 Rev. 2.0	Ammonia-N	0.065		mg N/L	P342200	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P341915	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.74		mg N/L	P341736	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P341746	
	SM 5310 B-00	Organic Carbon	9.8		mg C/L	P342275	
1975296	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.068		mg P/L	P341702	

Sample Location: Ochlockonee River Upstream of US 90

Collection Date/Time: 03/15/2018 13:30

Field ID: G1WA0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975322	EPA 200.7 Rev. 4.4	Calcium	8.07		mg/L	P341768	
		Iron	1.96E+03		ug/L	P341768	
		Magnesium	3.78		mg/L	P341768	
		Potassium	3.1		mg/L	P341768	
		Sodium	6.6		mg/L	P341768	
		Zinc	5.0	U	ug/L	P341768	
	EPA 200.8 Rev. 5.4	Arsenic	0.89		ug/L	P341768	
		Cadmium	0.020	U	ug/L	P341768	
		Chromium	0.94	I	ug/L	P341768	
		Copper	0.81		ug/L	P341768	
		Lead	0.67		ug/L	P343020	
		Nickel	0.46	I	ug/L	P341768	
		Silver	0.010	U	ug/L	P341768	

Sample Location: Caney Creek Upstream of US 90

Collection Date/Time: 03/15/2018 09:00

Field ID: G1WA0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975283	EPA 180.1 Rev. 2.0	Turbidity	6.7		NTU	P341638	
	EPA 300.0 Rev. 2.1	Chloride	7.9		mg Cl/L	P342129	
		Sulfate	1.3		mg SO4/L	P342133	
	SM 2120 B	Color (true)	130		PCU	P341644	
	SM 2320 B-97	Total Alkalinity	30		mg CaCO3/L	P341963	
	SM 2540 C-97	TDS	70		mg/L	P342233	
	SM 2540 D-97	TSS	2	I	mg/L	P341767	
	SM 4500 F-C-97	Fluoride	0.099	I	mg F/L	P341966	
1975290	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P342200	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.63		mg N/L	P341915	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P341736	
	EPA 365.1 Rev. 2.0	Total-P	0.55		mg P/L	P341746	
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P342275	
1975297	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.45		mg P/L	P341702	

Sample Location: Caney Creek Upstream of US 90

Collection Date/Time: 03/15/2018 09:00

Field ID: G1WA0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975323	EPA 200.7 Rev. 4.4	Calcium	7.54		mg/L	P341768	
		Iron	980		ug/L	P341768	
		Magnesium	2.63		mg/L	P341768	
		Potassium	3.8		mg/L	P341768	
		Sodium	5.6		mg/L	P341768	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P341768	
		Arsenic	0.48		ug/L	P341768	
		Cadmium	0.020	U	ug/L	P341768	
		Chromium	0.75	I	ug/L	P341768	
		Copper	0.48	I	ug/L	P341768	
		Lead	0.20	I	ug/L	P342056	
		Nickel	0.35	I	ug/L	P341768	
		Silver	0.010	U	ug/L	P341768	

Sample Location: Caney Creek Upstream of US 90

Collection Date/Time: 03/15/2018 09:00

Field ID: G1WA0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975319	EPA 8321B	2,4-D	0.0023	I	ug/L	P341599	
		Sucralose**	0.056		ug/L	P341684	
		Bentazon	8.0E-04	U	ug/L	P341599	
		MCP	0.0020	U	ug/L	P341599	
		Triclopyr**	0.0040	U	ug/L	P341599	
		Imidacloprid	0.0020	U	ug/L	P341599	
		Diuron	0.0020	U	ug/L	P341599	
		Pyraclostrobin**	0.0020	U	ug/L	P341599	

Field ID: G1WA0014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975319	EPA 8321B	Primidone**	0.0040	U	ug/L	P341599	
		Linuron	0.0040	U	ug/L	P341599	
		Acetaminophen**	0.0080	U	ug/L	P341599	
		Fenuron	0.016	U	ug/L	P341599	MS
		Imazapyr**	0.0040	U	ug/L	P341599	
		Carbamazepine**	8.6E-04	I	ug/L	P341599	
		Fluridone**	8.0E-04	U	ug/L	P341599	

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform duplicate matrix spikes.

