

Chemical Analysis Report

SO-DIST-2019-10-09-03

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

Event Description: **2019 SMP SARA CRICKS**

Request ID: **RQ-2019-10-07-74**

Customer: **SO-DIST**

Project ID: **SMP**

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FLDEP South District Office
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Date Certified: 25-OCT-2019 14:18



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: PhillippeCreek@Proctor

Collection Date/Time: 10/08/2019 10:00

Field ID: G3SD0091

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2126446	EPA 180.1 Rev. 2.0	Turbidity	7.4		NTU	P372217	
	EPA 300.0 Rev. 2.1	Chloride	58		mg Cl/L	P372586	
		Sulfate	120		mg SO4/L	P372590	
	SM 2120 B	Color (true)	54		PCU	P372293	
	SM 2320 B-97	Total Alkalinity	147		mg CaCO3/L	P372638	
	SM 2540 C-97	TDS	453	A	mg/L	P372816	
	SM 2540 D-97	TSS	9.6	IA	mg/L	P372825	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P372641	
2126447	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P372454	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P372338	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.39		mg N/L	P372436	
	EPA 365.1 Rev. 2.0	Total-P	0.31		mg P/L	P372347	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P372323	
2126448	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P372257	

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: NorthCreek@OaksCreekCt

Collection Date/Time: 10/08/2019 11:05

Field ID: G3SD0064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2126469	EPA 8321B	2,4-D	0.056		ug/L	P372151	
		Acesulfame K**	0.10	I	ug/L	P372253	
		AMPA**	0.56		ug/L	P372253	
		Sucralose**	0.32		ug/L	P372253	
		Acetaminophen**	0.0080	U	ug/L	P372151	
		Acetamiprid**	0.0020	U	ug/L	P372151	
		Endothall**	0.25	U	ug/L	P372253	
		Glufosinate**	0.10	U	ug/L	P372253	
		Glyphosate**	1.4		ug/L	P372253	
		Afidopyropen**	0.0020	UJ	ug/L	P372151	RPD
		Bentazon	0.037		ug/L	P372151	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372151	
		Carbamazepine**	8.0E-04	U	ug/L	P372151	
		Clothianidin**	0.0042	I	ug/L	P372151	
		Dinotefuran**	0.0020	U	ug/L	P372151	
		Diuron	0.0020	U	ug/L	P372151	
		Fenuron	0.016	U	ug/L	P372151	
		Fluridone**	0.020		ug/L	P372151	
		Imazapyr**	0.14		ug/L	P372151	
		Hydrocodone**	0.0020	U	ug/L	P372151	
		Ibuprofen**	0.020	U	ug/L	P372151	
		Imidacloprid	0.055		ug/L	P372151	MS
		Linuron	0.0040	U	ug/L	P372151	
		Mandestrobin**	0.0020	UJ	ug/L	P372151	
		MCPP	0.0020	U	ug/L	P372151	
		Naproxen**	0.0080	U	ug/L	P372151	
		Primidone**	0.0040	U	ug/L	P372151	
		Pyraclostrobin**	0.0020	U	ug/L	P372151	
		Thiamethoxam**	0.0020	U	ug/L	P372151	MS
		Tolfenpyrad**	0.0020	U	ug/L	P372151	
		Triclopyr**	0.0040	U	ug/L	P372151	

Ref. Method and Comment:

