

Chemical Analysis Report

WQAP-2017-04-12-04

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

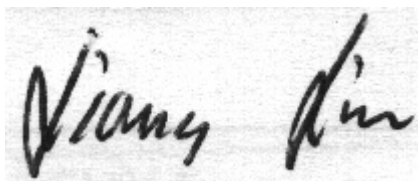
Event Description: **RUN 10**
Request ID: **RQ-2017-04-10-21**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Tampa, FL 33637
Attn: Judy Ashton

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 08-MAY-2017 11:58

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: 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: CLAM BAYOU

Collection Date/Time: 04/11/2017 09:45

Field ID: G5SW0135

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888098	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P323269	
	SM 2320 B-97	Total Alkalinity	176		mg CaCO3/L	P323889	
	SM 2540 D-97	TSS	5	IA	mg/L	P323892	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P324305	
1888101	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P323277	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P323382	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P323400	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P323425	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P323470	
1888104	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P323296	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: PP DITCHER# 1

Collection Date/Time: 04/11/2017 10:35

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888099	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P323269	
	SM 2320 B-97	Total Alkalinity	162		mg CaCO3/L	P323535	
	SM 2540 D-97	TSS	4	I	mg/L	P323903	
	SM 4500 F-C-97	Fluoride	0.52		mg F/L	P323537	
1888102	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P323278	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P323380	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P323570	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P323427	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P323471	
1888105	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.062		mg P/L	P323297	

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: MULLET TIDAL

Collection Date/Time: 04/11/2017 13:30

Field ID: G5SW0055

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888100	EPA 180.1 Rev. 2.0	Turbidity	5.0		NTU	P323269	
	SM 2320 B-97	Total Alkalinity	133		mg CaCO3/L	P323536	
	SM 2540 D-97	TSS	7	I	mg/L	P323903	
	SM 4500 F-C-97	Fluoride	0.96		mg F/L	P323538	
1888103	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P323278	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P323380	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P323570	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P323427	
	SM 5310 B-00	Organic Carbon	7.5		mg C/L	P323471	
1888106	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.083		mg P/L	P323297	

Field ID: G5SW0055

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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: CLAM BAYOU

Collection Date/Time: 04/11/2017 09:45

Field ID: G5SW0135

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888140	EPA 8321B	Sucralose**	0.23		ug/L	P323224	
	USGS O-2060-01	2,4-D	0.028		ug/L	P323221	
		Diuron	0.0063	I	ug/L	P323221	
		Fenuron	0.0080	U	ug/L	P323221	
		Imidacloprid	0.017		ug/L	P323221	
		Bentazon	0.12		ug/L	P323221	
		Linuron	0.0040	U	ug/L	P323221	MS
		Acetaminophen**	0.010	U	ug/L	P323221	
		MCP	0.013	I	ug/L	P323221	
		Carbamazepine**	4.0E-04	U	ug/L	P323221	
		Triclopyr**	0.010	U	ug/L	P323221	
		Primidone**	0.0080	U	ug/L	P323221	
		Fluridone**	0.021		ug/L	P323221	RPD

Ref. Method and Comment:
USGS O-2060-01: MS accuracy for bentazon and triclopyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: PP DITCHER# 1

Collection Date/Time: 04/11/2017 10:35

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888141	EPA 8321B	Sucralose**	5.1		ug/L	P323224	
	USGS O-2060-01	2,4-D	0.033		ug/L	P323221	
		Diuron	0.047		ug/L	P323221	
		Fenuron	0.0080	U	ug/L	P323221	
		Imidacloprid	0.033		ug/L	P323221	
		Bentazon	0.42		ug/L	P323221	
		Linuron	0.0040	U	ug/L	P323221	MS
		Acetaminophen**	0.010	U	ug/L	P323221	
		MCP	0.0054	I	ug/L	P323221	
		Carbamazepine**	0.0087		ug/L	P323221	
		Triclopyr**	0.062		ug/L	P323221	
		Primidone**	0.0080	U	ug/L	P323221	
		Fluridone**	0.039		ug/L	P323221	RPD