Sample Location: Swamp Creek upstream of Railroad

Collection Date/Time: 03/15/2018 10:40

Field ID: G1WA0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975284	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P341638	
	EPA 300.0 Rev. 2.1	Chloride	8.7		mg Cl/L	P342129	
		Sulfate	2.6		mg SO4/L	P342133	
	SM 2120 B	Color (true)	90		PCU	P341644	
	SM 2320 B-97	Total Alkalinity	16		mg CaCO3/L	P341963	
	SM 2540 C-97	TDS	78		mg/L	P342233	
	SM 2540 D-97	TSS	6	I	mg/L	P341767	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P341966	
1975291	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P342200	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P341915	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.6		mg N/L	P341736	
	EPA 365.1 Rev. 2.0	Total-P	0.090		mg P/L	P341747	
	SM 5310 B-00	Organic Carbon	8.9		mg C/L	P342275	
1975298	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.038		mg P/L	P341702	

Sample Location: Ochlockonee River Upstream of Old Brainbridge

Collection Date/Time: 03/15/2018 11:15

Field ID: G1WA0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975285	EPA 180.1 Rev. 2.0	Turbidity	14	A	NTU	P341639	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P342129	
		Sulfate	4.5		mg SO4/L	P342133	
	SM 2120 B	Color (true)	110		PCU	P341644	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P341963	
	SM 2540 C-97	TDS	84		mg/L	P342233	
	SM 2540 D-97	TSS	11		mg/L	P341767	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P341966	
1975292	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P342200	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P341915	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.47		mg N/L	P341738	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P341747	

Field ID: G1WA0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975292	SM 5310 B-00	Organic Carbon	11		mg C/L	P342275	
1975299	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.072		mg P/L	P341702	

Ref. Method and Comment:

EPA 353.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Ochlockonee River Upstream of Old Brainbridge

Collection Date/Time: 03/15/2018 11:15

Field ID: G1WA0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975324	EPA 200.7 Rev. 4.4	Calcium	6.84		mg/L	P341768	
		Iron	1.98E+03		ug/L	P341768	
		Magnesium	3.41		mg/L	P341768	
		Potassium	2.8		mg/L	P341768	
		Sodium	6.2		mg/L	P341768	
		Zinc	5.0	U	ug/L	P341768	
	EPA 200.8 Rev. 5.4	Arsenic	0.91		ug/L	P341768	
		Cadmium	0.020	U	ug/L	P341768	
		Chromium	0.90	I	ug/L	P341768	
		Copper	0.71	I	ug/L	P341768	
		Lead	0.67		ug/L	P342056	
		Nickel	0.45	I	ug/L	P341768	
		Silver	0.010	U	ug/L	P341768	

Sample Location: Ochlockonee River Upstream of Tower Rd

Collection Date/Time: 03/15/2018 12:15

Field ID: G1WA0069

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975286	EPA 180.1 Rev. 2.0	Turbidity	18		NTU	P341639	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P342129	
		Sulfate	5.0		mg SO4/L	P342133	
	SM 2120 B	Color (true)	65		PCU	P341643	
	SM 2320 B-97	Total Alkalinity	21		mg CaCO3/L	P341963	
	SM 2540 C-97	TDS	84	A	mg/L	P342234	
	SM 2540 D-97	TSS	17	A	mg/L	P341767	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P341966	
1975293	EPA 350.1 Rev. 2.0	Ammonia-N	0.090		mg N/L	P342200	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P341915	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.61		mg N/L	P341738	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P341747	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P342275	
1975300	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.075		mg P/L	P341702	

Ref. Method and Comment:

EPA 353.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Ochlockonee River Upstream of Tower Rd

Collection Date/Time: 03/15/2018 12:15

Field ID: G1WA0069

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1975325	EPA 200.7 Rev. 4.4	Calcium	7.31		mg/L	P341768	
		Iron	2.17E+03		ug/L	P341768	
		Magnesium	3.54		mg/L	P341768	
		Potassium	3.0		mg/L	P341768	
		Sodium	6.6		mg/L	P341768	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P341768	
		Arsenic	0.95		ug/L	P341768	
		Cadmium	0.020	U	ug/L	P341768	
		Chromium	1.2	I	ug/L	P341768	
		Copper	0.94		ug/L	P341768	
		Lead	0.87		ug/L	P342056	
		Nickel	0.52	I	ug/L	P341768	
		Silver	0.010	U	ug/L	P341768	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341638