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

Sample Location: NorthCreek(Tidal)@41

Collection Date/Time: 10/08/2019 11:25

Field ID: G3SD0089

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2126470	EPA 8321B	2,4-D	0.12		ug/L	P372151	
		Acesulfame K**	0.10	U	ug/L	P372253	
		AMPA**	1.0	U	ug/L	P372253	
		Sucralose**	0.88		ug/L	P372253	
		Acetaminophen**	0.024	I	ug/L	P372151	
		Acetamiprid**	0.0020	U	ug/L	P372151	
		Endothall**	0.25	U	ug/L	P372253	
		Glufosinate**	1.0	U	ug/L	P372253	
		Glyphosate**	3.6	I	ug/L	P372253	
		Afidopyropen**	0.0020	UJ	ug/L	P372151	RPD
		Bentazon	0.019		ug/L	P372151	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372151	
		Carbamazepine**	0.0018	I	ug/L	P372151	
		Clothianidin**	0.0029	I	ug/L	P372151	
		Dinotefuran**	0.0020	U	ug/L	P372151	
		Diuron	0.013		ug/L	P372151	
		Fenuron	0.016	U	ug/L	P372151	
		Fluridone**	0.068		ug/L	P372151	
		Imazapyr**	0.21		ug/L	P372151	
		Hydrocodone**	0.0020	U	ug/L	P372151	
		Ibuprofen**	0.020	U	ug/L	P372151	
		Imidacloprid	0.059		ug/L	P372151	MS
		Linuron	0.0040	U	ug/L	P372151	
		Mandestrobin**	0.0020	UJ	ug/L	P372151	
		MCPP	0.0020	U	ug/L	P372151	
		Naproxen**	0.0080	U	ug/L	P372151	
		Primidone**	0.0082	I	ug/L	P372151	
		Pyraclostrobin**	0.0020	U	ug/L	P372151	
		Thiamethoxam**	0.0020	I	ug/L	P372151	MS
		Tolfenpyrad**	0.0020	U	ug/L	P372151	
		Triclopyr**	0.0040	U	ug/L	P372151	

Ref. Method and Comment:

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

EPA 8321B: MDL elevated due to matrix interference.

Sample Location: NorthCreek(Tidal)@41

Collection Date/Time: 10/08/2019 11:30

Field ID: G3SD0089_DUP

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2126471	EPA 8321B	2,4-D	0.13		ug/L	P372151	
		Acesulfame K**	0.10	U	ug/L	P372253	
		AMPA**	1.0	U	ug/L	P372253	
		Sucralose**	0.89		ug/L	P372253	
		Acetaminophen**	0.030	I	ug/L	P372151	
		Acetamiprid**	0.0020	U	ug/L	P372151	
		Endothall**	0.25	U	ug/L	P372253	
		Glufosinate**	1.0	U	ug/L	P372253	
		Glyphosate**	3.4	I	ug/L	P372253	
		Afidopyropen**	0.0020	UJ	ug/L	P372151	RPD
		Bentazon	0.019		ug/L	P372151	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372151	
		Carbamazepine**	0.0021	I	ug/L	P372151	
		Clothianidin**	0.0030	I	ug/L	P372151	
		Dinotefuran**	0.0020	U	ug/L	P372151	
		Diuron	0.014		ug/L	P372151	
		Fenuron	0.016	U	ug/L	P372151	
		Fluridone**	0.066		ug/L	P372151	
		Imazapyr**	0.16		ug/L	P372151	
		Hydrocodone**	0.0020	U	ug/L	P372151	
		Ibuprofen**	0.020	U	ug/L	P372151	
		Imidacloprid	0.064		ug/L	P372151	MS
		Linuron	0.0040	U	ug/L	P372151	
		Mandestrobin**	0.0020	UJ	ug/L	P372151	
		MCPP	0.0020	U	ug/L	P372151	
		Naproxen**	0.0080	U	ug/L	P372151	
		Primidone**	0.0085	I	ug/L	P372151	
		Pyraclostrobin**	0.0020	U	ug/L	P372151	
		Thiamethoxam**	0.0026	I	ug/L	P372151	MS
		Tolfenpyrad**	0.0020	U	ug/L	P372151	
		Triclopyr**	0.0040	U	ug/L	P372151	

Ref. Method and Comment:

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

EPA 8321B: MDL elevated due to matrix interference.

