

Chemical Analysis Report

SE-DIST-2019-10-23-01

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

Event Description: **SMP-Drum**
Request ID: **RQ-2019-10-21-46**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 12-NOV-2019 11:27



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: 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 by the Florida Department of Health Environmental Laboratory Certification Program 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: Moores Creek @ 7th

Collection Date/Time: 10/22/2019 12:45

Field ID: G2SE0016

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2130523	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P373058	
	EPA 300.0	Bromide	3.0		mg Br/L	P373399	
	EPA 300.0 Rev. 2.1	Sulfate	130		mg SO4/L	P373249	
	SM 2320 B-97	Total Alkalinity	109		mg CaCO3/L	P373214	
	SM 2540 D-97	TSS	3	I	mg/L	P373651	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P373219	
2130524	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P373267	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P373135	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.021		mg N/L	P373125	
	EPA 365.1 Rev. 2.0	Total-P	0.093		mg P/L	P373141	
	SM 5310 B-00	Organic Carbon	8.7		mg C/L	P373175	
2130525	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.069		mg P/L	P373030	
2130531	EPA 8321B	2,4-D	0.025		ug/L	P372914	
		Acesulfame K**	0.10	U	ug/L	P373022	
		AMPA**	0.10	U	ug/L	P373022	
		Sucralose**	0.097		ug/L	P373022	
		Acetaminophen**	0.0080	U	ug/L	P372914	
		Acetamiprid**	0.0020	U	ug/L	P372914	
		Endothall**	0.25	U	ug/L	P373022	
		Glufosinate**	0.10	U	ug/L	P373022	
		Glyphosate**	0.89		ug/L	P373022	
		Afidopyropen**	0.0020	UJ	ug/L	P372914	
		Bentazon	0.0012	I	ug/L	P372914	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372914	
		Carbamazepine**	0.0012	I	ug/L	P372914	
		Clothianidin**	0.0020	U	ug/L	P372914	
		Dinotefuran**	0.0020	U	ug/L	P372914	
		Diuron	0.012		ug/L	P372914	
		Fenuron	0.016	U	ug/L	P372914	
		Fluridone**	0.0023	I	ug/L	P372914	
		Imazapyr**	0.021		ug/L	P372914	
		Hydrocodone**	0.0020	U	ug/L	P372914	
		Ibuprofen**	0.020	U	ug/L	P372914	
		Imidacloprid	0.0089		ug/L	P372914	MS
		Linuron	0.0040	U	ug/L	P372914	
		Mandestrobin**	0.0020	UJ	ug/L	P372914	
		MCPP	0.0020	U	ug/L	P372914	
		Naproxen**	0.0080	U	ug/L	P372914	
		Primidone**	0.0040	U	ug/L	P372914	
		Pyraclostrobin**	0.0020	U	ug/L	P372914	
		Thiamethoxam**	0.0020	U	ug/L	P372914	
		Tolfenpyrad**	0.0020	U	ug/L	P372914	
		Triclopyr**	0.0040	U	ug/L	P372914	

Field ID: G2SE0016

Matrix: W-SURF-SLT

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 8321B: J - second source check standards for some analytes were not available for analysis.

Sample Location: C-25 Canal West @ Godwin

Collection Date/Time: 10/22/2019 14:00

Field ID: G2SE0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2130517	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P373058	
	EPA 300.0 Rev. 2.1	Chloride	400		mg Cl/L	P373693	
		Sulfate	110		mg SO4/L	P373696	
	SM 2120 B	Color (true)	97		PCU	P373098	
	SM 2320 B-97	Total Alkalinity	190		mg CaCO3/L	P373214	
	SM 2540 C-97	TDS	959		mg/L	P373593	
	SM 2540 D-97	TSS	3	I	mg/L	P373648	
	SM 4500 F-C-97	Fluoride	0.36		mg F/L	P373219	
2130518	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P373267	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P373135	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P373125	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P373141	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P373175	
2130519	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.15		mg P/L	P373029	

Ref. Method and Comment:

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

Sample Location: Sweetwater Branch @ 441

Collection Date/Time: 10/22/2019 14:40

Field ID: G3SE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2130520	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P373058	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P373693	
		Sulfate	5.6		mg SO4/L	P373696	
	SM 2120 B	Color (true)	93		PCU	P373098	
	SM 2320 B-97	Total Alkalinity	26		mg CaCO3/L	P373214	
	SM 2540 C-97	TDS	104	A	mg/L	P373593	
	SM 2540 D-97	TSS	2	IA	mg/L	P373648	
	SM 4500 F-C-97	Fluoride	0.074	I	mg F/L	P373219	
2130521	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P373267	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P373135	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.082		mg N/L	P373125	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P373141	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P373175	
2130522	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.15		mg P/L	P373029	

