

Chemical Analysis Report

NE-DIST-2018-02-20-01

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

Event Description: **LSJR_Downtown_Salt_2018**

Request ID: **RQ-2018-02-19-10**

Customer: **NE-DIST**

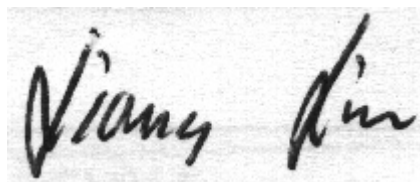
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way W
Suite 100
Jacksonville, FL 32256-7577
Attn: Greg Strong

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

Date Certified: 29-MAR-2018 13:35

A handwritten signature in black ink, appearing to read "Liang Lin", 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: BIG POTTSBURG @ 2000M S ATLANTIC BLVD Collection Date/Time: 02/19/2018 12:00

Field ID: 20030816

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968753	EPA 180.1 Rev. 2.0	Turbidity	5.3		NTU	P340289	
	SM 2320 B-97	Total Alkalinity	82		mg CaCO3/L	P340689	
	SM 2540 D-97	TSS	5	I	mg/L	P340442	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P340690	
1968759	EPA 350.1 Rev. 2.0	Ammonia-N	0.060		mg N/L	P340679	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P340506	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.35		mg N/L	P340497	
	EPA 365.1 Rev. 2.0	Total-P	0.091		mg P/L	P340418	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P340534	
1968765	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.053		mg P/L	P340311	
1968799	EPA 200.7 Rev. 4.4	Calcium	42.3		mg/L	P340541	
		Iron	460		ug/L	P340541	
		Magnesium	26.7		mg/L	P340541	
		Potassium	8.0		mg/L	P340541	
		Sodium	171		mg/L	P340541	
		Zinc	5.0	U	ug/L	P340541	
	EPA 200.8 Rev. 5.4	Arsenic	1.40		ug/L	P340780	
		Cadmium	0.020	U	ug/L	P340780	
		Chromium	0.58	I	ug/L	P340780	
		Copper	1.30		ug/L	P340780	
		Lead	1.01		ug/L	P340780	
		Nickel	0.70	I	ug/L	P340780	
		Silver	0.010	U	ug/L	P340780	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: BIG POTTSBURG @ 2000M S ATLANTIC BLVD Collection Date/Time: 02/19/2018 12:00

Field ID: 20030816

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968794	EPA 8321B	2,4-D	0.012		ug/L	P340165	
		Sucralose**	0.63		ug/L	P340390	
		Bentazon	0.014		ug/L	P340165	
		MCP	0.0020	U	ug/L	P340165	MS
		Triclopyr**	0.0040	U	ug/L	P340165	
		Imidacloprid	0.027		ug/L	P340165	
		Diuron	0.013		ug/L	P340165	
		Primidone**	0.0058	I	ug/L	P340165	
		Linuron	0.0040	U	ug/L	P340165	
		Acetaminophen**	0.0080	U	ug/L	P340165	
		Fenuron	0.0080	U	ug/L	P340165	
		Carbamazepine**	0.0045		ug/L	P340165	
		Fluridone**	0.013		ug/L	P340165	

Sample Location: BIG POTTSBURG CR ATL BLVD

Collection Date/Time: 02/19/2018 12:20

Field ID: 20030072

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968754	EPA 180.1 Rev. 2.0	Turbidity	6.7		NTU	P340289	
	SM 2320 B-97	Total Alkalinity	71		mg CaCO3/L	P340689	
	SM 2540 D-97	TSS	8	I	mg/L	P340442	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P340690	
1968760	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P340679	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P30405	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.34		mg N/L	P340497	
	EPA 365.1 Rev. 2.0	Total-P	0.095		mg P/L	P340418	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P340534	
1968766	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.058		mg P/L	P340311	
1968800	EPA 200.7 Rev. 4.4	Calcium	47.0		mg/L	P340541	
		Iron	500		ug/L	P340541	
		Magnesium	52.8		mg/L	P340541	
		Potassium	16.2		mg/L	P340541	
		Sodium	391		mg/L	P340541	
		Zinc	5.0	U	ug/L	P340541	
	EPA 200.8 Rev. 5.4	Arsenic	1.31		ug/L	P340780	
		Cadmium	0.020	U	ug/L	P340780	
		Chromium	0.71	I	ug/L	P340780	
		Copper	1.20		ug/L	P340780	
		Lead	0.91		ug/L	P340780	
		Nickel	0.52	I	ug/L	P340780	
		Silver	0.010	U	ug/L	P340780	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: BIG POTTSBURG CR ATL BLVD