Sample Location: NorthCreek(Tidal)@41

Collection Date/Time: 10/08/2019 11:35

Field ID: FB_10082019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2126472	EPA 8321B	2,4-D	0.0020	U	ug/L	P372151	
		Acesulfame K**	0.10	U	ug/L	P372253	
		AMPA**	0.10	U	ug/L	P372253	
		Sucralose**	0.010	U	ug/L	P372253	
		Acetaminophen**	0.0080	U	ug/L	P372151	
		Acetamiprid**	0.0020	U	ug/L	P372151	
		Endothall**	0.25	U	ug/L	P372253	
		Glufosinate**	0.10	U	ug/L	P372253	
		Glyphosate**	0.10	U	ug/L	P372253	
		Afidopyropen**	0.0020	UJ	ug/L	P372151	RPD
		Bentazon	8.0E-04	U	ug/L	P372151	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372151	
		Carbamazepine**	8.0E-04	U	ug/L	P372151	
		Clothianidin**	0.0020	U	ug/L	P372151	
		Dinotefuran**	0.0020	U	ug/L	P372151	
		Diuron	0.0020	U	ug/L	P372151	
		Fenuron	0.016	U	ug/L	P372151	
		Fluridone**	8.0E-04	U	ug/L	P372151	
		Imazapyr**	0.0040	U	ug/L	P372151	
		Hydrocodone**	0.0020	U	ug/L	P372151	
		Ibuprofen**	0.020	U	ug/L	P372151	
		Imidacloprid	0.0020	U	ug/L	P372151	MS
		Linuron	0.0040	U	ug/L	P372151	
		Mandestrobin**	0.0020	UJ	ug/L	P372151	
		MCPP	0.0020	U	ug/L	P372151	
		Naproxen**	0.0080	U	ug/L	P372151	
		Primidone**	0.0040	U	ug/L	P372151	
		Pyraclostrobin**	0.0020	U	ug/L	P372151	
		Thiamethoxam**	0.0020	U	ug/L	P372151	MS
		Tolfenpyrad**	0.0020	U	ug/L	P372151	
		Triclopyr**	0.0040	U	ug/L	P372151	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372217

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372586

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372590

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372454

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372338

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372436

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372347

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372257

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

Reference Method: EPA 8321B
Batch ID: P372151

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P372151

Component	Result	Code	Units
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: P372253

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
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P372293

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P372638

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

Reference Method: SM 2540 C-97
Batch ID: P372816

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P372825

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P372641

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P372323

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P372586

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

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P372590

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P372454

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P372338

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P372436

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P372347

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P372257

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

Reference Method: EPA 8321B
 Batch ID: P372151

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	118		P	40 - 160
Acetaminophen	82.7		P	30 - 160
Acetamiprid	100		P	40 - 160
Afidopyropen	68.3		P	40 - 160
Bentazon	109		P	30 - 160
Benzovindiflupyr	81.6		P	40 - 160
Carbamazepine	101		P	40 - 160
Clothianidin	96.4		P	40 - 160
Dinotefuran	91.3		P	40 - 160
Diuron	83.0		P	40 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P372151

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	107		P	40 - 160
Fluridone	90.4		P	40 - 160
Hydrocodone	93.6		P	40 - 160
Ibuprofen	84.0		P	30 - 160
Imazapyr	130		P	40 - 160
Imidacloprid	103		P	40 - 160
Linuron	79.3		P	40 - 160
Mandestrobin	77.6		P	40 - 160
MCPP	122		P	40 - 160
Naproxen	82.8		P	40 - 160
Primidone	87.9		P	40 - 160
Pyraclostrobin	76.4		P	30 - 160
Thiamethoxam	105		P	40 - 160
Tolfenpyrad	54.5		P	40 - 160
Triclopyr	98.8		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P372253

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	80.2		P	40 - 150
AMPA	144		P	40 - 150
Endothall	84.9		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	99.4		P	40 - 140
Sucralose	105		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P372293

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.8		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P372638

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

Reference Method: SM 4500 F-C-97
Batch ID: P372641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P372323

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372586

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126419	Chloride	103		P	90 - 110
2126534	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126419	Sulfate	105		P	90 - 110
2126534	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372454