Ref. Method and Comment:
USGS O-2060-01: MS accuracy for bentazon and triclopyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: MCKAY TIDAL

Collection Date/Time: 04/11/2017 11:25

Field ID: G5SW0130

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888142	EPA 8321B	Sucralose**	0.63		ug/L	P323224	

Field ID: G5SW0130

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888142	USGS O-2060-01	2,4-D	0.020		ug/L	P323221	
		Diuron	0.0040	U	ug/L	P323221	
		Fenuron	0.0080	U	ug/L	P323221	
		Imidacloprid	0.0088	I	ug/L	P323221	
		Bentazon	0.15		ug/L	P323221	
		Linuron	0.0040	U	ug/L	P323221	MS
		Acetaminophen**	0.010	U	ug/L	P323221	
		MCP	0.0047	I	ug/L	P323221	
		Carbamazepine**	0.0010	I	ug/L	P323221	
		Triclopyr**	0.010	U	ug/L	P323221	
		Primidone**	0.0080	U	ug/L	P323221	
		Fluridone**	0.0081		ug/L	P323221	RPD

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for bentazon and triclopyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: MULLET TIDAL

Collection Date/Time: 04/11/2017 13:30

Field ID: G1SW0055

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888143	EPA 8321B	Sucralose**	1.2		ug/L	P323224	
	USGS O-2060-01	2,4-D	0.0075	I	ug/L	P323371	
		Diuron	0.0040	U	ug/L	P323371	MS
		Fenuron	0.0080	U	ug/L	P323371	
		Imidacloprid	0.0040	U	ug/L	P323371	
		Bentazon	0.12		ug/L	P323371	
		Linuron	0.0040	U	ug/L	P323371	
		Acetaminophen**	0.010	U	ug/L	P323371	
		MCP	0.0040	U	ug/L	P323371	
		Carbamazepine**	0.0012	I	ug/L	P323371	
		Triclopyr**	0.010	U	ug/L	P323371	
		Primidone**	0.0080	U	ug/L	P323371	
		Fluridone**	0.0068		ug/L	P323371	

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: ALLIGATOR CRK @ OLD COACHMAN

Collection Date/Time: 04/11/2017 14:05

Field ID: G1SW0062

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888144	EPA 8321B	Sucralose**	3.2		ug/L	P323224	
	USGS O-2060-01	2,4-D	0.0046	I	ug/L	P323371	
		Diuron	0.0040	UJ	ug/L	P323371	MS
		Fenuron	0.0080	U	ug/L	P323371	
		Imidacloprid	0.029		ug/L	P323371	
		Bentazon	0.14		ug/L	P323371	
		Linuron	0.0040	U	ug/L	P323371	
		Acetaminophen**	0.010	U	ug/L	P323371	

Field ID: G1SW0062

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888144	USGS O-2060-01	MCP	0.0078	I	ug/L	P323371	
		Carbamazepine**	0.0021		ug/L	P323371	
		Triclopyr**	0.055		ug/L	P323371	
		Primidone**	0.0080	U	ug/L	P323371	
		Fluridone**	0.011		ug/L	P323371	

Ref. Method and Comment:
 USGS O-2060-01: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.
 USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P323269

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P323277

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P323278

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P323380

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P323382

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P323400

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P323570

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: P323425

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323427

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323296

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323297

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

Reference Method: EPA 8321B
Batch ID: P323224

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-97
Batch ID: P323535

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

Reference Method: SM 2320 B-97
Batch ID: P323536

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

Reference Method: SM 2320 B-97
Batch ID: P323889

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

Reference Method: SM 2540 D-97
Batch ID: P323892

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P323903

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P323537

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P323538

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P324305

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P323470

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

Reference Method: SM 5310 B-00
Batch ID: P323471

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

Reference Method: USGS O-2060-01
Batch ID: P323221

Component	Result	Code	Units
2,4-D	0.0040	U	ug/L
Acetaminophen	0.010	U	ug/L
Bentazon	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Triclopyr	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P323371

Component	Result	Code	Units
2,4-D	0.0040	U	ug/L
Acetaminophen	0.010	U	ug/L
Bentazon	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Triclopyr	0.010	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323277