Collection Date/Time: 02/19/2018 12:20

Field ID: 20030072

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968795	EPA 8321B	2,4-D	0.012		ug/L	P340165	
		Sucralose**	0.76		ug/L	P340390	
		Bentazon	0.0098		ug/L	P340165	
		MCP	0.0020	U	ug/L	P340165	MS
		Triclopyr**	0.0040	U	ug/L	P340165	
		Imidacloprid	0.027		ug/L	P340165	
		Diuron	0.013		ug/L	P340165	
		Primidone**	0.0040	U	ug/L	P340165	
		Linuron	0.0063	I	ug/L	P340165	
		Acetaminophen**	0.0080	U	ug/L	P340165	
		Fenuron	0.0080	U	ug/L	P340165	
		Carbamazepine**	0.0034		ug/L	P340165	
		Fluridone**	0.0090		ug/L	P340165	

Sample Location: ARLINGTON R CESERY BLVD

Collection Date/Time: 02/19/2018 12:40

Field ID: 20030073

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968755	EPA 180.1 Rev. 2.0	Turbidity	7.3		NTU	P340289	
	SM 2320 B-97	Total Alkalinity	62		mg CaCO3/L	P340689	
	SM 2540 D-97	TSS	9	I	mg/L	P340442	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P340690	
1968761	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P340679	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P30405	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P340497	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P340418	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P340534	
1968767	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.065		mg P/L	P340311	
1968801	EPA 200.7 Rev. 4.4	Calcium	48.6		mg/L	P340541	
		Iron	560		ug/L	P340541	
		Magnesium	61.6		mg/L	P340541	
		Potassium	19.0		mg/L	P340541	
		Sodium	470		mg/L	P340541	
		Zinc	5.0	U	ug/L	P340541	
	EPA 200.8 Rev. 5.4	Arsenic	1.18		ug/L	P340780	
		Cadmium	0.020	U	ug/L	P340780	
		Chromium	0.73	I	ug/L	P340780	
		Copper	1.12		ug/L	P340780	
		Lead	0.77		ug/L	P340780	
		Nickel	0.43	I	ug/L	P340780	
		Silver	0.010	U	ug/L	P340780	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Arlington River at Carlton Oaks

Collection Date/Time: 02/19/2018 12:55

Field ID: G2NE1152

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968756	EPA 180.1 Rev. 2.0	Turbidity	6.8		NTU	P340289	
	SM 2320 B-97	Total Alkalinity	59		mg CaCO3/L	P340689	
	SM 2540 D-97	TSS	8	I	mg/L	P340442	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P340690	
1968762	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P340679	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P30405	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P340497	
	EPA 365.1 Rev. 2.0	Total-P	0.097		mg P/L	P340418	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P340534	
1968768	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.066		mg P/L	P340311	
1968802	EPA 200.7 Rev. 4.4	Calcium	43.8		mg/L	P340541	
		Iron	590		ug/L	P340541	

Field ID: G2NE1152

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968802	EPA 200.7 Rev. 4.4	Magnesium	48.2		mg/L	P340541	
		Potassium	14.9		mg/L	P340541	
		Sodium	361		mg/L	P340541	
		Zinc	5.0	U	ug/L	P340541	
	EPA 200.8 Rev. 5.4	Arsenic	1.04		ug/L	P340780	
		Cadmium	0.020	U	ug/L	P340780	
		Chromium	0.70	I	ug/L	P340780	
		Copper	1.07		ug/L	P340780	
		Lead	0.72		ug/L	P340780	
		Nickel	0.41	I	ug/L	P340780	
		Silver	0.010	U	ug/L	P340780	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: LITTLE POTTSBURG CREEK AT ATLANTIC BLVD