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341639

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341768

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341768

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
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342056

Component	Result	Code	Units
Lead	0.050	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343020

Component	Result	Code	Units
Lead	0.050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342128

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342129

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342132

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342133

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342200

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342299

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341915

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341736

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341738

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341746

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341747

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341702

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

Reference Method: EPA 8321B
Batch ID: P341599

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	4.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P341684

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P341643

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P341644

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P341963

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

Reference Method: SM 2540 C-97
Batch ID: P342233

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P342234

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341766

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341767

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P341966

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P342275

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: P341768

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	107		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	103		P	85 - 115
Sodium	103		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P341768

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	103		P	85 - 115
Cadmium	106		P	85 - 115
Chromium	103		P	85 - 115
Copper	101		P	85 - 115
Nickel	99.9		P	85 - 115
Silver	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P342056

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P343020

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P342128

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P342129

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: P342132

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P342133

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: P342133

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342200

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342299

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341915

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341736

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341738

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341746

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341747

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341702

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P341599

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	64.3	52.8	P/P	40 - 150
Acetaminophen	91.2	85.6	P/P	30 - 150
Bentazon	63.8	58.2	P/P	30 - 150
Carbamazepine	82.0	76.4	P/P	40 - 150
Diuron	70.8	68.3	P/P	40 - 150
Fenuron	104	99.0	P/P	40 - 150
Fluridone	66.3	61.7	P/P	40 - 150
Imazapyr	71.8	70.5	P/P	40 - 150
Imidacloprid	86.0	84.7	P/P	40 - 160
Linuron	71.9	69.6	P/P	40 - 150
MCPP	72.1	66.4	P/P	40 - 150
Primidone	98.5	90.9	P/P	40 - 150
Pyraclostrobin	66.8	66.3	P/P	40 - 150
Triclopyr	72.0	67.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P341684

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	115		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P341963

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.3		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P341966

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.5		P	91 - 102

Reference Method: SM 5310 B-00
Batch ID: P342275

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975197	Calcium	97.6		P	80 - 120
1975197	Iron	104		P	80 - 120
1975197	Magnesium	98.3		P	80 - 120
1975197	Potassium	98.7		P	80 - 120
1975197	Sodium	97.3		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P341768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975197	Zinc	95.4		P	80 - 120
1975321	Calcium	100		P	80 - 120
1975321	Iron	103	102	P/P	80 - 120
1975321	Magnesium	101		P	80 - 120
1975321	Potassium	98.0	99.0	P/P	80 - 120
1975321	Sodium	98.4		P	80 - 120
1975321	Zinc	97.0	97.0	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P341768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975197	Arsenic	101		P	80 - 120
1975197	Cadmium	106		P	80 - 120
1975197	Chromium	99.5		P	80 - 120
1975197	Copper	96.1		P	80 - 120
1975197	Nickel	92.7		P	80 - 120
1975197	Silver	99.0		P	80 - 120
1975321	Arsenic	102	103	P/P	80 - 120
1975321	Cadmium	106	106	P/P	80 - 120
1975321	Chromium	102	102	P/P	80 - 120
1975321	Copper	100	101	P/P	80 - 120
1975321	Nickel	98.5	98.6	P/P	80 - 120
1975321	Silver	105	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P342056

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980989	Lead	102		P	80 - 120
1981281	Lead	102	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P343020

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975197	Lead	103		P	80 - 120
1977231	Lead	104	102	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P342128

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974965	Chloride	94.0		P	90 - 110
1975281	Chloride	96.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P342129

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975282	Chloride	97.2		P	90 - 110
1975391	Chloride	97.5		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974965	Sulfate	95.9		P	90 - 110
1975281	Sulfate	98.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975282	Sulfate	102		P	90 - 110
1975391	Sulfate	99.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342200

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975288	Ammonia-N	96.3	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975184	Ammonia-N	99.2	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975288	Kjeldahl Nitrogen	109	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975184	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975288	Total-P	105	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975292	Total-P	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975298	O-Phosphate-P	98.5	99.1	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P341599