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323278

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323380

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323382

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323400

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323570

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323425

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323427

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323296

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323297

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.3		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P323224

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	111		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P323535

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P323536

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P323889

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P323537

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.0		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P323538

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.5		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P324305

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P323470

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	105		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P323471

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	105		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P323221

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.2		P	40 - 140
Acetaminophen	51.2		P	40 - 140
Bentazon	140		P	40 - 140
Carbamazepine	90.4		P	40 - 140
Diuron	76.0		P	40 - 140
Fenuron	86.8		P	40 - 140
Fluridone	96.0		P	40 - 140
Imidacloprid	76.4		P	40 - 160
Linuron	50.0		P	40 - 140
MCP	90.0		P	40 - 140
Primidone	96.4		P	40 - 140
Triclopyr	96.8		P	40 - 140

Reference Method: USGS O-2060-01
Batch ID: P323371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	84.8		P	40 - 140
Acetaminophen	70.8		P	40 - 140
Bentazon	134		P	40 - 140
Carbamazepine	107		P	40 - 140
Diuron	62.4		P	40 - 140
Fenuron	86.4		P	40 - 140
Fluridone	83.2		P	40 - 140
Imidacloprid	70.8		P	40 - 160
Linuron	101		P	40 - 140
MCP	109		P	40 - 140
Primidone	70.0		P	40 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P323371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Triclopyr	104		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P323277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888101	Ammonia-N	101	98.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P323278

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888091	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P323380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887963	Kjeldahl Nitrogen	93.0	93.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P323400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887941	NO2NO3-N	95.0	94.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P323570

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887851	NO2NO3-N	97.7	97.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P323425

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888101	Total-P	103	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P323427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887966	Total-P	93.2	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P323296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887943	O-Phosphate-P	96.4	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887967	O-Phosphate-P	97.6	96.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P323224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888140	Sucralose	110	102	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P323537

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887371	Fluoride	93.7	95.3	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P323538

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888714	Fluoride	93.5	95.0	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P324305

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887806	Fluoride	95.8	93.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P323470

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888031	Organic Carbon	104	104	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P323471

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888091	Organic Carbon	99.9	102	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P323221

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887741	2,4-D	135	127	P/P	40 - 140
1887741	Acetaminophen	70.4	56.8	P/P	40 - 140
1887741	Carbamazepine	66.0	63.6	P/P	40 - 140
1887741	Diuron	63.3	66.5	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P323221

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887741	Fenuron	60.8	52.8	P/P	40 - 140
1887741	Fluridone	59.6	42.8	P/P	40 - 140
1887741	Imidacloprid	112	98.4	P/P	40 - 160
1887741	Linuron	40.0	47.2	F/P	40 - 140
1887741	MCP	131	116	P/P	40 - 140
1887741	Primidone	50.0	51.2	P/P	40 - 140

Reference Method: USGS O-2060-01
Batch ID: P323371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888144	2,4-D	129	127	P/P	40 - 140
1888144	Acetaminophen	76.8	84.4	P/P	40 - 140
1888144	Carbamazepine	41.9	45.5	P/P	40 - 140
1888144	Diuron	31.1	33.4	F/F	40 - 140
1888144	Fenuron	40.4	41.2	P/P	40 - 140
1888144	Fluridone	46.0	48.4	P/P	40 - 140
1888144	Imidacloprid	82.9	78.9	P/P	40 - 160
1888144	Linuron	62.8	53.2	P/P	40 - 140
1888144	MCP	137	135	P/P	40 - 140
1888144	Primidone	52.8	57.2	P/P	40 - 140
1888144	Triclopyr	79.6	72.4	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323269

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888029	Turbidity	0.957	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888101	Ammonia-N	1.57	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888091	Ammonia-N	0.780	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887963	Kjeldahl Nitrogen	0.564	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323382

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888467	Kjeldahl Nitrogen	0.0871	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887941	NO2NO3-N	1.06	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323570

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887851	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323425