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126422	Ammonia-N	97.9	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126537	Kjeldahl Nitrogen	97.1	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126423	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126429	Total-P	97.9	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372257

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126400	O-Phosphate-P	97.3	97.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P372151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2125877	2,4-D	133	131	P/P	40 - 160
2125877	Acetaminophen	71.9	75.6	P/P	30 - 160
2125877	Acetamiprid	117	89.6	P/P	40 - 160
2125877	Afidopyropen	76.7	56.3	P/P	40 - 160
2125877	Bentazon	100	97.6	P/P	30 - 160
2125877	Benzovindiflupyr	89.0	91.1	P/P	40 - 160
2125877	Carbamazepine	98.8	90.6	P/P	40 - 160
2125877	Clothianidin	106	104	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P372151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2125877	Dinotefuran	109	115	P/P	40 - 160
2125877	Diuron	83.1	80.8	P/P	40 - 160
2125877	Fenuron	87.3	91.4	P/P	40 - 160
2125877	Fluridone	87.4	86.0	P/P	40 - 160
2125877	Hydrocodone	103	111	P/P	40 - 160
2125877	Ibuprofen	82.7	78.8	P/P	30 - 160
2125877	Imazapyr	76.4	101	P/P	40 - 160
2125877	Imidacloprid	164	184	F/F	40 - 160
2125877	Linuron	79.3	77.1	P/P	40 - 160
2125877	Mandestrobin	76.8	84.6	P/P	40 - 160
2125877	MCP	144	142	P/P	40 - 160
2125877	Naproxen	93.0	76.9	P/P	40 - 160
2125877	Primidone	102	101	P/P	40 - 160
2125877	Pyraclostrobin	85.8	90.1	P/P	30 - 160
2125877	Thiamethoxam	156	165	P/F	40 - 160
2125877	Tolfenpyrad	58.6	61.8	P/P	40 - 160
2125877	Triclopyr	111	121	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P372253

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126620	Acesulfame K	97.4	94.7	P/P	40 - 150
2126620	AMPA	123	116	P/P	40 - 150
2126620	Endothall	92.4	89.8	P/P	40 - 150
2126620	Glufosinate	97.2	88.0	P/P	40 - 150
2126620	Glyphosate	107	98.7	P/P	40 - 140
2126620	Sucralose	83.5	71.2	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P372641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126934	Fluoride	96.3	95.7	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P372323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126552	Organic Carbon	94.3	97.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126381	Turbidity	0.334	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126419	Chloride	0.646	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372590

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126419	Sulfate	0.725	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126422	Ammonia-N	1.04	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126537	Kjeldahl Nitrogen	4.75	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126423	NO2NO3-N	0.810	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126429	Total-P	2.25	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126400	O-Phosphate-P	0.369	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P372151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2125877	2,4-D	1.68	Spike	P	0 - 30
2125877	Acetaminophen	4.36	Spike	P	0 - 30
2125877	Acetamiprid	26.3	Spike	P	0 - 30
2125877	Afidopyropen	30.7	Spike	F	0 - 30
2125877	Bentazon	1.59	Spike	P	0 - 30
2125877	Benzovindiflupyr	2.26	Spike	P	0 - 30
2125877	Carbamazepine	6.86	Spike	P	0 - 30
2125877	Clothianidin	1.88	Spike	P	0 - 30
2125877	Dinotefuran	5.19	Spike	P	0 - 30
2125877	Diuron	2.38	Spike	P	0 - 30
2125877	Fenuron	4.56	Spike	P	0 - 30
2125877	Fluridone	1.28	Spike	P	0 - 30
2125877	Hydrocodone	7.25	Spike	P	0 - 30
2125877	Ibuprofen	4.79	Spike	P	0 - 30
2125877	Imazapyr	17.2	Spike	P	0 - 30
2125877	Imidacloprid	10.8	Spike	P	0 - 30
2125877	Linuron	2.78	Spike	P	0 - 30
2125877	Mandestrobin	9.74	Spike	P	0 - 30
2125877	MCPP	1.17	Spike	P	0 - 30
2125877	Naproxen	19.0	Spike	P	0 - 30
2125877	Primidone	1.42	Spike	P	0 - 30
2125877	Pyraclostrobin	4.85	Spike	P	0 - 30
2125877	Thiamethoxam	5.47	Spike	P	0 - 30
2125877	Tolfenpyrad	5.31	Spike	P	0 - 30
2125877	Triclopyr	9.35	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P372253