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975050	Acetaminophen	112		P	30 - 150
1975050	Carbamazepine	84.4		P	40 - 150
1975050	Diuron	67.6		P	40 - 150
1975050	Fenuron	16.6		F	40 - 150
1975050	Fluridone	55.8		P	40 - 150
1975050	Imazapyr	43.9		P	40 - 150
1975050	Imidacloprid	137		P	40 - 160
1975050	Linuron	81.6		P	40 - 150
1975050	Primidone	100		P	40 - 150
1975050	Pyraclostrobin	63.1		P	40 - 150
1975319	2,4-D	70.4		P	40 - 150
1975319	Bentazon	51.2		P	30 - 150
1975319	MCPP	63.8		P	40 - 150
1975319	Triclopyr	62.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P341684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975318	Sucralose	110	97.2	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P341966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975860	Fluoride	94.4	95.0	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P342275

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1975125	Organic Carbon	102	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975183	Turbidity	11.5	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975285	Turbidity	0.727	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975321	Calcium	1.38	Spike	P	0 - 20
1975321	Iron	0.920	Spike	P	0 - 20
1975321	Magnesium	0.0225	Spike	P	0 - 20
1975321	Potassium	0.694	Spike	P	0 - 20
1975321	Sodium	0.360	Spike	P	0 - 20
1975321	Zinc	0.0976	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975321	Arsenic	0.437	Spike	P	0 - 20
1975321	Cadmium	0.245	Spike	P	0 - 20
1975321	Chromium	0.320	Spike	P	0 - 20
1975321	Copper	0.600	Spike	P	0 - 20
1975321	Nickel	0.105	Spike	P	0 - 20
1975321	Silver	2.59	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342056

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1981281	Lead	0.0883	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343020

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1977231	Lead	1.07	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342128

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974965	Chloride	0.129	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342129

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975282	Chloride	0.508	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975282	Sulfate	0.995	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975288	Ammonia-N	1.15	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975184	Ammonia-N	0.934	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975288	Kjeldahl Nitrogen	5.12	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975184	NO2NO3-N	0.496	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975292	NO2NO3-N	0.302	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975288	Total-P	1.07	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975292	Total-P	0.880	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975298	O-Phosphate-P	0.437	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P341599

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	2,4-D	19.7	LCS	P	0 - 30
LFB	Acetaminophen	6.38	LCS	P	0 - 30
LFB	Bentazon	9.17	LCS	P	0 - 30
LFB	Carbamazepine	6.96	LCS	P	0 - 30
LFB	Diuron	3.54	LCS	P	0 - 30
LFB	Fenuron	5.33	LCS	P	0 - 30
LFB	Fluridone	7.19	LCS	P	0 - 30
LFB	Imazapyr	1.80	LCS	P	0 - 30
LFB	Imidacloprid	1.43	LCS	P	0 - 30
LFB	Linuron	3.28	LCS	P	0 - 30
LFB	MCP	8.15	LCS	P	0 - 30
LFB	Primidone	8.02	LCS	P	0 - 30
LFB	Pyraclostrobin	0.796	LCS	P	0 - 30
LFB	Triclopyr	6.30	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P341684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975318	Sucralose	9.71	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P341643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974929	Color (true)	0.843	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P341644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975281	Color (true)	4.35	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P341963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975860	Total Alkalinity	1.30	Sample	P	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
 Batch ID: P342233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975194	TDS	0.313	Sample	P	0 - 10

Reference Method: SM 2540 C-97
 Batch ID: P342234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975286	TDS	3.59	Sample	P	0 - 10

Reference Method: SM 2540 D-97
 Batch ID: P341767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975286	TSS	4.76	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P341966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975860	Fluoride	0.480	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
 Batch ID: P342275

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1975125	Organic Carbon	0.580	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: 1975318
 Field Sample ID: G1WA0034

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	44.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	128	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.6	P	30 - 160
EPA 8321B	Diuron-d6	81.6	P	30 - 160
EPA 8321B	Primidone-d5	114	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1975319
Field Sample ID: G1WA0014

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	62.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	126	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.8	P	30 - 160
EPA 8321B	Diuron-d6	80.6	P	30 - 160
EPA 8321B	Primidone-d5	110	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82640
Included Lab Sample IDs: 1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Reference Method: SM 2120 B
Run ID: A82641
Included Lab Sample IDs: 1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	98.1	P/P	85 - 115
Color (true)	98.1	101	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82664
Included Lab Sample IDs: 1975294, 1975295, 1975296, 1975297, 1975298, 1975299, 1975300