Collection Date/Time: 02/19/2018 13:10

Field ID: 20030679

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968757	EPA 180.1 Rev. 2.0	Turbidity	6.9		NTU	P340289	
	SM 2320 B-97	Total Alkalinity	61		mg CaCO3/L	P340689	
	SM 2540 D-97	TSS	8	I	mg/L	P340442	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P340690	
1968763	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P340682	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P340405	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P340497	
	EPA 365.1 Rev. 2.0	Total-P	0.097		mg P/L	P340418	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P340534	
1968769	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.065		mg P/L	P340311	
1968803	EPA 200.7 Rev. 4.4	Calcium	49.3		mg/L	P340541	
		Iron	570		ug/L	P340541	
		Magnesium	66.9		mg/L	P340541	
		Potassium	20.6		mg/L	P340541	
		Sodium	509		mg/L	P340541	
		Zinc	5.0	U	ug/L	P340541	
	EPA 200.8 Rev. 5.4	Arsenic	1.07		ug/L	P340780	
		Cadmium	0.020	U	ug/L	P340780	
		Chromium	0.74	I	ug/L	P340780	
		Copper	1.09		ug/L	P340780	
		Lead	0.77		ug/L	P340780	
		Nickel	0.42	I	ug/L	P340780	
		Silver	0.010	U	ug/L	P340780	

Field ID: 20030679

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: LITTLE POTTSBURG CR @ MOUTH OF W
 BRNCH

Collection Date/Time: 02/19/2018 13:25

Field ID: 20030814

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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1968758	EPA 180.1 Rev. 2.0	Turbidity	6.5		NTU	P340289	
	SM 2320 B-97	Total Alkalinity	60		mg CaCO3/L	P340689	
	SM 2540 D-97	TSS	7	I	mg/L	P340443	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P340690	
1968764	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P340682	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P340405	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.30		mg N/L	P340497	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P340418	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P340534	
1968770	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.065		mg P/L	P340311	
1968804	EPA 200.7 Rev. 4.4	Calcium	44.7		mg/L	P340541	
		Iron	510		ug/L	P340541	
		Magnesium	50.5		mg/L	P340541	
		Potassium	15.6		mg/L	P340541	
		Sodium	376		mg/L	P340541	
		Zinc	5.0	U	ug/L	P340541	
	EPA 200.8 Rev. 5.4	Arsenic	1.12		ug/L	P340780	
		Cadmium	0.020	U	ug/L	P340780	
		Chromium	0.72	I	ug/L	P340780	
		Copper	1.16		ug/L	P340780	
		Lead	0.71		ug/L	P340780	
		Nickel	0.41	I	ug/L	P340780	
		Silver	0.010	U	ug/L	P340780	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P340289

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340541

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: P340780

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 350.1 Rev. 2.0
Batch ID: P340679

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340682

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P30405

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340506

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340497

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340418

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340311

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

Reference Method: EPA 8321B
Batch ID: P340165

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	0.0080	U	ug/L
Fluridone	8.0E-04	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P340390

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-97
Batch ID: P340689

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

Reference Method: SM 2540 D-97
Batch ID: P340442

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P340443

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P340690

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P340534

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: P340541

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	110		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	105		P	85 - 115
Sodium	100		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	103		P	85 - 115
Cadmium	107		P	85 - 115
Chromium	101		P	85 - 115
Copper	99.7		P	85 - 115
Lead	110		P	85 - 115
Nickel	99.4		P	85 - 115
Silver	87.6		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340679