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126620	Acesulfame K	2.81	Spike	P	0 - 30
2126620	AMPA	5.92	Spike	P	0 - 30
2126620	Endothall	2.85	Spike	P	0 - 30
2126620	Glufosinate	9.96	Spike	P	0 - 30
2126620	Glyphosate	8.22	Spike	P	0 - 30
2126620	Sucralose	15.2	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P372293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126420	Color (true)	0.302	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P372638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126934	Total Alkalinity	0.590	Sample	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P372816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126446	TDS	3.09	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P372641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126934	Fluoride	0.480	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P372323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126552	Organic Carbon	2.78	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2126469
Field Sample ID: G3SD0064

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	122	P	30 - 160
EPA 8321B	Acetaminophen-d4	64.6	P	30 - 160
EPA 8321B	Bentazon-d7	62.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.6	P	30 - 160
EPA 8321B	Diuron-d6	69.5	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	32.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	32.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.9	P	30 - 160
EPA 8321B	Primidone-d5	90.6	P	30 - 160
EPA 8321B	Sucralose-d6	71.9	P	30 - 160
EPA 8321B	Sucralose-d6	71.9	P	30 - 160

Lab Sample ID: 2126470
Field Sample ID: G3SD0089

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	126	P	30 - 160
EPA 8321B	Acetaminophen-d4	63.7	P	30 - 160
EPA 8321B	Bentazon-d7	66.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.6	P	30 - 160
EPA 8321B	Diuron-d6	83.5	P	30 - 160
EPA 8321B	Endothall-d6	96.6	P	30 - 160
EPA 8321B	Endothall-d6	96.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	134	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	134	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.3	P	30 - 160
EPA 8321B	Primidone-d5	97.1	P	30 - 160
EPA 8321B	Sucralose-d6	95.9	P	30 - 160
EPA 8321B	Sucralose-d6	95.9	P	30 - 160

Lab Sample ID: 2126471
Field Sample ID: G3SD0089_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	135	P	30 - 160
EPA 8321B	Acetaminophen-d4	69.9	P	30 - 160
EPA 8321B	Bentazon-d7	72.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.9	P	30 - 160
EPA 8321B	Diuron-d6	84.1	P	30 - 160
EPA 8321B	Endothall-d6	94.9	P	30 - 160
EPA 8321B	Endothall-d6	94.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	117	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	117	P	30 - 160
EPA 8321B	Ibuprofen-d3	93.3	P	30 - 160
EPA 8321B	Primidone-d5	94.6	P	30 - 160
EPA 8321B	Sucralose-d6	98.7	P	30 - 160
EPA 8321B	Sucralose-d6	98.7	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2126472

Field Sample ID: FB_10082019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	103	P	30 - 160
EPA 8321B	Acetaminophen-d4	65.8	P	30 - 160
EPA 8321B	Bentazon-d7	88.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.4	P	30 - 160
EPA 8321B	Diuron-d6	76.8	P	30 - 160
EPA 8321B	Endothall-d6	118	P	30 - 160
EPA 8321B	Endothall-d6	118	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	65.7	P	30 - 160
EPA 8321B	Primidone-d5	72.6	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94835

Included Lab Sample IDs: 2126446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.5	98.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94852

Included Lab Sample IDs: 2126448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.6	98.2	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A94864

Included Lab Sample IDs: 2126446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.3	101	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A94876