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	101	P/P	90 - 110
O-Phosphate-P	101	101	P/P	90 - 110
O-Phosphate-P	99.2	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A82687
Included Lab Sample IDs: 1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	P/P	90 - 110
NO2NO3-N	101	99.5	P/P	90 - 110
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A82745
Included Lab Sample IDs: 1975320, 1975321, 1975322, 1975323, 1975324, 1975325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.1	97.7	P/P	90 - 110
Calcium	98.4	97.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82745

Included Lab Sample IDs: 1975320, 1975321, 1975322, 1975323, 1975324, 1975325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	98.9	P/P	90 - 110
Iron	102	101	P/P	90 - 110
Magnesium	101	99.9	P/P	90 - 110
Magnesium	99.9	98.5	P/P	90 - 110
Potassium	100	98.2	P/P	90 - 110
Potassium	98.2	96.9	P/P	90 - 110
Sodium	95.6	95.5	P/P	90 - 110
Sodium	98.2	95.6	P/P	90 - 110
Zinc	100	97.3	P/P	90 - 110
Zinc	97.3	96.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82747

Included Lab Sample IDs: 1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82750

Included Lab Sample IDs: 1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286

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

Reference Method: SM 2320 B-97

Run ID: A82772

Included Lab Sample IDs: 1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	97.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82772

Included Lab Sample IDs: 1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82796

Included Lab Sample IDs: 1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82796

Included Lab Sample IDs: 1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.3	96.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A82852

Included Lab Sample IDs: 1975318, 1975319

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	100	P/P	50 - 150
2,4-D	93.7	101	P/P	50 - 150
Acetaminophen	109	106	P/P	60 - 150
Bentazon	89.5	105	P/P	50 - 150
Bentazon	97.8	110	P/P	50 - 150
Carbamazepine	91.4	122	P/P	60 - 150
Diuron	116	116	P/P	60 - 150
Fenuron	107	99.6	P/P	60 - 150
Fluridone	126	121	P/P	60 - 160
Imazapyr	90.8	91.0	P/P	50 - 150
Imidacloprid	108	108	P/P	60 - 150
Linuron	119	120	P/P	60 - 150
MCPP	102	100	P/P	50 - 150
MCPP	94.5	106	P/P	50 - 150
Primidone	111	114	P/P	60 - 150
Pyraclostrobin	121	116	P/P	60 - 150
Triclopyr	95.4	96.9	P/P	50 - 150
Triclopyr	96.1	95.4	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82853

Included Lab Sample IDs: 1975288, 1975289, 1975290, 1975291, 1975292, 1975293

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

Reference Method: EPA 8321B

Run ID: A82866

Included Lab Sample IDs: 1975318, 1975319

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	94.0	P/P	60 - 150

Reference Method: SM 5310 B-00

Run ID: A82877

Included Lab Sample IDs: 1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	103	P/P	90 - 110
Organic Carbon	103	105	P/P	90 - 110
Organic Carbon	105	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A82884
Included Lab Sample IDs: 1975318

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	103	98.3	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A82889
Included Lab Sample IDs: 1975287

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A82987
Included Lab Sample IDs: 1975320, 1975321, 1975322, 1975323, 1975324, 1975325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	99.3	P/P	90 - 110
Arsenic	102	100	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Cadmium	101	99.8	P/P	90 - 110
Chromium	95.6	95.2	P/P	90 - 110
Chromium	97.8	96.0	P/P	90 - 110
Copper	97.8	97.0	P/P	90 - 110
Copper	99.9	97.6	P/P	90 - 110
Nickel	95.8	95.0	P/P	90 - 110
Nickel	98.4	95.9	P/P	90 - 110
Silver	102	102	P/P	90 - 110
Silver	103	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A83172
Included Lab Sample IDs: 1975320, 1975321, 1975322, 1975323, 1975324, 1975325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	97.7	98.0	P/P	90 - 110
Lead	98.4	98.7	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				11.5	
	Turbidity				0.727	
EPA 200.7 Rev. 4.4	Calcium	105	97.6	100		1.38
	Iron	107	104	103	102	0.920
	Magnesium	105	98.3	101		0.0225
	Potassium	103	98.7	98.0	99.0	0.694