Ref. Method and Comment:

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

Sample Location: Padgett Branch @ 441

Collection Date/Time: 10/22/2019 15:00

Field ID: G3SE0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2130514	EPA 180.1 Rev. 2.0	Turbidity	2.8	A	NTU	P373058	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P373693	
		Sulfate	2.8		mg SO4/L	P373696	
	SM 2120 B	Color (true)	120		PCU	P373098	
	SM 2320 B-97	Total Alkalinity	39		mg CaCO3/L	P373213	
	SM 2540 C-97	TDS	112		mg/L	P373593	
	SM 2540 D-97	TSS	3	I	mg/L	P373648	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P373218	
2130515	EPA 350.1 Rev. 2.0	Ammonia-N	0.096		mg N/L	P373267	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P373134	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P373125	
	EPA 365.1 Rev. 2.0	Total-P	0.31		mg P/L	P373141	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P373175	
2130516	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.20		mg P/L	P373029	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373058

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0
Batch ID: P373399

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373249

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373693

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373696

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373267

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373134

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373135

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373125

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: P373141

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373029

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373030

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

Reference Method: EPA 8321B
Batch ID: P372914

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

Reference Method: EPA 8321B
Batch ID: P373022

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P373022

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P373098

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P373213

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

Reference Method: SM 2320 B-97
Batch ID: P373214

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

Reference Method: SM 2540 C-97
Batch ID: P373593

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P373648

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P373651

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P373218

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P373219

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P373175

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0
Batch ID: P373399

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373249

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373693

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373696

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373267

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373134

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373135

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373125

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373141

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373029

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373030

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

Reference Method: EPA 8321B
Batch ID: P372914

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	126		P	40 - 160
Acetaminophen	81.3		P	30 - 160
Acetamiprid	88.8		P	40 - 160
Afidopyropen	74.1		P	40 - 160
Bentazon	78.8		P	30 - 160
Benzovindiflupyr	81.5		P	40 - 160
Carbamazepine	95.6		P	40 - 160
Clothianidin	74.0		P	40 - 160
Dinotefuran	88.1		P	40 - 160
Diuron	89.5		P	40 - 160
Fenuron	97.8		P	40 - 160
Fluridone	90.7		P	40 - 160
Hydrocodone	94.8		P	40 - 160
Ibuprofen	79.8		P	30 - 160
Imazapyr	97.7		P	40 - 160
Imidacloprid	89.4		P	40 - 160
Linuron	70.5		P	40 - 160
Mandestrobin	88.7		P	40 - 160
MCPP	101		P	40 - 160
Naproxen	76.2		P	40 - 160
Primidone	93.0		P	40 - 160
Pyraclostrobin	82.8		P	30 - 160
Thiamethoxam	96.4		P	40 - 160
Tolfenpyrad	52.0		P	40 - 160
Triclopyr	93.8		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373022

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	103		P	40 - 150
AMPA	107		P	40 - 150
Endothall	96.7		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	111		P	40 - 140
Sucralose	80.7		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P373098

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.6		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P373213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P373214

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P373218

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.8		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P373219

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P373175

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	103		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0
Batch ID: P373399

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130885	Bromide	97.1	98.9	P/P	90 - 110
2131089	Bromide	94.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373249

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129316	Sulfate	102		P	90 - 110
2129766	Sulfate	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373693

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130490	Chloride	102		P	90 - 110
2130539	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130490	Sulfate	101		P	90 - 110
2130539	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130494	Ammonia-N	99.8	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130496	Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373135

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130541	Kjeldahl Nitrogen	96.8	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373125

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130515	NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373141

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373141

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130495	Total-P	99.4	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130544	O-Phosphate-P	96.4	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373030