Included Lab Sample IDs: 2126469, 2126470, 2126471, 2126472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.5	87.0	P/P	50 - 150
2,4-D	94.0	94.7	P/P	50 - 150
2,4-D	94.7	93.5	P/P	50 - 150
Acetaminophen	85.5	93.3	P/P	60 - 160
Acetaminophen	93.3	90.5	P/P	60 - 160
Acetaminophen	97.7	85.5	P/P	60 - 160
Acetamiprid	107	106	P/P	50 - 150
Acetamiprid	108	107	P/P	50 - 150
Acetamiprid	109	108	P/P	50 - 150
Afidopyropen	80.2	76.2	P/P	50 - 150
Afidopyropen	80.7	80.7	P/P	50 - 150
Afidopyropen	80.7	80.2	P/P	50 - 150
Bentazon	103	101	P/P	50 - 160
Bentazon	103	105	P/P	50 - 160
Bentazon	105	103	P/P	50 - 160
Benzovindiflupyr	92.6	94.6	P/P	50 - 150
Benzovindiflupyr	94.6	97.2	P/P	50 - 150
Benzovindiflupyr	97.2	101	P/P	50 - 150
Carbamazepine	103	103	P/P	60 - 150
Carbamazepine	103	106	P/P	60 - 150
Carbamazepine	106	106	P/P	60 - 150
Clothianidin	103	93.6	P/P	60 - 150
Clothianidin	95.6	103	P/P	60 - 150
Clothianidin	97.9	95.6	P/P	60 - 150
Dinotefuran	101	103	P/P	50 - 150
Dinotefuran	103	97.8	P/P	50 - 150
Dinotefuran	95.9	101	P/P	50 - 150
Diuron	102	101	P/P	60 - 150
Diuron	103	106	P/P	60 - 150
Diuron	106	102	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A94876

Included Lab Sample IDs: 2126469, 2126470, 2126471, 2126472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	106	107	P/P	60 - 150
Fenuron	107	106	P/P	60 - 150
Fenuron	109	107	P/P	60 - 150
Fluridone	101	103	P/P	60 - 160
Fluridone	103	99.6	P/P	60 - 160
Fluridone	99.4	101	P/P	60 - 160
Hydrocodone	100	98.9	P/P	60 - 150
Hydrocodone	100	100	P/P	60 - 150
Hydrocodone	96.1	100	P/P	60 - 150
Ibuprofen	77.0	87.4	P/P	50 - 160
Ibuprofen	87.4	89.4	P/P	50 - 160
Ibuprofen	89.4	70.5	P/P	50 - 160
Imazapyr	113	118	P/P	50 - 150
Imazapyr	115	105	P/P	50 - 150
Imazapyr	118	115	P/P	50 - 150
Imidacloprid	100	95.9	P/P	60 - 150
Imidacloprid	94.5	94.8	P/P	60 - 150
Imidacloprid	94.8	100	P/P	60 - 150
Linuron	104	102	P/P	60 - 150
Linuron	106	104	P/P	60 - 150
Linuron	95.8	106	P/P	60 - 150
Mandestrobin	83.9	84.6	P/P	50 - 150
Mandestrobin	84.6	84.6	P/P	50 - 150
Mandestrobin	86.0	83.9	P/P	50 - 150
MCP	77.6	85.4	P/P	50 - 150
MCP	82.9	76.2	P/P	50 - 150
MCP	85.4	82.9	P/P	50 - 150
Naproxen	64.0	65.7	P/P	50 - 160
Naproxen	83.0	64.0	P/P	50 - 160
Naproxen	86.1	83.0	P/P	50 - 160
Primidone	100	103	P/P	60 - 150
Primidone	101	107	P/P	60 - 150
Primidone	107	100	P/P	60 - 150
Pyraclostrobin	86.8	98.4	P/P	60 - 150
Pyraclostrobin	94.4	86.8	P/P	60 - 150
Pyraclostrobin	98.4	97.9	P/P	60 - 150
Thiamethoxam	102	83.7	P/P	50 - 150
Thiamethoxam	99.3	99.6	P/P	50 - 150
Thiamethoxam	99.6	102	P/P	50 - 150
Tolfenpyrad	102	105	P/P	60 - 150
Tolfenpyrad	105	105	P/P	60 - 150
Tolfenpyrad	106	102	P/P	60 - 150
Triclopyr	78.6	82.0	P/P	50 - 150
Triclopyr	82.0	88.8	P/P	50 - 150
Triclopyr	88.8	84.1	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A94882