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	
							SMP	MS
EPA 200.7 Rev. 4.4	Sodium	103		97.3	98.4			0.360
	Zinc	101		95.4	97.0	97.0		0.0976
EPA 200.8 Rev. 5.4	Arsenic	103		101	102	103		0.437
	Cadmium	106		106	106	106		0.245
	Chromium	103		99.5	102	102		0.320
	Copper	101		96.1	100	101		0.600
	Lead	101		102	102	102		0.0883
	Lead	104		103	104	102		1.07
	Nickel	99.9		92.7	98.5	98.6		0.105
	Silver	101		99.0	105	102		2.59
EPA 300.0 Rev. 2.1	Chloride	97.1		94.0	96.0		0.129	
	Chloride	98.0		97.2	97.5		0.508	
	Sulfate	98.7		95.9	98.5			
	Sulfate	101		102	99.5		0.995	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6		96.3	97.8			1.15
	Ammonia-N	99.5		99.2	100			0.934
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		109	102			5.12
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	104		101	100			0.496
	NO ₂ NO ₃ -N	104						0.302
EPA 365.1 Rev. 2.0	Total-P	106		105	103			1.07
	Total-P	104		104	105			0.880
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0		98.5	99.1			0.437
EPA 8321B	2,4-D	64.3	52.8	70.4		19.7		
	Acetaminophen	91.2	85.6	112		6.38		
	Bentazon	63.8	58.2	51.2		9.17		
	Carbamazepine	82.0	76.4	84.4		6.96		
	Diuron	70.8	68.3	67.6		3.54		
	Fenuron	104	99.0	16.6		5.33		
	Fluridone	66.3	61.7	55.8		7.19		
	Imazapyr	71.8	70.5	43.9		1.80		
	Imidacloprid	86.0	84.7	137		1.43		
	Linuron	71.9	69.6	81.6		3.28		
	MCP	72.1	66.4	63.8		8.15		
	Primidone	98.5	90.9	100		8.02		
	Pyraclostrobin	66.8	66.3	63.1		0.796		
	Sucralose	115		110	97.2			9.71
	Triclopyr	72.0	67.6	62.3		6.30		
SM 2120 B	Color (true)						0.843	
	Color (true)						4.35	
SM 2320 B-97	Total Alkalinity	99.3					1.30	
SM 2540 C-97	TDS						0.313	
	TDS						3.59	
SM 2540 D-97	TSS						4.76	
SM 4500 F-C-97	Fluoride	95.5		94.4	95.0			0.480
SM 5310 B-00	Organic Carbon	102		102	102			0.580

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1975320, 1975321, 1975322, 1975323, 1975324, 1975325

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1975320, 1975321, 1975322, 1975323, 1975324, 1975325
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1975294, 1975295, 1975296, 1975297, 1975298, 1975299, 1975300
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1975318, 1975319
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1975318, 1975319
SM 2120 B / E31780	True Color measured at 450 nm	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1975287, 1975288, 1975289, 1975290, 1975291, 1975292, 1975293