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130572	O-Phosphate-P	99.6	99.9	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P372914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130063	2,4-D	140	136	P/P	40 - 160
2130063	Acetaminophen	89.5	83.5	P/P	30 - 160
2130063	Acetamiprid	115	109	P/P	40 - 160
2130063	Afidopyropen	91.1	87.0	P/P	40 - 160
2130063	Bentazon	76.5	74.6	P/P	30 - 160
2130063	Benzovindiflupyr	97.1	90.9	P/P	40 - 160
2130063	Carbamazepine	108	107	P/P	40 - 160
2130063	Clothianidin	99.7	99.5	P/P	40 - 160
2130063	Dinotefuran	114	112	P/P	40 - 160
2130063	Diuron	98.1	92.1	P/P	40 - 160
2130063	Fenuron	103	104	P/P	40 - 160
2130063	Fluridone	94.1	91.7	P/P	40 - 160
2130063	Hydrocodone	116	114	P/P	40 - 160
2130063	Ibuprofen	96.5	86.3	P/P	30 - 160
2130063	Imazapyr	122	124	P/P	40 - 160
2130063	Imidacloprid	166	158	F/P	40 - 160
2130063	Linuron	82.9	83.1	P/P	40 - 160
2130063	Mandestrobin	101	95.3	P/P	40 - 160
2130063	MCP	114	111	P/P	40 - 160
2130063	Naproxen	92.8	106	P/P	40 - 160
2130063	Primidone	98.0	111	P/P	40 - 160
2130063	Pyraclostrobin	96.4	94.7	P/P	30 - 160
2130063	Thiamethoxam	152	150	P/P	40 - 160
2130063	Tolfenpyrad	63.4	58.3	P/P	40 - 160
2130063	Triclopyr	116	110	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130063	Acesulfame K	52.8	59.7	P/P	40 - 150
2130063	AMPA	89.4	86.6	P/P	40 - 150
2130063	Endothall	95.4	96.1	P/P	40 - 150
2130063	Glufosinate	106	102	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P373022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130063	Glyphosate	97.7	93.5	P/P	40 - 140
2130063	Sucralose	102	123	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P373218

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130203	Fluoride	96.7	95.9	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P373219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130536	Fluoride	95.2	94.7	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P373175

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130496	Organic Carbon	99.3	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P373058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130514	Turbidity	2.87	Sample	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P373399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130885	Bromide	1.78	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373249

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129316	Sulfate	0.554	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373693

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130490	Chloride	0.664	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130490	Sulfate	0.730	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P373267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130494	Ammonia-N	0.502	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130496	Kjeldahl Nitrogen	1.93	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P373135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130541	Kjeldahl Nitrogen	7.42	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P373125

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130515	NO2NO3-N	1.00	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P373141

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130495	Total-P	0.470	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130544	O-Phosphate-P	0.969	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P373030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130572	O-Phosphate-P	0.301	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P372914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130063	2,4-D	3.19	Spike	P	0 - 30
2130063	Acetaminophen	6.98	Spike	P	0 - 30
2130063	Acetamiprid	5.18	Spike	P	0 - 30
2130063	Afidopyropen	4.65	Spike	P	0 - 30
2130063	Bentazon	2.34	Spike	P	0 - 30
2130063	Benzovindiflupyr	6.66	Spike	P	0 - 30
2130063	Carbamazepine	0.602	Spike	P	0 - 30
2130063	Clothianidin	0.195	Spike	P	0 - 30
2130063	Dinotefuran	1.54	Spike	P	0 - 30
2130063	Diuron	6.41	Spike	P	0 - 30
2130063	Fenuron	1.17	Spike	P	0 - 30
2130063	Fluridone	2.65	Spike	P	0 - 30
2130063	Hydrocodone	1.46	Spike	P	0 - 30
2130063	Ibuprofen	11.2	Spike	P	0 - 30
2130063	Imazapyr	1.74	Spike	P	0 - 30
2130063	Imidacloprid	3.65	Spike	P	0 - 30
2130063	Linuron	0.212	Spike	P	0 - 30
2130063	Mandestrobin	5.37	Spike	P	0 - 30
2130063	MCP	3.00	Spike	P	0 - 30
2130063	Naproxen	13.6	Spike	P	0 - 30
2130063	Primidone	12.1	Spike	P	0 - 30
2130063	Pyraclostrobin	1.86	Spike	P	0 - 30
2130063	Thiamethoxam	1.36	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P372914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130063	Tolfenpyrad	8.44	Spike	P	0 - 30
2130063	Triclopyr	5.62	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P373022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130063	Acesulfame K	12.3	Spike	P	0 - 30
2130063	AMPA	3.19	Spike	P	0 - 30
2130063	Endothall	0.692	Spike	P	0 - 30
2130063	Glufosinate	4.38	Spike	P	0 - 30
2130063	Glyphosate	4.31	Spike	P	0 - 30
2130063	Sucralose	17.1	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P373098