Included Lab Sample IDs: 2126447

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

Reference Method: SM 5310 B-00
Run ID: A94882
Included Lab Sample IDs: 2126447

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A94889
Included Lab Sample IDs: 2126447

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

Reference Method: EPA 8321B
Run ID: A94912
Included Lab Sample IDs: 2126469, 2126470, 2126471, 2126472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	60.3	71.1	P/P	60 - 160
Acesulfame K	79.1	60.3	P/P	60 - 160
Endothall	93.5	98.6	P/P	60 - 160
Endothall	98.6	104	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A94917
Included Lab Sample IDs: 2126469, 2126470, 2126471, 2126472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	108	137	P/P	60 - 160
AMPA	125	108	P/P	60 - 160
AMPA	125	114	P/P	60 - 160
Glufosinate	82.7	104	P/P	60 - 160
Glufosinate	87.0	82.7	P/P	60 - 160
Glufosinate	93.8	96.1	P/P	60 - 160
Glyphosate	104	84.7	P/P	60 - 160
Glyphosate	104	111	P/P	60 - 160
Glyphosate	84.7	97.8	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A94931
Included Lab Sample IDs: 2126447

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	97.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A94935
Included Lab Sample IDs: 2126447

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A94940

Included Lab Sample IDs: 2126469, 2126470, 2126471, 2126472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	96.3	P/P	60 - 160
Sucralose	106	102	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94964

Included Lab Sample IDs: 2126447

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95003

Included Lab Sample IDs: 2126446

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

Reference Method: SM 2320 B-97

Run ID: A95021

Included Lab Sample IDs: 2126446

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

Reference Method: SM 4500 F-C-97

Run ID: A95021

Included Lab Sample IDs: 2126446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	98.5	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	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					0.334	
EPA 300.0 Rev. 2.1	Chloride	104	103	103		0.646	
	Sulfate	104	105	104		0.725	
EPA 350.1 Rev. 2.0	Ammonia-N	98.9	97.9	99.5			1.04
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.5	97.1	104			4.75
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	101	100			0.810
EPA 365.1 Rev. 2.0	Total-P	99.8	97.9	100			2.25
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	97.3	97.8			0.369
EPA 8321B	2,4-D	118	131	133			1.68
	Acesulfame K	80.2	97.4	94.7			2.81
	Acetaminophen	82.7	71.9	75.6			4.36
	Acetamiprid	100	117	89.6			26.3
	Afidopyropen	68.3	76.7	56.3			30.7
	AMPA	144	123	116			5.92
	Bentazon	109	97.6	100			1.59
	Benzovindiflupyr	81.6	91.1	89.0			2.26
	Carbamazepine	101	98.8	90.6			6.86
	Clothianidin	96.4	106	104			1.88
	Dinotefuran	91.3	109	115			5.19
	Diuron	83.0	83.1	80.8			2.38
	Endothall	84.9	92.4	89.8			2.85
	Fenuron	107	87.3	91.4			4.56
	Fluridone	90.4	87.4	86.0			1.28
	Glufosinate	105	97.2	88.0			9.96
	Glyphosate	99.4	107	98.7			8.22
	Hydrocodone	93.6	103	111			7.25
	Ibuprofen	84.0	78.8	82.7			4.79
	Imazapyr	130	101	76.4			17.2
	Imidacloprid	103	164	184			10.8
	Linuron	79.3	79.3	77.1			2.78
	Mandestrobin	77.6	84.6	76.8			9.74
	MCPP	122	142	144			1.17
	Naproxen	82.8	76.9	93.0			19.0
	Primidone	87.9	102	101			1.42
	Pyraclostrobin	76.4	90.1	85.8			4.85
	Sucralose	105	83.5	71.2			15.2
	Thiamethoxam	105	156	165			5.47
	Tolfenpyrad	54.5	61.8	58.6			5.31
	Triclopyr	98.8	121	111			9.35
SM 2120 B	Color (true)	99.8				0.302	
SM 2320 B-97	Total Alkalinity	104				0.590	
SM 2540 C-97	TDS					3.09	
SM 4500 F-C-97	Fluoride	96.5	96.3	95.7			0.480
SM 5310 B-00	Organic Carbon	93.6	94.3	97.9			2.78