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340682

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P30405

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340506

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340497

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340418

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340311

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

Reference Method: EPA 8321B
Batch ID: P340165

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	76.9		P	40 - 150
Acetaminophen	101		P	30 - 150
Bentazon	123		P	30 - 150
Carbamazepine	89.2		P	40 - 150
Diuron	82.2		P	40 - 150
Fenuron	111		P	40 - 150
Fluridone	81.9		P	40 - 150
Imidacloprid	94.8		P	40 - 160
Linuron	86.0		P	40 - 150
MCPP	69.9		P	40 - 150
Primidone	91.2		P	40 - 150
Triclopyr	76.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340390

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	108		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P340689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.6		P	95 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P340690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	93.6		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P340534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968796	Calcium	105		P	80 - 120
1968796	Iron	107	108	P/P	80 - 120
1968796	Magnesium	108	109	P/P	80 - 120
1968796	Potassium	103	105	P/P	80 - 120
1968796	Sodium	99.5		P	80 - 120
1968796	Zinc	101	102	P/P	80 - 120
1969260	Iron	112		P	80 - 120
1969260	Potassium	108		P	80 - 120
1969260	Sodium	103		P	80 - 120
1969260	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968797	Arsenic	104	102	P/P	80 - 120
1968797	Cadmium	109	105	P/P	80 - 120
1968797	Chromium	102	97.8	P/P	80 - 120
1968797	Copper	100	96.0	P/P	80 - 120
1968797	Lead	113	109	P/P	80 - 120
1968797	Nickel	100	93.5	P/P	80 - 120
1968797	Silver	89.0	85.3	P/P	80 - 120
1969259	Arsenic	105		P	80 - 120
1969259	Cadmium	107		P	80 - 120
1969259	Chromium	97.7		P	80 - 120
1969259	Copper	98.9		P	80 - 120
1969259	Lead	111		P	80 - 120
1969259	Nickel	99.2		P	80 - 120
1969259	Silver	88.3		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968605	Ammonia-N	98.6	97.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968827	Ammonia-N	99.7	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P30405

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968718	Kjeldahl Nitrogen	97.5	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340506

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968854	Kjeldahl Nitrogen	109	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340497

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968715	NO2NO3-N	106	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968718	Total-P	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340311

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968766	O-Phosphate-P	96.0	96.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P340165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968488	2,4-D	51.0	56.1	P/P	40 - 150
1968488	Acetaminophen	130	108	P/P	30 - 150
1968488	Bentazon	32.0	34.0	P/P	30 - 150
1968488	Carbamazepine	82.7	75.0	P/P	40 - 150
1968488	Diuron	72.2	60.7	P/P	40 - 150
1968488	Fenuron	86.5	75.9	P/P	40 - 150
1968488	Fluridone	66.8	53.7	P/P	40 - 150
1968488	Imidacloprid	144	127	P/P	40 - 160
1968488	Linuron	88.8	63.2	P/P	40 - 150
1968488	MCP	36.5	39.1	F/F	40 - 150
1968488	Primidone	87.0	75.9	P/P	40 - 150
1968488	Triclopyr	43.9	47.9	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P340390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968751	Sucralose	117	118	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P340690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968777	Fluoride	100	96.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P340534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967818	Organic Carbon	98.2	99.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968711	Turbidity	0.166	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968796	Calcium	2.48	Spike	P	0 - 20
1968796	Iron	1.07	Spike	P	0 - 20
1968796	Magnesium	0.467	Spike	P	0 - 20
1968796	Potassium	0.859	Spike	P	0 - 20
1968796	Sodium	0.286	Spike	P	0 - 20
1968796	Zinc	0.931	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968797	Arsenic	1.34	Spike	P	0 - 20
1968797	Cadmium	4.19	Spike	P	0 - 20
1968797	Chromium	4.65	Spike	P	0 - 20
1968797	Copper	4.07	Spike	P	0 - 20
1968797	Lead	3.42	Spike	P	0 - 20
1968797	Nickel	3.65	Spike	P	0 - 20
1968797	Silver	4.14	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968605	Ammonia-N	1.21	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968827	Ammonia-N	1.20	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P30405