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130537	Color (true)	1.36	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P373213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130203	Total Alkalinity	0.276	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P373214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130536	Total Alkalinity	0.201	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P373593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130520	TDS	4.78	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P373218

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130203	Fluoride	0.520	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P373219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130536	Fluoride	0.477	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P373175

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130496	Organic Carbon	0.892	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2130531
Field Sample ID: G2SE0016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.0	P	30 - 160
EPA 8321B	Bentazon-d7	45.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.8	P	30 - 160
EPA 8321B	Diuron-d6	67.1	P	30 - 160
EPA 8321B	Endothall-d6	119	P	30 - 160
EPA 8321B	Endothall-d6	119	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	33.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	33.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.7	P	30 - 160
EPA 8321B	Primidone-d5	85.9	P	30 - 160
EPA 8321B	Sucralose-d6	36.2	P	30 - 160
EPA 8321B	Sucralose-d6	36.2	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95195

Included Lab Sample IDs: 2130516, 2130519, 2130522, 2130525

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	98.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95209

Included Lab Sample IDs: 2130514, 2130517, 2130520, 2130523

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

Reference Method: SM 2120 B

Run ID: A95227

Included Lab Sample IDs: 2130514, 2130517, 2130520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.5	99.9	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A95233

Included Lab Sample IDs: 2130531

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	88.6	85.9	P/P	50 - 150
Acetaminophen	89.3	91.7	P/P	60 - 160
Acetamiprid	103	102	P/P	50 - 150
Afidopyropen	94.1	86.5	P/P	50 - 150
Bentazon	101	98.3	P/P	50 - 160
Benzovindiflupyr	101	100	P/P	50 - 150
Carbamazepine	102	98.4	P/P	60 - 150
Clothianidin	97.1	90.9	P/P	60 - 150
Dinotefuran	98.3	84.7	P/P	50 - 150
Diuron	106	104	P/P	60 - 150
Fenuron	104	104	P/P	60 - 150
Fluridone	110	110	P/P	60 - 160
Hydrocodone	101	100	P/P	60 - 150
Ibuprofen	84.6	86.3	P/P	50 - 160
Imazapyr	104	101	P/P	50 - 150
Imidacloprid	96.2	92.5	P/P	60 - 150
Linuron	108	97.6	P/P	60 - 150
Mandestrobin	94.0	98.7	P/P	50 - 150
MCPP	90.6	93.5	P/P	50 - 150
Naproxen	110	106	P/P	50 - 160
Primidone	100	90.4	P/P	60 - 150
Pyraclostrobin	97.1	104	P/P	60 - 150
Thiamethoxam	94.1	74.4	P/P	50 - 150
Tolfenpyrad	96.2	95.4	P/P	60 - 150
Triclopyr	102	97.5	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95239

Included Lab Sample IDs: 2130515, 2130518, 2130521, 2130524

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

Reference Method: SM 5310 B-00

Run ID: A95259

Included Lab Sample IDs: 2130515, 2130518, 2130521, 2130524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	99.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95270

Included Lab Sample IDs: 2130531

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	106	99.6	P/P	60 - 160
Glufosinate	103	92.5	P/P	60 - 160
Glyphosate	106	107	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95273

Included Lab Sample IDs: 2130531

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	95.6	93.3	P/P	60 - 160
Endothall	111	114	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A95274

Included Lab Sample IDs: 2130514, 2130517, 2130520, 2130523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	105	P/P	90 - 110
Total Alkalinity	104	102	P/P	90 - 110
Total Alkalinity	105	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A95274

Included Lab Sample IDs: 2130514, 2130517, 2130520, 2130523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.6	P/P	90 - 110
Fluoride	98.6	99.1	P/P	90 - 110
Fluoride	99.1	99.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95282

Included Lab Sample IDs: 2130523

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A95286

Included Lab Sample IDs: 2130515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.9	95.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A95287

Included Lab Sample IDs: 2130518, 2130521, 2130524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95288

Included Lab Sample IDs: 2130515, 2130518, 2130521, 2130524

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95305

Included Lab Sample IDs: 2130515, 2130518, 2130521, 2130524

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

Reference Method: EPA 300.0

Run ID: A95332

Included Lab Sample IDs: 2130523

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95482

Included Lab Sample IDs: 2130514, 2130517, 2130520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	105	P/P	90 - 110
Chloride	105	105	P/P	90 - 110
Chloride	106	106	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110
Sulfate	105	105	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95575