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888101	Total-P	2.05	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887966	Total-P	3.32	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887943	O-Phosphate-P	0.517	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887967	O-Phosphate-P	0.885	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P323224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888140	Sucralose	6.30	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P323535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887371	Total Alkalinity	0.989	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P323536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888714	Total Alkalinity	0.0136	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P323889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888726	Total Alkalinity	0.299	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P323537

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887371	Fluoride	0.972	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P323538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888714	Fluoride	0.934	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P324305

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887806	Fluoride	2.00	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P323470

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888031	Organic Carbon	0.462	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P323471

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888091	Organic Carbon	1.35	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P323221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887741	2,4-D	5.51	Spike	P	0 - 30
1887741	Acetaminophen	21.4	Spike	P	0 - 30
1887741	Bentazon	8.61	Spike	P	0 - 30
1887741	Carbamazepine	3.70	Spike	P	0 - 30
1887741	Diuron	3.43	Spike	P	0 - 30
1887741	Fenuron	14.1	Spike	P	0 - 30
1887741	Fluridone	30.4	Spike	F	0 - 30
1887741	Imidacloprid	12.6	Spike	P	0 - 30
1887741	Linuron	16.6	Spike	P	0 - 30
1887741	MCP	12.6	Spike	P	0 - 30
1887741	Primidone	2.37	Spike	P	0 - 30
1887741	Triclopyr	0.612	Spike	P	0 - 30

Reference Method: USGS O-2060-01
Batch ID: P323371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888144	2,4-D	1.21	Spike	P	0 - 30
1888144	Acetaminophen	9.43	Spike	P	0 - 30
1888144	Bentazon	0.941	Spike	P	0 - 30
1888144	Carbamazepine	7.86	Spike	P	0 - 30
1888144	Diuron	7.19	Spike	P	0 - 30
1888144	Fenuron	1.96	Spike	P	0 - 30
1888144	Fluridone	4.14	Spike	P	0 - 30
1888144	Imidacloprid	3.65	Spike	P	0 - 30
1888144	Linuron	16.6	Spike	P	0 - 30
1888144	MCP	1.39	Spike	P	0 - 30
1888144	Primidone	8.00	Spike	P	0 - 30
1888144	Triclopyr	5.49	Spike	P	0 - 30

* 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: 1888140
Field Sample ID: G5SW0135

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	78.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	134	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1888140
Field Sample ID: G5SW0135

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Acetaminophen-d4	68.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	65.6	P	40 - 160
USGS O-2060-01	Diuron-d6	33.6	P	30 - 150
USGS O-2060-01	Primidone-d5	64.4	P	40 - 150

Lab Sample ID: 1888141
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	89.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	126	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	58.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	55.4	P	40 - 160
USGS O-2060-01	Diuron-d6	38.8	P	30 - 150
USGS O-2060-01	Primidone-d5	62.8	P	40 - 150

Lab Sample ID: 1888142
Field Sample ID: G5SW0130

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	98.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	117	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	62.8	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	92.4	P	40 - 160
USGS O-2060-01	Diuron-d6	54.2	P	30 - 150
USGS O-2060-01	Primidone-d5	74.2	P	40 - 150

Lab Sample ID: 1888143
Field Sample ID: G1SW0055

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	93.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	101	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	58.8	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	66.6	P	40 - 160
USGS O-2060-01	Diuron-d6	39.4	P	30 - 150
USGS O-2060-01	Primidone-d5	62.4	P	40 - 150

Lab Sample ID: 1888144
Field Sample ID: G1SW0062

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	106	P	40 - 150
USGS O-2060-01	2,4-D-d3	116	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	60.6	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	47.8	P	40 - 160
USGS O-2060-01	Diuron-d6	32.8	P	30 - 150
USGS O-2060-01	Primidone-d5	61.4	P	40 - 150

Quality Assurance Report Calibration Verification

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A75748

Included Lab Sample IDs: 1888098, 1888099, 1888100

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A75750

Included Lab Sample IDs: 1888101, 1888102, 1888103

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A75755

Included Lab Sample IDs: 1888104, 1888105, 1888106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.5	97.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A75756