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2126446
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2126446

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2126446
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2126447
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2126447
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2126447
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2126447
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2126448
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2126469, 2126470, 2126471, 2126472
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2126469, 2126470, 2126471, 2126472
SM 2120 B / E31780	True Color measured at 450 nm	2126446
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2126446
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2126446
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2126446
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2126446
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2126447

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	10/09/2019			10/09/2019 15:36	Rosalyn Ballman	2126446
EPA 300.0 Rev. 2.1	10/09/2019			10/15/2019 16:24	Jhamieka S. Greenwood	2126446
EPA 350.1 Rev. 2.0	10/09/2019			10/11/2019 14:56	Ping Hua	2126447
EPA 351.2 Rev. 2.0	10/09/2019	10/11/2019 10:11	Sima Feizi	10/14/2019 15:38	Jhamieka S. Greenwood	2126447
EPA 353.2 Rev. 2.0	10/09/2019			10/11/2019 10:24	Beverly Y. Sanders	2126447
EPA 365.1 Rev. 2.0	10/09/2019	10/10/2019 14:40	Lipi Saha	10/14/2019 15:27	Rosalyn Ballman	2126447
EPA 365.1 Rev. 2.0 dissolved	10/09/2019			10/09/2019 17:24	Julia Storbeck	2126448
EPA 8321B	10/09/2019	10/10/2019 09:00	Hoor Shaik	10/10/2019 23:23	Juyoung Kim	2126469
	10/09/2019	10/10/2019 09:00	Hoor Shaik	10/11/2019 01:41	Juyoung Kim	2126472
	10/09/2019	10/10/2019 09:00	Hoor Shaik	10/11/2019 09:11	Juyoung Kim	2126470
	10/09/2019	10/10/2019 09:00	Hoor Shaik	10/11/2019 09:46	Juyoung Kim	2126471
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/10/2019 21:45	Mohammad Ghaffari	2126469
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/10/2019 22:28	Mohammad Ghaffari	2126472
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/11/2019 12:22	Mohammad Ghaffari	2126470
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/11/2019 12:32	Mohammad Ghaffari	2126471
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/11/2019 12:46	Mohammad Ghaffari	2126469
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/11/2019 13:00	Mohammad Ghaffari	2126470
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/11/2019 13:14	Mohammad Ghaffari	2126471
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/11/2019 13:41	Mohammad Ghaffari	2126472
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/14/2019 13:43	Mohammad Ghaffari	2126469
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/14/2019 13:57	Mohammad Ghaffari	2126470
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/14/2019 14:11	Mohammad Ghaffari	2126471
	10/09/2019	10/10/2019 15:15	Mohammad Ghaffari	10/14/2019 14:39	Mohammad Ghaffari	2126472
SM 2120 B	10/09/2019			10/09/2019 17:25	Madeline Funaro	2126446
SM 2320 B-97	10/09/2019			10/15/2019 02:57	Dale L. Simmons	2126446
SM 2540 C-97	10/09/2019			10/11/2019 12:48	Yijie Li	2126446
SM 2540 D-97	10/09/2019			10/11/2019 12:48	Yijie Li	2126446
SM 4500 F-C-97	10/09/2019			10/15/2019 02:57	Dale L. Simmons	2126446
SM 5310 B-00	10/09/2019			10/11/2019 00:16	Madeline Funaro	2126447