Included Lab Sample IDs: 2130531

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	131	98.8	P/P	60 - 160

Quality Assurance Report

Calibration Verification

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					2.87	
EPA 300.0	Bromide	97.3	97.1	98.9	94.3		1.78
EPA 300.0 Rev. 2.1	Chloride	102	102	102		0.664	
	Sulfate	105	102	104		0.554	
	Sulfate	101	101	100		0.730	
EPA 350.1 Rev. 2.0	Ammonia-N	99.9	99.8	100			0.502
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	101	104			1.93
	Kjeldahl Nitrogen	99.2	96.8	109			7.42
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.5	100			1.00
EPA 365.1 Rev. 2.0	Total-P	98.9	99.4	99.9			0.470
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.7	96.4	97.6			0.969
	O-Phosphate-P	102	99.6	99.9			0.301
EPA 8321B	2,4-D	126	140	136			3.19
	Acesulfame K	103	52.8	59.7			12.3
	Acetaminophen	81.3	89.5	83.5			6.98
	Acetamiprid	88.8	115	109			5.18
	Afidopyropen	74.1	91.1	87.0			4.65
	AMPA	107	89.4	86.6			3.19
	Bentazon	78.8	76.5	74.6			2.34
	Benzovindiflupyr	81.5	97.1	90.9			6.66
	Carbamazepine	95.6	108	107			0.602
	Clothianidin	74.0	99.7	99.5			0.195
	Dinotefuran	88.1	114	112			1.54
	Diuron	89.5	98.1	92.1			6.41
	Endothall	96.7	95.4	96.1			0.692
	Fenuron	97.8	103	104			1.17
	Fluridone	90.7	94.1	91.7			2.65
	Glufosinate	101	106	102			4.38
	Glyphosate	111	97.7	93.5			4.31
	Hydrocodone	94.8	116	114			1.46
	Ibuprofen	79.8	96.5	86.3			11.2
	Imazapyr	97.7	122	124			1.74
	Imidacloprid	89.4	166	158			3.65
	Linuron	70.5	82.9	83.1			0.212
	Mandestrobin	88.7	101	95.3			5.37
	MCPP	101	114	111			3.00
	Naproxen	76.2	92.8	106			13.6
	Primidone	93.0	98.0	111			12.1
	Pyraclostrobin	82.8	96.4	94.7			1.86
	Sucralose	80.7	102	123			17.1
	Thiamethoxam	96.4	152	150			1.36
	Tolfenpyrad	52.0	63.4	58.3			8.44
	Triclopyr	93.8	116	110			5.62
SM 2120 B	Color (true)	99.6				1.36	
SM 2320 B-97	Total Alkalinity	103				0.276	
	Total Alkalinity	104				0.201	
SM 2540 C-97	TDS					4.78	
SM 4500 F-C-97	Fluoride	94.8	96.7	95.9			0.520
	Fluoride	95.3	95.2	94.7			0.477
SM 5310 B-00	Organic Carbon	103	99.3	100			0.892

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2130514, 2130517, 2130520, 2130523
EPA 300.0 / E31780	Bromide in aqueous matrices	2130523
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2130514, 2130517, 2130520
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2130514, 2130517, 2130520, 2130523
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2130515, 2130518, 2130521, 2130524
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2130515, 2130518, 2130521, 2130524
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2130515, 2130518, 2130521, 2130524
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2130515, 2130518, 2130521, 2130524
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2130516, 2130519, 2130522, 2130525
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2130531
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2130531
SM 2120 B / E31780	True Color measured at 450 nm	2130514, 2130517, 2130520
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2130514, 2130517, 2130520, 2130523
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2130514, 2130517, 2130520
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2130514, 2130517, 2130520, 2130523
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2130514, 2130517, 2130520, 2130523
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2130515, 2130518, 2130521, 2130524