Included Lab Sample IDs: 1888140, 1888141, 1888142, 1888143, 1888144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	115	76.2	P/P	60 - 150
Sucralose	76.2	126	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75786

Included Lab Sample IDs: 1888101

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	94.0	92.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A75802

Included Lab Sample IDs: 1888101, 1888102, 1888103

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75815

Included Lab Sample IDs: 1888101, 1888102, 1888103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	105	P/P	90 - 110
Total-P	104	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75819

Included Lab Sample IDs: 1888101, 1888102, 1888103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.9	92.7	P/P	90 - 110
Kjeldahl Nitrogen	92.7	96.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A75833

Included Lab Sample IDs: 1888099, 1888100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	101	P/P	90 - 110
Total Alkalinity	104	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A75833

Included Lab Sample IDs: 1888099, 1888100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.9	97.7	P/P	90 - 110
Fluoride	98.1	97.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75838

Included Lab Sample IDs: 1888102, 1888103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	94.0	95.0	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A75845

Included Lab Sample IDs: 1888143, 1888144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	96.4	133	P/P	60 - 150
Carbamazepine	101	123	P/P	60 - 150
Diuron	108	115	P/P	60 - 150
Fenuron	107	111	P/P	60 - 150
Fluridone	119	117	P/P	60 - 150
Imidacloprid	98.0	99.6	P/P	60 - 150
Linuron	106	100	P/P	60 - 150
Primidone	103	110	P/P	60 - 150

Reference Method: SM 2320 B-97

Run ID: A75952

Included Lab Sample IDs: 1888098

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

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A75985

Included Lab Sample IDs: 1888140, 1888141, 1888142, 1888143, 1888144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	99.4	P/P	50 - 150
2,4-D	99.4	98.0	P/P	50 - 150
Bentazon	88.6	102	P/P	50 - 150
Bentazon	95.8	90.8	P/P	50 - 150
MCP	107	107	P/P	50 - 150
MCP	107	112	P/P	50 - 150
Triclopyr	83.8	93.8	P/P	50 - 150
Triclopyr	93.8	103	P/P	50 - 150

Reference Method: USGS O-2060-01

Run ID: A76024

Included Lab Sample IDs: 1888140, 1888141, 1888142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	143	135	P/P	60 - 150
Carbamazepine	136	132	P/P	60 - 150
Diuron	115	126	P/P	60 - 150
Fenuron	126	121	P/P	60 - 150
Fluridone	132	136	P/P	60 - 150
Imidacloprid	112	106	P/P	60 - 150
Linuron	66.0	73.6	P/P	60 - 150
Primidone	95.2	108	P/P	60 - 150

Reference Method: SM 4500 F-C-97

Run ID: A76090

Included Lab Sample IDs: 1888098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.2	95.0	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				0.957	
EPA 350.1 Rev. 2.0	Ammonia-N	102	101 98.5			1.57
	Ammonia-N	105	101 100			0.780
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.8	93.0 93.6			0.564
	Kjeldahl Nitrogen	96.2				0.0871
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	96.0	95.0 94.0			1.06
	NO ₂ NO ₃ -N	98.0	97.7 97.7			0.0
EPA 365.1 Rev. 2.0	Total-P	98.8	103 100			2.05
	Total-P	100	93.2 96.3			3.32
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.6	96.4 96.9			0.517
	O-Phosphate-P	96.3	97.6 96.7			0.885