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968718	Kjeldahl Nitrogen	0.277	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340506

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968854	Kjeldahl Nitrogen	1.47	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340497

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968715	NO2NO3-N	0.957	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968718	Total-P	1.51	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968766	O-Phosphate-P	0.452	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P340165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968488	2,4-D	8.17	Spike	P	0 - 30
1968488	Acetaminophen	18.1	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P340165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968488	Bentazon	5.30	Spike	P	0 - 30
1968488	Carbamazepine	9.60	Spike	P	0 - 30
1968488	Diuron	11.7	Spike	P	0 - 30
1968488	Fenuron	13.0	Spike	P	0 - 30
1968488	Fluridone	20.4	Spike	P	0 - 30
1968488	Imidacloprid	8.00	Spike	P	0 - 30
1968488	Linuron	22.8	Spike	P	0 - 30
1968488	MCPP	6.91	Spike	P	0 - 30
1968488	Primidone	13.6	Spike	P	0 - 30
1968488	Triclopyr	8.78	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968751	Sucralose	0.439	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P340689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968777	Total Alkalinity	0.172	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P340690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968777	Fluoride	2.92	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P340534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967818	Organic Carbon	0.621	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: 1968794
Field Sample ID: 20030816

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	57.3	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1968794
Field Sample ID: 20030816

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	138	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Diuron-d6	90.0	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	40 - 160

Lab Sample ID: 1968795
Field Sample ID: 20030072

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	61.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	148	P	30 - 160
EPA 8321B	Carbamazepine-d10	113	P	30 - 160
EPA 8321B	Diuron-d6	94.4	P	30 - 160
EPA 8321B	Primidone-d5	116	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82181
Included Lab Sample IDs: 1968753, 1968754, 1968755, 1968756, 1968757, 1968758

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82188
Included Lab Sample IDs: 1968765, 1968766, 1968767, 1968768, 1968769, 1968770

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	98.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82255
Included Lab Sample IDs: 1968759, 1968760, 1968761, 1968762, 1968763, 1968764

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.4	P/P	90 - 110
Total-P	98.9	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A82256
Included Lab Sample IDs: 1968759, 1968760, 1968761, 1968762, 1968763, 1968764

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82265

Included Lab Sample IDs: 1968760, 1968761, 1968762, 1968763, 1968764

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

Reference Method: SM 5310 B-00

Run ID: A82268

Included Lab Sample IDs: 1968759, 1968760, 1968761, 1968762, 1968763, 1968764

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	95.9	P/P	90 - 110
Organic Carbon	95.9	95.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82281

Included Lab Sample IDs: 1968759

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

Reference Method: EPA 8321B

Run ID: A82285

Included Lab Sample IDs: 1968794, 1968795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.4	94.1	P/P	50 - 150
Acetaminophen	107	117	P/P	60 - 150
Bentazon	130	109	P/P	50 - 150
Carbamazepine	124	94.4	P/P	60 - 150
Diuron	134	129	P/P	60 - 150
Fenuron	121	119	P/P	60 - 150
Fluridone	121	123	P/P	60 - 160
Imidacloprid	111	111	P/P	60 - 150
Linuron	121	121	P/P	60 - 150
MCPP	101	86.0	P/P	50 - 150
Primidone	116	111	P/P	60 - 150
Triclopyr	104	94.1	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82317

Included Lab Sample IDs: 1968759, 1968760, 1968761, 1968762, 1968763, 1968764

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	100	P/P	90 - 110
Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82319

Included Lab Sample IDs: 1968799, 1968800, 1968801, 1968802, 1968803, 1968804

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82319

Included Lab Sample IDs: 1968799, 1968800, 1968801, 1968802, 1968803, 1968804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	102	101	P/P	90 - 110
Iron	102	102	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	100	99.8	P/P	90 - 110
Potassium	99.5	100	P/P	90 - 110
Sodium	97.7	99.6	P/P	90 - 110
Sodium	99.6	100	P/P	90 - 110
Zinc	102	103	P/P	90 - 110
Zinc	99.9	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A82320