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	10/23/2019			10/23/2019 15:29	Blanca Fach	2130514, 2130517, 2130520, 2130523
EPA 300.0	10/23/2019			10/30/2019 06:20	Julia Storbeck	2130523
EPA 300.0 Rev. 2.1	10/23/2019			10/26/2019 15:44	Julia Storbeck	2130523
	10/23/2019			11/01/2019 08:26	Jhamieka S. Greenwood	2130514
	10/23/2019			11/01/2019 09:14	Jhamieka S. Greenwood	2130520
	10/23/2019			11/01/2019 18:42	Jhamieka S. Greenwood	2130517
EPA 350.1 Rev. 2.0	10/23/2019			10/28/2019 13:22	Ping Hua	2130518
	10/23/2019			10/28/2019 13:23	Ping Hua	2130521
	10/23/2019			10/28/2019 13:25	Ping Hua	2130524
	10/23/2019			10/28/2019 14:40	Ping Hua	2130515
EPA 351.2 Rev. 2.0	10/23/2019	10/25/2019 11:38	Sima Feizi	10/28/2019 14:58	Jhamieka S. Greenwood	2130515
	10/23/2019	10/25/2019 11:38	Sima Feizi	10/28/2019 16:31	Jhamieka S. Greenwood	2130518
	10/23/2019	10/25/2019 11:38	Sima Feizi	10/28/2019 16:33	Jhamieka S. Greenwood	2130521
	10/23/2019	10/25/2019 11:38	Sima Feizi	10/28/2019 16:34	Jhamieka S. Greenwood	2130524
EPA 353.2 Rev. 2.0	10/23/2019			10/25/2019 11:05	Beverly Y. Sanders	2130515
	10/23/2019			10/25/2019 11:11	Beverly Y. Sanders	2130518
	10/23/2019			10/25/2019 11:12	Beverly Y. Sanders	2130521
	10/23/2019			10/25/2019 11:14	Beverly Y. Sanders	2130524
EPA 365.1 Rev. 2.0	10/23/2019	10/25/2019 14:30	Lipi Saha	10/28/2019 11:55	Lipi Saha	2130515
	10/23/2019	10/25/2019 14:30	Lipi Saha	10/28/2019 11:56	Lipi Saha	2130518
	10/23/2019	10/25/2019 14:30	Lipi Saha	10/28/2019 11:57	Lipi Saha	2130521
	10/23/2019	10/25/2019 14:30	Lipi Saha	10/28/2019 11:58	Lipi Saha	2130524
EPA 365.1 Rev. 2.0 dissolved	10/23/2019			10/23/2019 15:05	Virginia P. Brown	2130516
	10/23/2019			10/23/2019 15:06	Virginia P. Brown	2130519
	10/23/2019			10/23/2019 15:07	Virginia P. Brown	2130522
	10/23/2019			10/23/2019 15:13	Virginia P. Brown	2130525
EPA 8321B	10/23/2019	10/23/2019 12:00	Hoor Shaik	10/25/2019 04:51	Juyoung Kim	2130531
	10/23/2019	10/24/2019 11:00	Rebecca Ware	10/24/2019 15:40	Rebecca Ware	2130531
	10/23/2019	10/24/2019 11:00	Rebecca Ware	10/25/2019 13:07	Rebecca Ware	2130531
	10/23/2019	10/24/2019 11:00	Rebecca Ware	11/07/2019 10:16	Rebecca Ware	2130531
SM 2120 B	10/23/2019			10/23/2019 16:47	Madeline Funaro	2130514
	10/23/2019			10/23/2019 16:48	Madeline Funaro	2130517
	10/23/2019			10/23/2019 16:49	Madeline Funaro	2130520
SM 2320 B-97	10/23/2019			10/26/2019 03:43	Dale L. Simmons	2130514
	10/23/2019			10/26/2019 07:19	Dale L. Simmons	2130520
	10/23/2019			10/26/2019 11:10	Dale L. Simmons	2130517
	10/23/2019			10/26/2019 11:22	Dale L. Simmons	2130523
SM 2540 C-97	10/23/2019			10/25/2019 14:21	Yijie Li	2130514, 2130517, 2130520
SM 2540 D-97	10/23/2019			10/25/2019 14:21	Yijie Li	2130514, 2130517, 2130520, 2130523
SM 4500 F-C-97	10/23/2019			10/26/2019 03:43	Dale L. Simmons	2130514

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	10/23/2019			10/26/2019 07:19	Dale L. Simmons	2130520
	10/23/2019			10/26/2019 11:10	Dale L. Simmons	2130517
	10/23/2019			10/26/2019 11:22	Dale L. Simmons	2130523
SM 5310 B-00	10/23/2019			10/25/2019 21:41	Madeline Funaro	2130515
	10/23/2019			10/25/2019 21:54	Madeline Funaro	2130518
	10/23/2019			10/25/2019 22:08	Madeline Funaro	2130521
	10/23/2019			10/25/2019 22:22	Madeline Funaro	2130524