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Sucralose	111	110	102			6.30
SM 2320 B-97	Total Alkalinity	103				0.989	
	Total Alkalinity	104				0.0136	
	Total Alkalinity	105				0.299	
SM 4500 F-C-97	Fluoride	95.0	93.7	95.3			0.972
	Fluoride	94.5	93.5	95.0			0.934
	Fluoride	95.9	95.8	93.6			2.00
SM 5310 B-00	Organic Carbon	105	104	104			0.462
	Organic Carbon	105	99.9	102			1.35
USGS O-2060-01	2,4-D	97.2	135	127			5.51
	2,4-D	84.8	129	127			1.21
	Acetaminophen	51.2	70.4	56.8			21.4
	Acetaminophen	70.8	76.8	84.4			9.43
	Bentazon	140					8.61
	Bentazon	134					0.941
	Carbamazepine	90.4	66.0	63.6			3.70
	Carbamazepine	107	41.9	45.5			7.86
	Diuron	76.0	63.3	66.5			3.43
	Diuron	62.4	31.1	33.4			7.19
	Fenuron	86.8	60.8	52.8			14.1
	Fenuron	86.4	40.4	41.2			1.96
	Fluridone	96.0	59.6	42.8			30.4
	Fluridone	83.2	46.0	48.4			4.14
	Imidacloprid	76.4	112	98.4			12.6
	Imidacloprid	70.8	82.9	78.9			3.65
	Linuron	50.0	40.0	47.2			16.6
	Linuron	101	62.8	53.2			16.6
	MCPP	90.0	131	116			12.6
	MCPP	109	137	135			1.39
	Primidone	96.4	50.0	51.2			2.37
	Primidone	70.0	52.8	57.2			8.00
	Triclopyr	96.8					0.612
	Triclopyr	104	79.6	72.4			5.49

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1888098, 1888099, 1888100
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1888101, 1888102, 1888103
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1888101, 1888102, 1888103
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1888101, 1888102, 1888103
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1888101, 1888102, 1888103
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1888104, 1888105, 1888106
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1888140, 1888141, 1888142, 1888143, 1888144
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1888098, 1888099, 1888100
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1888098, 1888099, 1888100
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1888098, 1888099, 1888100

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1888101, 1888102, 1888103
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1888140, 1888141, 1888142, 1888143, 1888144
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1888140, 1888141, 1888142, 1888143, 1888144

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	04/12/2017			04/12/2017 15:06	Sima Feizi	1888098, 1888099, 1888100
EPA 350.1 Rev. 2.0	04/12/2017			04/12/2017	Julie Michelle Frank	1888101, 1888102, 1888103
EPA 351.2 Rev. 2.0	04/12/2017	04/14/2017	Adrian Shelby	04/17/2017	Joseph Suarez	1888101, 1888102, 1888103
EPA 353.2 Rev. 2.0	04/12/2017			04/14/2017	Beverly Y. Sanders	1888101
	04/12/2017			04/18/2017	Beverly Y. Sanders	1888102, 1888103
EPA 365.1 Rev. 2.0	04/12/2017	04/14/2017	Vijayalakshmi Reddy	04/17/2017	Lipi Saha	1888101, 1888102, 1888103
EPA 365.1 Rev. 2.0 dissolved	04/12/2017			04/12/2017 15:25	Anthony C. Onicha	1888104
	04/12/2017			04/12/2017 15:26	Anthony C. Onicha	1888105, 1888106
EPA 8321B	04/12/2017	04/12/2017	Mohammad Ghaffari	04/13/2017	Mohammad Ghaffari	1888140, 1888141, 1888142, 1888143, 1888144
SM 2320 B-97	04/12/2017			04/17/2017	Dale L. Simmons	1888099, 1888100
	04/12/2017			04/22/2017	Dale L. Simmons	1888098
SM 2540 D-97	04/12/2017			04/14/2017	Yijie Li	1888098, 1888099, 1888100
SM 4500 F-C-97	04/12/2017			04/16/2017	Dale L. Simmons	1888099
	04/12/2017			04/17/2017	Dale L. Simmons	1888100
	04/12/2017			05/01/2017	Dale L. Simmons	1888098
SM 5310 B-00	04/12/2017			04/14/2017	Julie Michelle Frank	1888101, 1888102, 1888103
USGS O-2060-01	04/12/2017	04/16/2017	Fe-Val Siddell	04/23/2017	Juyoung Kim	1888140, 1888141, 1888142
	04/12/2017	04/16/2017	Fe-Val Siddell	04/26/2017	Juyoung Kim	1888140, 1888141, 1888142
	04/12/2017	04/16/2017	Hoor Shaik	04/18/2017	Juyoung Kim	1888143, 1888144
	04/12/2017	04/16/2017	Hoor Shaik	04/23/2017	Juyoung Kim	1888143, 1888144