Included Lab Sample IDs: 1968753, 1968754, 1968755, 1968756, 1968757, 1968758

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

Reference Method: SM 4500 F-C-97

Run ID: A82320

Included Lab Sample IDs: 1968753, 1968754, 1968755, 1968756, 1968757, 1968758

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82412

Included Lab Sample IDs: 1968799, 1968800, 1968801, 1968802, 1968803, 1968804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	98.7	99.9	P/P	90 - 110
Cadmium	99.1	99.3	P/P	90 - 110
Cadmium	99.3	98.7	P/P	90 - 110
Chromium	94.0	95.1	P/P	90 - 110
Chromium	95.0	94.0	P/P	90 - 110
Chromium	97.4	95.0	P/P	90 - 110
Copper	100	97.1	P/P	90 - 110
Copper	98.7	100	P/P	90 - 110
Copper	99.8	98.7	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Lead	105	106	P/P	90 - 110
Lead	106	105	P/P	90 - 110
Nickel	100	98.2	P/P	90 - 110
Nickel	101	97.7	P/P	90 - 110
Nickel	98.2	101	P/P	90 - 110
Silver	100	101	P/P	90 - 110
Silver	101	100	P/P	90 - 110
Silver	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A82414

Included Lab Sample IDs: 1968794, 1968795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	106	P/P	60 - 150
Sucralose	96.8	102	P/P	60 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82707

Included Lab Sample IDs: 1968799, 1968800, 1968801, 1968802, 1968803, 1968804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	99.9	94.0	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						0.166	
EPA 200.7 Rev. 4.4	Calcium	107	105					2.48
	Iron	110	107	108	112			1.07
	Magnesium	112	108	109				0.467
	Potassium	105	103	105	108			0.859
	Sodium	100	99.5	103				0.286
	Zinc	103	101	102	101			0.931
EPA 200.8 Rev. 5.4	Arsenic	103	104	102	105			1.34
	Cadmium	107	109	105	107			4.19
	Chromium	101	102	97.8	97.7			4.65
	Copper	99.7	100	96.0	98.9			4.07
	Lead	110	113	109	111			3.42
	Nickel	99.4	100	93.5	99.2			3.65
	Silver	87.6	89.0	85.3	88.3			4.14
EPA 350.1 Rev. 2.0	Ammonia-N	99.9	98.6	97.4				1.21
	Ammonia-N	103	99.7	101				1.20
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.9	97.5	97.2				0.277
	Kjeldahl Nitrogen	103	109	106				1.47
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	105	106	104				0.957
EPA 365.1 Rev. 2.0	Total-P	101	103	101				1.51
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4	96.0	96.7				0.452
EPA 8321B	2,4-D	76.9	51.0	56.1				8.17
	Acetaminophen	101	130	108				18.1
	Bentazon	123	32.0	34.0				5.30
	Carbamazepine	89.2	82.7	75.0				9.60
	Diuron	82.2	72.2	60.7				11.7
	Fenuron	111	86.5	75.9				13.0
	Fluridone	81.9	66.8	53.7				20.4
	Imidacloprid	94.8	144	127				8.00
	Linuron	86.0	88.8	63.2				22.8
	MCP	69.9	36.5	39.1				6.91

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Primidone	91.2	87.0	75.9		13.6
	Sucralose	108	117	118		0.439
	Triclopyr	76.0	43.9	47.9		8.78
SM 2320 B-97	Total Alkalinity	99.6			0.172	
SM 4500 F-C-97	Fluoride	93.6	100	96.5		2.92
SM 5310 B-00	Organic Carbon	95.8	98.2	99.1		0.621