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	03/15/2018			03/15/2018 15:57	DeAsia Armster	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
EPA 200.7 Rev. 4.4	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/20/2018 19:29	Betina Topolski	1975320
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/20/2018 19:35	Betina Topolski	1975321
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/20/2018 20:01	Betina Topolski	1975322
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/20/2018 20:33	Betina Topolski	1975323
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/20/2018 20:40	Betina Topolski	1975324
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/20/2018 20:47	Betina Topolski	1975325
EPA 200.8 Rev. 5.4	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/30/2018 18:24	Robert K Palmer	1975321
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/30/2018 21:06	Robert K Palmer	1975320
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/30/2018 21:16	Robert K Palmer	1975322
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/30/2018 21:26	Robert K Palmer	1975323
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/30/2018 21:35	Robert K Palmer	1975324
	03/15/2018	03/19/2018 19:00	Elliott D. Healy	03/30/2018 21:45	Robert K Palmer	1975325
	03/15/2018	04/09/2018 13:15	Elliott D. Healy	04/12/2018 00:35	Nadine Brooks	1975320
	03/15/2018	04/09/2018 13:15	Elliott D. Healy	04/12/2018 00:41	Nadine Brooks	1975321
	03/15/2018	04/09/2018 13:15	Elliott D. Healy	04/12/2018 00:48	Nadine Brooks	1975322
	03/15/2018	04/09/2018 18:15	Elliott D. Healy	04/12/2018 03:46	Nadine Brooks	1975323
	03/15/2018	04/09/2018 18:15	Elliott D. Healy	04/12/2018 03:53	Nadine Brooks	1975324
	03/15/2018	04/09/2018 18:15	Elliott D. Healy	04/12/2018 03:59	Nadine Brooks	1975325
EPA 300.0 Rev. 2.1	03/15/2018			03/21/2018 18:42	Julia Storbeck	1975281
	03/15/2018			03/21/2018 23:17	Julia Storbeck	1975280
	03/15/2018			03/22/2018 00:29	Julia Storbeck	1975282
	03/15/2018			03/22/2018 01:17	Julia Storbeck	1975283
	03/15/2018			03/22/2018 01:29	Julia Storbeck	1975284
	03/15/2018			03/22/2018 01:40	Julia Storbeck	1975285
	03/15/2018			03/22/2018 01:52	Julia Storbeck	1975286
EPA 350.1 Rev. 2.0	03/15/2018			03/26/2018 13:45	Ping Hua	1975288
	03/15/2018			03/26/2018 13:49	Ping Hua	1975289
	03/15/2018			03/26/2018 13:51	Ping Hua	1975290
	03/15/2018			03/26/2018 13:52	Ping Hua	1975291
	03/15/2018			03/26/2018 13:54	Ping Hua	1975292
	03/15/2018			03/26/2018 13:55	Ping Hua	1975293
	03/15/2018			03/27/2018 11:26	Ping Hua	1975287
EPA 351.2 Rev. 2.0	03/15/2018	03/21/2018 11:00	Adrian Shelby	03/22/2018 13:07	Joseph Suarez	1975287
	03/15/2018	03/21/2018 11:00	Adrian Shelby	03/22/2018 13:09	Joseph Suarez	1975288
	03/15/2018	03/21/2018 11:00	Adrian Shelby	03/22/2018 13:13	Joseph Suarez	1975289
	03/15/2018	03/21/2018 11:00	Adrian Shelby	03/22/2018 13:15	Joseph Suarez	1975290
	03/15/2018	03/21/2018 11:00	Adrian Shelby	03/22/2018 13:17	Joseph Suarez	1975291
	03/15/2018	03/21/2018 11:00	Adrian Shelby	03/22/2018 13:18	Joseph Suarez	1975292