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1968753, 1968754, 1968755, 1968756, 1968757, 1968758
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1968799, 1968800, 1968801, 1968802, 1968803, 1968804
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1968799, 1968800, 1968801, 1968802, 1968803, 1968804
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1968759, 1968760, 1968761, 1968762, 1968763, 1968764
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1968759, 1968760, 1968761, 1968762, 1968763, 1968764
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1968759, 1968760, 1968761, 1968762, 1968763, 1968764
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1968759, 1968760, 1968761, 1968762, 1968763, 1968764
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1968765, 1968766, 1968767, 1968768, 1968769, 1968770
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1968794, 1968795
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1968794, 1968795
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1968753, 1968754, 1968755, 1968756, 1968757, 1968758
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1968753, 1968754, 1968755, 1968756, 1968757, 1968758
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1968753, 1968754, 1968755, 1968756, 1968757, 1968758
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1968759, 1968760, 1968761, 1968762, 1968763, 1968764

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	02/20/2018			02/20/2018 14:45	Tanya Welborn	1968753, 1968754, 1968755, 1968756, 1968757, 1968758
EPA 200.7 Rev. 4.4	02/20/2018	02/26/2018	Vijayalakshmi Reddy	02/27/2018	Betina Topolski	1968799, 1968800, 1968801, 1968802, 1968803, 1968804
EPA 200.8 Rev. 5.4	02/20/2018	03/01/2018	Vijayalakshmi Reddy	03/02/2018	Nadine Brooks	1968799, 1968800, 1968801, 1968802, 1968803, 1968804
	02/20/2018	03/01/2018	Vijayalakshmi Reddy	03/19/2018	Robert K Palmer	1968799, 1968800, 1968801, 1968802, 1968803, 1968804
EPA 350.1 Rev. 2.0	02/20/2018			02/27/2018	Ping Hua	1968759, 1968760, 1968761, 1968762, 1968763, 1968764
EPA 351.2 Rev. 2.0	02/20/2018	02/22/2018	Adrian Shelby	02/23/2018	Joseph Suarez	1968760, 1968761, 1968762, 1968763, 1968764
	02/20/2018	02/23/2018	Adrian Shelby	02/26/2018	Joseph Suarez	1968759
EPA 353.2 Rev. 2.0	02/20/2018			02/23/2018	Lauren Bottorf	1968759, 1968760, 1968761, 1968762, 1968763, 1968764
EPA 365.1 Rev. 2.0	02/20/2018	02/22/2018	Sima Feizi	02/23/2018	Lipi Saha	1968759, 1968760, 1968761, 1968762, 1968763, 1968764
EPA 365.1 Rev. 2.0 dissolved	02/20/2018			02/20/2018 16:00	Megan Treadwell	1968766
	02/20/2018			02/20/2018 16:11	Megan Treadwell	1968765
	02/20/2018			02/20/2018 16:12	Megan Treadwell	1968767
	02/20/2018			02/20/2018 16:13	Megan Treadwell	1968768
	02/20/2018			02/20/2018 16:14	Megan Treadwell	1968769
	02/20/2018			02/20/2018 16:15	Megan Treadwell	1968770
EPA 8321B	02/20/2018	02/21/2018	Hoor Shaik	02/23/2018	Julie Michelle Frank	1968794, 1968795
	02/20/2018	02/21/2018	Hoor Shaik	02/24/2018	Julie Michelle Frank	1968794, 1968795
	02/20/2018	02/22/2018	Julie Michelle Frank	03/02/2018	Juyoung Kim	1968794, 1968795
SM 2320 B-97	02/20/2018			02/27/2018	Dale L. Simmons	1968753, 1968754, 1968755, 1968756, 1968757, 1968758
SM 2540 D-97	02/20/2018			02/21/2018	DeAsia Armster	1968753, 1968754, 1968755, 1968756, 1968757, 1968758
SM 4500 F-C-97	02/20/2018			02/27/2018	Dale L. Simmons	1968753, 1968754, 1968755, 1968756, 1968757, 1968758
SM 5310 B-00	02/20/2018			02/23/2018	Megan Treadwell	1968759, 1968760, 1968761, 1968762, 1968763, 1968764