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 351.2 Rev. 2.0	03/15/2018	03/21/2018 11:00	Adrian Shelby	03/22/2018 13:20	Joseph Suarez	1975293
EPA 353.2 Rev. 2.0	03/15/2018			03/19/2018 11:24	Beverly Y. Sanders	1975287
	03/15/2018			03/19/2018 11:25	Beverly Y. Sanders	1975288
	03/15/2018			03/19/2018 11:26	Beverly Y. Sanders	1975289
	03/15/2018			03/19/2018 11:27	Beverly Y. Sanders	1975290
	03/15/2018			03/19/2018 11:49	Beverly Y. Sanders	1975292
	03/15/2018			03/19/2018 11:55	Beverly Y. Sanders	1975293
	03/15/2018			03/19/2018 12:11	Beverly Y. Sanders	1975291
EPA 365.1 Rev. 2.0	03/15/2018	03/19/2018 12:20	Sima Feizi	03/20/2018 15:04	Lipi Saha	1975288
	03/15/2018	03/19/2018 12:20	Sima Feizi	03/20/2018 15:15	Lipi Saha	1975287
	03/15/2018	03/19/2018 12:20	Sima Feizi	03/20/2018 15:16	Lipi Saha	1975289
	03/15/2018	03/19/2018 12:20	Sima Feizi	03/20/2018 15:18	Lipi Saha	1975290
	03/15/2018	03/19/2018 12:20	Sima Feizi	03/20/2018 15:21	Lipi Saha	1975292
	03/15/2018	03/19/2018 12:20	Sima Feizi	03/20/2018 15:27	Lipi Saha	1975291
	03/15/2018	03/19/2018 12:20	Sima Feizi	03/20/2018 15:28	Lipi Saha	1975293
EPA 365.1 Rev. 2.0 dissolved	03/15/2018			03/16/2018 10:40	Megan Treadwell	1975298
	03/15/2018			03/16/2018 10:42	Megan Treadwell	1975299
	03/15/2018			03/16/2018 10:43	Megan Treadwell	1975294
	03/15/2018			03/16/2018 10:44	Megan Treadwell	1975300
	03/15/2018			03/16/2018 10:45	Megan Treadwell	1975296
	03/15/2018			03/16/2018 10:51	Megan Treadwell	1975295
	03/15/2018			03/16/2018 11:03	Megan Treadwell	1975297
EPA 8321B	03/15/2018	03/19/2018 10:00	Hoor Shaik	03/20/2018 22:21	Julie Michelle Frank	1975319
	03/15/2018	03/19/2018 10:00	Hoor Shaik	03/21/2018 10:27	Julie Michelle Frank	1975318
	03/15/2018	03/19/2018 10:00	Hoor Shaik	03/22/2018 00:52	Julie Michelle Frank	1975318
	03/15/2018	03/19/2018 10:00	Hoor Shaik	03/22/2018 01:27	Julie Michelle Frank	1975319
	03/15/2018	03/19/2018 10:00	Hoor Shaik	03/22/2018 19:14	Julie Michelle Frank	1975318
	03/15/2018	03/26/2018 14:00	Julie Michelle Frank	03/26/2018 21:14	Juyoung Kim	1975318
	03/15/2018	03/26/2018 14:00	Julie Michelle Frank	03/26/2018 21:29	Juyoung Kim	1975319
SM 2120 B	03/15/2018			03/15/2018 15:57	Tanya Welborn	1975281, 1975282
	03/15/2018			03/15/2018 15:58	Tanya Welborn	1975283
	03/15/2018			03/15/2018 15:59	Tanya Welborn	1975284
	03/15/2018			03/15/2018 16:00	Tanya Welborn	1975285
	03/15/2018			03/15/2018 16:04	Tanya Welborn	1975280
	03/15/2018			03/15/2018 16:05	Tanya Welborn	1975286
SM 2320 B-97	03/15/2018			03/22/2018 01:20	Dale L. Simmons	1975280
	03/15/2018			03/22/2018 01:30	Dale L. Simmons	1975281
	03/15/2018			03/22/2018 01:40	Dale L. Simmons	1975282
	03/15/2018			03/22/2018 01:50	Dale L. Simmons	1975283
	03/15/2018			03/22/2018 02:00	Dale L. Simmons	1975284

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	03/15/2018			03/22/2018 02:10	Dale L. Simmons	1975285
	03/15/2018			03/22/2018 02:20	Dale L. Simmons	1975286
SM 2540 C-97	03/15/2018			03/16/2018 12:00	DeAsia Armster	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
SM 2540 D-97	03/15/2018			03/16/2018 12:00	DeAsia Armster	1975280, 1975281, 1975282, 1975283, 1975284, 1975285, 1975286
SM 4500 F-C-97	03/15/2018			03/22/2018 01:20	Dale L. Simmons	1975280
	03/15/2018			03/22/2018 01:30	Dale L. Simmons	1975281
	03/15/2018			03/22/2018 01:40	Dale L. Simmons	1975282
	03/15/2018			03/22/2018 01:50	Dale L. Simmons	1975283
	03/15/2018			03/22/2018 02:00	Dale L. Simmons	1975284
	03/15/2018			03/22/2018 02:10	Dale L. Simmons	1975285
	03/15/2018			03/22/2018 02:20	Dale L. Simmons	1975286
SM 5310 B-00	03/15/2018			03/26/2018 21:52	Julia Storbeck	1975292
	03/15/2018			03/27/2018 00:22	Julia Storbeck	1975287
	03/15/2018			03/27/2018 00:35	Julia Storbeck	1975288
	03/15/2018			03/27/2018 00:49	Julia Storbeck	1975289
	03/15/2018			03/27/2018 01:01	Julia Storbeck	1975290
	03/15/2018			03/27/2018 01:13	Julia Storbeck	1975291
	03/15/2018			03/27/2018 01:57	Julia Storbeck	1975293